PERIODIC REVIEW REPORT AND SITE MANAGEMENT PLAN OPERATION REPORT

(Reporting Period 6/15/2015 to 6/14/2020)

For

KIPS BAY FUEL TERMINAL
Tax Block 967, Lots 1 and Lot 2
New York, New York

NYSDEC BCP No. C234014

Prepared For:

616 First Avenue, LLC
104 Fifth Avenue, Ninth Floor
New York, New York 10011

Prepared By:

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
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New York, New York 10001

July 31, 2020
170234201

LANGAN

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1.0 INTRODUCTION

1.1 General

This Periodic Review Report (PRR) and Site Management Plan (SMP) Operation Report was prepared in accordance with the New York State Department of Environmental Conservation (NYSDEC)-approved September 2011 SMP, February 4, 2016 SMP Addendum 1 and Section 6.3 of NYSDEC Division of Environmental Remediation (DER)-10. This report documents site inspections at the former Kips Bay Fuel Terminal site (Brownfield Cleanup Program [BCP] Site No. C234014) for the certification period of June 15, 2015 through June 14, 2020. The site, located at 626 First Avenue in the Murray Hill neighborhood of New York, New York, is identified on the New York City Tax Map as Tax Block 967, Lots 1 and 2. The site was remediated pursuant to a Brownfield Cleanup Agreement (BCA) and a Certificate of Completion (COC) was issued by NYSDEC in December 2011. As the site was not remediated to Track 1 standards, engineering controls and institutional controls (EC/IC) were implemented. A Site Location Map is provided as Figure 1. Figure 2 identifies the site area and tax lots subject to the requirements of the SMP. A copy of the SMP, its addendum and Environmental Easement (EE) are provided as Appendix A.

Although not considered an EC in the September 2011 SMP and February 4, 2013 EE, a vapor barrier and active sub-slab depressurization (SSD) system were installed throughout the new school building in Lot 2 (Public School M281) as part of construction. Additional information regarding inspections and actions associated with the SSD system prepared by ATC Group Services, LLC (ATC) during this reporting period are provided in Appendix B.

1.2 Site Location and Background

The approximately 68,800-square-foot rectangular-shaped site is bordered to the north by East 36th Street, to the east by the Franklin D. Roosevelt (FDR) Drive, to the south by East 35th Street, and to the west by First Avenue. The site is located in a neighborhood primarily characterized by multi-story commercial and residential developments. The site operated as a lumber and coal/wood yard prior to 1899. By 1910, the northern portion of the site had been developed with a one-story building and was occupied by the Liquid Carbonic Company. The remainder of the site continued to operate as a lumberyard until circa 1926 when the eastern portion of the site was redeveloped into a steam plant operated by the New York Steam Corporation.

By 1980, the steam plant was owned by the Con Edison Company. Fuel oil underground storage tanks (UST) and transformers were located on the west side of the property. The steam plant was demolished between circa 1987 and circa 1994. The site was then occupied by the Kips Bay Fuel Terminal, which stored fuel oil in a 255,000-gallon UST and served as a backup fuel depot for the natural gas-powered steam boilers at Con Edison's Waterside Generating Station.

The site was remediated in accordance with Voluntary Cleanup Order (VCO) Index #D2-001-01-03, which was executed on June 27, 2001. In 2005, 616 First Realty Company LLC acquired the site from Con Edison. Remediation at the site was completed between March 2001 and August 2004. Remediation included:

- Demolition and asbestos abatement of existing site structures
- Removal of a 255,000-gallon UST (No 4/6 fuel oil) and associated petroleum-impacted soil
- Removal of Pipeline No. 5 (fuel oil supply line) and associated petroleum-impacted soil
- Remediation of transformer area polychlorinated biphenyl (PCB)-impacted soil
- Excavation and disposal of an ash pit
- Removal of Pipeline No. 6 (fuel oil supply line)
- Removal of a 475-gallon UST and associated petroleum-impacted soil
- Remediation of site-wide soil impacts

In December 2009, the New York City SCA acquired a portion of the site (Block 967, Lot 2) for construction of a new public school. The 2001 VCO was superseded BCA Index # A2-0515-0405, which was executed by the NYSDEC) in June 2010. A COC was issued in December 2011. In February 2013, Block 967, Lot 1 was acquired by 616 First Avenue, LLC with the intention of constructing two high-rise residential towers.

Foundations for the two new residential-use high-rise towers were constructed across the majority of Block 967, Lot 1 between 2013 and 2015. As documented in the 2015 PRR, site material was excavated, stockpiled and transported off site for disposal at facilities permitted to accept the material in accordance with the SMP. Langan provided professional engineering services to document and report on the intrusive activities. The SMP operation was considered complete on May 28, 2015. At completion, excavated materials had been removed from the site and the site cover system was restored with new building structures with reinforced concrete pressure slabs, a four-inch concrete mud slab, and concrete sidewalks. One area of the site outside of the building footprint is a utility easement in the southeastern portion of the site. This area was temporarily capped by approximately 2 feet of gravel. The utility easement area in the southeastern portion of Block 967, Lot 1 was paved with concrete following building construction during this reporting period.

There have been no changes in site use during this reporting period. During the reporting period, the ECs and ICs were maintained, and a concrete cap was placed over the utility easement area located in the southeast corner of Lot 1 in early 2018.

This report is organized as follows:

- Section 2 – Periodic Review Report Certification – Summarizes the annual certifications documenting that ECs/ICs were operated, maintained and monitored in accordance with the SMP.

- Section 3 – Annual Inspections – Describes the annual SMP inspections completed within Lot 1 between June 2015 and June 2020.
- Section 4 through 7 – SMP Operation Report – Describes SMP operations associated with utility easement area capping in the southeast corner of Lot 1.

2.0 PERIODIC REVIEW REPORT CERTIFICATION

2.1 Institutional Controls – Lot 1

The IC for Lot 1 is an EE that contains restrictions and/or prohibitions with respect to disturbances of soil below development depth[1] and usage of groundwater. There have been no changes or actions during this reporting period that require modification to the EE. All ICs were maintained during the reporting period and the EE within Lot 1 remains in-place. A copy of the EE is included as Appendix A.

2.2 Institutional Controls – Lot 2

The IC for Lot 2 is an EE that contains restrictions and/or prohibitions with respect to disturbances of soil below development depth, site use restrictions (Restricted Residential and Commercial Use) and usage of groundwater. There have been no changes or actions during this reporting period that require modification to the EE. All ICs were maintained during the reporting period and the EE within Lot 2 remains in-place.

2.3 Engineering Controls – Lot 1

The ECs for Lot 1 include:

- Composite Cover System – The Lot 1 footprint is covered with reinforced concrete pressure slabs, a four-inch concrete mud slab, and/or concrete sidewalks.
- Fencing/Access Control – Access to the new residential buildings within Lot 1 is restricted to tenants and authorized visitors.

One utility easement area in the southeastern portion of Lot 1, outside of the development footprint, was temporarily capped by about 2 feet of gravel and was permanently capped with concrete during this reporting period following building construction in early 2018.

ECs within Lot 1 were inspected on November 30, 2016, December 19, 2017, December 20, 2018, and December 20, 2019 by Langan. Observations are described in Section 3 and the ECs are shown on Figure 2. Copies of annual inspection forms for Lot 1 are provided in Appendix C.

[1] Development depth was redefined in the February 4, 2016 SMP Addendum 1 as the bottom of foundation. Based on final excavation depths as part of site redevelopment, the Development Depth ranges from el. -21.975 to -36.725 NAVD88.

2.4 Engineering Controls – Lot 2

The ECs for Lot 2 include:

- Composite Cover System – The Lot 2 footprint is covered with reinforced concrete pressure slabs, and/or concrete sidewalks.
- Fencing/Access Control – Access to the public school within Lot 2 is restricted to students, teachers/ employees, and authorized visitors.

ECs within Lot 2 were inspected on May 28, 2015, August 25, 2016, April 24, 2018, April 2, 2019, and May 7, 2020 by ATC. Copies of annual inspection forms for Lot 2 prepared by ATC are provided in Appendix B.

2.5 SMP Compliance – Lot 1

One utility easement area in the southeastern portion of Lot 1, outside of the development footprint, was temporarily capped by about 2 feet of gravel and was permanently capped with concrete during this reporting period following building construction in early 2018. There have been no additional changes or actions in Lot 1 during this reporting period.

2.6 SMP Compliance – Lot 2

There have been no changes or actions associated with the ICs/ECs in Lot 2 during this reporting period.

2.7 Institutional and Engineering Controls Certificate

The certification period covered by this report is June 15, 2015 through June 14, 2020. Annual inspections, as described in Section 3, were completed in accordance with the requirements of the BCP as certified by the owner and Professional Engineer in the EC/IC Certificate Form. The completed and signed EC/IC Certificate Form for Lot 1 is provided in Appendix D. The completed and signed EC/IC Certificate Form prepared by ATC for Lot 2 is provided in Appendix E.

3.0 ANNUAL INSPECTIONS – LOT 1

In accordance with the SMP, Langan completed annual site inspections within the Lot 1 footprint. Annual inspection activities are described below. Annual inspections performed by ATC within the Lot 2 footprint are documented in annual reports provided in Appendix B. The section below summarizes Langan's observations made within Lot 1 during the reporting period.

3.1 Annual Site Inspection

In accordance with the SMP monitoring requirements, Langan conducted annual SMP site inspections of Lot 1 on November 30, 2016, December 19, 2017, December 20, 2018, and

December 20, 2019. The ECs (composite cover system and fencing/access control) were documented to comply with the SMP. Copies of the annual site inspection forms are provided in Appendix C. Photographs documenting observations from each site inspection are provided in Appendix F.

4.0 SMP OPERATIONS – LOT 1

Modifications to the site ECs included installation of a concrete cap over the utility easement in the southeast corner of Lot 1. During the 2014 to 2015 reporting period, the utility easement area outside of the building footprint in the southeast corner of the site was temporarily capped with about 2 feet of clean gravel. The utility easement area was capped with concrete during the 2016 to 2017 reporting period. Photographs of the site cover system are provided in Appendix F.

5.0 COMPLIANCE WITH SMP

With respect to Lot 1, specific SMP measures implemented during construction and/or the annual site inspections are described in the following sections.

5.1 Construction Health and Safety Plan

The annual site inspections were performed in compliance with the site-specific Construction Health and Safety Plan (CHASP) and applicable laws and regulations. The health and safety Program Manager for Langan was William Bohrer, PG. Langan was not present on site during concrete placement over the utility easement area in the southeast corner of the site as there were no ground-intrusive activities and no import or export of material.

5.2 Community Air Monitoring Plan

Ground intrusive activities were not conducted during this reporting period and therefore the SMP Community Air Monitoring Plan (CAMP) was not implemented.

5.3 Soil/Materials Management Plan

The Soil/Materials Management Plan (SMMP) provides details for managing soil/materials at the site, including excavation, material handling, stockpile management, transport and disposal. The plan includes controls to guide effective remedial activities in compliance with applicable laws and regulations. Ground intrusive activities were not conducted during this reporting period and therefore, the SMMP was not implemented.

5.4 Stormwater Pollution Prevention

Stormwater pollution prevention measures, including the use of silt fences along site perimeters, were implemented as part of construction, as necessary.

5.5 Deviations from the Site Management Plan

No deviations from the SMP were identified during this reporting period.

6.0 SMP OPERATION DESCRIPTION

Construction activities within Lot 1 associated with concrete composite cover placement over the utility easement area were performed in early 2018 on behalf of the owner, 616 First Avenue LLC. JDS Development Group performed construction management. Photographs of site operations are included as Appendix F.

The following sections describe SMP operations performed within Lot 1 during this reporting period.

6.1 Site Controls

6.1.1 Erosion and Dust Control

No ground intrusive activities took place on site; therefore, erosion and dust control measures were not necessary during the reporting period.

6.1.2 Soil Screening

Residual material beneath the site cap was not disturbed during this reporting period; therefore, soil screening for staining, odors, and elevated photoionization detector (PID) readings was not implemented.

6.1.3 Stockpile Management

Stockpiles were not constructed during this reporting period.

6.1.4 Fluids Management

No fluids requiring treatment and off-site disposal were generated during the reporting period.

6.1.5 Truck Inspection

Soil was not excavated for off-site disposal from the site during this reporting period; therefore, truck inspections were not necessary.

6.1.6 Site Security

The site access gates were monitored and secured to prevent public access during construction of the two new high-rise residential towers. Following construction, access to the new residential towers was limited to tenants and authorized visitors.

6.1.7 Nuisance Control

Community nuisance complaints were not received during construction work.

6.1.8 Reporting

A Langan field engineer performed annual site inspections to monitor the ECs in place throughout the site. Observations were recorded in field books that included:

- Project number
- Statement of the activities and locations of work performed
- Photographs of notable site conditions and activities

Digital photographs of from the annual site inspections are provided in Appendix F.

6.2 Material Handling and Excavation

Material below the existing composite cover system was not excavated during this reporting period.

6.3 Material Characterization

Soil material characterization was not conducted during this reporting period.

6.4 Transport and Off-Site Disposal

Material below the existing composite cover system was not excavated during this reporting period; therefore, transportation and off-site disposal of site material was not conducted during this reporting period.

6.5 Imported Backfill

No material was imported to the site for use as backfill material during this reporting period.

7.0 POST-OPERATION ENGINEERING CONTROL STATUS

Engineering Control Status – Lot 1:

- Site Cover System – ***Intact***
- Fencing/Access Control ***- Intact***

With respect to Lot 1, this report provides documentation that composite cover system construction activities were completed in accordance with the NYSDEC-approved SMP. At completion of the SMP operation, the composite cover system in the utility easement area was capped with concrete.

A copy of the EC/IC certification for Lot 1 is included in Appendix D. The completed and signed EC/IC Certificate Form prepared by ATC for Lot 2 is provided in Appendix E.

APPENDIX A

SITE MANAGEMENT PLAN, ADDENDUM, AND ENVIRONMENTAL EASEMENT

Revised February 4, 2016

Ronnie Lee
New York State Department of Environmental Conservation
Division of Environmental Remediation, BURB
625 Broadway
Albany, NY 12233-7016

Re: Site Management Plan - Addendum 1
Kips Bay Fuel Terminal Site
626 First Avenue
New York, New York
BCP Index No. A2-0515-0405, Site No. C234014
Langan Project No.: 170234201

Dear Mr. Lee:

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. (Langan) prepared this addendum, on behalf of 616 First Avenue Developer LLC, to modify the existing September 2011 Site Management Plan (SMP) for the property located at 626 First Avenue in New York, New York (the Site). Alternate addresses for the Site include 616 First Avenue and 435 East 35th Street. The site is also identified as New York City tax block 967, lots 1 and 2.

SMP Modification
The proposed modifications below will supersede the September 2011 SMP, which is included as Attachment A. Proposed modifications include the following:

1) Periodic Review Report Frequency – The September 2011 SMP requires an annual Periodic Review Report. Due to the extensive removal of contaminated soil and groundwater and the construction of new building structures on both lots, we recommend reducing the frequency of periodic reporting from annual to every five years. We will continue to perform site inspections on an annual basis irrespective of the Periodic Review Report schedule. This proposed modification supersedes the first paragraph of Section 8.2 (Periodic Review Report) and all references to Periodic Review Report frequency in the NYSDEC-approved September 2011 SMP.

2) Development Depth – The September 2011 SMP defines the Development Depth as the depth to the top of competent bedrock or the mean high water table (el -0.4 feet in the Manhattan Borough Datum [corresponding to el. 1.25 NAVD88), whichever is

higher. We propose to redefine the Development Depth on Lot 1 as the bottom of foundation on the attached foundation drawings (Attachment A). Based on final excavation depths as part of site redevelopment, the Development Depth ranges from el. -21.975 to -36.725 NAVD88). Intrusive activities that disturb the waterproofing and soil beneath the foundation will be subject to the provisions of the SMP. This proposed modification to the Development Depth supersedes the fifth paragraph of Section 1.0 (Introduction & Purpose), the first paragraph, second sentence of Section 5.4 (Cover System), and all references to Development Depth in the NYSDEC-approved September 2011 SMP. No changes to the Development Depth are proposed for Lot 2 at this time.

Closing

Should you have any questions regarding the proposed modifications of the SMP, please call me at (212) 479-5582.

Sincerely,

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.

Ryan Manderbach, CHMM
Senior Project Manager

Jason Hayes, P.E., LEED^{AP}
Senior Associate

Enclosure: Attachment A- 2011 September SMP Prepared by TRC Engineers, Inc.
Attachment B- Lot 1 Foundation Drawings

cc: W. Scaglione, M. Stern – 616 First Ave LLC
J. Good – Langan

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Attachment A-
2011 September SMP
Prepared by TRC
Engineers, Inc.

SITE MANAGEMENT PLAN
FOR
FORMER KIPS BAY FUEL TERMINAL
616 FIRST AVENUE
NEW YORK, NEW YORK

NYSDEC BROWNFIELD CLEANUP PROGRAM
Site Number C231014

Prepared by

TRC Engineers, Inc.
New York, New York

TRC Project No. 180360

September 2011

Revisions to Final Approved Site Management Plan:

Revision #	Submitted Date	Summary of Revision	DEC Approval Date

SITE MANAGEMENT PLAN
FOR FORMER KIPS BAY FUEL TERMINAL

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SITE MANAGEMENT PLAN
FOR FORMER KIPS BAY FUEL TERMINAL

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1.0 INTRODUCTION AND PURPOSE

This document is required as an element of the remedial program at the Kips Bay Fuel Terminal Site (hereinafter referred to as the "Site") under the New York State Brownfield Cleanup Program (BCP) administered by the New York State Department of Environmental Conservation (NYSDEC). The Site was remediated in accordance with Voluntary Cleanup Order (VCO) Index #D2-0001-01-03; Site #V00430-2, which was executed on June 27, 2001. This agreement was later superseded by Brownfield Cleanup Agreement (BCA) Index# A2-0515-0405, Site #C231014, which was executed by the NYSDEC on June 16, 2010.

The former Kips Bay Fuel Terminal Site at 616 First Avenue, New York, New York is a 1.6-acre vacant property currently owned by 616 First Realty Company LLC and the New York City School Construction Authority. The location of the property is shown on Figure 1. The Site was characterized during several previous investigations and remediation of the Site was completed in accordance with the New York State Department of Environmental Conservation (NYSDEC)-approved *Supplemental Soil Investigation Final Report and Remediation Work Plan* dated August 2003 (RWP) and *Final Report for Kips Bay Fuel Terminal Remediation Work Plan* dated March 2006 (Final Report).

As part of the remediation, all Site soil was removed vertically to a depth slightly below Development Depth. As soil excavation proceeded along the property sidewalls, TRC placed imported clean sand from Amboy Aggregates along the property boundaries to maintain a safe excavation perimeter sloping in accordance with NYCDOB and OSHA requirements. Excavated soil from the sidewalls was temporarily stockpiled on-site until it was transported to an appropriate off-site disposal facility. Imported sand was backfilled and compacted, extending five feet inside the property line and graded down to the Development Depth at a slope of 1.5/1.

The remainder of the Site was backfilled with 6 to 12 inches of imported 1.5-inch crushed stone from Tilcon New York, Inc., West Nyack, New York. Approximately 2,030 tons of stone were used to backfill the Site. Stone was used rather than sand in order to provide a more secure base for vehicular site access and to assist in avoiding surficial ponding of precipitation.

This Site Management Plan ("SMP") primarily establishes the procedures for the management of soil and groundwater generated from below Development Depth, if any, during future construction activities associated with Site redevelopment. As presented in the Final Report and consistent with TRC's contract with the Site Developer, the Development Depth is defined as the

depth to the top of competent bedrock or the mean high water table (-0.4 feet in the Manhattan Highway Datum), whichever is higher. A figure showing the Site boundaries to which the SMP applies and the current property ownership is provided in Appendix A.

This plan is not intended to serve as a design document for the construction activities related to redevelopment activities. It is the owners' or owner designee's responsibility to prepare a design that incorporates the requirements for cover and soil/groundwater management as set forth in this SMP.

Failure to implement the SMP is a violation of the Environmental Easement, which is grounds for revocation of the Certificate of Completion. Failure to comply with the SMP is also a violation of Environmental Conservation Law, 6 NYCRR Part 375 and the BCA (Index #A2-0515-0405, Site #C231014) for the Site, and thereby subject to applicable penalties.

1.1 Overview and Objectives

The objective of the SMP is to set guidelines for management of soil and groundwater generated from below Development Depth during any future redevelopment activities, and to identify periodic reporting requirements.

The SMP establishes the procedures for the following activities:

1. Soil disturbance activities below Development Depth
2. Groundwater dewatering, if required,
3. Management of excavated soil and dewatered groundwater,
4. Management of new fill material,
5. Site-specific health and safety requirements during construction,
6. Notification of Change in Use of Property, and
7. Notification and reporting.

The SMP does not require groundwater and other environmental monitoring, public health monitoring, or monitoring to assess the effectiveness of the remedy. However, periodic inspections must be performed to assess the performance and effectiveness of the remedy.

1.2 Site History

The Site consists of a 340-by-200-foot rectangular-shaped lot. The Site is bordered by East 36th Street to the north, the Franklin D. Roosevelt (FDR) Drive to the east, East 35th Street to the south, and First Avenue to the west.

The area around the Site contains a mix of commercial and residential establishments. High-rise residential buildings are located on blocks immediately to the north and south of the Site. The New York University (NYU) Medical Center and Bellevue Hospital occupy city blocks to the south of the property. St. Vartan's Park is located to the west of the Site.

The Site was initially operated solely as a lumber and coal/wood yard, with various sheds, until 1899. By 1910, a one-story building occupied by the Liquid Carbonic Company had replaced the coal yard on the northern end of the Site. The remainder of the Site continued to be used as a lumberyard until circa 1926 when the New York Steam Corporation built a steam plant on the eastern side of the Site. At that time, the western end of the Site was vacant, and a Provision Factory had replaced the Liquid Carbonic Company as the occupant of the one-story building at the northernmost end of the Site. A 1950 historic Sanborn Map shows that the New York Steam Corporation occupied the entire Site, except for the southwest corner which was vacant. Coal, transported via a conveyer over the FDR Drive, provided fuel to the Steam Plant.

By 1980, the on-site steam plant occupied only the east side of the property, and the plant owner had become Con Edison Company, Incorporated. Three structures associated with underground fuel oil storage tanks, several transformers and vapor vents were present on the west side of the property. Much of the northwestern end of the Site was vacant. Historic Sanborn Maps from approximately 1950-1994 show the current on-site structures located on the western side of the property and the Steam Plant on the eastern side of the property. In the 1996 Historic Sanborn Map, the Steam Plant had been razed and the east end of the Site was shown to be vacant. Demolition of the steam plant began in 1987 and was completed circa 1994.

The Kips Bay Fuel Terminal stored fuel oil in a 255,000-gallon underground tank and served as a back-up fuel depot for the natural gas-powered steam boilers at Con Edison's Waterside Generating Station.

In 2005 616 First Realty Company LLC acquired the Site from Con Edison and in December of 2009 the New York City School Construction Authority acquired a portion of the Site (Block 967, Lot 2) for construction of a new elementary school.

2.0 PREVIOUS INVESTIGATIONS

2.1 Chronology

Several environmental investigations were performed at the property since 1998. The following reports present a chronological summary of the significant investigations performed at the property.

Phase I Environmental Site Assessment, Kips Bay Fuel Oil Terminal, Manhattan, NY, Foster Wheeler Environmental Corporation, September 14, 1998.

Phase II Environmental Site Assessment, Kips Bay Fuel Oil Terminal, 417 East 35th Street, New York, New York, GZA GeoEnvironmental, Inc., March 15, 2000.

Supplemental Soil Investigation Final Report and Remediation Work Plan, Kips Bay Fuel Terminal 616 First Avenue, New York, New York, TRC Engineers, Inc., August 2003.

Environmental remediation was completed at the property in August 2004, as documented in the following report:

Final Report for Kips Bay Fuel Terminal Remediation Work Plan, TRC Engineers, March 2006.

Copies of these reports can be found at NYSDEC's Albany Office and at the BCP document repository at the Science, Industry and Business branch of the New York City Public Library, located at 188 Madison Avenue, Manhattan.

2.2 Nature and Extent of Contamination

The remediation completed at the Site, as reported in the Final Report, resulted in the removal of all soil above the Development Depth. The Site was partially backfilled above Development Depth with clean sand meeting TAGM 4046 requirements and clean crushed stone. The constituents of potential concern (COPCs) for soil remaining at the Site below Development Depth consist primarily of metals and polycyclic aromatic hydrocarbons (PAHs). Results of groundwater sampling indicate that constituents in the soil below Development Depth have not significantly impacted groundwater quality. However, bedrock groundwater at the Site contains several volatile organic compounds (VOCs), each at concentrations slightly above NYSDEC Technical and Operational Guidance Series (TOGS) Ambient Water Quality Standards.

3.0 CONTEMPLATED USE

The objective of the RWP activities was to ready the Site for development for the Contemplated Use (i.e., residential and commercial development) in accordance with Track 4, restricted residential use with site-specific soil cleanup objectives (see 6 NYCRR Part 375-3.8(e)). During the remediation, all materials above the Development Depth were removed and disposed off-site. Activities that will disturb materials below the Development Depth must be conducted in accordance with this SMP and the Site is subject to the institutional controls set forth in the Environmental Easements attached hereto as Appendix F.

The Notification requirements of Section 8.0 of this SMP will be triggered by any change of use, including transfer of the title to all or part of the Site, or the erection of structures on the Site.

4.0 SUMMARY OF REMEDY IMPLEMENTED

As presented in the Final Report, the following remedial activities were completed to ready the Site for the Contemplated Use:

- Asbestos abatement, decommissioning and demolition of all buildings and subsurface structures to Development Depth;
- Removal of the 255,000-gallon UST and the concrete-lined ash pit;
- Excavation and disposal of all impacted soils and solids from the ash pit;
- Excavation and disposal of petroleum- and PCB-impacted soil;
- Excavation and disposal of all soil above Development Depth;
- Evaluation of groundwater conditions within the bedrock and shallow aquifer by installation and sampling of three bedrock monitoring wells and two shallow aquifer monitoring wells for VOCs, PAHs and metals;
- Close-out of all open NYSDEC spill numbers for previously-reported on-site impacts; and,
- Two feet of compacted clean soil meeting TAGM 4046. See Section 5.4 for a description of the future cover system for the Site.

As per the NYSDEC letters dated June 13, 2006 and July 28, 2006 (Appendix B) approving Site remediation and the Final Report**,** the Site meets the standards for development for the Contemplated Use.

In summary, all soils at the Site were removed to Development Depth; therefore, only those activities which will disturb soils and/or groundwater below Development Depth are governed by this SMP.

5.0 REMEDY MANAGEMENT/LONG TERM MAINTENANCE

Site redevelopment may disturb certain areas of the Site below Development Depth. Implementation of the SMP relative to these activities will be the responsibility of the property owner or owner's designee.

5.1 Site Preparation

As part of redevelopment or future intrusive on-site activities, the Site may require grading prior to construction of final Site structures and cover. Soil above Development Depth does not require any special handling for Site preparation activities.

5.2 Erosion and Dust Control

Silt fencing and hay bales will be utilized, as required, to prevent soils from below Development Depth from leaving the Site. Soil from below Development Depth adhered to construction vehicles and equipment will be removed prior to such vehicles and equipment leaving the Site. Brooms, shovels, washing or steam cleaning will be utilized for the removal of such soil from vehicles and equipment. Soil or construction debris from below Development Depth will be removed from vehicles and equipment at a designated area of the Site. Wastewater generated by the decontamination process for materials generated below Development Depth will be collected and analyzed for waste characterization and off-site disposal.

If required, dust suppression measures will be implemented during soil disturbance activities below Development Depth, and will include misting of soil and/or construction debris with water and, if appropriate, applying a dust suppressant, in high vehicle traffic areas. To evaluate the effectiveness of the dust suppression measures, dust particulate levels will be monitored utilizing real-time dust monitoring instrumentation as per the New York State Department of Health (NYSDOH) Generic Community Air Monitoring Plan (gCAMP; Appendix C).

5.3 Excavation Below Development Depth

The property owner or owner's designee will provide NYSDEC with notification of activities that disturb soil below Development Depth or generate dewatering fluids as per the notification requirements presented in Section 8.0 of this SMP. Access to soil/fill on the property will be controlled until final cover is placed to prevent direct contact with soils below Development Depth.

5.3.1 Management of Soil and Other Potential Solid Waste

The area of the Site where soil exists below the Development Depth is shown in Appendix D. Excavated soil and other potential solid waste (i.e., concrete rubble, remnants of former foundation piles, etc.) from below Development Depth will be stockpiled separately from other construction materials at the Site. Excavated soil will be temporarily stockpiled on plastic and covered with plastic or placed in a covered roll-off in a prepared area of the Site. Excavation below Development Depth will be overseen by a person who will provide the requisite annual certification.

Soil temporarily excavated from below Development Depth may be placed below Development Depth again during redevelopment-related construction. Any excess soil or other solid waste from below Development Depth that will not be placed back below Development Depth during redevelopment-related construction will be disposed off-site in accordance with all relevant federal, state and local regulations. Any soils which show obvious signs of significant contamination or free product will be segregated and disposed of off-site in accordance with relevant federal, state and local regulations. Segregation of contaminated soil for off-site disposal will be based on visual, olfactory and instrument-based soil screening performed by a qualified environmental professional during all development excavations below the Development Depth. Based upon the volume of stockpiled soil intended for off-site disposal, a representative number of composite and/or grab samples will be collected for laboratory analysis in accordance with potential disposal vendor requirements to determine waste disposal characterization. The analyses to be performed will depend upon the requirements of the off-site disposal facility selected by the property owner, and may include full toxic characteristic leaching procedure (TCLP) parameters, VOCs, PCBs, PAHs and metals. Based upon the results of the laboratory analyses, the final disposition of these materials will be determined.

Transport of materials will be performed by licensed haulers in accordance with appropriate local, state, and federal regulations, including 6 NYCRR Part 364. Contaminated material transported by trucks exiting the Site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used. In addition, (a) trucks will be prohibited from stopping and idling in the neighborhood outside the project Site; (b) egress points for truck and equipment transport from the Site will be kept clean of dirt and other materials during Site development; and (c) queuing of trucks will be performed on-site in order to minimize off-site disturbance.

Generally, trucks leaving the Site shall exit the Site onto 35th Street and proceed west to the nearest local City of New York-designated truck routes [i.e., First Avenue (to then travel north) or to Second Avenue (to then travel south)]. Trucks will travel via local truck routes to through truck routes leading out of the City. The labeling, packaging, and transportation of the waste shall be in compliance with federal and state rules and regulations, as well as those of the bridge and tunnel operators (i.e. the Port Authority of New York and New Jersey and MTA Bridges and Tunnels). Wastes must travel over or through only those specific bridges or tunnels that are designated for that specific type of waste. Figure 2 depicts the location of the Site and nearby truck transport routes from the Site to locations to the north, east and west.

5.3.2 Management of Construction Water and Groundwater

Water pumped from excavations below Development Depth will be managed properly in accordance with all applicable regulations so as to prevent endangerment of public health, property, or any portion of the construction.

Site development may require the dewatering of groundwater. Dewatered groundwater will be managed using any of the following three methods:

1. Discharge to the New York City sewer system with authorization from the New York City Department of Environmental Protection (NYCDEP);
2. Discharge to surface water pursuant to a SPDES Equivalent permit issued by the NYSDEC; or,
3. Transportation and disposal at an off-site treatment facility.

Discharge to the New York City sewer system is a convenient method for management of dewatering fluids during construction. The NYCDEP regulates discharges to the New York City sewers under NYCDEP's Title 15, Rules of the City of New York (RCNY) Chapter 19. Discharge to the New York City sewer system will require an authorization and sampling data demonstrating that the dewatering fluids meets New York City's Sewer Use Guidelines. If necessary, the dewatering fluid will be pretreated to meet the New York City effluent discharge criteria.

The contractor may alternatively discharge to surface water (e.g., the East River). The NYSDEC regulates such discharges under 6 NYCRR 750. If the discharge utilizes the NYCDEP sewer system, then NYCDEP authorization will also be required as described above. The contractor may alternatively utilize an outfall to surface water not controlled by NYCDEP. Construction of

such an outfall would require NYSDEC and U.S. Army Corps of Engineers permits and approvals.

If discharge to the New York City sewer system is not feasible or is not desirable, the dewatering fluids will be managed by transportation and disposal at an off-site treatment facility, in accordance with all relevant federal, state and local regulations. A representative number of composite or grab samples will be collected for laboratory analysis in accordance with potential disposal vendor requirements to determine waste disposal characterization. Based upon the results of the laboratory analysis, the final disposition of the dewatering fluids will be determined.

5.4 Cover System

Future Site development will constitute the cover system at the Site. Based on the elevation of Development Depth (approximately 6 to 9 feet below sidewalk grade elevation), there will be greater than two feet of cover over the entire Site. The cover system will consist of the building structures, clean fill soil, landscaping, and concrete and asphalt paving, in accordance with the New York City Department of Buildings (NYCDOB)-approved development plan for the Site.

Site redevelopment may, in addition to the new building structures, require the importation of clean fill to restore Site grade above Development Depth. Any soils imported to the Site must meet the backfill and cover soil quality standards established in 6 NYCRR Part 375-6.7(d)(1)(ii)(b) or otherwise approved by the NYSDEC. Appendix E provides a table listing the respective allowable constituent levels applicable to soil material to be placed above and below the Development Depth, respectively.

The NYSDEC previously approved the use of clean fill obtained from Amboy Aggregates, South Amboy, New Jersey for this Site. Additional laboratory testing of fill soil from any Site other than Amboy Aggregates will be performed. One representative sample from virgin soils will be obtained and analyzed for TCL VOCs, SVOCs, pesticides, PCBs, and Priority Pollutant metals to document compliance with TAGM RSCOs. Non-virgin soils will be tested via the collection of one composite sample per 500 cubic yards of material from each fill source area. If more that 1000 cubic yards of soil are borrowed from a given non-virgin soil source area and both samples of the first 1000 cubic yards meet TAGM RSCOs, the sample collection frequency will be reduced to one composite sample for every 2500 cubic yards of additional soils from the same source, up to 5000 cubic yards. For borrow sources greater than 5000 cubic yards, sampling

frequency will be reduced to one sample per 5000 cubic yards, provided all earlier samples met TAGM RSCOs.

5.5 Institutional Controls

The institutional control for the Site (referred to herein after as the Controlled Property) will consist of an Environmental Easement applying to disturbances of soil below Development Depth and usage of groundwater (Appendix F). Soil or material below Development Depth must be properly handled and disposed, if removed, in accordance with all applicable regulations. Any groundwater that is removed from the Site must be properly treated for disposal purposes.

The Institutional Controls that are applicable to this Site are as follows:

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

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

3. All Engineering Controls on the Controlled Property must be inspected at a frequency and in a manner defined in the SMP; and,

4. Groundwater, soil vapor and other environmental or public health monitoring are not required to be performed as part of this SMP. However, periodic inspections must be performed to assess the performance and effectiveness of the remedy.

The Site also has a series of Institutional Controls in the form of site restrictions that apply to the Controlled Property as follows:

1. The property may only be used for restricted-residential and commercial use below the Development Depth provided that the long term Engineering and Institutional Controls included in this SMP are employed. No environmental easements, engineering controls, institutional controls, or any other consents, approvals, or authorizations are required for any activities above the Development Depth.

2. A higher level of use, such as residential use, will not be allowed for activities below the Development Depth without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC;

3. All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with this SMP; and,

4. The use of the groundwater underlying the property is prohibited without treatment rendering it safe for intended use.

The Site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable (see Section 8.0).

5.6 Maintenance

Maintenance of the remedy is the responsibility of the property owner. Erosion of the soil cover system will be reduced by maintaining the cover system. Cover materials will be inspected annually and repaired as needed. The property owner will implement Site maintenance as part of future construction and normal property operations in accordance with NYCDOB requirements. The owner of the subject property will identify a qualified environmental consultant to provide all services described in this SMP. The responsibility to comply with this SMP will be transferred to any future property owners.

6.0 HEALTH AND SAFETY

The Site is not subject to the HAZWOPER requirements under 29 CFR 1910.120. Other OSHA provisions, specifically Construction Safety and Hazard Communication standards, apply. Soil and groundwater disturbance activities below Development Depth will be performed in accordance with all applicable federal, state and local regulations to protect worker health and safety. All contractors performing such work for the property owner will prepare a site-specific, activity-specific Health and Safety Plan (HASP). The HASP must also include provisions for protection of the community as described in Section 6.2 of this SMP.

6.1 Construction Personnel Protection

Contractors engaged in subsurface construction or maintenance activities will be required to implement appropriate construction health and safety procedures. These procedures will involve, at a minimum, donning adequate personal protective clothing and equipment, performing appropriate air monitoring, and implementing other procedures as necessary to avoid potential ingestion, inhalation and contact with residual constituents in the soil or groundwater below Development Depth. Workers will receive appropriate hazard communication information and training.

6.2 Community Air Monitoring Program

Air monitoring for dust particulates and volatile organic compounds (VOCs) will be performed during Site development activities below Development Depth in accordance with the NYSDOH Generic Community Air Monitoring Plan (gCAMP; Appendix C). All air monitoring readings will be recorded in a logbook or other means and will be available for review by the NYSDEC and NYSDOH.

7.0 QUALITY ASSURANCE/QUALITY CONTROL

7.1 Analytical Data

All waste characterization samples collected during Site redevelopment activities below Development Depth will be analyzed using the most recent NYSDEC Analytical Services Protocol (ASP), consistent with Section 2 of DER-10, the Technical Guidance for Site Investigation and Remediation.

The laboratory proposed to perform the analyses will be certified through the New York State Department of Health Environmental Laboratory Approval Program (ELAP) to perform Contract Laboratory Program (CLP) analysis and Solid Waste and Hazardous Waste Analytical testing on all media to be sampled during Site redevelopment. The laboratory will maintain this certification for the duration of the work.

Procedures for chain of custody, laboratory instrumentation calibration, laboratory analyses, reporting of data, internal quality control, and corrective actions shall be followed as per NYSDEC ASP and as per the laboratory's Quality Assurance Plan. If applicable, trip blanks, field blanks, field duplicates, and matrix spike, matrix spike duplicates will be performed at a rate of 5% (1 per up to 20 samples) and will be used to assess the quality of the data. The laboratory's in-house QA/QC limits will be utilized whenever they are more stringent than those suggested by the EPA methods.

8.0 NOTIFICATION AND REPORTING

8.1 Notifications

Notification to the NYSDEC will be required for transfer of the title to all or part of the Site, Site development (erection of structure) and maintenance activities below Development Depth.

Any change in ownership of the Site or the responsibility for implementing this SMP will include the following notifications: (1) at least 60 days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser has been provided with a copy of the BCA, and all approved work plans and reports including this SMP; and (2) within 15 days after the transfer of all or part of the Site, the new owner's name, contact representative, and contact information will be confirmed in writing.

The following NYSDEC notification requirements apply to the Site:

- Seven (7) - day advance notice of any proposed ground-intrusive activities;

- Notice within 48 hours of any damage or defect to the foundations of structures that reduces or has the potential to reduce the effectiveness of other Engineering Controls and likewise any action taken to mitigate the damage or defect;

- Verbal notice by noon of the following day of any emergency, such as a fire, flood, or earthquake that reduces or has the potential to reduce the effectiveness of Engineering Controls in place at the Site, with written confirmation within seven (7) days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public; and,

- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action shall be submitted to the Department within 45 days and shall describe and document actions to restore the effectiveness of the Engineering Controls.

The requirements for notification shall cease once the Environmental Easement is removed, as approved by NYSDEC.

Notification contacts are as follows:

NYSDEC
Division of Environmental Remediation
625 Broadway
Albany, New York 12233-7011

8.2 Periodic Review Report

The Periodic Review Report (PRR) will be submitted to the Department on an annual basis, beginning 18 months after the Certificate of Completion is issued. The PRR will be prepared in accordance with NYSDEC DER-10 and submitted within 45 days of the end of the certification period.

The PRR will include the following:

- Identification, assessment and certification of all Engineering Controls/Institutional Controls required by the remedy for the Site;
- The results of the required annual Site inspection:
- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all samples collected during the reporting period will be submitted electronically in a NYSDEC-approved format;
- If intrusive work was done below Development Depth during the period covered by that PRR:
    - A certification that all work was performed in conformance with this SMP.
    - Plans showing areas and depth of fill removal and replacement (if applicable).
    - Description of the excavation/dewatering activities performed, quantities of material excavated/pumped, disposal locations for the soil/groundwater, documentation of proper disposal (waste manifests or waybills).
- If backfill material was imported to the Site during the period covered by that PRR:
    - Location of backfill material source.
    - Copy of analytical test results for backfill material, if applicable, documenting compliance with 6 NYCRR Part 375-6.7(d)(1)(ii)(b) or otherwise approved by the NYSDEC.

- A Site evaluation, which includes the following:
    - The compliance of the remedy with the requirements of the site-specific Remedial Action Work Plan;
    - The overall performance and effectiveness of the remedy.

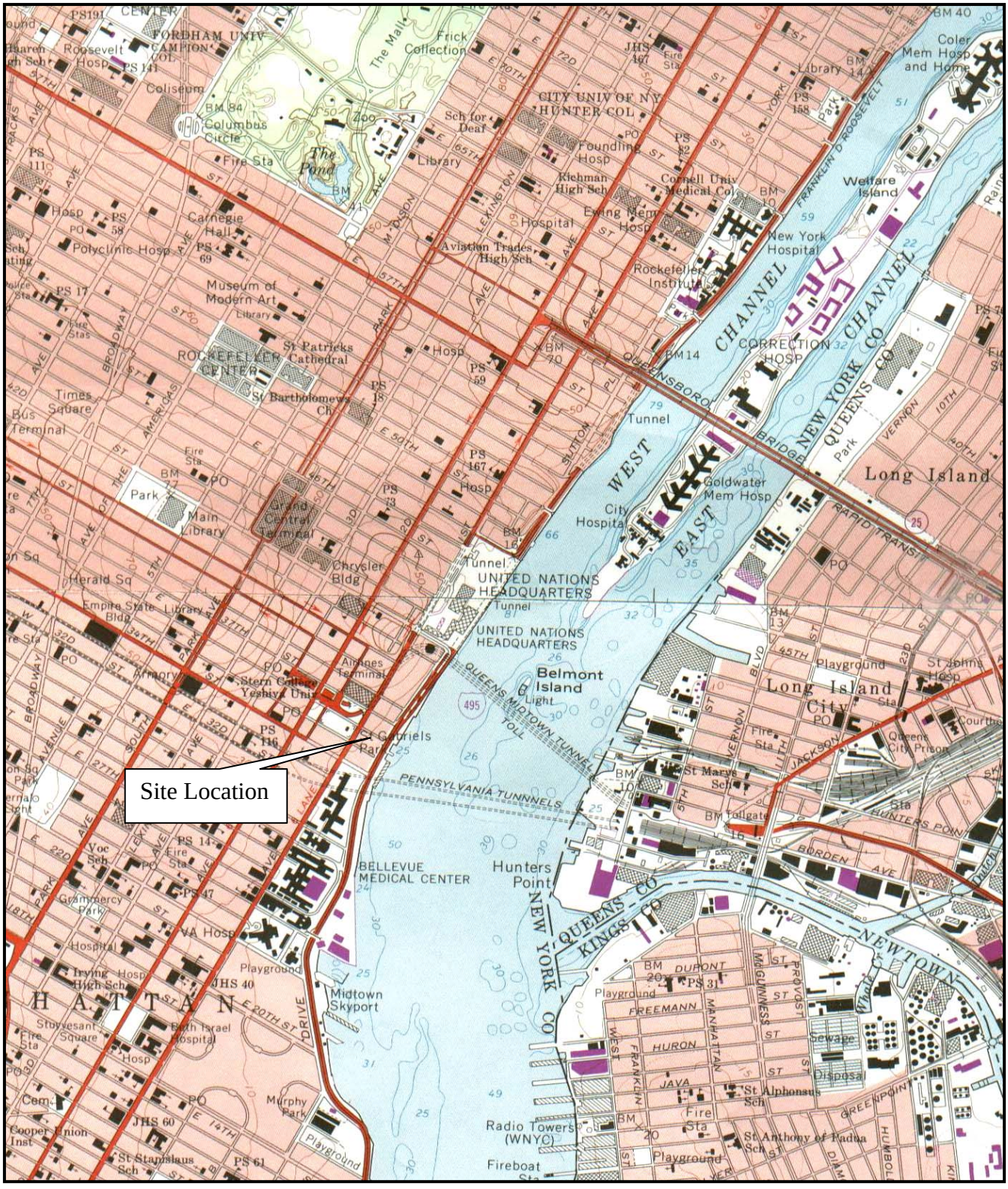
The PRR shall be submitted in electronic format to NYSDEC Central Office and the NYSDOH Bureau of Environmental Exposure Investigation.

The requirement for reporting shall cease once the Environmental Easement is removed, as approved by NYSDEC.

8.3 Corrective Measures Plan

If any component of the remedy is found to have failed, or if the periodic certification cannot be provided due to the failure of an institutional or engineering control, a corrective measures plan will be submitted to NYSDEC for approval. This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the corrective measure plan until it is approved by the NYSDEC.

Figures


Site Location
N
Kips Bay Fuel Terminal
616 First Avenue
New York, New York
Figure 1: Site Location Map
Approximate Scale 1: 24,000
Source: USGS Topographical Survey Maps
Central Park NY – NJ Quadrangle, Photorevised 1979
Brooklyn, NY, Photorevised 1979

MAP OBTAINED THROUGH USE OF WWW.NYC.GOV/TRUCKS

TRC
1430 BROADWAY, 10TH FLOOR
NEW YORK, NEW YORK 10018
212-221-7822

DESIGNED BY: TS	PROJECT NAME: SITE MANAGEMENT PLAN FORMER KIPS BAY TERMINAL 616 FIRST AVENUE NEW YORK, NEW YORK
DRAWN BY: HD	
CHECKED BY: SM	
DATE: MAY 2011	DRAWING TITLE: TRUCK TRANSPORTATION ROUTES
SCALE: AS SHOWN	FIGURE 2
PROJECT NUMBER: 180360.0000.0000	

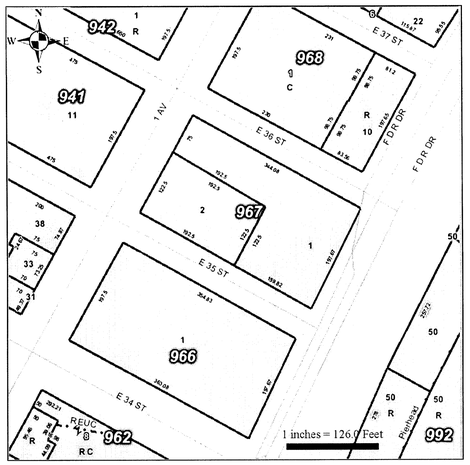
Path\Name: I:\Projects\180360 - Con Edison 1st Avenue\Figures\TRC Working Drawings\Truck Transportation Routes\Figure 2 -Truck Transportation Routes.dwg - Date\Time: Wed, 25 May 2011 - 12:52pm - User Name: hdelgado - Layout Tab: FIGURE 2 KP

Appendix A
Site Survey Maps

SURVEY NO. 63202—4

63202—4.DWG

ALTA/ACSM LAND TITLE SURVEY



VICINITY MAP

NOT TO SCALE

SCHEDULE B ITEMS

1. Sewer Easement Grant by Consolidated Edison Company of New York, Inc. to The City of New York dated 06/23/65 recorded 7/27/65 in Liber 5335 Cp. 259 for the conveyance and transmission of sewage for the Newtown Creek Pollution Control Project.

2. Terms, Covenants and Conditions of the Water Grant made by the Mayor, Alderman and Commonalty of the City of New York to Henry J. Anderson dated 08/01/1850 recorded 08/08/1850 in Liber 553 Cp. 46 (Liber "H" of City Grants, Cp. 514).

3. Terms, Covenants and Conditions of Fixture Rezoning Covenant by and between Consolidated Edison Company of New York, Inc., 616 First Realty Company, LLC, 708 First Realty Company LLC and East River Realty Company LLC dated 3/25/05 recorded 5/4/05 in CRFN 2005000259034.

4. Restrictive Declaration made by 616 First Realty Company, LLC, 685 First Realty Company, LLC, 700 First Realty Company, LLC and 7085 First Realty Company, LLC dated as of 3/24/2008, recorded 4/17/2008 in CRFN 2008000153631.

   With Regard Thereto:

   a. Waiver of Restrictive Declaration/Subordination of Covenant made by the Consolidation Edison Company of New York dated as of 3/24/2008, recorded 4/17/2008 in CRFN 2008000153630.

   b. First Modification to Restrictive Declaration made by 616 First Realty Company, LLC, 685 First Realty Company, LLC, 700 First Realty Company, LLC and 708 First Realty Company, LLC dated as of 12/21/2009, recorded 1/8/2010 in CRFN 2010000007223.

   c. Waiver of Restrictive Declaration/Subordination of Covenant made by The Consolidated Edison Company of New York dated as of 12/21/2009, recorded 1/8/2010 in CRFN 2010000007222.

5. Declaration made by 616 First Realty Company, LLC, as successor to East River Realty Company, LLC (f/k/a FSM East Rier Associates, LLC) dated 5/7/2008, recorded 5/19/2008 in CRFN 2008000200591.

6. Declaration of Zoning Lot Restrictions made by 616 First Realty Company, LLC and The New York City School Construction Authority dated 12/03/2009, recorded 1/8/2010 in CRFN 2010000007225.

7. Declaration of Zoning Lot Covenants and Restrictions made by and between The New York City School Construction Authority and 616 First Realty Company, LLC dated as of 12/23/2009, recorded 1/8/2010 in CRFN 2010000007226.

Metes and Bounds Description

Tax Block 967 Tax Lot 1

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

BEGINNING at the corner formed by the intersection the easterly side of First Avenue (100 feet) with the southerly side of East 36th Street (60 feet wide);

RUNNING THENCE easterly, along the southerly side of East 36th Street, 344 feet 1 inch to the corner formed by the intersection of the southerly side of East 36th Street with the westerly side of F.D.R. Drive;

RUNNING THENCE southerly, along the westerly side of F.D.R Drive, 197 feet 8 inches to the corner formed by the intersection of the westerly side of F.D.R Drive with the northerly side of East 35th Street (60 feet wide);

RUNNING THENCE westerly, along the northerly side of East 35th Street, 159 feet 9 7/8 inches to a point;

RUNNING THENCE northerly, parallel with the easterly side of First Avenue, 122 feet 6 inches to a point;

RUNNING THENCE westerly, parallel with the northerly side of East 35th Street, 192 feet 6 inches to the easterly side of First Avenue;

RUNNING THENCE northerly, along the easterly side of First Avenue, 75 feet to the corner, the point or place of BEGINNING.

The premises comprises of an area of 45,190 sq.ft. or 1.0372 acres.

Being the same parcel described in CRFN 2010000007226 recorded 01-08-2010 more particularly described as follows:

ALL that certain lot, piece or parcel of land situate , lying and being in the Borough of Manhattan, City, County and State of New York, bounded and described as follow:

BEGINNING at the corner formed by the intersection of the northerly line of East 35th Street with the easterly line of First Avenue;

RUNNING THENCE northerly along the easterly line of First Avenue, 197 feet 6 inches to the corner formed by the intersection of the southerly line of East 36th Street with the easterly line of First Avenue;

THENCE easterly along the southerly line of East 36th Street, 344 feet 1 inch to the corner formed by the intersection of the southerly line of East 36th Street with the westerly line of Franklin D. Roosevelt Drive;

THENCE southerly along the westerly line of Franklin D. Roosevelt Drive, 197 feet 8 inches to the corner formed by the intersection of the northerly line of East 35th Street with the westerly line of Franklin D. Roosevelt Drive;

THENCE westerly along the northerly line of 35th Street, 352 feet 3 7/8 inches to the point or place of BEGINNING.

LESS AND EXCEPTING THEREFROM:

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

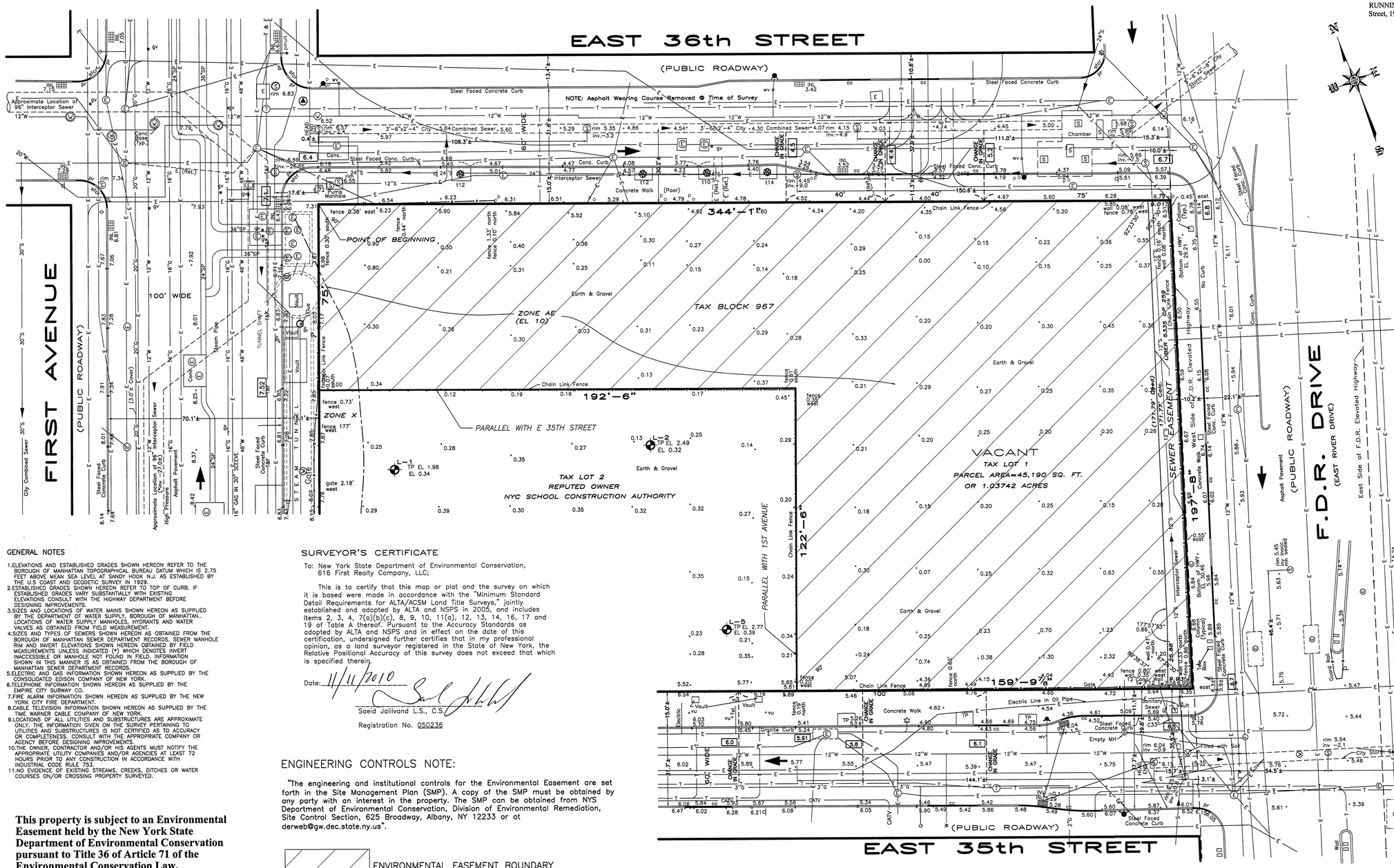
BEGINNING at the corner formed by the intersection of the northerly side of East 35th Street (60 feet wide) with the easterly side of First Avenue (100 feet wide):

RUNNING THENCE northerly along the easterly side of First Avenue, 122 feet 6 inches to a point;

RUNNING THENCE easterly, parallel with the northerly side of East 35th Street, 192 feet 6 inches to a point;

RUNNING THENCE southerly, parallel with the easterly side o First Avenue, 122 feet 6 inches to the northerly side of East 35th Street;

RUNNING THENCE westerly, along the northerly side of East side of East 35th Street, 192 feet 6 inches to the corner, the point or place of BEGINNING.



LEGEND

ASPH.....ASPHALT
BK.....BRICK
BSMT.....BASEMENT
CC.....CURB CUT
CCR.....CONCRETE CURB ROUND
CD.....CELLAR DOOR
CLF.....CHAIN LINK FENCE
CO.....CATCH BASIN CLEAN OUT
CONC.....CONCRETE
CRF.....CHAIN ROPE FENCE
CWA.....CELLAR WINDOW AREA
DR.....DRAIN
EL.....ELEVATION
FAB.....FIRE ALARM BOX
FC.....FILL CAP
FL EL.....FLOOR ELEVATION
GP.....GUARD POLE
GV.....GAS VALVE
IF.....IRON FENCE
INL.....CATCH BASIN INLET ELEVATION
INV.....SEWER INVERT ELEVATION
LP.....LIGHT POLE
MB.....MAIL BOX
MHU.....UNKNOWN MANHOLE
OF.....OIL FILL
OHW.....OVERHEAD WIRES
P.....POLE
PAVT.....PAVEMENT
PM.....PARKING METER
PMULT.....POLE, MULTIPLE USAGE
TP .....TOP OF PIPE

PR.....PEDESTRIAN RAMP
RET.....RETAINING
RIM.....RIM ELEVATION SEWER MANHOLE
SFCR....STEEL FACED CURB ROUND
STY.....STORY
TB.....TOP OF BANK ELEVATION
TRAFFIC LIGHT
TEL.....TELEPHONE
TP.....TREE PIT
TRAFFIC SIGN
TW.....ELEVATION AT TOP OF WALL
UP.....UTILITY POLE
VU.....VALVE UNKNOWN
VLTU.....VAULT UNKNOWN
VP.....VENT PIPE
WV.....WATER VALVE
12"G.....GAS MAIN WITH SIZE
12"S.....SEWER MAIN WITH SIZE
12"W.....WATER MAIN WITH SIZE
.....CATCH BASIN
(E) [E] ...ELECTRIC MANHOLE / VAULT
(F) .....FIRE MANHOLE
(G) .....GAS MANHOLE
(S) .....SEWER MANHOLE
(T) .....TELEPHONE MANHOLE
(W) .....WATER MANHOLE
[TR] .....TRAFFIC VAULT
.....HYDRANT
TB.....TREE WITH SIZE
17.0 ....ESTABLISHED/LEGAL GRADE
.....TRAFFIC FLOW

L ... BORING AND DOWN HOLE SEISMETIC TEST
L (OW) ... OBSERVATION WELL
... MONITORING WELL

UTILITY COVERS

ELECTRIC CONDUIT.....2'-6" MIN.
ELECTRIC LOW TENSION.....18" MIN.
TELEPHONE & FDNY.....2'-8" MIN.
WATER MAIN.....4'-0" MIN.
GAS MAIN.....2'-0" – 4'-0"
CABLE TV CONDUIT.....18" MIN.

FLOOD HAZARD NOTE

THE PARCEL SURVEYED IS COMPRISED OF AREAS DESIGNATED AS ZONE X (SHADED) & ZONE AE (EL 10 IN GVD 1929) (EL 7.3 NEW YORK DATUM) FEDERAL EMERGENCY MANAGEMENT AGENCY NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP COMMUNITY PANEL NUMBER 360497 0201 F EFFECTIVE DATE SEPTEMBER 5, 2007

20 0 20 40 60
GRAPHIC SCALE – FEET
0 2.4 4.8 7.2 9.6M
1 CM = 2.4 M

GENERAL NOTES

1. ELEVATIONS AND ESTABLISHED GRADES SHOWN HEREON REFER TO THE BOROUGH OF MANHATTAN TOPOGRAPHICAL BUREAU DATUM WHICH IS 2.75 FEET ABOVE MEAN SEA LEVEL AT SANDY HOOK N.J. AS ESTABLISHED BY THE U.S COAST AND GEODETIC SURVEY IN 1929.
2. ESTABLISHED GRADES SHOWN HEREON REFER TO TOP OF CURB. IF ESTABLISHED GRADES VARY SUBSTANTIALLY WITH EXISTING ELEVATIONS CONSULT WITH THE HIGHWAY DEPARTMENT BEFORE DESIGNING IMPROVEMENTS.
3. SIZES AND LOCATIONS OF WATER MAINS SHOWN HEREON AS SUPPLIED BY THE DEPARTMENT OF WATER SUPPLY, BOROUGH OF MANHATTAN.. LOCATIONS OF WATER SUPPLY MANHOLES, HYDRANTS AND WATER VALVES AS OBTAINED FROM FIELD MEASUREMENT.
4. SIZES AND TYPES OF SEWERS SHOWN HEREON AS OBTAINED FROM THE BOROUGH OF MANHATTAN SEWER DEPARTMENT RECORDS. SEWER MANHOLE RIM AND INVERT ELEVATIONS SHOWN HEREON OBTAINED BY FIELD MEASUREMENTS UNLESS INDICATED (*) WHICH DENOTES INVERT INACCESSIBLE OR MANHOLE NOT FOUND IN FIELD. INFORMATION SHOWN IN THIS MANNER IS AS OBTAINED FROM THE BOROUGH OF MANHATTAN SEWER DEPARTMENT RECORDS.
5. ELECTRIC AND GAS INFORMATION SHOWN HEREON AS SUPPLIED BY THE CONSOLIDATED EDISON COMPANY OF NEW YORK.
6. TELEPHONE INFORMATION SHOWN HEREON AS SUPPLIED BY THE EMPIRE CITY SUBWAY CO.
7. FIRE ALARM INFORMATION SHOWN HEREON AS SUPPLIED BY THE NEW YORK CITY FIRE DEPARTMENT.
8. CABLE TELEVISION INFORMATION SHOWN HEREON AS SUPPLIED BY THE TIME WARNER CABLE COMPANY OF NEW YORK.
9. LOCATIONS OF ALL UTILITIES AND SUBSTRUCTURES ARE APPROXIMATE ONLY. THE INFORMATION GIVEN ON THE SURVEY PERTAINING TO UTILITIES AND SUBSTRUCTURES IS NOT CERTIFIED AS TO ACCURACY OR COMPLETENESS. CONSULT WITH THE APPROPRIATE COMPANY OR AGENCY BEFORE DESIGNING IMPROVEMENTS.
10. THE OWNER; CONTRACTOR AND/OR HIS AGENTS MUST NOTIFY THE APPROPRIATE UTILITY COMPANIES AND/OR AGENCIES AT LEAST 72 HOURS PRIOR TO ANY CONSTRUCTION IN ACCORDANCE WITH INDUSTRIAL CODE RULE 753.
11. NO EVIDENCE OF EXISTING STREAMS, CREEKS, DITCHES OR WATER COURSES ON/OR CROSSING PROPERTY SURVEYED.

This property is subject to an Environmental Easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the Environmental Conservation Law.

SURVEYOR'S CERTIFICATE

To: New York State Department of Environmental Conservation,
616 First Realty Company, LLC;

This is to certify that this map or plat and the survey on which it is based were made in accordance with the "Minimum Standard Detail Requirements for ALTA/ACSM Land Title Surveys," jointly established and adopted by ALTA and NSPS in 2005, and includes items 2, 3, 4, 7(a)(b)(c), 8, 9, 10, 11(a), 12, 13, 14, 16, 17 and 19 of Table A thereof. Pursuant to the Accuracy Standards as adopted by ALTA and NSPS and in effect on the date of this certification, undersigned further certifies that in my professional opinion, as a land surveyor registered in the State of New York, the Relative Positional Accuracy of this survey does not exceed that which is specified therein.

Date: 11/11/2010

Saeid Jalilvand L.S., C.S.

Registration No. 050236

ENGINEERING CONTROLS NOTE:

"The engineering and institutional controls for the Environmental Easement are set forth in the Site Management Plan (SMP). A copy of the SMP must be obtained by any party with an interest in the property. The SMP can be obtained from NYS Department of Environmental Conservation, Division of Environmental Remediation, Site Control Section, 625 Broadway, Albany, NY 12233 or at derweb@gw.dec.state.ny.us".

ENVIRONMENTAL EASEMENT BOUNDARY

ESTABLISHED 1876 * SUCCESSOR TO:

B.G. MEINKHEIM C.S.*C.U. POWELL C.E.,C.S.*L.C.L. SMITH C.S.*NATHAN CAMPBELL C.E.,C.S.*A.U. WHITSON C.E.,C.S.*
WILLIAM L. SAYACOOL C.E.,L.S.,C.S.*A.U. WHITSON INC. C.E.,C.S.*G. WEBER L.S.,C.S.*C. STODOLPH R.A.,L.S.*WHITSON &
POWELL INC. P.E.,L.S.,C.S.*KELLER & POWELL P.E.,L.S.,C.S.*LOUIS MONTROSE C.E.,L.S.,C.S.*FRED J. POWELL P.E.,L.S.,C.S.*

REV	DATE	DESCRIPTION	ck

REV	DATE	DESCRIPTION	ck
	11-10-10	ALTA-ACSM LAND TITLE SURVEY	
A			

MONTROSE
SURVEYING CO., LLP.
CITY & LAND SURVEYORS
116 20 METROPOLITAN AVE * RICHMOND HILL NY 11418-1059 * (718) 849-0600

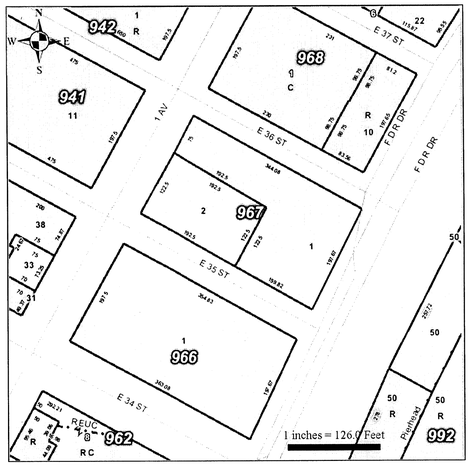
CITY OF NEW YORK
COUNTY: NEW YORK
TAX BLOCK: 967
TAX LOT 1

SCALE: 1" = 20'

SURVEY NO. 63202-3

63202-3.DWG

ALTA/ACSM LAND TITLE SURVEY



VICINITY MAP

NOT TO SCALE

SCHEDULE B ITEMS

1. Sewer Easement Grant by Consolidated Edison Company of New York, Inc. to The City of New York dated 06/23/65 recorded 7/27/65 in Liber 5335 Cp. 259 for the conveyance and transmission of sewage for the Newtown Creek Pollution Control Project. (Affects lot 1 only)

2. Terms, Covenants and Conditions of the Water Grant made by the Mayor, Alderman and Commonalty of the City of New York to Henry J. Anderson dated 08/01/1850 recorded 08/08/1850 in Liber 553 Cp. 46 (Liber "H" of City Grants, Cp. 514).

3. Terms, Covenants and Conditions of Fixture Rezoning Covenant by and between Consolidated Edison Company of New York, Inc., 616 First Realty Company, LLC, 708 First Realty Company LLC and East River Realty Company LLC dated 3/25/05 recorded 5/4/05 in CRFN 2005000259034.

4. Restrictive Declaration made by 616 First Realty Company, LLC, 685 First Realty Company, LLC, 700 First Realty Company, LLC and 7085 First Realty Company, LLC dated as of 3/24/2008, recorded 4/17/2008 in CRFN 2008000153631.

   With Regard Thereto:

   a. Waiver of Restrictive Declaration/Subordination of Covenant made by the Consolidation Edison Company of New York dated as of 3/24/2008, recorded 4/17/2008 in CRFN 2008000153630.

   b. First Modification to Restrictive Declaration made by 616 First Realty Company, LLC, 685 First Realty Company, LLC, 700 First Realty Company, LLC and 708 First Realty Company, LLC dated as of 12/21/2009, recorded 1/8/2010 in CRFN 2010000007223.

   c. Waiver of Restrictive Declaration/Subordination of Covenant made by The Consolidated Edison Company of New York dated as of 12/21/2009, recorded 1/8/2010 in CRFN 2010000007222.

5. Declaration made by 616 First Realty Company, LLC, as successor to East River Realty Company, LLC (f/k/a FSM East Rier Associates, LLC) dated 5/7/2008, recorded 5/19/2008 in CRFN 2008000200591.

6. Declaration of Zoning Lot Restrictions made by 616 First Realty Company, LLC and The New York City School Construction Authority dated 12/03/2009, recorded 1/8/2010 in CRFN 2010000007225.

7. Declaration of Zoning Lot Covenants and Restrictions made by and between The New York City School Construction Authority and 616 First Realty Company, LLC dated as of 12/23/2009, recorded 1/8/2010 in CRFN 2010000007226.

Metes and Bounds Description

Tax Block 967 Tax Lot 2
CRFN 2010000007224, Recorded 01-08-2010

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

BEGINNING at the corner formed by the intersection of the northerly side of East 35th Street (60 feet wide) with the easterly side of First Avenue (100 feet wide);

RUNNING THENCE northerly, along the easterly side of First Avenue, 122 feet 6 inches to a point;

RUNNING THENCE easterly, parallel with the northerly side of East 35th Street, 192 feet 6 inches to a point;

RUNNING THENCE southerly, parallel with the easterly side of First Avenue, 122 feet 6 inches to the northerly side of East 35th Street;

RUNNING THENCE westerly, along the northerly side of East 35th Street, 192 feet 6 inches to the corner, the point or place of BEGINNING.

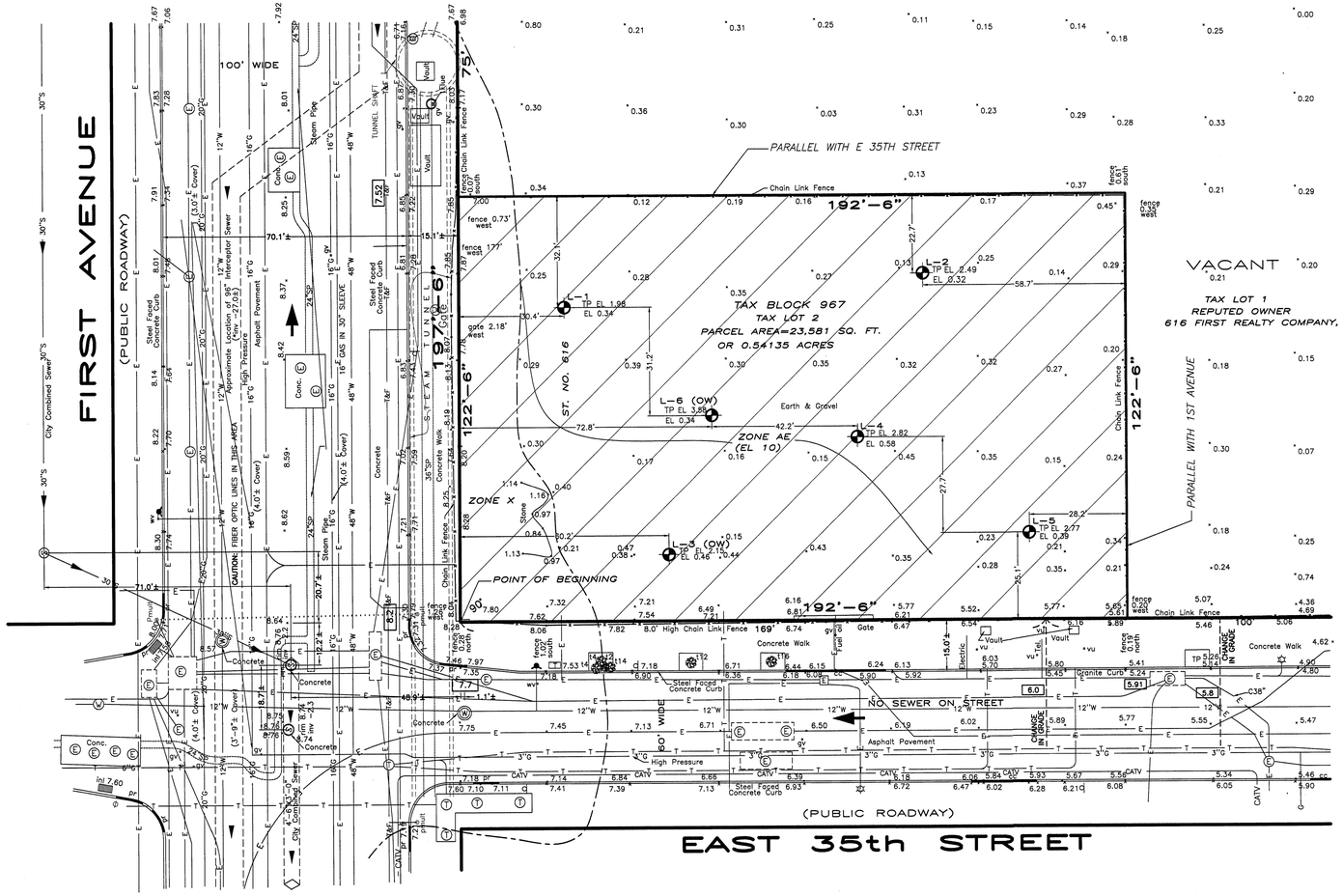
The premises comprises of an area of 23,581 sq.ft. or 0.54135 acres.

ENGINEERING CONTROLS NOTE:

"The engineering and institutional controls for the Environmental Easement are set forth in the Site Management Plan (SMP). A copy of the SMP must be obtained by any party with an interest in the property. The SMP can be obtained from NYS Department of Environmental Conservation, Division of Environmental Remediation, Site Control Section, 625 Broadway, Albany, NY 12233 or at derweb@gw.dec.state.ny.us".

This property is subject to an Environmental Easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the Environmental Conservation Law.

ENVIRONMENTAL EASEMENT BOUNDARY



LEGEND

ASPH.....ASPHALT
BK.....BRICK
BSMT.....BASEMENT
CC.....CURB CUT
CCR.....CONCRETE CURB ROUND
CD.....CELLAR DOOR
CLF.....CHAIN LINK FENCE
CO.....CATCH BASIN CLEAN OUT
CONC.....CONCRETE
CRF.....CHAIN ROPE FENCE
CWA.....CELLAR WINDOW AREA
DR.....DRAIN
EL.....ELEVATION
FAB.....FIRE ALARM BOX
FC.....FILL CAP
FL EL.....FLOOR ELEVATION
GP.....GUARD POLE
GV.....GAS VALVE
IF.....IRON FENCE
INL.....CATCH BASIN INLET ELEVATION
INV.....SEWER INVERT ELEVATION
.....LIGHT POLE
MB.....MAIL BOX
MHU.....UNKNOWN MANHOLE
OF.....OIL FILL
OHW.....OVERHEAD WIRES
P.....POLE
PAVT.....PAVEMENT
PM.....PARKING METER
PMULT.....POLE, MULTIPLE USAGE
TP .....TOP OF PIPE
PR.....PEDESTRIAN RAMP
RET.....RETAINING
RIM.....RIM ELEVATION SEWER MANHOLE
SFCR....STEEL FACED CURB ROUND
STY.....STORY
TB.....TOP OF BANK ELEVATION
.....TRAFFIC LIGHT
TEL.....TELEPHONE
TP.....TREE PIT
.....TRAFFIC SIGN
TW.....ELEVATION AT TOP OF WALL
UP.....UTILITY POLE
VU.....VALVE UNKNOWN
VLTU.....VAULT UNKNOWN
VP.....VENT PIPE
WV.....WATER VALVE
12"G.....GAS MAIN WITH SIZE
12"S.....SEWER MAIN WITH SIZE
12"W.....WATER MAIN WITH SIZE
.....CATCH BASIN
.....ELECTRIC MANHOLE / VAULT
.....FIRE MANHOLE
.....GAS MANHOLE
.....SEWER MANHOLE
.....TELEPHONE MANHOLE
.....WATER MANHOLE
.....TRAFFIC VAULT
.....HYDRANT
.....TREE WITH SIZE
17.0 .....ESTABLISHED/LEGAL GRADE
.....TRAFFIC FLOW

L ... BORING AND DOWN HOLE SEISMETIC TEST

L (OW) ... OBSERVATION WELL

... MONITORING WELL

UTILITY COVERS

ELECTRIC CONDUIT.....2'-6" MIN.
ELECTRIC LOW TENSION.....18" MIN.
TELEPHONE & FDNY.....2'-6" MIN.
WATER MAIN.....4'-0" MIN.
GAS MAIN.....2'-0" - 4'-0"
CABLE TV CONDUIT.....18" MIN.

NOTES:

1. BELOW GRADE ENCROACHMENTS AND VAULTS IF ANY NOT LOCATED.
2. THERE ARE NO PARKING SPACES ON THE PREMISES.
3. THE PREMISES IS SERVED BY GAS, WATER, ELECTRICITY, TELEPHONE AND SANITARY SEWER LINES INSTALLED IN STREET.
4. NO EVIDENCE OF THE SITE BEING USED AS SOLID WASTE DUMP.
5. THE PREMISES HAS ACCESS TO 35TH STREET & 1ST AVENUE.

GENERAL NOTES

1. ELEVATIONS AND ESTABLISHED GRADES SHOWN HEREON REFER TO THE BOROUGH OF MANHATTAN TOPOGRAPHICAL BUREAU DATUM WHICH IS 2.75 FEET ABOVE MEAN SEA LEVEL AT SANDY HOOK N.J. AS ESTABLISHED BY THE U.S COAST AND GEODETIC SURVEY IN 1929.
2. ESTABLISHED GRADES SHOWN HEREON REFER TO TOP OF CURB. IF ESTABLISHED GRADES VARY SUBSTANTIALLY WITH EXISTING ELEVATIONS CONSULT WITH THE HIGHWAY DEPARTMENT BEFORE DESIGNING IMPROVEMENTS.
3. SIZES AND LOCATIONS OF WATER MAINS SHOWN HEREON AS SUPPLIED BY THE DEPARTMENT OF WATER SUPPLY, BOROUGH OF MANHATTAN.. LOCATIONS OF WATER SUPPLY MANHOLES, HYDRANTS AND WATER VALVES AS OBTAINED FROM FIELD MEASUREMENT.
4. SIZES AND TYPES OF SEWERS SHOWN HEREON AS OBTAINED FROM THE BOROUGH OF MANHATTAN SEWER DEPARTMENT RECORDS. SEWER MANHOLE RIM AND INVERT ELEVATIONS SHOWN HEREON OBTAINED BY FIELD MEASUREMENTS UNLESS INDICATED (*) WHICH DENOTES INVERT INACCESSIBLE OR MANHOLE NOT FOUND IN FIELD. INFORMATION SHOWN IN THIS MANNER IS AS OBTAINED FROM THE BOROUGH OF MANHATTAN SEWER DEPARTMENT RECORDS.
5. ELECTRIC AND GAS INFORMATION SHOWN HEREON AS SUPPLIED BY THE CONSOLIDATED EDISON COMPANY OF NEW YORK.
6. TELEPHONE INFORMATION SHOWN HEREON AS SUPPLIED BY THE EMPIRE CITY SUBWAY CO.
7. FIRE ALARM INFORMATION SHOWN HEREON AS SUPPLIED BY THE NEW YORK CITY FIRE DEPARTMENT.
8. CABLE TELEVISION INFORMATION SHOWN HEREON AS SUPPLIED BY THE TIME WARNER CABLE COMPANY OF NEW YORK.
9. LOCATIONS OF ALL UTILITIES AND SUBSTRUCTURES ARE APPROXIMATE ONLY. THE INFORMATION GIVEN ON THE SURVEY PERTAINING TO UTILITIES AND SUBSTRUCTURES IS NOT CERTIFIED AS TO ACCURACY OR COMPLETENESS. CONSULT WITH THE APPROPRIATE COMPANY OR AGENCY BEFORE DESIGNING IMPROVEMENTS.
10. THE OWNER, CONTRACTOR AND/OR HIS AGENTS MUST NOTIFY THE APPROPRIATE UTILITY COMPANIES AND/OR AGENCIES AT LEAST 72 HOURS PRIOR TO ANY CONSTRUCTION IN ACCORDANCE WITH INDUSTRIAL CODE RULE 753.
11. NO EVIDENCE OF EXISTING STREAMS, CREEKS, DITCHES OR WATER COURSES ON/OR CROSSING PROPERTY SURVEYED.

FLOOD HAZARD NOTE

THE PARCEL SURVEYED IS COMPRISED OF AREAS DESIGNATED AS
ZONE X (SHADED) &
ZONE AE (EL 10 IN QVD 1929) (EL 7.3 NEW YORK DATUM)
FEDERAL EMERGENCY MANAGEMENT AGENCY
NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP
COMMUNITY PANEL NUMBER 360497 0201 F
EFFECTIVE DATE SEPTEMBER 5, 2007

20 0 20 40 60
GRAPHIC SCALE - FEET
0 2.4 4.8 7.2 9.6M
1 CM = 2.4 M

SURVEYOR'S CERTIFICATE

To: New York State Department of Environmental Conservation, New York City School Construction Authority;

This is to certify that this map or plat and the survey on which it is based were made in accordance with the "Minimum Standard Detail Requirements for ALTA/ACSM Land Title Surveys," jointly established and adopted by ALTA and NSPS in 2005, and includes items 2, 3, 4, 7(a)(b)(c), 8, 9, 10, 11(a), 12, 13, 14, 16, 17 and 19 of Table A thereof. Pursuant to the Accuracy Standards as adopted by ALTA and NSPS and in effect on the date of this certification, undersigned further certifies that in my professional opinion, as a land surveyor registered in the State of New York, the Relative Positional Accuracy of this survey does not exceed that which is specified therein.

Date: 11/11/2010

Saeid Jahvand L.S., C.S.

Registration No. 050236

REV	DATE	DESCRIPTION	ck

REV	DATE	DESCRIPTION	ck
	11-10-10	ALTA-ACSM LAND TITLE SURVEY	
A			

MONTROSE
SURVEYING CO., LLP.
CITY & LAND SURVEYORS
116 20 METROPOLITAN AVE * RICHMOND HILL NY 11418-1090 * (718) 849-0600

CITY OF NEW YORK
COUNTY: NEW YORK
TAX BLOCK: 967
TAX LOT 2

SCALE: 1" = 20'

ESTABLISHED 1876 * SUCCESSOR TO:
B.G. MEINIKHEIM C.S.*C.U. POWELL C.E.,C.S.*L.C.L. SMITH C.S.*NATHAN CAMPBELL C.E.,C.S.*A.U. WHITSON C.E.,C.S.*
WILLIAM L. SAVACOOL C.E.,L.S.,C.S.*A.U. WHITSON INC. C.E.,C.S.*Q. WEBER L.S.,C.S.*C. STIDOLPH R.A.,L.S.*WHITSON &
POWELL INC. P.E.,L.S.,C.S.*KELLER & POWELL P.E.,L.S.,C.S.*LOUIS MONTROSE C.E.,L.S.,C.S.*FRED J. POWELL P.E.,L.S.,C.S.*

Appendix B
NYSDEC Approval Letters

APPENDIX B

NYSDEC APPROVAL LETTERS

New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway, Albany, New York 12233-7016
Phone: (518) 402-9768 • FAX: (518) 402-9773
Website: www.dec.state.ny.us

Denise M. Sheehan
Commissioner

June 13, 2006

Mr. Michael Skirka
TRC Environmental Corporation
1200 Wall Street West, 2nd Floor
Lyndhurst, New Jersey 07071

RE: Voluntary Cleanup Project
First Avenue Properties VCP Sites
Kips Bay Fuel Terminal, 616 First Avenue
VCP # V00430
Final Report

Dear Mr. Skirka:

The New York State Department of Environmental Conservation (NYSDEC), along with the New York State Department of Health (NYSDOH), have completed a review of the "Final Report for Kips Bay Fuel Terminal Remediation Work Plan" (March 2006) and the "Letter Report, Groundwater Sampling Results for April 2006" (May 17, 2006) for the above-referenced site.

The Final Report indicates that all required remedial activities at the Site have been completed to ready the site for the contemplated use. The site is ready for unrestricted and unencumbered commercial and residential development down to the Development Depth, as described in Section 1.1 of the "Supplemental Soil Investigation Final Report and Remediation Work Plan" dated August 2003 as well as in Section 1.1 of the Final Report, contingent on the approval of a Site Management Plan (SMP).

For sites where institutional and engineering controls are required by the remedy, and will remain in place for longer than 18 months, a SMP must submitted to the Department and approved prior to the approval of the final engineering report. The SMP should provide guidance for the development, implementation and management of the site institutional and engineering controls to ensure that they are in place and remain effective. The institutional/engineering control certification will be scheduled and reported on a periodic basis and provided to the Department in writing by the Property Owner.

Once the SMP is approved by the Department, development may begin at any time, without restriction above Development Depth. If you have any questions, don't hesitate to call me at (518) 402-9768.

Sincerely,

Thomas Gibbons
Project Manager
Remedial Bureau B, Section D
Division of Environmental Remediation

cc: R. Cozzy/File
T. Gibbons
N. Walz (DOH)

New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway, Albany, New York 12233-7016
Phone: (518) 402-9768 • FAX: (518) 402-9773
Website: www.dec.state.ny.us

Denise M. Sheehan
Commissioner

July 28, 2006

Mr. Michael Skirka
TRC Environmental Corporation
1200 Wall Street West, 2nd Floor
Lyndhurst, New Jersey 07071

RE: Voluntary Cleanup Project
First Avenue Properties VCP Sites
Kips Bay Fuel Terminal, 616 First Avenue
VCP # V00430
Final Report

Dear Mr. Skirka:

In a follow-up to my letter of June 13, 2006 (enclosed), approving the "Final Report for Kips Bay Fuel Terminal Remediation Work Plan", dated March 2006, I would like to clarify a few issues concerning this approval:

- DEC/DOH approve the March 2006 Final Report and its conclusions and the remedy is complete;
- No post-construction testing or engineering or institutional controls will be required at the site with respect to soil vapor intrusion;
- No deed restrictions, engineering controls, institutional controls, or any other consents, approvals, or authorizations are required for any activities above the Development Depth;
- The Site Management Plan (SMP) is required solely to document the existence of the institutional controls with respect to management of soil and groundwater below the Development Depth and that actions with respect to those media will be conducted in accordance with the SMP and applicable laws and regulations; and
- The agencies will consider the March 2006 Final Report, combined with the final SMP, to constitute the "final engineering report" for the Kips Bay site.

If you have any questions, don't hesitate to call me at (518) 402-9768.

Sincerely,

Thomas Gibbons
Project Manager
Remedial Bureau B, Section D
Division of Environmental Remediation

enclosure

cc: R. Cozzy/File
T. Gibbons
N. Walz (DOH)

Appendix C
NYSDOH
Generic Community Air Monitoring Plan

APPENDIX C

NYSDOH GENERIC COMMUNITY AIR MONITORING PLAN

New York State Department of Health
Generic Community Air Monitoring Plan

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical-specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for volatile organic compounds (VOCs) and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate NYSDEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a **continuous** basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

All 15-minute readings must be recorded and be available for State (DEC and DOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored **continuously** at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

All readings must be recorded and be available for State (DEC and DOH) personnel to review.

June 20, 2000

H:\Southern\gCAMPr1.doc

APPENDIX D

SOIL BELOW DEVELOPMENT DEPTH MAP

Appendix D
Soil Below Development Depth Map

	KB-PIPE5-SW-01
Volatile Organics (ug/kg)	
Methyl Acetate	29.3
Methylcyclohexane	12.9
PAH (ug/kg)	
Acenaphthene	45.4 J
Acenaphthylene	25.3 J
Anthracene	99.9
Benzo(a)anthracene	744 (224 or MDL)
Benzo(a)pyrene	572 (61 or MDL)
Benzo(b)fluoranthene	541
Benzo(g,h,i)perylene	204
Benzo(k)fluoranthene	311
Chrysene	909 (400)
Dibenzo(a,h)anthracene	101 (14.3 or MDL)
Fluoranthene	633
Fluorene	62.9 J
Indeno(1,2,3-cd)pyrene	220
Naphthalene	20 J
Phenanthrene	333
Pyrene	1050
Total PAH concentration	5,871.5
Total carcinogenic PAHs in terms of BAP Equivalents	836
Metals (mg/kg)	
Arsenic	2.9
Cadmium	0.71
Chromium	13.9 J
Copper	36
Lead	64.4 J
Mercury	0.22 J (0.1)
Nickel	13.2
Zinc	67.5 J (50)

	KB-SW-07 7/19/04
Volatile Organics (ug/kg)	
Methyl Acetate	17.4
PAH (ug/kg)	
Acenaphthene	140
Acenaphthylene	248
Anthracene	547
Benzo(a)anthracene	2,110 (224 or MDL)
Benzo(a)pyrene	2,040 (61 or MDL)
Benzo(b)fluoranthene	2,500 (1,100)
Benzo(g,h,i)perylene	1,320
Benzo(k)fluoranthene	757
Chrysene	2,110 (400)
Dibenzo(a,h)anthracene	392 (14.3 or MDL)
Fluoranthene	4,550
Fluorene	135
Indeno(1,2,3-cd)pyrene	1,550
2-Methylnaphthalene	46.8 J
Naphthalene	56.6 J
Phenanthrene	2,030
Pyrene	3,810
Total PAH concentration	24,342.4
Total carcinogenic PAHs in terms of BAP Equivalents	3,077
Metals (mg/kg)	
Arsenic	2.7 J
Beryllium	0.41
Chromium	21.0 J
Copper	28.8
Lead	63.9 J
Mercury	0.50 J (0.1)
Nickel	22.1
Selenium	1.4 J
Zinc	70.9 J (50)

	KB-SW-06 7/16/04
Volatile Organics (ug/kg)	
Acetone	10.5 J
Carbon Disulfide	2.1 J
Toluene	1.6
Xylenes	5.5
PAH (ug/kg)	
Acenaphthene	474
Acenaphthylene	297
Anthracene	1,200
Benzo(a)anthracene	3,000 (224 or MDL)
Benzo(a)pyrene	2,650 (61 or MDL)
Benzo(b)fluoranthene	3,110 (1,100)
Benzo(g,h,i)perylene	1,600
Benzo(k)fluoranthene	1,170 (1,100)
Chrysene	2,950 (400)
Dibenzo(a,h)anthracene	473 (14.3 or MDL)
Fluoranthene	7,600
Fluorene	442
Indeno(1,2,3-cd)pyrene	1,880
2-Methylnaphthalene	205
Naphthalene	287
Phenanthrene	4,150
Pyrene	5,760
Total PAH concentration	37,248.0
Total carcinogenic PAHs in terms of BAP Equivalents	3,963
Metals (mg/kg)	
Arsenic	5.7
Beryllium	0.43
Chromium	19.8 J
Copper	73.1 (50)
Lead	122 J
Mercury	0.83 J (0.1)
Nickel	38.3 (25)
Selenium	2.5 J
Zinc	141 J (50)

	KB-SW-05 7/16/04
Volatile Organics (ug/kg)	
Xylenes	1.4 J
PAH (ug/kg)	
Acenaphthene	273
Acenaphthylene	165
Anthracene	782
Benzo(a)anthracene	2,570 (224 or MDL)
Benzo(a)pyrene	2,160 (61 or MDL)
Benzo(b)fluoranthene	2,740 (1,100)
Benzo(g,h,i)perylene	1,300
Benzo(k)fluoranthene	861
Chrysene	2,450 (400)
Dibenzo(a,h)anthracene	364 (14.3 or MDL)
Fluoranthene	5,680
Fluorene	285
Indeno(1,2,3-cd)pyrene	1,550
2-Methylnaphthalene	124
Naphthalene	168
Phenanthrene	2,740
Pyrene	5,190
Total PAH concentration	29,402.0
Total carcinogenic PAHs in terms of BAP Equivalents	3,243
Metals (mg/kg)	
Arsenic	5.5
Beryllium	0.39
Chromium	18.0 J
Copper	54.0 (50)
Lead	108 J
Mercury	0.82 (0.1)
Nickel	32.2 (25)
Selenium	2.1 J
Zinc	205 J (50)

	KB-SW-03 7/15/04	KB-SW-04 7/15/04
Volatile Organics (ug/kg)		
Xylenes	ND	1.7 J
PAH (ug/kg)		
Acenaphthene	166 J	475 J
Acenaphthylene	158	205
Anthracene	505 J	954 J
Benzo(a)anthracene	1,960 (224 or MDL)	2,690 (224 or MDL)
Benzo(a)pyrene	1,870 (61 or MDL)	2,400 (61 or MDL)
Benzo(b)fluoranthene	2,190 (1,100)	2,930 (1,100)
Benzo(g,h,i)perylene	1,180	1,500
Benzo(k)fluoranthene	826	990
Chrysene	1,990 (400)	2,630 (400)
Dibenzo(a,h)anthracene	312 (14.3 or MDL)	401 (14.3 or MDL)
Fluoranthene	3,360	5,360
Fluorene	141 J	408 J
Indeno(1,2,3-cd)pyrene	1,370	1,780
2-Methylnaphthalene	90.7 J	480 J
Naphthalene	136	346
Phenanthrene	1,530 J	3,330 J
Pyrene	3,740	5,780
Total PAH concentration	21,524.7	32,659.0
Total carcinogenic PAHs in terms of BAP Equivalents	2,762	3,577
Metals (mg/kg)		
Arsenic	5.1	6.0
Beryllium	0.44	0.36
Cadmium	0.93 J	0.97 J
Chromium	20.9 J	19.0 J
Copper	53.3 (50)	54.0 (50)
Lead	830 J (500)	163 J
Mercury	0.82 (0.1)	1.1 J (0.1)
Nickel	36.9 (25)	29.5 (25)
Selenium	2.3 J	2.5 J
Zinc	145 J (50)	213 J (50)

	KB-SW-02 7/14/04
Volatile Organics (ug/kg)	
Acetone	6.1 J
Methylene Chloride	6.5 J
Toluene	1.2 J
Xylenes	1.8 J
PAH (ug/kg)	
Acenaphthene	126
Acenaphthylene	77.9
Anthracene	337
Benzo(a)anthracene	980 (224 or MDL)
Benzo(a)pyrene	941 (61 or MDL)
Benzo(b)fluoranthene	1,170 (1,100)
Benzo(g,h,i)perylene	626
Benzo(k)fluoranthene	370
Chrysene	939 (400)
Dibenzo(a,h)anthracene	186 (14.3 or MDL)
Fluoranthene	1,850
Fluorene	107
Indeno(1,2,3-cd)pyrene	711
2-Methylnaphthalene	61.2 J
Naphthalene	66.4 J
Phenanthrene	1,000
Pyrene	1,720
Total PAH concentration	11,268.5
Total carcinogenic PAHs in terms of BAP Equivalents	1,426
Metals (mg/kg)	
Arsenic	3.8
Chromium	18.4 J
Copper	34.0
Lead	85.7 J
Mercury	0.49 J (0.1)
Nickel	16.6
Selenium	1.4 J
Zinc	94.9 J (50)

	KB-BOT-04 8/11/04
Volatile Organics (ug/kg)	
Acetone	9.6 J
Xylenes	1.2 J
PAH (ug/kg)	
Acenaphthene	166
Acenaphthylene	77.1 J
Anthracene	448
Benzo(a)anthracene	1,380 (224 or MDL)
Benzo(a)pyrene	1,200 (61 or MDL)
Benzo(b)fluoranthene	1,160 (1,100)
Benzo(g,h,i)perylene	626
Benzo(k)fluoranthene	805
Chrysene	1,490 (400)
Dibenzo(a,h)anthracene	252 (14.3 or MDL)
Fluoranthene	3,310
Fluorene	153
Indeno(1,2,3-cd)pyrene	638
2-Methylnaphthalene	124
Naphthalene	183
Phenanthrene	1,510
Pyrene	2,640
Total PAH concentration	16,162.1
Total carcinogenic PAHs in terms of BAP Equivalents	1,793
Metals (mg/kg)	
Arsenic	11.4
Beryllium	0.47
Cadmium	1.5 (1)
Chromium	27.9
Copper	61.8 (50)
Lead	154
Mercury	2.2 R (0.1)
Nickel	46.1 (25)
Zinc	266 J (50)

	KB-BOT-01 7/15/04
Volatile Organics (ug/kg)	ND
PAH (ug/kg)	
Acenaphthene	259
Acenaphthylene	66.8 J
Anthracene	523
Benzo(a)anthracene	1,360 (224 or MDL)
Benzo(a)pyrene	1,190 (61 or MDL)
Benzo(b)fluoranthene	1,480 (1,100)
Benzo(g,h,i)perylene	782
Benzo(k)fluoranthene	583
Chrysene	1,300 (400)
Dibenzo(a,h)anthracene	224 (14.3 or MDL)
Fluoranthene	2,350
Fluorene	202
Indeno(1,2,3-cd)pyrene	905
2-Methylnaphthalene	248
Naphthalene	332
Phenanthrene	1,610
Pyrene	2,470
Total PAH concentration	15,884.8
Total carcinogenic PAHs in terms of BAP Equivalents	1,807
Metals (mg/kg)	
Chromium	6.8 J
Copper	7.4
Lead	3.7 J
Mercury	0.71 J (0.1)
Nickel	5.7
Zinc	13.6 J

	KB-BOT-12 8/13/04
Volatile Organics (ug/kg)	
Acetone	6.6 J
PAH (ug/kg)	
Acenaphthene	41.1 J
Acenaphthylene	68.1 J
Anthracene	147
Benzo(a)anthracene	631 (224 or MDL)
Benzo(a)pyrene	613 (61 or MDL)
Benzo(b)fluoranthene	499
Benzo(g,h,i)perylene	348
Benzo(k)fluoranthene	509
Chrysene	763 (400)
Dibenzo(a,h)anthracene	116 (14.3 or MDL)
Fluoranthene	1,350
Fluorene	39.6 J
Indeno(1,2,3-cd)pyrene	349
2-Methylnaphthalene	22.6 J
Naphthalene	24.8 J
Phenanthrene	499
Pyrene	1,140
Total PAH concentration	7,160.2
Total carcinogenic PAHs in terms of BAP Equivalents	890
Metals (mg/kg)	
Arsenic	4.4
Beryllium	0.40
Cadmium	0.83
Chromium	15.8
Copper	31.9
Lead	111
Mercury	0.33 R (0.1)
Nickel	16.5
Zinc	85.2 J (50)

	KB-BOT-09 8/11/04
Volatile Organics (ug/kg)	
Methyl Acetate	14.4
Toluene	1.2
Xylenes	1.3 J
PAH (ug/kg)	
Acenaphthene	178
Acenaphthylene	185
Anthracene	598
Benzo(a)anthracene	1,970 (224 or MDL)
Benzo(a)pyrene	1,790 (61 or MDL)
Benzo(b)fluoranthene	1,560 (1,100)
Benzo(g,h,i)perylene	689
Benzo(k)fluoranthene	1,130 (1,100)
Chrysene	2,190 (400)
Dibenzo(a,h)anthracene	296 (14.3 or MDL)
Fluoranthene	4,330
Fluorene	196
Indeno(1,2,3-cd)pyrene	754
2-Methylnaphthalene	62.2 J
Naphthalene	73.7 J
Phenanthrene	2,190
Pyrene	3,670
Total PAH concentration	21,861.9
Total carcinogenic PAHs in terms of BAP Equivalents	2,548
Metals (mg/kg)	
Arsenic	4.5
Beryllium	0.40
Cadmium	1.1 (1)
Chromium	24
Copper	52.2
Lead	127
Mercury	0.76 R (0.1)
Nickel	22.8
Zinc	134 J (50)

	KB-BOT-08 8/11/04
Volatile Organics (ug/kg)	
113 Freon	2.5 J
Xylenes	0.84 J
PAH (ug/kg)	
Acenaphthene	66.8 J
Acenaphthylene	34.4 J
Anthracene	172
Benzo(a)anthracene	682 (224 or MDL)
Benzo(a)pyrene	574 (61 or MDL)
Benzo(b)fluoranthene	463
Benzo(g,h,i)perylene	340
Benzo(k)fluoranthene	512
Chrysene	789 (400)
Dibenzo(a,h)anthracene	115 (14.3 or MDL)
Fluoranthene	1,600
Fluorene	47.4 J
Indeno(1,2,3-cd)pyrene	336
2-Methylnaphthalene	38.9 J
Naphthalene	34.2 J
Phenanthrene	549
Pyrene	1,240
Total PAH concentration	7,593.7
Total carcinogenic PAHs in terms of BAP Equivalents	850
Metals (mg/kg)	
Arsenic	5.0
Cadmium	0.85
Chromium	17.5
Copper	53.6 (50)
Lead	89.9
Mercury	0.57 R (0.1)
Nickel	21.4
Zinc	97.2 J (50)

	KB-BOT-07 8/11/04
Volatile Organics (ug/kg)	
Acetone	22.4
113 Freon	2.0 J
PAH (ug/kg)	
Acenaphthene	269
Acenaphthylene	74.5 J
Anthracene	583
Benzo(a)anthracene	1,430 (224 or MDL)
Benzo(a)pyrene	1,300 (61 or MDL)
Benzo(b)fluoranthene	994
Benzo(g,h,i)perylene	648
Benzo(k)fluoranthene	1,020
Chrysene	1,570 (400)
Dibenzo(a,h)anthracene	240 (14.3 or MDL)
Fluoranthene	3,650
Fluorene	229
Indeno(1,2,3-cd)pyrene	671
2-Methylnaphthalene	129
Naphthalene	202
Phenanthrene	2,180
Pyrene	2,810
Total PAH concentration	17,999.5
Total carcinogenic PAHs in terms of BAP Equivalents	1,875
Metals (mg/kg)	
Arsenic	4.2
Beryllium	0.36
Cadmium	0.83
Chromium	17.7
Copper	39.4
Lead	118
Mercury	0.61 R (0.1)
Nickel	23.4
Zinc	87.9 J (50)

	KB-BOT-06 8/11/04
Volatile Organics (ug/kg)	
Acetone	16.5
Carbon Disulfide	2.5 J
Xylenes	0.85 J
PAH (ug/kg)	
Acenaphthene	441
Acenaphthylene	154
Anthracene	1,240
Benzo(a)anthracene	2,340 (224 or MDL)
Benzo(a)pyrene	1,940 (61 or MDL)
Benzo(b)fluoranthene	1,530 (1,100)
Benzo(g,h,i)perylene	998
Benzo(k)fluoranthene	1,460 (1,100)
Chrysene	2,420 (400)
Dibenzo(a,h)anthracene	445 (14.3 or MDL)
Fluoranthene	5,620
Fluorene	644
Indeno(1,2,3-cd)pyrene	1,060
2-Methylnaphthalene	190
Naphthalene	194
Phenanthrene	4,460
Pyrene	4,370
Total PAH concentration	29,506.0
Total carcinogenic PAHs in terms of BAP Equivalents	2,917
Metals (mg/kg)	
Arsenic	5.1
Beryllium	0.39
Cadmium	1.1 (1)
Chromium	20.3
Copper	47.0
Lead	114
Mercury	2.2 R (0.1)
Nickel	33.0 (25)
Zinc	137 J (50)

	KB-BOT-05 8/11/04
Volatile Organics (ug/kg)	
Acetone	8.1 J
Methyl Acetate	20.2
PAH (ug/kg)	
Acenaphthene	162
Acenaphthylene	115
Anthracene	497
Benzo(a)anthracene	1,730 (224 or MDL)
Benzo(a)pyrene	1,540 (61 or MDL)
Benzo(b)fluoranthene	1,490 (1,100)
Benzo(g,h,i)perylene	730
Benzo(k)fluoranthene	1,050
Chrysene	1,870 (400)
Dibenzo(a,h)anthracene	285 (14.3 or MDL)
Fluoranthene	3,930
Fluorene	149
Indeno(1,2,3-cd)pyrene	785
2-Methylnaphthalene	74.4 J
Naphthalene	101
Phenanthrene	1,820
Pyrene	3,240
Total PAH concentration	19,568.4
Total carcinogenic PAHs in terms of BAP Equivalents	2,255
Metals (mg/kg)	
Arsenic	8.1
Beryllium	0.32
Cadmium	2.4 (1)
Chromium	32.4
Copper	81.5 (50)
Lead	180
Mercury	3.4 R (0.1)
Nickel	62.8 (25)
Zinc	243 J (50)

	KB-BOT-02 8/9/04
Volatile Organics (ug/kg)	
Acetone	11.5
PAH (ug/kg)	
Acenaphthene	180
Acenaphthylene	114
Anthracene	531
Benzo(a)anthracene	1,760 (224 or MDL)
Benzo(a)pyrene	1,540 (61 or MDL)
Benzo(b)fluoranthene	1,650 (1,100)
Benzo(g,h,i)perylene	1,090
Benzo(k)fluoranthene	928
Chrysene	1,880 (400)
Dibenzo(a,h)anthracene	382 (14.3 or MDL)
Fluoranthene	4,340
Fluorene	156
Indeno(1,2,3-cd)pyrene	1,030
2-Methylnaphthalene	96.2
Naphthalene	163
Phenanthrene	2,020
Pyrene	3,240
Total PAH concentration	21,100.2
Total carcinogenic PAHs in terms of BAP Equivalents	2,394
Metals (mg/kg)	
Arsenic	5.8
Beryllium	0.41
Cadmium	1.5 (1)
Chromium	21.4
Copper	56.8 (50)
Lead	194
Mercury	1.8 R (0.1)
Nickel	32.7 (25)
Zinc	179 J (50)

	KB-SW-01 7/13/04
Volatile Organics (ug/kg)	
Methylene Chloride	9.0 J
Xylenes	0.83 J
PAH (ug/kg)	
Acenaphthene	175
Acenaphthylene	238
Anthracene	604
Benzo(a)anthracene	2,100 (224 or MDL)
Benzo(a)pyrene	1,920 (61 or MDL)
Benzo(b)fluoranthene	2,330 (1,100)
Benzo(g,h,i)perylene	1,240
Benzo(k)fluoranthene	779
Chrysene	2,060 (400)
Dibenzo(a,h)anthracene	338 (14.3 or MDL)
Fluoranthene	4,240
Fluorene	161
Indeno(1,2,3-cd)pyrene	1,450
2-Methylnaphthalene	56.1 J
Naphthalene	67.4 J
Phenanthrene	2,020
Pyrene	4,130
Total PAH concentration	23,908.5
Total carcinogenic PAHs in terms of BAP Equivalents	2,874
Metals (mg/kg)	
Arsenic	4.2
Chromium	24.1 J
Copper	35.4
Lead	95.6 J
Mercury	0.34 J (0.1)
Nickel	16.0
Selenium	1.5 J
Zinc	98.8 J (50)

	KB-SW-08 7/21/04
Volatile Organics (ug/kg)	ND
PAH (ug/kg)	
Acenaphthene	172 J
Acenaphthylene	93.9 J
Anthracene	405
Benzo(a)anthracene	1,540 (224 or MDL)
Benzo(a)pyrene	1,400 J (61 or MDL)
Benzo(b)fluoranthene	1,510 J (1,100)
Benzo(g,h,i)perylene	627 J
Benzo(k)fluoranthene	1,190 J (1,100)
Chrysene	1,550 (400)
Dibenzo(a,h)anthracene	241 J (14.3 or MDL)
Fluoranthene	3,000
Fluorene	165 J
Indeno(1,2,3-cd)pyrene	619 J
2-Methylnaphthalene	105 J
Naphthalene	128 J
Phenanthrene	1,490
Pyrene	3,350
Total PAH concentration	17,585.9
Total carcinogenic PAHs in terms of BAP Equivalents	2,035
Metals (mg/kg)	
Arsenic	3.7
Beryllium	0.40 J
Chromium	20.1 J
Copper	41.9
Lead	100 J
Mercury	0.51 (0.1)
Nickel	18.3 J
Zinc	92.6 J (50)

	KB-SW-10 7/23/04
Volatile Organics (ug/kg)	ND
PAH (ug/kg)	
Acenaphthene	330 J
Acenaphthylene	255 J
Anthracene	1,000
Benzo(a)anthracene	3,750 (224 or MDL)
Benzo(a)pyrene	3,270 (61 or MDL)
Benzo(b)fluoranthene	3,590 (1,100)
Benzo(g,h,i)perylene	1,400
Benzo(k)fluoranthene	2,400 (1,100)
Chrysene	3,740 (400)
Dibenzo(a,h)anthracene	455 (14.3 or MDL)
Fluoranthene	7,780
Fluorene	298 J
Indeno(1,2,3-cd)pyrene	1,340
2-Methylnaphthalene	165 J
Naphthalene	223 J
Phenanthrene	3,900
Pyrene	8,530
Total PAH concentration	42,426.0
Total carcinogenic PAHs in terms of BAP Equivalents	4,654
Metals (mg/kg)	
Arsenic	7.3
Beryllium	0.60 J
Cadmium	0.76
Chromium	25.0 J
Copper	68.3 (50)
Lead	132 J
Mercury	1.3 (0.1)
Nickel	34.4 J (25)
Zinc	148 J (50)

	KB-BOT-10 8/13/04	KB-BOT-11 8/13/04
Volatile Organics (ug/kg)		
Methyl Acetate	9.7	14.3
PAH (ug/kg)		
Acenaphthene	84.3	99.2
Acenaphthylene	94.0	87.2
Anthracene	322	299
Benzo(a)anthracene	993 (224 or MDL)	990 (224 or MDL)
Benzo(a)pyrene	964 (61 or MDL)	918 (61 or MDL)
Benzo(b)fluoranthene	867	771
Benzo(g,h,i)perylene	562	493
Benzo(k)fluoranthene	683	761
Chrysene	1,150 (400)	1,120 (400)
Dibenzo(a,h)anthracene	211 (14.3 or MDL)	170 (14.3 or MDL)
Fluoranthene	2,370	2,230
Fluorene	89.1	93.7
Indeno(1,2,3-cd)pyrene	557	497
2-Methylnaphthalene	28.7 J	37.0 J
Naphthalene	36.2 J	43.4 J
Phenanthrene	1,100	1,030
Pyrene	1,830	1,790
Total PAH concentration	11,941.3	11,429.5
Total carcinogenic PAHs in terms of BAP Equivalents	1,435	1,333
Metals (mg/kg)		
Arsenic	3.3	4.9
Beryllium	0.34	0.37
Cadmium	0.74	1.2 (1)
Chromium	16.6	19.4
Copper	54.7 (50)	43.6
Lead	124	135
Mercury	0.59 R (0.1)	0.53 R (0.1)
Nickel	15.6	18.1
Zinc	91.5 J (50)	123 J (50)

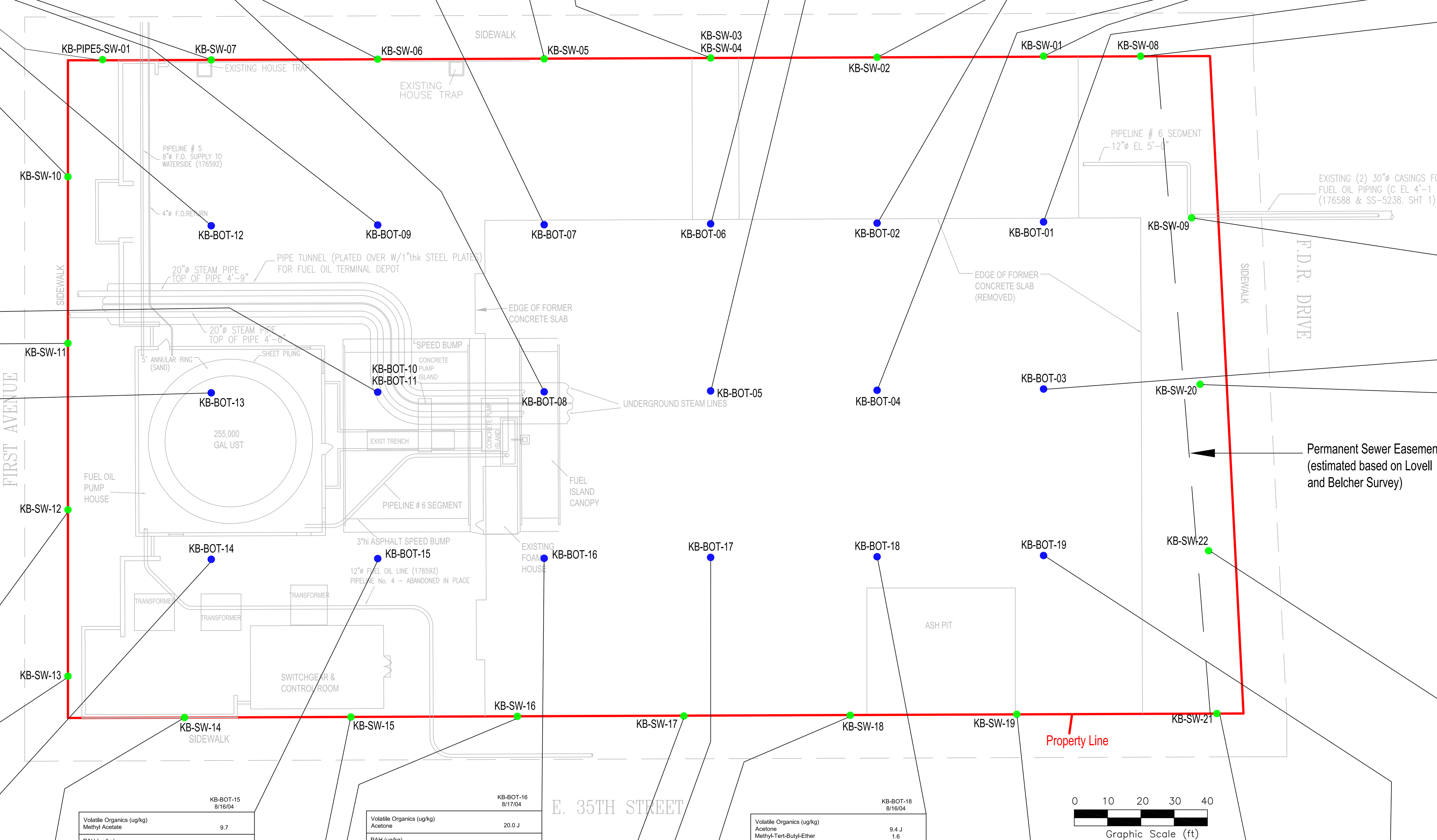
	KB-SW-11 7/23/04
Volatile Organics (ug/kg)	ND
PAH (ug/kg)	
Benzo(a)anthracene	69.5 J
Benzo(a)pyrene	64.7 J (61 or MDL)
Benzo(b)fluoranthene	102
Benzo(g,h,i)perylene	39.2 J
Benzo(k)fluoranthene	63.8 J
Chrysene	79.5 J
Fluoranthene	136
Phenanthrene	59.5 J
Pyrene	114
Total PAH concentration	728.2
Total carcinogenic PAHs in terms of BAP Equivalents	83
Metals (mg/kg)	
Arsenic	3.2
Beryllium	0.59 J
Chromium	21.6 J
Copper	79.4 (50)
Lead	140 J
Mercury	0.11 (0.1)
Nickel	20.3 J
Zinc	86.6 J (50)

	KB-BOT-13 8/16/04
Volatile Organics (ug/kg)	ND
PAH (ug/kg)	
Acenaphthene	40.1 J
Anthracene	93.1
Benzo(a)anthracene	384 (224 or MDL)
Benzo(a)pyrene	387 (61 or MDL)
Benzo(b)fluoranthene	405
Benzo(g,h,i)perylene	205
Benzo(k)fluoranthene	392
Chrysene	423 (400)
Dibenzo(a,h)anthracene	56.0 J (14.3 or MDL)
Fluoranthene	791
Fluorene	26.3 J
Indeno(1,2,3-cd)pyrene	225
Phenanthrene	357
Pyrene	687
Total PAH concentration	4,471.5
Total carcinogenic PAHs in terms of BAP Equivalents	553
Metals (mg/kg)	
Arsenic	4.5
Beryllium	0.43 J
Cadmium	0.97
Chromium	20.2
Copper	52.4 (50)
Lead	149
Mercury	0.49 R (0.1)
Nickel	20.9
Zinc	137 J (50)

	KB-SW-12 7/27/04
Volatile Organics (ug/kg)	ND
PAH (ug/kg)	
Acenaphthene	71.9 J
Acenaphthylene	51.4 J
Anthracene	221
Benzo(a)anthracene	1,070 J (224 or MDL)
Benzo(a)pyrene	987 J (61 or MDL)
Benzo(b)fluoranthene	1,580 J (1,100)
Benzo(g,h,i)perylene	477 J
Benzo(k)fluoranthene	595 J
Chrysene	1,020 J (400)
Dibenzo(a,h)anthracene	118 J (14.3 or MDL)
Fluoranthene	1,950
Fluorene	57.3 J
Indeno(1,2,3-cd)pyrene	524 J
2-Methylnaphthalene	29.0 J
Naphthalene	29.8 J
Phenanthrene	947
Pyrene	2,660 J
Total PAH concentration	12,388.4
Total carcinogenic PAHs in terms of BAP Equivalents	1,439
Metals (mg/kg)	
Arsenic	4.3
Beryllium	0.47 J
Chromium	21.7
Copper	58.4 J (50)
Lead	119 J
Mercury	1.2 J (0.1)
Nickel	30.0 (25)
Zinc	126 J (50)

	KB-SW-09 7/21/04
Volatile Organics (ug/kg)	
Acetone	10.6 J
PAH (ug/kg)	
Acenaphthene	150 J
Acenaphthylene	107 J
Anthracene	497
Benzo(a)anthracene	2,120 (224 or MDL)
Benzo(a)pyrene	1,880 (61 or MDL)
Benzo(b)fluoranthene	2,010 (1,100)
Benzo(g,h,i)perylene	829
Benzo(k)fluoranthene	1,410 (1,100)
Chrysene	2,030 (400)
Dibenzo(a,h)anthracene	265 J (14.3 or MDL)
Fluoranthene	4,160
Fluorene	132 J
Indeno(1,2,3-cd)pyrene	782
2-Methylnaphthalene	124 J
Naphthalene	146 J
Phenanthrene	1,530
Pyrene	4,000
Total PAH concentration	22,172.0
Total carcinogenic PAHs in terms of BAP Equivalents	2,671
Metals (mg/kg)	
Arsenic	3.7
Chromium	16.3 J
Copper	40.2
Lead	109 J
Mercury	0.87 (0.1)
Nickel	22.8 J
Zinc	101 J (50)

	KB-BOT-03 8/9/04
Volatile Organics (ug/kg)	
Acetone	9.8 J
Methylene Chloride	3.7 J
PAH (ug/kg)	
Acenaphthene	183
Acenaphthylene	40.7 J
Anthracene	385
Benzo(a)anthracene	1,080 (224 or MDL)
Benzo(a)pyrene	998 (61 or MDL)
Benzo(b)fluoranthene	865
Benzo(g,h,i)perylene	695
Benzo(k)fluoranthene	784
Chrysene	1,140 (400)
Dibenzo(a,h)anthracene	197 (14.3 or MDL)
Fluoranthene	2,490
Fluorene	143
Indeno(1,2,3-cd)pyrene	623
2-Methylnaphthalene	104
Naphthalene	248
Phenanthrene	1,340
Pyrene	1,920
Total PAH concentration	13,235.7
Total carcinogenic PAHs in terms of BAP Equivalents	1,471
Metals (mg/kg)	
Arsenic	6.6
Beryllium	0.38
Cadmium	1.5 (1)
Chromium	20.4
Copper	39.6
Lead	139
Mercury	0.82 R (0.1)
Nickel	19.1
Zinc	195 J (50)



	KB-SW-20 8/11/04
Volatile Organics (ug/kg)	
Methyl Acetate	47.1
PAH (ug/kg)	
Acenaphthene	204
Acenaphthylene	104
Anthracene	629
Benzo(a)anthracene	2,050 (224 or MDL)
Benzo(a)pyrene	1,770 (61 or MDL)
Benzo(b)fluoranthene	1,600 (1,100)
Benzo(g,h,i)perylene	926
Benzo(k)fluoranthene	1,290 (1,100)
Chrysene	2,260 (400)
Dibenzo(a,h)anthracene	388 (14.3 or MDL)
Fluoranthene	4,350
Fluorene	226
Indeno(1,2,3-cd)pyrene	983
2-Methylnaphthalene	107
Naphthalene	143
Phenanthrene	2,300
Pyrene	3,800
Total PAH concentration	23,130.0
Total carcinogenic PAHs in terms of BAP Equivalents	2,657
Metals (mg/kg)	
Arsenic	4.8
Beryllium	0.35
Cadmium	1.1 (1)
Chromium	18.8 J
Copper	60.9 J (50)
Lead	109 J
Mercury	0.82 (0.1)
Nickel	25.4 J (25)
Zinc	126 (50)

	KB-SW-13 7/27/04
Volatile Organics (ug/kg)	
Methyl Acetate	9.0
Toluene	1.4
PAH (ug/kg)	
Acenaphthene	177
Acenaphthylene	108
Anthracene	444
Benzo(a)anthracene	1,840 J (224 or MDL)
Benzo(a)pyrene	1,720 J (61 or MDL)
Benzo(b)fluoranthene	2,650 J (1,100)
Benzo(g,h,i)perylene	790 J
Benzo(k)fluoranthene	939 J
Chrysene	1,760 J (400)
Dibenzo(a,h)anthracene	193 J (14.3 or MDL)
Fluoranthene	3,720
Fluorene	139
Indeno(1,2,3-cd)pyrene	871 J
2-Methylnaphthalene	54.8 J
Naphthalene	67.3 J
Phenanthrene	1,870
Pyrene	4,520 J
Total PAH concentration	21,863.1
Total carcinogenic PAHs in terms of BAP Equivalents	2,476
Metals (mg/kg)	
Arsenic	7.1
Beryllium	0.41 J
Chromium	27.0
Copper	71.8 J (50)
Lead	165 J
Mercury	2.3 J (0.1)
Nickel	29.6 (25)
Zinc	166 J (50)

	KB-BOT-14 8/16/04
Volatile Organics (ug/kg)	
Methyl Acetate	6.3
Methylene Chloride	1.6 J
PAH (ug/kg)	
Acenaphthene	161
Acenaphthylene	21.0 J
Anthracene	274
Benzo(a)anthracene	1,020 (224 or MDL)
Benzo(a)pyrene	967 (61 or MDL)
Benzo(b)fluoranthene	1,250 (1,100)
Benzo(g,h,i)perylene	319
Benzo(k)fluoranthene	969
Chrysene	1,130 (400)
Dibenzo(a,h)anthracene	92.4 (14.3 or MDL)
Fluoranthene	2,460
Fluorene	104
Indeno(1,2,3-cd)pyrene	336
2-Methylnaphthalene	30.6 J
Naphthalene	43.8 J
Phenanthrene	1,230
Pyrene	2,050
Total PAH concentration	12,457.8
Total carcinogenic PAHs in terms of BAP Equivalents	1,341
Metals (mg/kg)	
Arsenic	5.0
Beryllium	0.40 J
Cadmium	0.82
Chromium	19.4
Copper	41.0
Lead	113
Mercury	0.51 R (0.1)
Nickel	17.2
Zinc	106 J (50)

	KB-BOT-15 8/16/04
Volatile Organics (ug/kg)	
Methyl Acetate	9.7
PAH (ug/kg)	
Acenaphthene	80.5
Acenaphthylene	60.4 J
Anthracene	272
Benzo(a)anthracene	855 (224 or MDL)
Benzo(a)pyrene	857 (61 or MDL)
Benzo(b)fluoranthene	936
Benzo(g,h,i)perylene	274
Benzo(k)fluoranthene	792
Chrysene	901 (400)
Dibenzo(a,h)anthracene	74.9 J (14.3 or MDL)
Fluoranthene	1,870
Fluorene	72.1 J
Indeno(1,2,3-cd)pyrene	302
2-Methylnaphthalene	36.1 J
Naphthalene	29.4 J
Phenanthrene	960
Pyrene	1,820
Total PAH concentration	10,192.4
Total carcinogenic PAHs in terms of BAP Equivalents	1,158
Metals (mg/kg)	
Arsenic	3.6
Cadmium	0.77
Chromium	15.4
Copper	36.1
Lead	140
Mercury	0.99 R (0.1)
Nickel	14.3
Zinc	93.1 J (50)

	KB-BOT-16 8/17/04
Volatile Organics (ug/kg)	
Acetone	20.0 J
PAH (ug/kg)	
Acenaphthene	222
Acenaphthylene	59.7 J
Anthracene	516
Benzo(a)anthracene	1,190 (224 or MDL)
Benzo(a)pyrene	1,000 (61 or MDL)
Benzo(b)fluoranthene	1,180 (1,100)
Benzo(g,h,i)perylene	288
Benzo(k)fluoranthene	919
Chrysene	1,160 (400)
Dibenzo(a,h)anthracene	82.1 (14.3 or MDL)
Fluoranthene	2,820
Fluorene	226
Indeno(1,2,3-cd)pyrene	315
2-Methylnaphthalene	117
Naphthalene	246
Phenanthrene	1,970
Pyrene	2,440
Total PAH concentration	14,750.8
Total carcinogenic PAHs in terms of BAP Equivalents	1,371
Metals (mg/kg)	
Arsenic	4.9
Cadmium	1.1 (1)
Chromium	23.3
Copper	68.3 (50)
Lead	99.2
Mercury	1.0 R (0.1)
Nickel	41.4 (25)
Zinc	134 J (50)

	KB-BOT-18 8/16/04
Volatile Organics (ug/kg)	
Acetone	9.4 J
Methyl-Tert-Butyl-Ether	1.6
Methylene Chloride	2.2 J
PAH (ug/kg)	
Acenaphthene	489
Acenaphthylene	67.7 J
Anthracene	1,150
Benzo(a)anthracene	2,560 (224 or MDL)
Benzo(a)pyrene	2,130 (61 or MDL)
Benzo(b)fluoranthene	2,620 (1,100)
Benzo(g,h,i)perylene	553
Benzo(k)fluoranthene	1,810 (1,100)
Chrysene	2,530 (400)
Dibenzo(a,h)anthracene	165 (14.3 or MDL)
Fluoranthene	6,950
Fluorene	526
Indeno(1,2,3-cd)pyrene	636
2-Methylnaphthalene	118
Naphthalene	194
Phenanthrene	4,010
Pyrene	6,130
Total PAH concentration	32,638.7
Total carcinogenic PAHs in terms of BAP Equivalents	2,920
Metals (mg/kg)	
Arsenic	5.2
Beryllium	0.38 J
Cadmium	1.3 (1)
Chromium	22.6
Copper	70.1
Lead	113
Mercury	1.1 R (0.1)
Nickel	29.2 (25)
Zinc	145 J (50)

	KB-SW-22 8/20/04
Volatile Organics (ug/kg)	
Acetone	11.1 J
Methyl-Tert-Butyl-Ether	1.5
Methylene Chloride	2.0 J
Toluene	1.3
Xylenes	1.6 J
PAH (ug/kg)	
Acenaphthene	166
Acenaphthylene	54.5 J
Anthracene	423
Benzo(a)anthracene	1,570 (224 or MDL)
Benzo(a)pyrene	1,460 (61 or MDL)
Benzo(b)fluoranthene	1,600 (1,100)
Benzo(g,h,i)perylene	398
Benzo(k)fluoranthene	1,260 (1,100)
Chrysene	1,580 (400)
Dibenzo(a,h)anthracene	121 (14.3 or MDL)
Fluoranthene	2,780
Fluorene	165
Indeno(1,2,3-cd)pyrene	472
2-Methylnaphthalene	94.5
Naphthalene	198
Phenanthrene	1,490
Pyrene	3,160
Total PAH concentration	16,992.0
Total carcinogenic PAHs in terms of BAP Equivalents	1,974
Metals (mg/kg)	
Arsenic	4.7
Beryllium	0.39
Cadmium	1.2 (1)
Chromium	22.3 J
Copper	46.5 J
Lead	140 J
Mercury	0.83 (0.1)
Nickel	33.4 J (25)
Zinc	180 (50)

LEGEND

KB-BOT-03 (blue dot)	TRC Bottom End Point Sample. All bottom samples were collected within 1 foot below development depth. Bottom end point samples were collected approximately every 50 feet.
KB-SW-20 (green dot)	TRC Sidewall End Point Sample. All sidewall samples were collected within 1 foot below development depth. Sidewall end point samples were collected approximately every 50 feet.
1,140 (400)	Result exceeds soil cleanup criterion (TAGM RSCO). Criterion omitted where result does not exceed criterion.
J	Estimated Value
ND	Non-Detect
ug/kg	All volatile and semi-volatile sample result concentrations are in micrograms per kilogram (ug/kg).
mg/kg	All metals sample result concentrations are in millgrams per kilogram (mg/kg). Metals standards based on highest background range of Eastern USA.
Cleanup Criterion	New York State Technical Assistance Guidance Memorandum (TAGM) 4046, January 24, 1994, and December 2000 revisions, Residential Soil Cleanup Objectives (RSCO) and Revisions (1998).
Source	Base map by GeoEnvironmental, Inc. provided by Con Edison.
(red line)	Property Line

Notes

1. All structures shown in background in grayscale have been demolished and removed from the Site.
2. Only detected compounds are shown.
3. Soil samples obtained from soil below Development Depth (just below the mean high water table - elevation -0.4 feet in the Manhattan Datum).

	KB-SW-14 7/28/04
Volatile Organics (ug/kg)	
Methyl Acetate	42.8
PAH (ug/kg)	
Acenaphthene	96.5 J
Acenaphthylene	52.6 J
Anthracene	231 J
Benzo(a)anthracene	825 J (224 or MDL)
Benzo(a)pyrene	757 J (61 or MDL)
Benzo(b)fluoranthene	1,200 J (1,100)
Benzo(g,h,i)perylene	316 J
Benzo(k)fluoranthene	417 J
Chrysene	804 J (400)
Dibenzo(a,h)anthracene	84.5 J (14.3 or MDL)
Fluoranthene	1,720 J
Fluorene	83.4 J
Indeno(1,2,3-cd)pyrene	358 J
Naphthalene	28.6 J
Phenanthrene	972 J
Pyrene	1,920 J
Total PAH concentration	9,865.6
Total carcinogenic PAHs in terms of BAP Equivalents	1,092
Metals (mg/kg)	
Arsenic	3.4
Beryllium	0.41 J
Chromium	15.8
Copper	48.3 J
Lead	165 J
Mercury	0.66 J (0.1)
Nickel	17.8
Zinc	141 J (50)

	KB-SW-15 7/30/04
Volatile Organics (ug/kg)	
Methyl Acetate	12.6
PAH (ug/kg)	
Acenaphthene	158
Acenaphthylene	83.5
Anthracene	520
Benzo(a)anthracene	1,830 (224 or MDL)
Benzo(a)pyrene	1,610 (61 or MDL)
Benzo(b)fluoranthene	1,530 (1,100)
Benzo(g,h,i)perylene	995
Benzo(k)fluoranthene	1,150 (1,100)
Chrysene	1,810 (400)
Dibenzo(a,h)anthracene	291 (14.3 or MDL)
Fluoranthene	3,810
Fluorene	142
Indeno(1,2,3-cd)pyrene	908
2-Methylnaphthalene	38.9 J
Naphthalene	43.5 J
Phenanthrene	1,980
Pyrene	3,280
Total PAH concentration	20,179.9
Total carcinogenic PAHs in terms of BAP Equivalents	2,357
Metals (mg/kg)	
Arsenic	3.6
Beryllium	0.52 J
Cadmium	2.0 (1)
Chromium	25.7 J
Copper	80.9 J (50)
Lead	342 R
Mercury	1.7 J (0.1)
Nickel	39.6 J (25)
Zinc	245 R (50)

	KB-SW-16 8/2/04
Volatile Organics (ug/kg)	
Acetone	11.6 J
Ethylbenzene	3.2
Methyl Acetate	9.4
Methylcyclohexane	3.4 J
Toluene	2.2
Xylenes	15.3
PAH (ug/kg)	
Acenaphthene	486
Acenaphthylene	131
Anthracene	1,360
Benzo(a)anthracene	3,360 (224 or MDL)
Benzo(a)pyrene	2,980 (61 or MDL)
Benzo(b)fluoranthene	2,560 (1,100)
Benzo(g,h,i)perylene	1,560
Benzo(k)fluoranthene	2,000 (1,100)
Chrysene	3,140 (400)
Dibenzo(a,h)anthracene	430 (14.3 or MDL)
Fluoranthene	6,660
Fluorene	516
Indeno(1,2,3-cd)pyrene	1,430
2-Methylnaphthalene	172
Naphthalene	189
Phenanthrene	4,930
Pyrene	6,070
Total PAH concentration	37,974.0
Total carcinogenic PAHs in terms of BAP Equivalents	4,196
Metals (mg/kg)	
Arsenic	5.9
Beryllium	0.42 J
Cadmium	1.4 (1)
Chromium	48.2 J (40)
Copper	63.8 J (50)
Lead	120 R
Mercury	1.2 J (0.1)
Nickel	75.2 J (25)
Selenium	1.3 J
Zinc	153 R (50)

	KB-SW-17 8/3/04
Volatile Organics (ug/kg)	
Acetone	10.2 J
Ethylbenzene	0.85 J
Xylenes	4.0 J
PAH (ug/kg)	
Acenaphthene	178 J
Anthracene	460 J
Benzo(a)anthracene	1,480 J (224 or MDL)
Benzo(a)pyrene	1,240 J (61 or MDL)
Benzo(b)fluoranthene	1,160 J (1,100)
Benzo(g,h,i)perylene	814
Benzo(k)fluoranthene	1,170 J (1,100)
Chrysene	1,610 J (400)
Fluoranthene	2,990
Fluorene	212 J
Indeno(1,2,3-cd)pyrene	666
Naphthalene	156 J
Phenanthrene	1,640
Pyrene	3,490 J
Total PAH concentration	17,266.0
Total carcinogenic PAHs in terms of BAP Equivalents	1,598
Metals (mg/kg)	
Arsenic	4.3
Chromium	21.0 J
Copper	49.6 J
Lead	144
Mercury	0.95 J (0.1)
Nickel	37.5 J (25)
Zinc	107 (50)

	KB-BOT-17 8/17/04
Volatile Organics (ug/kg)	
Acetone	10.6 J
Methyl-Tert-Butyl-Ether	1.7
PAH (ug/kg)	
Acenaphthene	213
Acenaphthylene	79.8 J
Anthracene	481
Benzo(a)anthracene	1,400 (224 or MDL)
Benzo(a)pyrene	1,220 (61 or MDL)
Benzo(b)fluoranthene	1,420 (1,100)
Benzo(g,h,i)perylene	391
Benzo(k)fluoranthene	854
Chrysene	1,400 (400)
Dibenzo(a,h)anthracene	125 (14.3 or MDL)
Fluoranthene	3,140
Fluorene	182
Indeno(1,2,3-cd)pyrene	430
2-Methylnaphthalene	118
Naphthalene	231
Phenanthrene	1,520
Pyrene	2,660
Total PAH concentration	15,864.8
Total carcinogenic PAHs in terms of BAP Equivalents	1,693
Metals (mg/kg)	
Arsenic	6.4
Beryllium	0.48 J
Cadmium	1.4 (1)
Chromium	32.6
Copper	201 (50)
Lead	161
Mercury	1.2 R (0.1)
Nickel	40.4 (25)
Zinc	217 J (50)

	KB-SW-18 8/4/04
Volatile Organics (ug/kg)	
Acetone	14.1 J
Carbon Disulfide	2.3 J
Xylenes	2.3 J
PAH (ug/kg)	
Acenaphthene	519
Acenaphthylene	79.3
Anthracene	880
Benzo(a)anthracene	1,740 (224 or MDL)
Benzo(a)pyrene	1,480 (61 or MDL)
Benzo(b)fluoranthene	1,440 (1,100)
Benzo(g,h,i)perylene	397
Benzo(k)fluoranthene	1,160 (1,100)
Chrysene	1,650 (400)
Dibenzo(a,h)anthracene	147 (14.3 or MDL)
Fluoranthene	3,830
Fluorene	477
Indeno(1,2,3-cd)pyrene	427
2-Methylnaphthalene	302
Naphthalene	334
Phenanthrene	3,560
Pyrene	3,660
Total PAH concentration	22,082.3
Total carcinogenic PAHs in terms of BAP Equivalents	2,016
Metals (mg/kg)	
Arsenic	6.6
Beryllium	0.39
Chromium	30.1 J
Copper	71.2 J (50)
Lead	84.3
Mercury	1.0 (0.1)
Nickel	54.9 J (25)
Zinc	87.7 (50)

	KB-SW-19 8/4/04
Volatile Organics (ug/kg)	
Acetone	13 J
Carbon Disulfide	7.7 J
Xylenes	1.3 J
PAH (ug/kg)	
Acenaphthene	569
Anthracene	1,190
Benzo(a)anthracene	2,100 (224 or MDL)
Benzo(a)pyrene	2,100 (61 or MDL)
Benzo(b)fluoranthene	1,850 (1,100)
Benzo(g,h,i)perylene	883
Benzo(k)fluoranthene	1,680 (1,100)
Chrysene	2,090 (400)
Fluoranthene	4,560
Fluorene	649
Indeno(1,2,3-cd)pyrene	924
2-Methylnaphthalene	378 J
Naphthalene	759
Phenanthrene	4,380
Pyrene	4,760
Total PAH concentration	28,872.0
Total carcinogenic PAHs in terms of BAP Equivalents	2,625
Metals (mg/kg)	
Arsenic	7.2
Beryllium	0.41
Cadmium	0.64
Chromium	19.4 J
Copper	104 J (50)
Lead	154
Mercury	0.83 (0.1)
Nickel	50.3 J (25)
Zinc	166 (50)

	KB-SW-21 8/20/04
Volatile Organics (ug/kg)	
Acetone	24.7
Methyl-Tert-Butyl-Ether	2.1
Toluene	1.1 J
Xylenes	2.4 J
PAH (ug/kg)	
Acenaphthene	268
Acenaphthylene	65.9 J
Anthracene	751
Benzo(a)anthracene	1,790 (224 or MDL)
Benzo(a)pyrene	1,610 (61 or MDL)
Benzo(b)fluoranthene	1,680 (1,100)
Benzo(g,h,i)perylene	422
Benzo(k)fluoranthene	1,200 (1,100)
Chrysene	1,760 (400)
Dibenzo(a,h)anthracene	129 (14.3 or MDL)
Fluoranthene	4,220
Fluorene	247
Indeno(1,2,3-cd)pyrene	504
2-Methylnaphthalene	110
Naphthalene	198
Phenanthrene	2,700
Pyrene	3,730
Total PAH concentration	21,384.9
Total carcinogenic PAHs in terms of BAP Equivalents	2,166
Metals (mg/kg)	
Arsenic	4.9
Beryllium	0.38
Cadmium	1.3 (1)
Chromium	24.8 J
Copper	55.8 J (50)
Lead	114 J
Mercury	0.93 (0.1)
Nickel	29.3 J (25)
Zinc	131 (50)

	KB-BOT-19 8/20/04
Volatile Organics (ug/kg)	
Acetone	32.2 J
Carbon Disulfide	1.7 J
113 Freon	0.80 J
Methyl-Tert-Butyl-Ether	1.4 J
Toluene	1.9 J
Xylenes	4.1 J
PAH (ug/kg)	
Acenaphthene	228
Acenaphthylene	47.4 J
Anthracene	523
Benzo(a)anthracene	1,440 (224 or MDL)
Benzo(a)pyrene	1,210 (61 or MDL)
Benzo(b)fluoranthene	1,500 (1,100)
Benzo(g,h,i)perylene	330
Benzo(k)fluoranthene	926
Chrysene	1,460 (400)
Dibenzo(a,h)anthracene	106 (14.3 or MDL)
Fluoranthene	3,290
Fluorene	189
Indeno(1,2,3-cd)pyrene	384
2-Methylnaphthalene	89.1
Naphthalene	157
Phenanthrene	1,890
Pyrene	2,920
Total PAH concentration	16,689.5
Total carcinogenic PAHs in terms of BAP Equivalents	1,672
Metals (mg/kg)	
Arsenic	4.9
Beryllium	0.41 J
Cadmium	1.2 (1)
Chromium	19.3
Copper	50.4 (50)
Lead	122
Mercury	0.94 R (0.1)
Nickel	29.0 (25)
Zinc	141 J (50)

Kips Bay Fuel Terminal
616 First Avenue
New York, NY

TRC
1200 Wall Street West, 2nd Floor
Lyndhurst, New Jersey 07071

Designed by: MAS	Date: 4/13/07
Drawn by: LM	Scale: As Shown
File Name: Appendix D.dwg	Project Number: 28410-OM02-9110T

APPENDIX D

Drawing Title:

Soil Below Development Depth Map

S:\First Avenue Files\Kips Bay Fuel Terminal\SMP\Appendix D.dwg

Appendix E
NYSDEC Allowable Constituent Levels for Imported Soil

APPENDIX E
NYSDEC CRITERIA FOR IMPORTED SOILS
SITE MANAGEMENT PLAN
FORMER KIPS BAY FUEL TERMINAL
616 FIRST AVENUE, NEW YORK NEW YORK

VOLATILE ORGANIC COMPOUNDS (VOCs)	Residential Use	Restricted Residential Use
1,1,1-Trichloroethane	0.68	0.68
1,1-Dichloroethane	0.27	0.27
1,1-Dichloroethene	0.33	0.33
1,2,4-Trimethylbenzene	3.6	3.6
1,2-Dichlorobenzene	1.1	1.1
1,2-Dichloroethane	0.02	0.02
1,3,5-Trimethylbenzene	8.4	8.4
1,3-Dichlorobenzene	2.4	2.4
1,4-Dichlorobenzene	1.8	1.8
1,4-Dioxane	0.1	0.1
Acetone	0.05	0.05
Benzene	0.06	0.06
Carbon tetrachloride	0.76	0.76
Chlorobenzene	1.1	1.1
Chloroform	0.37	0.37
cis-1,2-Dichloroethene	0.25	0.25
Ethylbenzene	1	1
Methylene Chloride	0.05	0.05
MTBE	0.93	0.93
n-Butylbenzene	12	12
N-Propylbenzene	3.9	3.9
sec-Butylbenzene	11	11
tert-Butylbenzene	5.9	5.9
Tetrachloroethene	1.3	1.3
Toluene	0.7	0.7
trans-1,2-Dichloroethene	0.19	0.19
Trichloroethene	0.47	0.47
Vinyl chloride	0.02	0.02
Xylenes, Total	1.6	1.6

SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)	Residential Use	Restricted Residential Use
Acenaphthene	98	98
Acenaphthylene	100	100
Anthracene	100	100
Benzo[a]anthracene	1	1
Benzo[a]pyrene	1	1
Benzo[b]fluoranthene	1	1
Benzo[g,h,i]perylene	100	100
Benzo[k]fluoranthene	1	1.7
Chrysene	1	1
Dibenz(a,h)anthracene	0.33	0.33
Dibenzofuran	14	59
Fluoranthene	100	100
Fluorene	100	100
Hexachlorobenzene	0.33	1.2
Indeno[1,2,3-cd]pyrene	0.5	0.5
m-Cresol	0.33	0.33
o-Cresol	0.33	0.33
p-Cresol	0.33	0.33
Naphthalene	12	12
Pentachlorophenol	0.8	0.8
Phenanthrene	100	100
Phenol	0.33	0.33
Pyrene	100	100

METALS	Residential Use	Restricted Residential Use
Arsenic	16	16
Barium	350	400
Beryllium	14	47
Cadmium	2.5	4.3
Chromium, hexavalent	19	19
Chromium, trivalent	36	180
Copper	270	270
Cyanide, Total	27	27
Lead	400	400
Manganese	2000	2000
Mercury	0.73	0.73
Nickel	130	130
Selenium	4	4
Silver	8.3	8.3
Zinc	2200	2480

POLYCHLORINATED BIPHENYLS (PCBs)/PESTICIDES	Residential Use	Restricted Residential Use
Total PCBs	1	1
4,4'-DDD	2.6	13
4,4'-DDE	1.8	8.9
4,4'-DDT	1.7	7.9
Aldrin	0.019	0.097
alpha-BHC	0.02	0.02
beta-BHC	0.072	0.09
Chlordane (alpha)	0.91	2.9
delta-BHC	0.25	0.25
Dieldrin	0.039	0.1
Endosulfan I	NC	NC
Endosulfan II	NC	NC
Endosulfan sulfate	NC	NC
Total Endosulfans	4.8	24
Endrin	0.06	0.06
gamma-BHC (Lindane)	0.1	0.1
Heptachlor	0.38	0.38
Silvex (2,4,5-TP)	3.8	3.8

NOTES:
1) Concentrations presented in mg/kg - milligrams per kilogram.
2) All levels from 6 NYCRR 375-6. Table 375-6.8(b) Restricted Use Soil Cleanup Objectives, in accordance with 6 NYCRR Part 375-6.7(d)(1)(ii)(b).
3) Residential Use allowable levels apply to soils to be placed above Development Depth.
4) Restricted Residential Use allowable levels apply to soils to be placed below Development Depth.
5) NC - No criterion.

Appendix F
Environmental Easements

ENVIRONMENTAL EASEMENT GRANTED PURSUANT TO ARTICLE 71, TITLE 36 OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW

THIS INDENTURE made this 17th day of August, 2011, between Owner 700 First Realty Company, LLC, having an office c/o Solow Realty & Development Company, LLC at 9 West 57th Street, County of New York, State of New York (the "Grantor"), and The People of the State of New York (the "Grantee"), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233,

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to encourage the remediation of abandoned and likely contaminated properties ("sites") that threaten the health and vitality of the communities they burden while at the same time ensuring the protection of public health and the environment; and

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to establish within the Department a statutory environmental remediation program that includes the use of Environmental Easements as an enforceable means of ensuring the performance of operation, maintenance, and/or monitoring requirements and the restriction of future uses of the land, when an environmental remediation project leaves residual contamination at levels that have been determined to be safe for a specific use, but not all uses, or which includes engineered structures that must be maintained or protected against damage to perform properly and be effective, or which requires groundwater use or soil management restrictions; and

WHEREAS, the Legislature of the State of New York has declared that Environmental Easement shall mean an interest in real property, created under and subject to the provisions of Article 71, Title 36 of the New York State Environmental Conservation Law ("ECL") which contains a use restriction and/or a prohibition on the use of land in a manner inconsistent with engineering controls which are intended to ensure the long term effectiveness of a site remedial program or eliminate potential exposure pathways to hazardous waste or petroleum; and

WHEREAS, Grantor, is the owner of real property located at the address of 700 First Avenue in the City of New York, County of New York and State of New York, known and designated on the tax map of the Borough of Manhattan as tax map Block 970 Lot 1, being the same as that property conveyed to Grantor by deed dated May 31, 2005 and recorded in the City Register of the City of New York in Instrument No. CRFN 2005000335189, comprising approximately 4.47 acres, and hereinafter more fully described in the Land Title Survey dated November 10, 2010, which will be attached to the Site Management Plan. The property description (the "Controlled Property") is set forth in and attached hereto as Schedule A; and

WHEREAS, the Department accepts this Environmental Easement in order to ensure the protection of human health and the environment and to achieve the requirements for remediation established for the Controlled Property until such time as this Environmental Easement is extinguished pursuant to ECL Article 71, Title 36; and

NOW THEREFORE, in consideration of the mutual covenants contained herein and the terms and conditions of BCA Index Number: A2-0515-0405, Grantor conveys to Grantee a permanent Environmental Easement pursuant to ECL Article 71, Title 36 in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement")

1. Purposes. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. Institutional and Engineering Controls. The controls and requirements listed in the Department approved Site Management Plan ("SMP") including any and all Department approved amendments to the SMP are incorporated into and made part of this Environmental Easement. These controls and requirements apply to the use of the Controlled Property, run with the land, are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees and any person using the Controlled Property.

A. (1) The Controlled Property may be used for:

Restricted Residential as described in 6 NYCRR Part 375-1.8(g)(2)(ii) and Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii), and any other uses permitted under applicable laws, rules, regulations, codes and/or ordinances to the extent not inconsistent with (x) 6 NYCRR Part 375-1.8(g)(2)(ii) and 6 NYCRR Part 375-1.8(g)(2)(iii) or (y) the other restrictions expressly set forth in Section 2. of this Environmental Easement.

(2) All Engineering Controls must be operated and maintained as specified in the Site Management Plan ("SMP");

(3) All Engineering Controls must be inspected at a frequency and in a manner defined in the SMP.

(4) Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;

(5) Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP;

(6) All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;

(7) Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP.

(8) Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy shall be performed as defined in the SMP.

(9) Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by this Environmental Easement.

B. The Controlled Property shall not be used for raising livestock or producing animal products for human consumption, and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

C. The SMP describes obligations that the Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor's assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department's determination that the Controlled Property is safe for a specific use, but not all uses. The SMP may be modified in accordance with the Department's statutory and regulatory authority. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

Regional Remediation Engineer
NYSDEC – Region 2
Division of Environmental Remediation
47-40 21st St.
Long Island City, NY 11101
Phone: (718) 482-4995

or

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, New York 12233
Phone: (518) 402-9553

D. Grantor must provide all persons who acquire any interest in the Controlled Property a true and complete copy of the SMP that the Department approves for the Controlled Property and all Department-approved amendments to that SMP.

E. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of ECL Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

This property is subject to an Environmental Easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the Environmental Conservation Law.

F. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

G. Grantor covenants and agrees that it shall annually, or such time as NYSDEC may allow, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury, in such form and manner as the Department may require, that:

(1) the inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under the direction of the individual set forth at 6 NYCRR Part 375-1.8(h)(3).

(2) the institutional controls and/or engineering controls employed at such site:

(i) are in-place;

(ii) are unchanged from the previous certification, or that any identified changes to the controls employed were approved b the NYSDEC and that all controls are in the Department-approved format; and

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

(3) the owner will continue to allow access to such real property to evaluate the continued maintenance of such controls;

(4) nothing has occurred that would constitute a violation or failure to comply with any site management plan for such controls;

(5) the report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

(6) to the best of his/her 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

(7) the information presented is accurate and complete.

3. Right to Enter and Inspect. Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

4. Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Property, including:

A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

B. The right to give, sell, assign, or otherwise transfer part or all of the underlying fee interest to the Controlled Property, subject and subordinate to this Environmental Easement;

5. Enforcement

A. This Environmental Easement is enforceable in law or equity in perpetuity by Grantor, Grantee, or any affected local government, as defined in ECL Section 71-3603, against the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Environmental Easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. If any person violates this Environmental Easement, the Grantee may revoke the Certificate of Completion with respect to the Controlled Property.

C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach, and Grantee may take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement, including the commencement of any proceedings in accordance with applicable law.

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar any enforcement rights.

6. Notice. Whenever notice to the Grantee (other than the annual certification) or approval from the Grantee is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information:

County, NYSDEC Site Number, NYSDEC Brownfield Cleanup Agreement, State Assistance Contract or Order Number, and the County tax map number or the Liber and Page or computerized system identification number.

Parties shall address correspondence to:

Site Number C2341013
Office of General Counsel
NYSDEC
625 Broadway
Albany New York 12233-5500

With a copy to:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, NY 12233

All notices and correspondence shall be delivered by hand, by registered mail or by Certified mail and return receipt requested. The Parties may provide for other means of receiving and communicating notices and responses to requests for approval.

7. Recordation. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

8. Amendment. Any amendment to this Environmental Easement may only be executed by the Commissioner of the New York State Department of Environmental Conservation or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

9. Extinguishment. This Environmental Easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation, or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

10. Joint Obligation. If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

[REMAINDER OF PAGE LEFT INTENTIONALLY BLANK]

IN WITNESS WHEREOF, Grantor and Grantee each has caused this instrument to be signed in its name.

700 First Realty Company, LLC:

By: _____

Print Name: Sheldon H. Solow

Title: President Date: 1/13/2011

Grantor's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF New York)

On the 13th day of January, in the year 20 11, before me, the undersigned, personally appeared Sheldon H. Solow, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Amalia C. DeLucia
Notary Public - State of New York

AMALIA C. DELUCIA
Notary Public, State of New York
No. 01DE6032868
Qualified in Queens County
Commission Expires November 8, 2013

THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation as Designee of the Commissioner,

By: _____
Dale A. Desnoyers, Director
Division of Remediation

Grantee's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF Albany)

On the 17th day of August, in the year 2011, before me, the undersigned, personally appeared Dale Desnoyers, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/ executed the same in his/her/ capacity as Designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his/her/ signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

_____
Notary Public - State of New York

Drew A. Wellette
Notary Public, State of New York
Qualified in Schenectady Co.
No. 01WE6089074
Commission Expires 03/17/ 2015

SCHEDULE A PROPERTY DESCRIPTION

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

BEGINNING at the corner formed by the intersection of the northerly line of East 38th Street with the easterly line of First Avenue;

RUNNING THENCE northerly, along the easterly line of First Avenue, 515 feet 0 inches;

THENCE easterly, parallel with the northerly line of East 38th Street, 411 feet 7 3/8 inches to a point in the westerly line of Franklin D. Roosevelt Drive;

THENCE southerly, along the westerly line of Franklin D. Roosevelt Drive, on the arc of a circle curving to the right having a radius of 2431 feet 8 inches and a central angle of 6° 13' 33 inches, 264 feet 2 5/8 inches to a point of tangency;

THENCE southerly still along the westerly line of Franklin D. Roosevelt Drive, 56 feet 4 ¼ inches to an angle point therein;

THENCE easterly, still along the westerly line of Franklin D. Roosevelt Drive and parallel with the northerly line of East 38th Street, 1 foot 2 3/8 inches to an angle point therein;

THENCE southerly, still along the westerly line of Franklin D. Roosevelt Drive, 200 feet 3 1/8 inches to the corner formed by the intersection of the northerly line of East 38th Street with the westerly line of Franklin D. Roosevelt Drive;

THENCE westerly, along the northerly line of East 38th Street, 336 feet 10 3/8 inches to a point or place of BEGINNING.

Attachment B- Lot 1 Foundation Drawings

ABBREVIATIONS:

AB	ANCHOR BOLT
ABV	ABOVE
AC	AIR CONDITIONER
ACI	AMERICAN CONCRETE INSTITUTE
ADD'L	ADDITIONAL
ADJ	ADJACENT
AFF	ABOVE FINISHED FLOOR
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ALT	ALTERNATE ALUM ALUMINUM
ANCH	ANCHOR
ANG	ANGLE
APPD	APPROVED
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AVG	AVERAGE
AWS	AMERICAN WELDING SOCIETY
B	BASE
BETW	BETWEEN
BF	BRACE FRAME
BKT	BRACKET
BL	BUILDING LINE
BLDG	BUILDING
BM	BEAM
BOTT	BOTTOM
BRK	BRICK
B/STL	BOTTOM OF STEEL
BS	BOTH SIDES
CANT	CANTILEVER
CF	CUBIC FOOT
CG	CENTER OF GRAVITY
CIP	CAST IN PLACE
C.JT	CONCRETE JOINT
CL	CENTER LINE
CLG	CEILING
CLR	CLEAR
CM	CONSTRUCTION MANAGER
CMU	CONCRETE MASONRY UNITS
COL	COLUMN
CONC	CONCRETE
COND	CONDITIONS
CONN	CONNECTION
CONST	CONSTRUCTIONS
CONT	CONTINUOUS
CONTR	CONTRACTOR
COORD	COORDINATE
CORR	CORRUGATED
CY	CUBIC YARD
DEMO	DEMOLITION
DEPT	DEPARTMENT
DET	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DIR	DIRECTION
DN	DOWN
DWL	DOWEL
DWG	DRAWING
E	EAST
EA	EACH
EF	EACH FACE
EL	ELEVATION
ELEC	ELECTRIC
ELEV	ELEVATOR
EMBD	EMBEDMENT
ENCL	ENCLOSURE
EOR	ENGINEER OF RECORD
EOS	EDGE OF SLAB
EP	EMBEDDED PLATE
EQ	EQUAL
EQUIP	EQUIPMENT
ETC	ETCETERA
EW	EACH WAY
E-W	EAST WEST
EXIST	EXISTING
EXP	EXPANSION
EXP JT	EXPANSION JOINT
EXT	EXTENSION
EXTR	EXTERIOR
FL	FLOOR
FND	FOUNDATION
FOB	FACE OF BUILDING
FP	FIRE PROOFING
FT	FOOT
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GB	GRADE BEAM
GRTG	GRATING
GYP. BD	GYPSUM BOARD
H	HIGH
HDR	HEADER
HGT	HEIGHT
HORIZ	HORIZONTAL
HP	HIGH POINT
HR	HOUR
HS	HIGH STRENGTH
HVAC	HEAT, VENTILATION & AIR CONDITIONING
ID	INSIDE DIAMETER
IF	INTERIOR FACE
IN	INCH
INCL	INCLUDING
INFO	INFORMATION
INSUL	INSULATION
JT	JOINT
K	KIP (1000 POUNDS)
KPF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH

L	LOW
LB	LINK BEAM
LBS	POUNDS
LB/FT	POUNDS PER FOOT
Ld	DEVELOPMENT LENGTH
LG	LONG
LL	LIVE LOAD
LLRS	LATERAL LOAD RESISTING SYSTEM
LP	LOW POINT
LRFD	LOAD RESISTANCE FACTOR DESIGN
LT	LIGHT
LW	LIGHT WEIGHT
MAX	MAXIMUM
MAS	MASONRY
MATER	MATERIAL
MAX	MAXIMUM
MC	MOMENT CONNECTION
MD	METAL DECK
MECH	MECHANICAL
MEP	MECHANICAL ELECTRICAL AND PLUMBING
MEZZ	MEZZANINE
MF	MOMENT FRAME
MFG	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
N	NORTH
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NO	NUMBER
N-S	NORTH-SOUTH
NTS	NOT TO SCALE
NW	NORMAL WEIGHT
O/C	ON CENTER
OPNG	OPENING
OPP	OPPOSITE
PC	PILE CAP
PCF	POUNDS PER CUBIC FEET
PL	PLATE
PLF	POUNDS PER LINEAR FOOT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POST TENSION
RC	REINFORCED CONCRETE
RD	ROOF DRAIN
REF	REFERENCE
REINF	REINFORCEMENT
REQ'D	REQUIRED
RFI	REQUEST FOR INFORMATION
S	SOUTH
SB	SPANDREL BEAM
SCHED	SCHEDULE
SECT	SECTION
SF	SQUARE FOOT
SHT	SHEET
SL	SLAB
SPA	SPACING
SPEC	SPECIFICATIONS
SQ	SQUARE
SR	STUDRAIL
STD	STANDARD
STIFF	STIFFENER
STL	STEEL
STRUCT	STRUCTURAL
SW	SHEARWALL
SIM	SIMILAR
T&B	TOP AND BOTTOM
THK	THICK
T/	TOP OF
TBD	TO BE DETERMINED
TEMP	TEMPORARY
TSF	TONS PER SQUARE FOOT
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
U	UPTURNED BEAM
VERT	VERTICAL
VIF	VERIFY IN FIELD
W	WEST
W/	WITH
W/O	WITH OUT
WF	WIDE FLANGE
WP	WORKING POINT
WPG	WATER PROOFING
WS	WATER STOP
WT	WIND TRUSS
WWF	WELDED WIRE FABRIC
℄	CENTERLINE
PL	PLATE
∟	ANGLE
&	AND
ø	DIAMETER
@	AT

GENERAL NOTES:

1. ALL WORK TO BE PERFORMED IN COMPLIANCE WITH THE NEW YORK CITY BUILDING CODE, LATEST EDITION AND ALL SUPPLEMENTS.
2. CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS IN THE FIELD AND BE RESPONSIBLE FOR ACCURATE COORDINATION WHERE POSSIBLE.
3. TEMPORARY SHORING IS REQUIRED, WHERE CONTRACTOR IS RESPONSIBLE FOR ENGINEERING AND CONTROLLED INSPECTION OF TEMPORARY SYSTEMS.
4. THE CONTRACTOR SHALL USE THESE DRAWINGS IN CONJUNCTION WITH THE ARCHITECTURAL AND MECHANICAL DRAWINGS. IN THE EVENT OF CONFLICTS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND THE ENGINEER.
5. ALL SHEETING, SHORING OR OTHER CONSTRUCTION REQUIRED FOR THE SUPPORT OF ADJACENT PROPERTIES, BUILDINGS, SIDEWALKS, UTILITIES, ETC., SHALL BE SUBJECT TO SPECIAL INSPECTION AS REQUIRED BY THE CODE. THE CONTRACTOR SHALL RETAIN A LICENSED PROFESSIONAL ENGINEER ACCEPTABLE TO THE ENGINEER OF RECORD TO PROVIDE THE NECESSARY DESIGN AND THE REQUIRED INSPECTION. THE CONTRACTOR'S PROFESSIONAL ENGINEER SHALL PREPARE AND FILE THE REQUIRED FORMS FOR THE WORK WITH THE BUILDING DEPARTMENT.
6. ALL COORDINATES, COLUMN LOCATIONS AND GENERAL ARRANGEMENT OF SLAB EDGES AND OPENINGS TO BE SET BY THE ARCHITECTURAL DRAWINGS.

FOUNDATION NOTES:

A. PILE NOTES

1. FOUNDATION DESIGN AND PILE STRENGTH ARE BASED ON GEOTECHNICAL REPORT BY RA CONSULTANTS LLC
2. PILE CAPACITY TO BE 250 TONS IN COMPRESSION AND 4 TONS IN LATERAL CAPACITY IN WEAK AXIS AND 10 TONS IN STRONG AXIS. TO BE VERIFIED BY PILE DRIVING CONTRACTOR FOLLOWING A TEST PILE PROGRAM. (SEE PILING SPECIFICATION) THE PROPOSED PILE IS AS FOLLOWS:
   A. PILES TO BE HP14x89 (Fy=50ksi)
   B. SEE SPECS FOR PILE DRIVING OPERATIONS
3. PILE DRIVING TO BE SUPERVISED BY A LICENSED PROFESSIONAL ENGINEER 2008 NYC BUILDING CODE.
4. ALL PILES TO CONFORM WITH THE REQUIREMENTS OF LATEST OF NYC EDITION OF NYC BUILDING CODE AND IN ACCORDANCE WITH PROJECT PILE SPECIFICATIONS.
5. ALL PILES TO BE DRIVEN TO MINIMUM PENETRATION IN BEARING STRATUM AND TO MINIMUM DRIVING RESISTANCE OF 5 BLOWS PER ¼" WITH A 75k-ft HAMMER
6. A PLAN SHOWING THE IDENTIFICATION OF ALL PILES AND PILE NUMBERING PLAN SHALL BE FILED WITH THE BUILDING DEPARTMENT.
7. AN "AS-DRIVEN" PILE LOCATION PLAN(S) AND PILE LOG SHALL BE FILED BY THE GEOTECHNICAL ENGINEER AND APPROVED BY THE BUILDING DEPARTMENT. NO PILE CAPS ARE TO BE PLACED BEFORE THIS IS DONE.
8. PLANS TO INDICATE MINIMUM REQUIRED PENETRATION OF ALL PILES, SHALL BE FILED WITH THE BUILDING DEPARTMENT.
9. LOAD TESTS SHALL BE PERFORMED AS PER REQUIREMENTS OF THE NYC BUILDING CODE.
10. ALL PILE CAP REINF. TO BE PLACED AS BOTTOM REINFORCING AS SHOWN ON PILE CAP DETAIL U.O.N. TOP REINFORCING TO BE PROVIDED WHERE SHOWN OR NOTED. ABBREVIATIONS:
    L.W. = LONG WAY
    S.W. = SHORT WAY
    E.W. = EACH WAY
    ALL HOOK BARS ARE STANDARD 90° HOOK U.O.N. THE SPLICE LENGTH OF HOOK BARS TO MAIN BOTTOM BARS SHALL NOT BE
    LESS THAN 36d (BAR DIAMETER). EXTEND BEAM REINFORCING INTO PILE CAP WHERE BEAMS INTERSECT PILE CAPS. SEE PLAN FOR REFERENCE TO DETAILS & SECTIONS.
11. ALL COSTS RELATIVE TO THE CERTIFICATION OF PILE DRIVING, PILE LOCATION, PILE IDENTIFICATION AND CORRECTIVE MEASURES RELATED TO PILE DEVIATIONS SHALL BE BORNE BY THE CONTRACTOR.

B. CAISSON NOTES:

1. THE DESIGN AND INSTALLATION OF CAISSONS, CAISSONS CAPS, AND RELATED CONSTRUCTION IS TO CONFORM TO THE REQUIREMENTS SET FORTH IN THE NEW YORK CITY BUILDING CODE AND THE SPECIFICATIONS.
2. DRILLED CAISSONS SHALL HAVE THE FOLLOWING PARAMETERS AS PER RECOMMENDATION FROM GEOTECHNICAL ENGINEER:
   A. 24"ø x ½" (MIN.) CAISSON
   - COMPRESSIVE LOAD CAPACITY = 1500 T
   - TENSION LOAD CAPACITY = 750 T
   B. 13.325ø x ½" (MIN.) CAISSON
   - TENSION AND COMPRESSIVE CAPACITY = 250 T
   C. UPLIFT AND LATERAL FIELD TEST ARE REQUIRED.
4. CAISSON ROCK SOCKETS TO BE SUPERVISED BY A LICENSED PROFESSIONAL ENGINEER.
5. CAISSON OPERATIONS TO BE IN ACCORDANCE WITH THE NEW YORK CITY BUILDING CODE, AND ARE SUBJECT TO SPECIAL INSPECTION IN ACCORDANCE WITH NEW YORK CITY BUILDING CODE.
6. A PLAN SHOWING THE IDENTIFICATION OF ALL CAISSONS AND A CAISSONS NUMBERING PLAN IS TO BE SUBMITTED TO THE ENGINEER OF RECORD FOR FILING WITH THE BUILDING DEPARTMENT PRIOR TO COMMENCEMENT OF DRILLING OPERATIONS.
7. LOAD TESTS (IF NECESSARY) SHALL BE PERFORMED AS PER THE REQUIREMENTS OF THE NEW YORK CITY BUILDING CODE. LOCATION OF TEST CAISSONS TO BE APPROVED BY THE ENGINEER OF RECORD. ALL ROCK SOCKETS SHALL BE VIDEO INSPECTED BY A QUALIFIED GEOTECHNICAL ENGINEER TO CONFIRM CLASS 1C BEDROCK OR BETTER.
8. ALL CAISSON GROUPS AND CAISSON CAPS TO BE CONCENTRIC WITH COLUMNS AND WALLS ABOVE UNLESS OTHERWISE NOTED ON PLAN.
9. RECORDS OF PENETRATION OF EVERY CAISSON AND THE BEHAVIOR OF SAME DURING DRILLING ARE TO BE SUBMITTED TO THE ENGINEER OF RECORD.
10. AN "AS-DRILLED" CAISSON LOCATION PLAN AND CAISSON LOGS ARE TO BE SUBMITTED TO THE ENGINEER OF RECORD FOR APPROVAL, NO CAISSON CAPS ARE TO BE PLACED BEFORE THIS IS DONE.
11. ESTIMATED AVERAGE CAISSON LENGTH IS PER GEOTECHNICAL CONSULTANT. CAISSON LENGTH COULD VARY DUE TO ACTUAL SOIL CONDITION.
12. FOR CAISSON DETAILS AND DESIGN REFER TO GEOTECHNICAL CONSULTANT REPORT AND SPECIFICATIONS.

C. FOOTING NOTES

1. ALL FOOTINGS, PIER AND FOUNDATION WALLS SHALL BEAR ON ROCK WITH A SAFE BEARING CAPACITY OF 40 TON PER SQ. FT. SEE FOOTING SCHEDULE ON DRAWING FO-100.
2. WHERE THE REQUIRED BEARING MATERIAL IS NOT FOUND AT THE ANTICIPATED ELEVATION SHOWN (ELEVATION BASED ON BORING INTERPOLATED DATA) THE FOOTINGS SHALL BE LOWERED TO A DEPTH AT WHICH THE REQUIRED BEARING CAPACITY IS FOUND. PROVIDE PIER AS REQUIRED. FOR MIN. REQUIREMENTS SEE TYP. DETAILS.

CONCRETE AND STEEL REINFORCEMENT

1. ALL CONCRETE SHALL BE NORMAL WEIGHT CONTROLLED CONCRETE, U.O.N., AND COMPLY WITH A.C.I. BUILDING CODE AND THE CURRENT NEW YORK CITY. BUILDING CODE.
2. CONCRETE STRENGTH SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED:
   - PILE CAPS/FOOTING/MAT SLAB AT EAST & WEST TOWER — 7200 PSI
   - PILE CAPS AND MAT SLAB AT LOW RISE AREA — 5000 PSI
   - COLUMNS/SHEARWALLS — SEE COLUMN SCHEDILE
   - STRUCTURAL SLAB — 6000 PSI (U.O.N.)*
   - FOUNDATION WALL & BUTTRESSES — 6000 PSI (U.O.N. ON PLAN)

   *WHERE SUPPORTING COLUMN STRENGTH IS 8400 PSI OR GREATER THE CONCRETE SLABS (IF POURED BEFORE THE COLUMNS ABOVE) MUST BE OF A STRENGTH ACCORDING TO THE "DETAIL OF BEAM AND SLAB CONCRETE PLACEMENT AT HIGH STRENGTH COLUMN." DWG. S-962.
3. ALL STEEL REINFORCEMENT SHALL HAVE AN ULTIMATE TENSILE STRENGTH OF 90,000 PSI AS PER A.S.T.M. A615-92 GRADE 60 U.O.N.. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL THE NECESSARY CHAIRS, REBARS, TIES, SPACERS, ETC., TO SECURE AND SUPPORT THE REINFORCING WHILE PLACING THE CONCRETE.
   ALL REBARS LARGER THAN #11 SHALL HAVE A MINIMUM YIELD STRESS OF fy=75ksi AND SHALL BE MECHANICALLY TENSION/COMPRESSION SPLICED.
4. ALL BARS MARKED CONTINUOUS, SHALL BE LAPPED AS PER TENSION LAP TABLES (MIN 36 DIA) AT SPLICES AND CORNERS EXCEPT AS OTHERWISE SHOWN ON PLANS. LAP CONTINUOUS TOP BARS AT CENTER BETWEEN SUPPORTS AND BOTTOM BARS AT SUPPORTS. HOOK TOP BARS AT DISCONTINUOUS ENDS.
5. CONTRACTOR TO INSTALL ALL PIPE SLEEVES, BOXED OPENINGS, ANCHOR BOLTS, ETC., AS REQUIRED FOR THE VARIOUS TRADES.
6. PARKING FLOORS, RAMPS, DRIVEWAYS EXPOSED TOPPING, SIDE WALLS
   - ALL DIRECTLY EXPOSED TO CARS AND/OR PEDESTRIAN TRAFFIC
   A. DCI (CALCIUM NITRITE) CORROSION INHIBITOR, (4.0 GAL/YD3)
   B. WATER/CEMENT RATIO NOT TO EXCEED 0.40
   C. USE OF SUPERPLASTICIZER TO ACHIEVE THE W/C RATIO.
   D. CONCRETE TO CONTAIN SILICIA FUME (5% OF TOTAL CEMENT) OR SLAG (40%)
   E. 1.5 LBS/YD3 FIBER MESH.
   F. ENTRAINED AIR AT 6% ± 1.
   G. THE CURING SHALL BE ONLY MOIST TYPE. NO CURING COMPOUND ACCEPTABLE.
   H. ALL TOP REBARS TO BE EPOXY COATED.
   J. ALTHOUGH PROTECTIVE MEASURES WERE INCORPORATED IN THE DESIGN OF THE PARKING AREAS AND RAMPS, THESE AREAS MUST BE CAREFULLY MAINTAINED IN ORDER TO PREVENT EARLY DETERIORATION.
   I. ALL EMBEDDED METALLIC ITEMS SHALL BE HOT DIPPED GALVANIZED OR STAINLESS STEEL.
7. MINIMUM COVER FOR REINFORCING STEEL SHALL BE 1½" FOR SLABS AND INTERIOR WALL SURFACES EXPOSED TO VEHICULAR/PEDESTRIAN TRAFFIC; AND COLUMNS (TIES, STIRRUPS OR PRIMARY REINFORCEMENT). FOR ALL CONCRETE EXPOSED TO WEATHER AND EARTH FILL, COVER SHALL BE 2". FOR CONCRETE PLACED AGAINST EARTH, MINIMUM COVER SHALL BE 3". TOP COVER FOR REINFORCEMENT IN RETAIL AND RESIDENTIAL SLABS TO BE 3/4".
8. THE CONTRACTOR MUST SUBMIT REINFORCING SHOP DRAWINGS TO THE STRUCTURAL ENGINEER FOR REVIEW AND APPROVAL. NO CONSTRUCTION IS TO BE STARTED UNTIL THE SHOP DRAWINGS ARE REVIEWED BY THE ENGINEER.
9. THE STRUCTURAL ENGINEER OR HIS FIELD QUALIFIED REPRESENTATIVE MUST CHECK AND APPROVE ALL STEEL REINFORCING PRIOR TO CONCRETE PLACEMENT.

G. CODES AND TESTS

1. THIS STRUCTURE HAS BEEN DESIGNED UNDER THE PROVISIONS OF THE NEW YORK CITY BUILDING CODE AS AMENDED AND A.C.I. 318.
2. ALL CONTROLLED CONCRETE SHALL COMPLY WITH THE A.C.I. 318 BUILDING CODE AND THE NEW YORK CITY BUILDING CODE. A SPECIAL AMENDMENT FORM FOR CONTROLLED CONCRETE WITH CONCRETE TESTS AND CURVES OF TESTS FOR THE PRELIMINARY DESIGN MIX PREPARED BY AN APPROVED LABORATORY MUST BE SUBMITTED TO THE ENGINEER FOR FILING WITH THE BUILDING DEPARTMENT. NO CONCRETE IS TO BE PLACED BEFORE SUCH AN AMENDMENT IS APPROVED BY THE BUILDING DEPARTMENT.
3. DESIGN AND CONSTRUCTION OF FORMWORK IS TO COMPLY WITH THE A.C.I. 318 BUILDING CODE AND THE NEW YORK CITY BUILDING CODE AS AMENDED.
4. TRANSPORTING, PLACING, CURING AND DEPOSITING OF CONCRETE SHALL COMPLY WITH THE A.C.I. BUILDING CODE.
5. ALL REINFORCING BARS SHALL BE DEFORMED BARS CONFORMING TO "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT" A.S.T.M. A615 GRADE 60. THE STEEL SUPPLIER SHALL PROVIDE THE ENGINEER WITH AN AFFIDAVIT OF THE PRODUCER OF STEEL CERTIFYING THAT THE STEEL MEETS THE REQUIREMENTS OF THE A.S.T.M.
6. ALL STRUCTURAL STEEL (LINTELS, DUNNAGE BEAMS, ETC.) SHALL CONFORM TO A.S.T.M. A-36, U.O.N.

MASONRY NOTES

1. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR COMPLETE REQUIREMENTS FOR C.M.U. MASONRY CONSTRUCTION AND APPEARANCE. DETAILS AND NOTES SHOWN ON THE STRUCTURAL DRAWINGS ARE INTENDED TO SUPPLEMENT ARCHITECTURAL REQUIREMENTS AND TO DEFINE ELEMENTS WHICH PROVIDE STRUCTURAL STRENGTH AND STABILITY.
2. DETAILS, SECTIONS, SCHEDULES, ETC. AND THESE NOTES, REPRESENT THE MINIMUM REQUIREMENTS FOR STRUCTURAL ADEQUACY. WHERE ARCHITECTURAL REQUIREMENTS DIFFER FROM STRUCTURAL, THE MORE STRINGENT SHALL BE FOLLOWED.
3. CODE: MASONRY WALL CONSTRUCTION SHALL CONFORM TO THE NEW YORK CITY BUILDING CODE AND TO ACI 530/ASCE-5 AS REFERENCED BY THE NYC CODE.
4. MASONRY UNITS SHALL BE LIGHTWEIGHT HOLLOW LOAD BEARING CONCRETE MASONRY (CMU). COMPRESSIVE STRENGTH OF MASONRY F'M SHALL BE A MINIMUM OF 1,500 PSI.
5. MORTAR SHALL BE TYPE M OR S.
6. HORIZONTAL JOINT REINFORCEMENT SHALL BE TRUSS TYPE GALVANIZED COLD-DRAWN STEEL WIRE CONFORMING TO ASTM A 951.
7. PROVIDE HORIZONTAL JOINT REINFORCEMENT IN EVERY OTHER JOINT (16" O.C. VERTICALLY) UNLESS PLANS OR DETAILS CALL FOR CLOSER SPACING OR ADDITIONAL REINFORCEMENT.
8. BAR REINFORCEMENT: ASTM A 615 GRADE 60, PER SCHEDULE. FOR ADDITIONAL REINFORCEMENT SEE WALL REINFORCEMENT ELEVATION.
9. ALL CELLS WITH REINFORCEMENT SHALL BE GROUTED SOLID FOR THE FULL EXTENT OF BAR, VERTICAL AND HORIZONTAL.
10. GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI. GROUT SHALL BE "FINE" AS DEFINED BY ASTM C 476.
11. STEEL ANGLES: ASTM A 36. STEEL IN AN EXTERIOR WALL OR EXPOSED TO THE EXTERIOR SHALL BE GALVANIZED. 12. CONTRACTOR SHALL COORDINATE ALL MASONRY WORK WITH WORK OF OTHER TRADES: ARCHITECTURAL, STRUCTURAL, MEP.

D. SEISMIC AND WIND CRITERIA NOTES:

1. THE STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE LATEST NEW YORK CITY BUILDING CODE (2008).
2. WIND DESIGN DATA
   WIND LOADS ARE BASED ON PROJECT SPECIFIC WIND TUNNEL TEST MAY 24/2013 IN ACCORDANCE WITH PROVISION OF NYCBC 2008.
3. EARTHQUAKE DESIGN DATA
   AS PERRA CONSULTANT ENGINEERING GEOTECHNICAL REPORT DATED MAY 20, 2013.

   3.1 EARTHQUAKE DESIGN DATA FOR WEST TOWER:
   - SEISMIC IMPORTANCE FACTOR = 1
   - S_S=0.293g S_1=0.057g
     Fa=1.20 F_V=1.7
   - SITE CLASS = C
   - ANALYSIS PROCEDURE USED = RESPONSE SPECTRUM ANALYSIS
   - SEISMIC DESIGN CATEGORY = B
   - SEISMIC FORCE RESISTING SYSTEM: ORDINARY REINFORCED CONCRETE SHEAR WALL
   - DESIGN BASE SHEAR (V) E/W = 1100ᵏ, N/S = 1100ᵏ
   - SEISMIC RESPONSE COEFFICIENT E/W = 0.0103, N/S = 0.0103
   - RESPONSE MODIFICATION FACTORS R= 5

   3.2 EARTHQUAKE DESIGN DATA FOR EAST TOWER:
   - SEISMIC IMPORTANCE FACTOR = 1
   - S_S=0.29g S_1=0.057g
     Fa=1.57 F_V=2.4
   - SITE CLASS = D
   - ANALYSIS PROCEDURE USED = RESPONSE SPECTRUM ANALYSIS
   - SEISMIC DESIGN CATEGORY = B
   - SEISMIC FORCE RESISTING SYSTEM: ORDINARY REINFORCED CONCRETE SHEAR WALL
   - DESIGN BASE SHEAR (V) E/W = 1000ᵏ, N/S = 1000ᵏ
   - SEISMIC RESPONSE COEFFICIENT E/W = 0.0133, N/S = 0.0133
   - RESPONSE MODIFICATION FACTORS R= 5
4. STRUCTURAL SEPARATIONS, (NYCBC-1617.3.2): THE STRUCTURE SHALL BE SET BACK FROM THE PROPERTY LINE NOT COMMON TO A PUBLIC WAY BY 1"/50 ft. OF HEIGHT. SMALLER SETBACK SHALL BE PERMITTED WHEN JUSTIFIED BY ENGINEERING ANALYSIS BASED ON MAXIMUM EXPECTED GROUND MOTION.

LOADING SCHEDULE

OCCUPANCY		PARTITION/FILL &/OR FINISHES (PSF)	CEIL. & MECH. (PSF)	LIVE LOAD
ROOF		30	5	100
STAIRS		–	5	100
RESIDENTIAL CORRIDORS		30	5	40
RESIDENTIAL		12	5	40
MECHANICAL ROOMS		20	5	75
PUBLIC ROOF		50	5	100
PARKING STACKED		15	5	100
LOBBIES RETAIL		25	5	100
LEVEL 1 PLAZA		500	10	100
BRIDGE STRUCTURE	POOL	100	20	(WATER) 300
	ROOF	50	20	100
	BALANCE	30	20	100

NON-STRUCTURAL ITEMS SHOWN ON THE STRUCTURAL/FOUNDATION DRAWINGS

1. THE FOLLOWING NON-STRUCTURAL ITEMS MAY BE SHOWN ON THE STRUCTURAL AND/OR FOUNDATION DRAWINGS FOR THE PURPOSE OF CLARITY IN INTERFACE WITH STRUCTURAL AND/OR FOUNDATION WORK. ITEMS BELOW MAY NOT BE FULLY DEFINED ON THE STRUCTURAL/FOUNDATION DRAWINGS. THE INFORMATION FOR NON-STRUCTURAL ELEMENTS IS FURNISHED BY OTHER CONSULTANTS AS LISTED BELOW. ALL RFI AND SHOP DRAWINGS RELATED TO THESE NON-STRUCTURAL ITEMS SHALL BE SUBMITTED TO THE CONSULTANTS LISTED BELOW FOR THEIR REVIEW AND APPROVAL.

GEOTECHNICAL ENGINEER:
- FOUNDATION/UNDERSLAB WATERPROOFING, DAMPPROOFING SYSTEMS
- WALL AND UNDERSLAB DRAINAGE SYSTEM, INCLUDING SUMP PITS, GRAVEL & PIPING, CLEANOUTS
- ROCK ANCHORS
- CAISSONS AND PILES, INCLUDING REINFORCEMENT, SECANT PILE WALL
- ROCK CONTOURS

ARCHITECT OF RECORD:
- SUMP PITS
- WATERPROOFING/DAMPPROOFING APPLIED TO EXPOSED SURFACES, ELEVATOR OR SUMP PIT INTERIOR SURFACES
- PAINT
- FIREPROOFING
- CONCRETE CURBS: HEIGHT, WIDTH, EXTENT, LOCATION
- BRICK, BLOCK, TILE MASONRY, METAL PANELS, PRECAST FACADE PANELS, CURTAIN WALLS AND ALL OTHER FACADE SYSTEMS
- ROOFING SYSTEMS, DRAIN LOCATIONS, SLOPES TO DRAINS FILLS, INSULATION, PAVERS OR GRAVEL
- FLOATING/SECONDARY SLABS

LEGEND:

a. [...] INDICATES THE BOTTOM OF FOUNDATION WALL ELEVATION
b. <...> INDICATES THE TOP OF FOUNDATION WALL ELEVATION
c. (...) INDICATES THE TOP OF PILECAP ELEVATION
d. (XXxXX) INDICATES SIZE OF PIER IN INCHES, FIRST DIMENSION SHOWN IS IN THE EAST-WEST DIRECTION.
e. INDICATES ADDITIONAL TOP REINFORCEMENT AT SUPPORTS
f. INDICATES ADD'L BOTTOM REINFORCING AT SUPPORTS
g. INDICATES MAIN DIRECTION OF ONE-WAYS SLABS: 1) BOTTOM CONTINUOUS REINF. IN ELEVATED SLABS 2) TOP CONTINUOUS REINF. AT FOUNDATION SLABS
h. INDICATES ADDITIONAL BOTTOM REINFORCEMENT CONTINUOUS BETWEEN SUPPORTS
i. 1ST & 4TH LAYER / 2ND & 3RD LAYER — INDICATES ORDER OF BAR PLACEMENT IN SLAB
j. INDICATES CHANGE IN ELEVATION
k. INDICATES CONCRETE COLUMN/SHEARWALL/FOUNDATION WALL
l. INDICATES CONCRETE COLUMN/FOUNDATION WALL/SHEARWALL BELOW
m. INDICATES SLAB OPENING (FIRST DIMENSION IS IN EAST-WEST DIRECTION)
n. INDICATES COLUMN/POST ABOVE OR BELOW
o. (XX) INDICATES COLUMN DESIGNATION
p. (P) INDICATES POST DESIGNATION
q. (H) INDICATES HANGER DESIGNATION
r. (SW-X) INDICATES SHEARWALL DESIGNATION
s. INDICATES STIRRUPS
t. LT INDICATES LENTON TERMINATORS

SPECIAL INSPECTIONS

(TERMINOLOGY PER CURRENT TR-1) SPECIAL INSPECTION	CURRENT CODE REFERENCES
STRUCTURAL STEEL – WELDING	1704.3.1
STRUCTURAL STEEL – ERECTION & BOLTING	1704.3.3
STRUCTURAL COLD – FORMED STEEL	1704.3.4
CONCRETE – CAST IN PLACE	1704.4
CONCRETE TEST CYLINDERS* (TR2)	1905.6
CONCRETE DESIGN MIX* (TR3)	1905.3
MASONRY	1704.5
SOILS – SITE PREPARATION	1704.7.1
SOILS – FILL PLACEMENT & IN-PLACE DENSITY	1704.7.2 1704.7.3
SOILS – INVESTIGATIONS (BORINGS/TEST PITS) (TR4)	1704.7.4
PILE FOUNDATIONS & DRILLED PIER INSTALLATION (TR5)	1704.8
PIER FOUNDATIONS	1704.9
WALL PANELS, CURTAIN WALLS AND VENEERS (ATTACHMENT TO BUILDING)	1704.10
SPRAYED FIRE RESISTANT MATERIALS	1704.11
STRUCTURAL SAFETY – STRUCTURAL STABILITY	1704.19
EXCAVATION – SHEETING, SHORING AND BRACING	1704.19 & 3304.4.1
FIRESTOP, DRAFTSTOP AND FIREBLOCK SYSTEMS	1704.25
PROGRESS INSPECTION	
FOOTING AND FOUNDATION	109.3.1
FINAL	28-116.2.4.2 & 109.5 AND DIRECTIVE 14-(1975)

* THESE TEST MUST BE PERFORMED BY A LICENSED CONCRETE TESTING LAB.

NOTES:

1. REFER TO THE PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION ON SCOPE AND DETAILED REQUIREMENTS FOR INSPECTIONS.
2. ALL SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH CHAPTER 17 OF THE NEW YORK CITY BUILDING CODE BY THE APPROVED SPECIAL INSPECTION AGENCY RETAINED BY THE OWNER AND ACCEPTABLE TO THE ENGINEER OF RECORD.
3. REPORTS OF RESULTS SHALL BE SUBMITTED TO THE OWNER AND ARCHITECT FOR REVIEW. SIGNED COPIES OF ALL TESTS AND INSPECTION REPORTS SHALL BE FILED WITH THE BUILDING DEPARTMENT (THROUGH THE APPLICANT).
4. REPORTS SHALL STATE WHETHER RESULTS COMPLY WITH CONTRACT REQUIREMENTS, SUMMARIZE THE TYPE OF TEST, THE LOCATION OR COMPONENT TESTED, AND RECOMMEND ANY REMEDIAL MEASURES REQUIRED. REPORT SHOULD NOTE ANY OTHER DEVIATIONS FROM THE CONTRACT DOCUMENTS.
5. FOR ITEMS OF WORK OF OTHER TRADES WHICH ARE SUBJECT TO SPECIAL INSPECTION, SEE THE CITY OF NEW YORK BUILDING CODE, AS WELL AS ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, ETC. DRAWINGS AND SPECIFICATIONS.
6. IN ADDITION TO THE ABOVE REQUIREMENTS, ALL COLUMN SPLICE, BEAM MOMENT CONNECTIONS AT BEAMS DESIGNATED AS "LLRS" AND BRACE FRAME OR WIND TRUSS CONNECTIONS (PER S-940 SERIES OF DWGS.) SHALL COMPLY WITH THE INSPECTION REQUIREMENTS OF AWS D1.8 "STRUCTURAL WELDING CODE-SEISMIC SUPPLEMENT", IF WELDING IS PRESENT IN CONNECTION.

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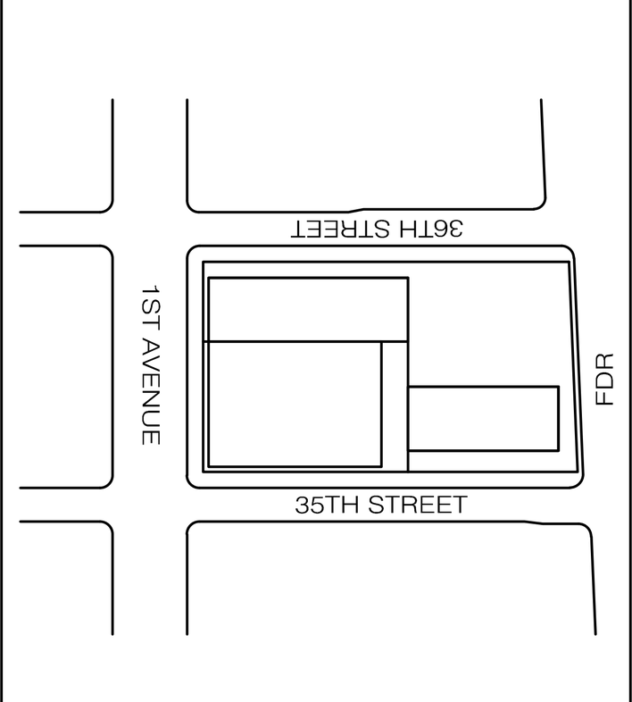


SITE DIAGRAM

DATE	ISSUE
08.22.14	BULLETIN #2
05.05.14	DOB FILING SET
04.04.14	ISSUED FOR 100% CONSTRUCTION DOCUMENTS
02.20.14	ISSUED FOR FOUNDATION CONSTRUCTION
11.15.13	50% CD
11.07.13	SUPERSTRUCTURE BID ISSUE
10.23.13	100% FOUNDATION CD
08.16.13	100% DD SUBMISSION
06.07.13	90% FOUNDATION CD
05.07.13	80% CD FOR PURCHASING
05.03.13	100% SD SUBMISSION

NO.	DATE	REVISION
	07.09.14	BULLETIN #1

626 1ST AVENUE

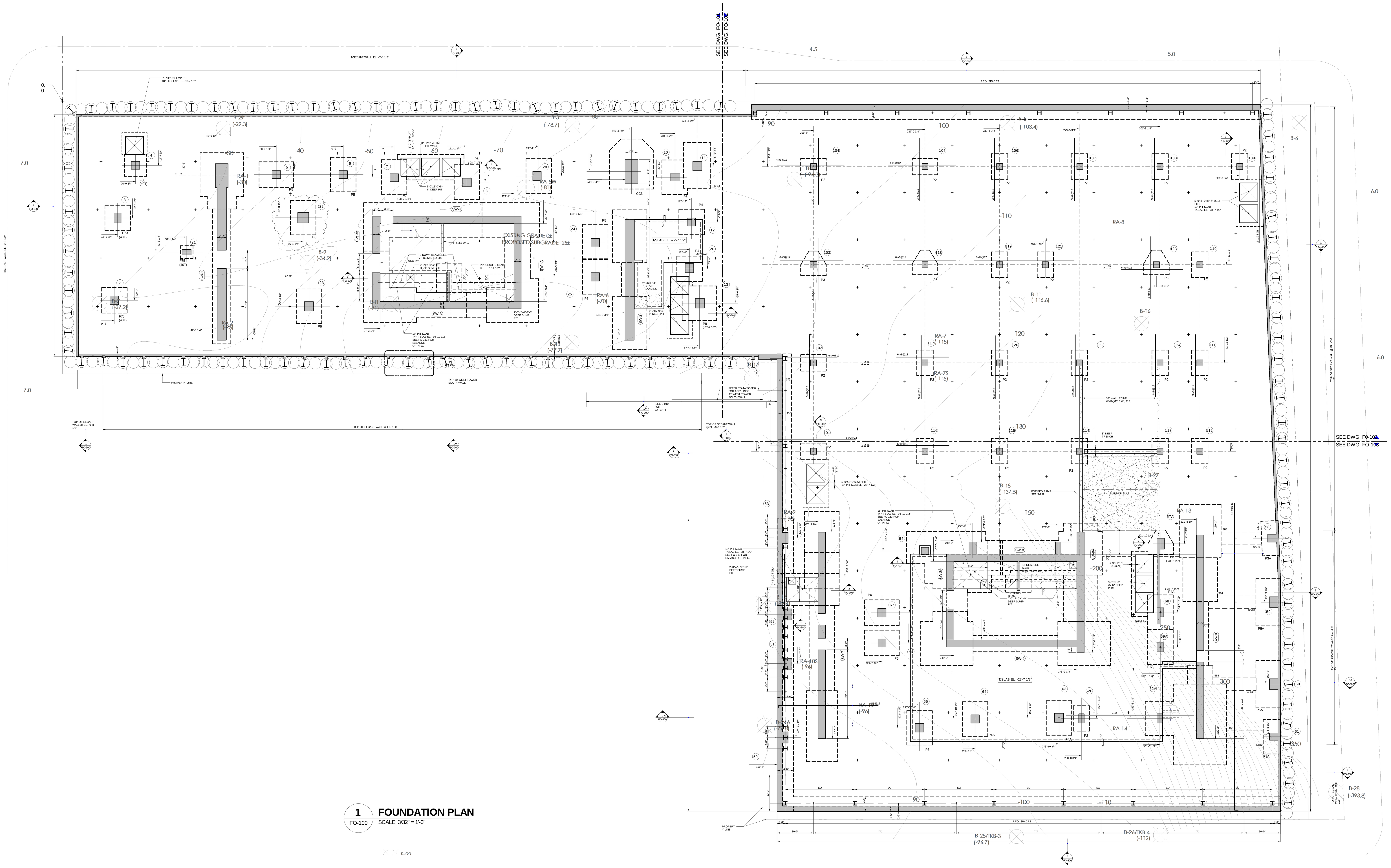
626 1ST AVENUE
NEW YORK, NY 10016

DRAWING TITLE
GENERAL NOTES AND LEGEND

SEAL & SIGNATURE

DATE	08/16/13
PROJECT NO.	1302180
DRAWN BY	CADD
CHECKED BY	S.H.
DOB NO.	
DRAWING NUMBER	FO-001.00

SHEET XX OF XX



1 FOUNDATION PLAN

FO-100

SCALE: 3/32" = 1'-0"

40 T/SF FOOTING SCHEDULE				
MARK	SIZE	THICHKNESS (DEPTH IN INCHES) (MIN.)	REINFORCING BOTTOM EACH WAY	REMARKS
F35	3'-6"X3-6"	30	4-#8	HOOK REBARS AT EACH END
F60	6'-0"X6-0"	36	10-#9	HOOK REBARS AT EACH END
F70	7'-0"X7-0"	42	10-#11	HOOK REBARS AT EACH END

STRAP BEAM SCHEDULE									
BEAM MARK	SIZE		REINFORCEMENT			STIRRUPS			REMARKS
	WIDTH	DEPTH	BOTTOM CONTINUOUS	TOP CONT. CONTINUOUS	TOP ADD'L AT SUPPORT ADD'L BARS AT SUPPORT	TYPE	SIZE	SPACING	
SB1	42	48	7-#7	24-#11 (2 LAYERS)		2	#4	10	#6@12 H.E.F.
SB2	42	30	7-#7	12-#11		2	#4	10	

TYPE 2

STIRRUP TYPES

NOTES:

1. TOP OF PRESSURE SLAB EL. -25'-1 1/2" U.O.N. THUS ON PLAN .... PROJECT DATUM 0'-0" = BOROUGH OF MANHATTAN VERTICAL DATUM WHICH IS 2.75 FT. ABOVE NATIONAL GEODETIC VERTICAL DATUM MEAN SEA LEVEL AT SANDY HOOK OF 1929. TOP OF 6" SLAB ON GRADE TO BE AT EL. -23'-1 1/2"
2. PRESSURE SLAB THICKNESS TO BE 1'-8" U.O.N SLAB CONSTRUCTION TO BE AS INDICATED ON DWG. FO-001
3. FOR GENERAL NOTES, ABBREVIATIONS AND LEGEND SEE DWG. FO-001
4. TOP OF PILECAP/FOOTING ELEVATION TO BE AT TOP OF PRESSURE SLAB U.O.N. THUS (........) ON PLAN. FOR PILECAP REINF. SEE FO-200 SERIES AND FO-101.00, FO-102.00 & FO-103.00 DWGS.
5. CENTERLINE OF PILECAP SHALL COINCIDE WITH THE CENTERLINE OF SINGLE COLUMN / WALL ABOVE U.O.N.
6. PROVIDE DOWELS IN PILECAP TO MATCH VERTICAL WALL/PIER/COLUMN REINFORCEMENT. SEE SHEARWALL REINFORCING.
7. ALL SUBGRADE PREPARATION SHALL BE PER GEOTECHNICAL REPORT.
8. PROVIDE 6" SLAB (f'c=4000 psi) ON 1'-6" COMPACTED GRAVEL OVER PRESSURE SLAB S.P.G. TO BE REINFORCED WITH 6x6-W2.9xW2.9 EPOXY COATED W.W.F. ON TOP OF PRESSURE SLAB.
9. FOR PIT LOCATIONS & SIZE SEE ARCH. AND MEP DRAWINGS.
10. FOR TYPICAL FOUNDATION DETAILS AND SCHEDULES SEE FO-200 SERIES DWGS.
11. FOR FOUNDATION SECTIONS SEE FO-300 SERIES DWGS.
12. FOR COLUMN SIZE AND DETAILS, SEE S-950 SERIES DWGS.
13. PROVIDE WATERSTOPS AT ALL CONSTRUCTION JOINTS IN CONCRETE SLABS & WALLS.
14. PIT SLAB REINFORCEMENT TO MATCH PRESSURE SLAB REINFORCEMENT U.O.N.
15. DEWATERING OF THE SITE CAN STOP ONCE PRESSURE SLAB AND 6" SLAB ON GRAVEL IS IN PLACE AND TIEDOWNS ARE INSTALLED AND LOCKED OFF.
16. TOP OF DESIGN GROUND WATER AT EL. 6'-0" (SEE GEOTECH. REPORT).

PRESSURE SLAB REINFORCEMENT NOTES

BOTTOM REINFORCEMENT (PRESSURE SLAB)

1. PROVIDE A BOTTOM MAT OF #6@12 CONTINUOUS IN EACH DIRECTION U.O.N.
2. PROVIDE FULL TENSION LAP SPLICES (SEE TABLES ON FO-200 SERIES) AT MID SPAN BETWEEN SUPPORTS, EXCEPT:
3. ADJACENT TO THICKENED SLAB AT DROP PANELS, SPLICES SHALL BE LOCATED AT THE EDGE OF DROP PANEL. SEE SECTION THROUGH DROP PANEL FOR SPLICE CONFIGURATION.
4. WHERE ADDITIONAL REINFORCEMENT IS CALLED FOR ON PLANS OR IN DETAILS IT SHALL BE ALTERNATED WITH MAT REINFORCEMENT.
5. ALL BOTTOM REINFORCEMENT IS TO BE HOOKED 90° AT OUTSIDE PERIMETER OF SLAB, AT OPENINGS AND AT ANY OTHER DISCONTINUITY.

TOP REINFORCEMENT (PRESSURE SLAB)

1. PROVIDE A TOP MAT OF #6@12 CONTINUOUS IN EACH DIRECTION U.O.N. ALL REBARS AT PARKING AREAS TO BE EPOXY-COATED.
2. PROVIDE FULL TENSION LAP SPLICES (SEE TABLES ON FO-200 SERIES) AT SUPPORTS AND ALONG CENTERLINES BETWEEN SUPPORTS.
3. WHERE ADDITIONAL REINFORCEMENT IS CALLED FOR ON PLANS OR IN DETAILS BAR LENGTHS SHALL BE THE SAME AS ADJACENT REINFORCEMENT AND ADDED BARS SHALL BE ALTERNATED WITH MAT REINFORCEMENT.
4. ALL TOP REINFORCEMENT IS TO BE HOOKED 90° AT OUTSIDE PERIMETER OF SLAB, AT OPENINGS AND AT ANY OTHER DISCONTINUITY.

LEGEND:

+ ON PLAN INDICATES 180T CAPACITY TIE DOWN ANCHOR. (FOR DETAILS SEE DRAWING FO-200) PROVIDE MINIMUM ONE TIE DOWN 13'-0" O/C EACH WAY.

ON PLAN INDICATES 250T TENSION/COMPRESSION CAPACITY MINI CAISSONS, (FOR DETAILS SEE DWG. FO-200)

ON PLAN INDICATES 24"Ø CAISSON WITH 1500T COMPRESSION AND 750T TENSION CAPACITY. (FOR DETAILS SEE FO-200 SERIES)

ON PLAN INDICATES 250T CAPACITY HP14x89 PILES. (FOR DETAILS SEE FO-200 SERIES)

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SITE DIAGRAM

DATE	ISSUE
10.20.14	BULLETIN #3
08/22/14	BULLETIN #2
05.05.14	DOB FILING SET
04.04.14	100% CONSTRUCTION DOCUMENTS
02.20.14	ISSUED FOR FOUNDATION CONSTRUCTION
11.15.13	50% CD
11.07.13	SUPERSTRUCTURE BID ISSUE
10.23.13	100% FOUNDATION CD
06.07.13	90% FOUNDATION CD
05.07.13	80% CD FOR PURCHASING
05.03.13	100% SD SUBMISSION

NO.	DATE	REVISION
1.	07.09.14	BULLETIN #1

626 1ST AVENUE

NEW YORK, NY 10016

DRAWING TITLE

FOUNDATION PLAN (CELLAR LEVEL 2)

SEAL & SIGNATURE

DATE	04/10/13
PROJECT NO.	1302180
DRAWN BY	CADD
CHECKED BY	SH
DOB NO.	
DRAWING NUMBER	FO-100.00

SHEET XX OF XX

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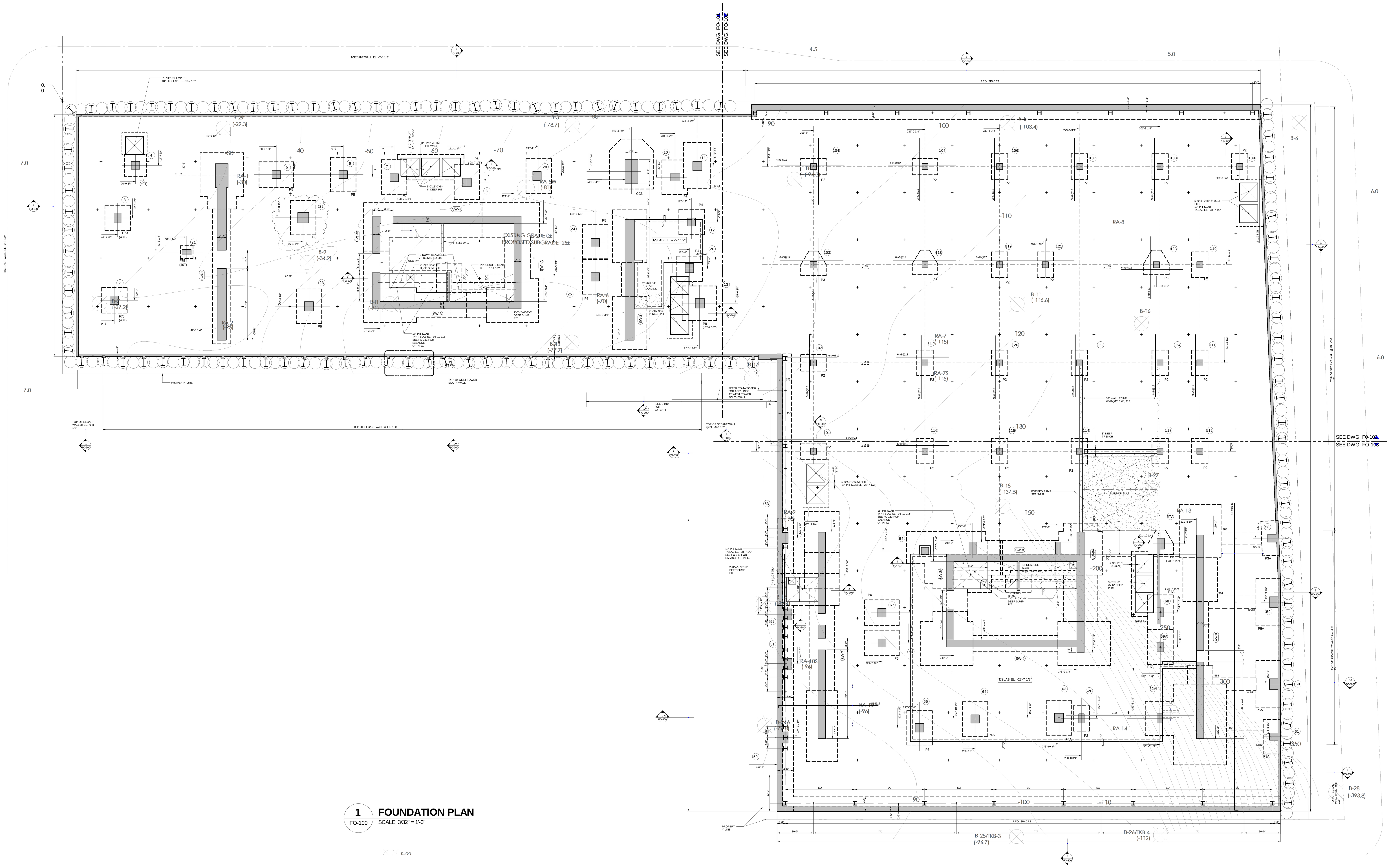

1 FOUNDATION PLAN

FO-100

SCALE: 3/32" = 1'-0"

40 T/SF FOOTING SCHEDULE				
MARK	SIZE	THICHKNESS (DEPTH IN INCHES) (MIN.)	REINFORCING BOTTOM EACH WAY	REMARKS
F35	3'-6"X3-6"	30	4-#8	HOOK REBARS AT EACH END
F60	6'-0"X6-0"	36	10-#9	HOOK REBARS AT EACH END
F70	7'-0"X7-0"	42	10-#11	HOOK REBARS AT EACH END

STRAP BEAM SCHEDULE									
BEAM MARK	SIZE		REINFORCEMENT			STIRRUPS			REMARKS
	WIDTH	DEPTH	BOTTOM CONTINUOUS	TOP CONT. CONTINUOUS	TOP ADD'L AT SUPPORT ADD'L BARS AT SUPPORT	TYPE	SIZE	SPACING	
SB1	42	48	7-#7	24-#11 (2 LAYERS)		2	#4	10	#6@12 H.E.F.
SB2	42	30	7-#7	12-#11		2	#4	10	

TYPE 2

STIRRUP TYPES

NOTES:

1. TOP OF PRESSURE SLAB EL. -25'-1 1/2" U.O.N. THUS ON PLAN .... PROJECT DATUM 0'-0" = BOROUGH OF MANHATTAN VERTICAL DATUM WHICH IS 2.75 FT. ABOVE NATIONAL GEODETIC VERTICAL DATUM MEAN SEA LEVEL AT SANDY HOOK OF 1929. TOP OF 6" SLAB ON GRADE TO BE AT EL. -23'-1 1/2"
2. PRESSURE SLAB THICKNESS TO BE 1'-8" U.O.N SLAB CONSTRUCTION TO BE AS INDICATED ON DWG. FO-001
3. FOR GENERAL NOTES, ABBREVIATIONS AND LEGEND SEE DWG. FO-001
4. TOP OF PILECAP/FOOTING ELEVATION TO BE AT TOP OF PRESSURE SLAB U.O.N. THUS (........) ON PLAN. FOR PILECAP REINF. SEE FO-200 SERIES AND FO-101.00, FO-102.00 & FO-103.00 DWGS.
5. CENTERLINE OF PILECAP SHALL COINCIDE WITH THE CENTERLINE OF SINGLE COLUMN / WALL ABOVE U.O.N.
6. PROVIDE DOWELS IN PILECAP TO MATCH VERTICAL WALL/PIER/COLUMN REINFORCEMENT. SEE SHEARWALL REINFORCING.
7. ALL SUBGRADE PREPARATION SHALL BE PER GEOTECHNICAL REPORT.
8. PROVIDE 6" SLAB (f'c=4000 psi) ON 1'-6" COMPACTED GRAVEL OVER PRESSURE SLAB S.P.G. TO BE REINFORCED WITH 6x6-W2.9xW2.9 EPOXY COATED W.W.F. ON TOP OF PRESSURE SLAB.
9. FOR PIT LOCATIONS & SIZE SEE ARCH. AND MEP DRAWINGS.
10. FOR TYPICAL FOUNDATION DETAILS AND SCHEDULES SEE FO-200 SERIES DWGS.
11. FOR FOUNDATION SECTIONS SEE FO-300 SERIES DWGS.
12. FOR COLUMN SIZE AND DETAILS, SEE S-950 SERIES DWGS.
13. PROVIDE WATERSTOPS AT ALL CONSTRUCTION JOINTS IN CONCRETE SLABS & WALLS.
14. PIT SLAB REINFORCEMENT TO MATCH PRESSURE SLAB REINFORCEMENT U.O.N.
15. DEWATERING OF THE SITE CAN STOP ONCE PRESSURE SLAB AND 6" SLAB ON GRAVEL IS IN PLACE AND TIEDOWNS ARE INSTALLED AND LOCKED OFF.
16. TOP OF DESIGN GROUND WATER AT EL. 6'-0" (SEE GEOTECH. REPORT).

PRESSURE SLAB REINFORCEMENT NOTES

BOTTOM REINFORCEMENT (PRESSURE SLAB)

1. PROVIDE A BOTTOM MAT OF #6@12 CONTINUOUS IN EACH DIRECTION U.O.N.
2. PROVIDE FULL TENSION LAP SPLICES (SEE TABLES ON FO-200 SERIES) AT MID SPAN BETWEEN SUPPORTS, EXCEPT:
3. ADJACENT TO THICKENED SLAB AT DROP PANELS, SPLICES SHALL BE LOCATED AT THE EDGE OF DROP PANEL. SEE SECTION THROUGH DROP PANEL FOR SPLICE CONFIGURATION.
4. WHERE ADDITIONAL REINFORCEMENT IS CALLED FOR ON PLANS OR IN DETAILS IT SHALL BE ALTERNATED WITH MAT REINFORCEMENT.
5. ALL BOTTOM REINFORCEMENT IS TO BE HOOKED 90° AT OUTSIDE PERIMETER OF SLAB, AT OPENINGS AND AT ANY OTHER DISCONTINUITY.

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LEGEND:

- + ON PLAN INDICATES 180T CAPACITY TIE DOWN ANCHOR. (FOR DETAILS SEE DRAWING FO-200) PROVIDE MINIMUM ONE TIE DOWN 13'-0" O/C EACH WAY.
- ◌ ON PLAN INDICATES 250T TENSION/COMPRESSION CAPACITY MINI CAISSONS, (FOR DETAILS SEE DWG. FO-200)
- ⊙ ON PLAN INDICATES 24"Ø CAISSON WITH 1500T COMPRESSION AND 750T TENSION CAPACITY. (FOR DETAILS SEE FO-200 SERIES)
- I ON PLAN INDICATES 250T CAPACITY HP14x89 PILES. (FOR DETAILS SEE FO-200 SERIES)

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1.	07.09.14	BULLETIN #1

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626 1ST AVENUE

NEW YORK, NY 10016

DRAWING TITLE

FOUNDATION PLAN
(CELLAR LEVEL 2)

SEAL & SIGNATURE

DATE	04/10/13
PROJECT NO.	1302180
DRAWN BY	CADD
CHECKED BY	SH
DOB NO.	
DRAWING NUMBER	FO-100.00

SHEET XX OF XX

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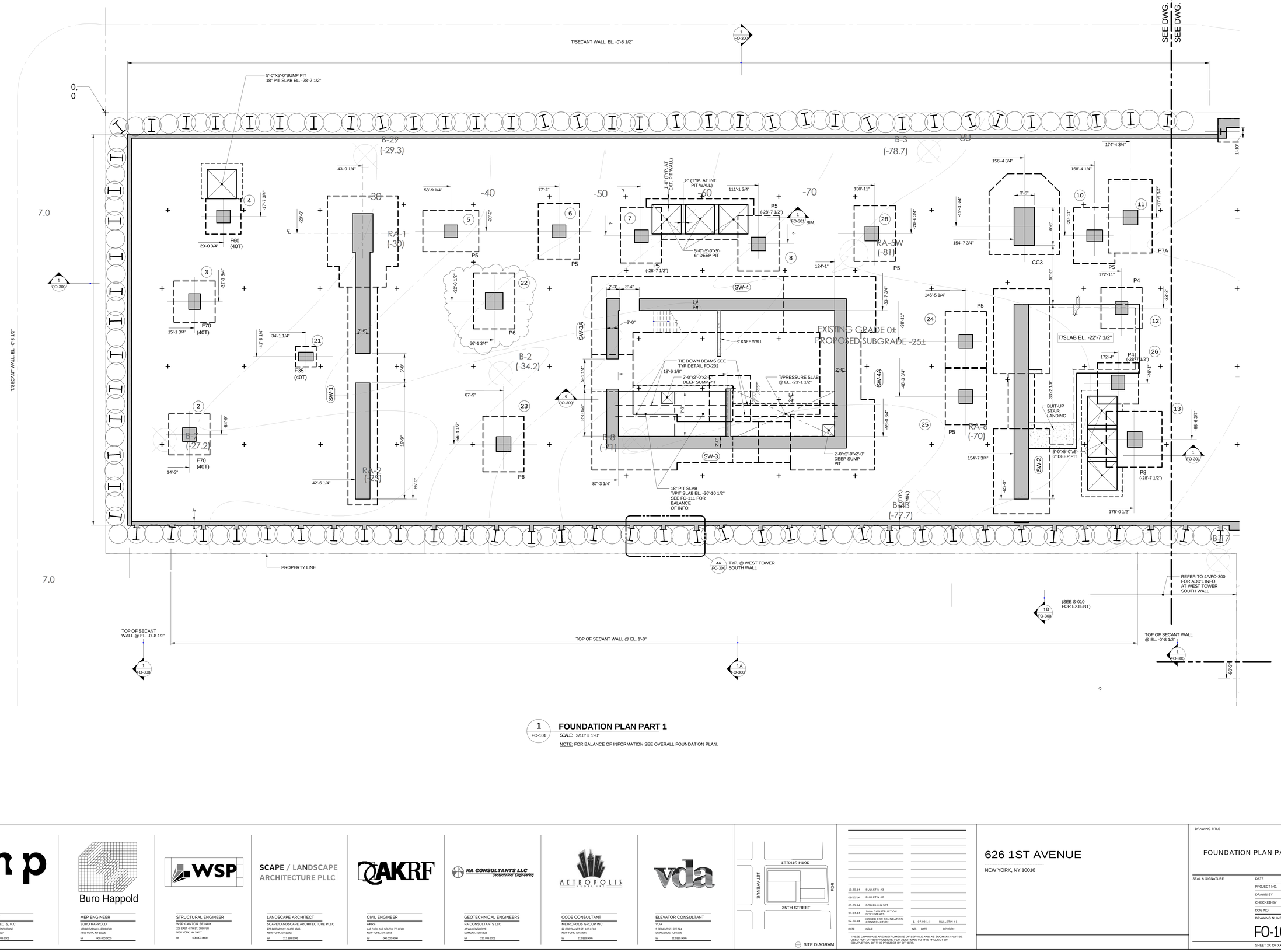

1 FO-101 FOUNDATION PLAN PART 1

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

NOTE: FOR BALANCE OF INFORMATION SEE OVERALL FOUNDATION PLAN.

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SITE DIAGRAM
36TH STREET
1ST AVENUE
FDR
35TH STREET

10.20.14	BULLETIN #3		
08/22/14	BULLETIN #2		
05.05.14	DOB FILING SET		
04.04.14	100% CONSTRUCTION DOCUMENTS		
02.20.14	ISSUED FOR FOUNDATION CONSTRUCTION	1	07.09.14 BULLETIN #1
DATE	ISSUE	NO.	DATE REVISON

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626 1ST AVENUE
NEW YORK, NY 10016

DRAWING TITLE
FOUNDATION PLAN PART 1

SEAL & SIGNATURE

DATE	02/26/14
PROJECT NO.	1302180
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CHECKED BY	Checker
DOB NO.	

DRAWING NUMBER
FO-101.00

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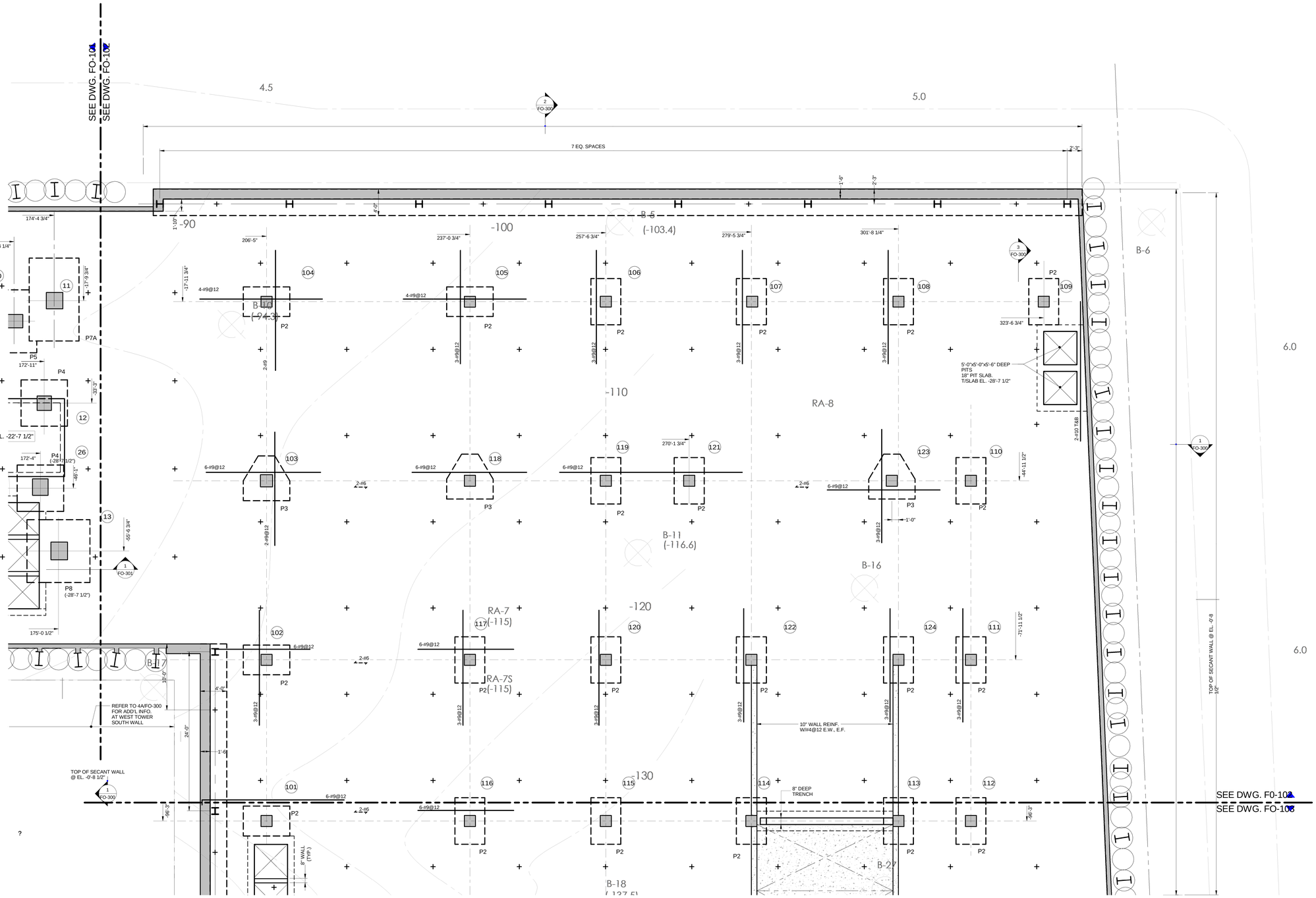

1 FO-102 FOUNDATION PLAN PART 2

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

NOTE:
1. FOR BALANCE OF INFORMATION SEE OVERALL FOUNDATION PLAN.

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05.05.14	DOB FILING SET
04.04.14	100% CONSTRUCTION DOCUMENTS
02.20.14	ISSUED FOR FOUNDATION CONSTRUCTION

NO.	DATE	REVISION
1	07.09.14	BULLETIN #1

626 1ST AVENUE
NEW YORK, NY 10016

DRAWING TITLE
FOUNDATION PLAN PART 2

DATE	02/26/14
PROJECT NO.	1302180
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DOB NO.	
DRAWING NUMBER	FO-102.00

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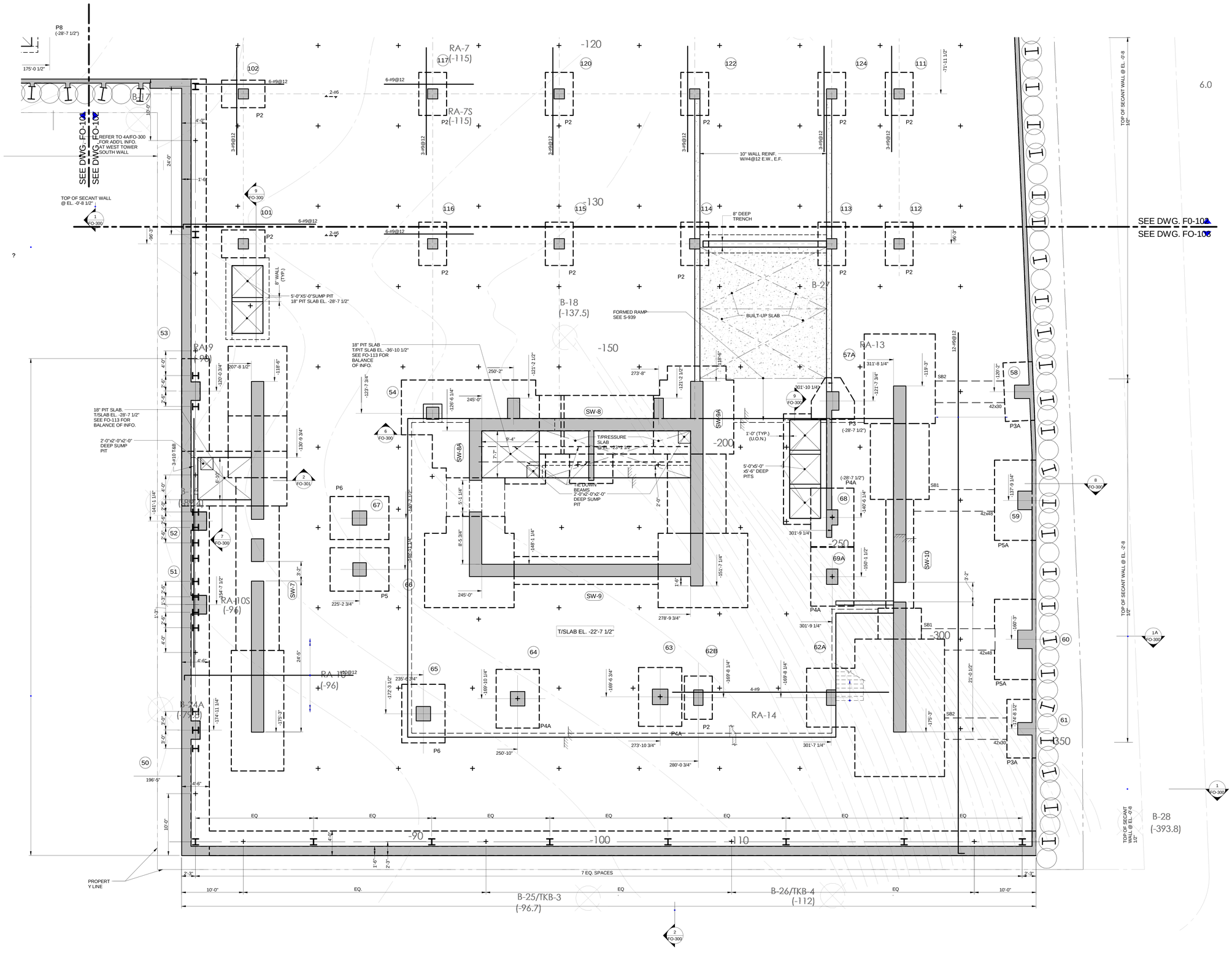

1 FO-103 **FOUNDATION PLAN PART 3**

SCALE 3/16" = 1'-0"

NOTE:
1. FOR BALANCE OF INFORMATION SEE OVERALL FOUNDATION PLAN.

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SITE DIAGRAM
36TH STREET
1ST AVENUE
FDR
35TH STREET

NO.	DATE	REVISION
10.20.14		BULLETIN #3
08/22/14		BULLETIN #2
05.05.14		DOB FILING SET
04.04.14		100% CONSTRUCTION DOCUMENTS
02.20.14		ISSUED FOR FOUNDATION CONSTRUCTION
1	07.09.14	BULLETIN #1

DATE ISSUE

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626 1ST AVENUE
NEW YORK, NY 10016

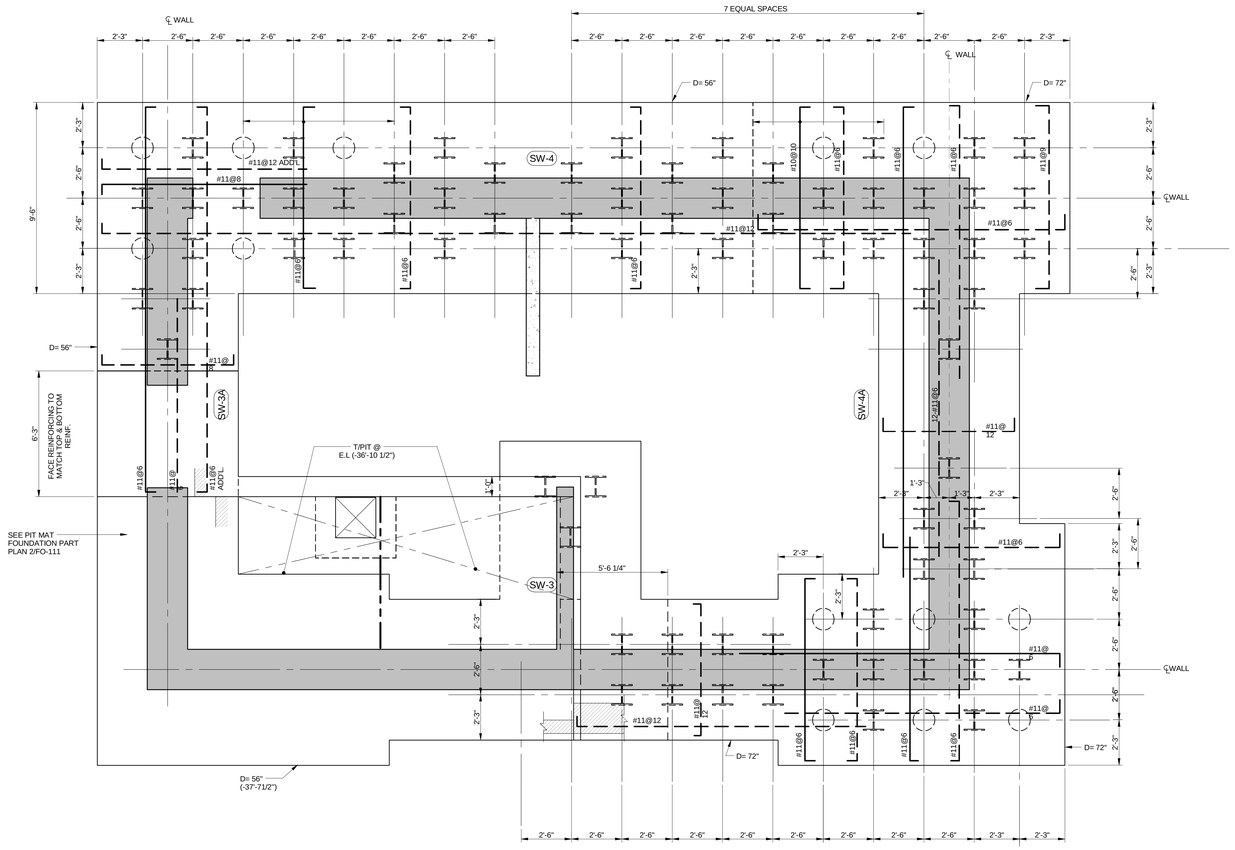
DRAWING TITLE
FOUNDATION PLAN PART 3

SEAL & SIGNATURE

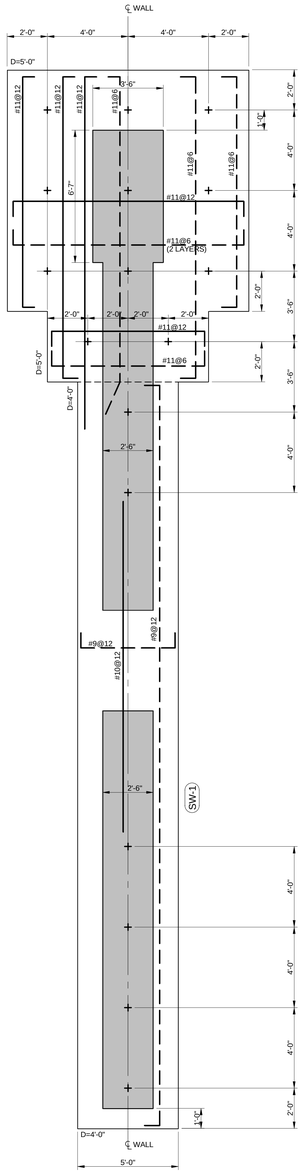
DATE	02/26/14
PROJECT NO.	1302180
DRAWN BY	Author
CHECKED BY	Checker
DOB NO.	
DRAWING NUMBER	FO-103.00

SHEET XX OF XX

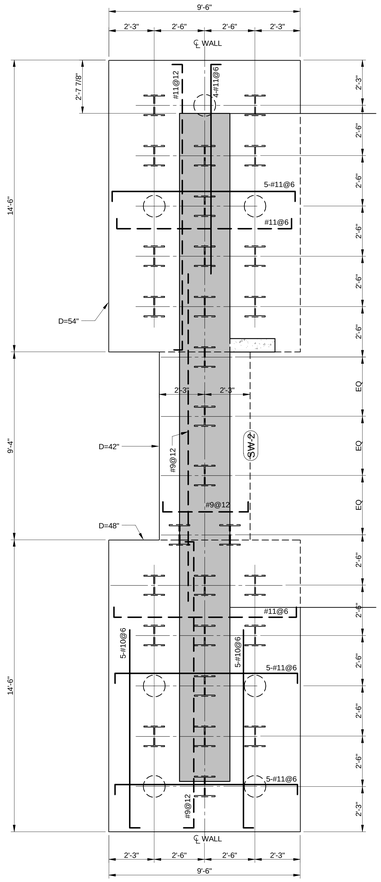
1302180 FO-103.00



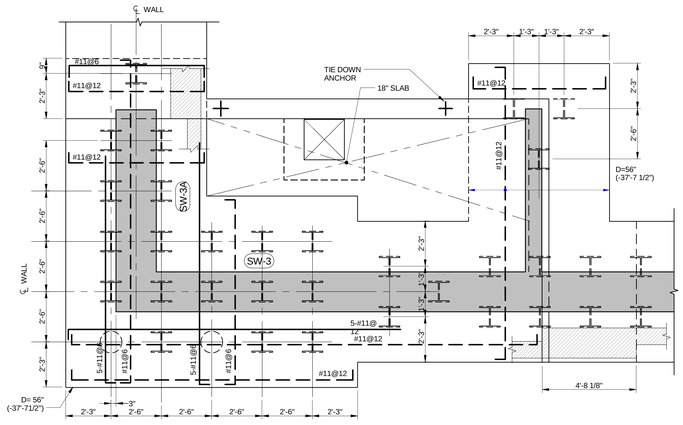
1 FO-111 **FOUNDATION MAT (SW-3, 3A, 4 & 4A)**
SCALE: 3/8" = 1'-0"



3 FO-111 **FOUNDATION MAT (SW-1) ON MIN. 40 TON/SF ROCK**
SCALE: 3/8" = 1'-0"



4 FO-111 **FOUNDATION MAT (SW-2)**
SCALE: 3/8" = 1'-0"



2 FO-111 **PART PLAN OF PIT FOUNDATION MAT (SW-3, 3A)**
SCALE: 3/8" = 1'-0"

LEGEND:

- ON PLAN INDICATES 180T CAPACITY TIE DOWN ANCHOR. (FOR DETAILS SEE DRAWING FO-200) PROVIDE MINIMUM ONE TIE DOWN 13'-0" O/C EACH WAY.
- ON PLAN INDICATES 250T TENSION/COMPRESSION CAPACITY MINI CAISSONS, (FOR DETAILS SEE DWG. FO-200)
- ON PLAN INDICATES 24"Ø CAISSON WITH 1500T COMPRESSION AND 750T TENSION CAPACITY. (FOR DETAILS SEE FO-200 SERIES)
- ON PLAN INDICATES 250T CAPACITY HP14x89 PILES. (FOR DETAILS SEE FO-200 SERIES)

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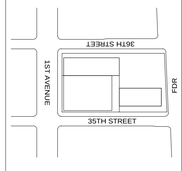

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10.29.14	BULLETIN #3		
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10.23.13	100% FOUNDATION CD		
08.16.13	100% DD SUBMISSION		
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05.03.13	100% SD SUBMISSION	1 07.09.14	BULLETIN #1
DATE	ISSUE	NO. DATE	REVISION

626 1ST AVENUE
NEW YORK, NY 10016

DRAWING TITLE
MAT FOUNDATION DETAILS 1

SEAL & SIGNATURE

DATE	04/30/13
PROJECT NO.	1302180
DRAWN BY	CADD
CHECKED BY	SR
DOB NO.	
DRAWING NUMBER	FO-111.00

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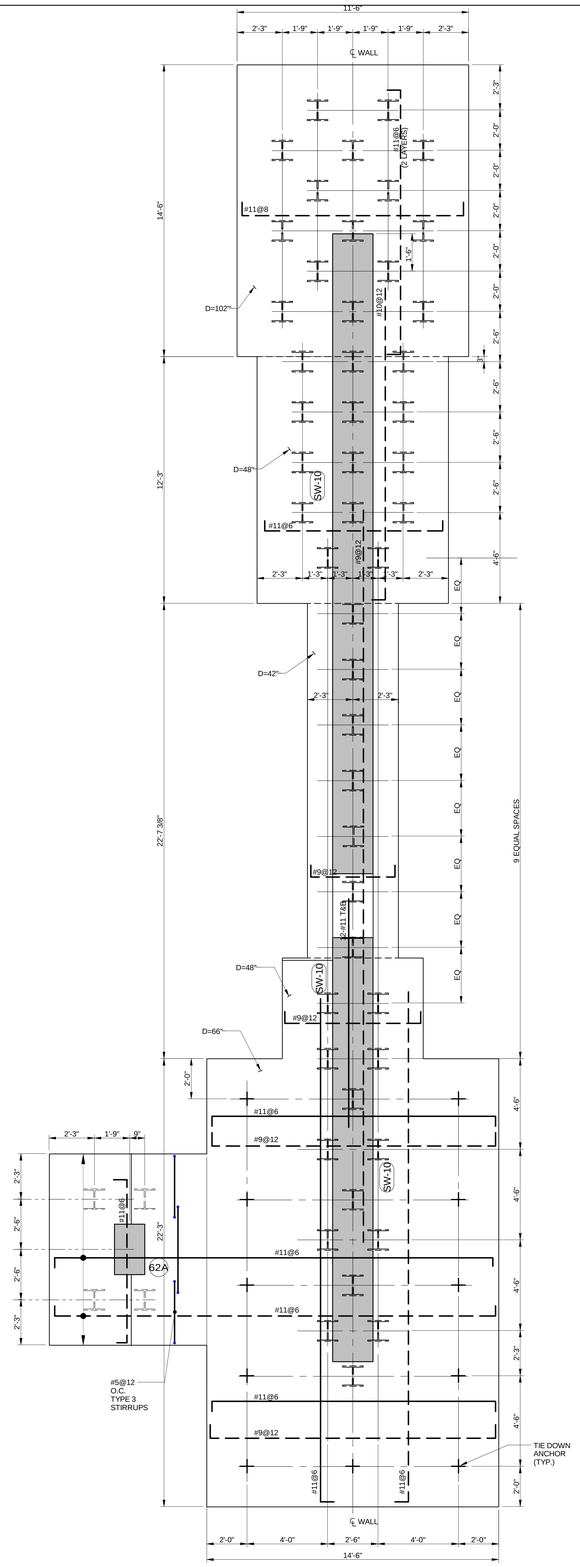
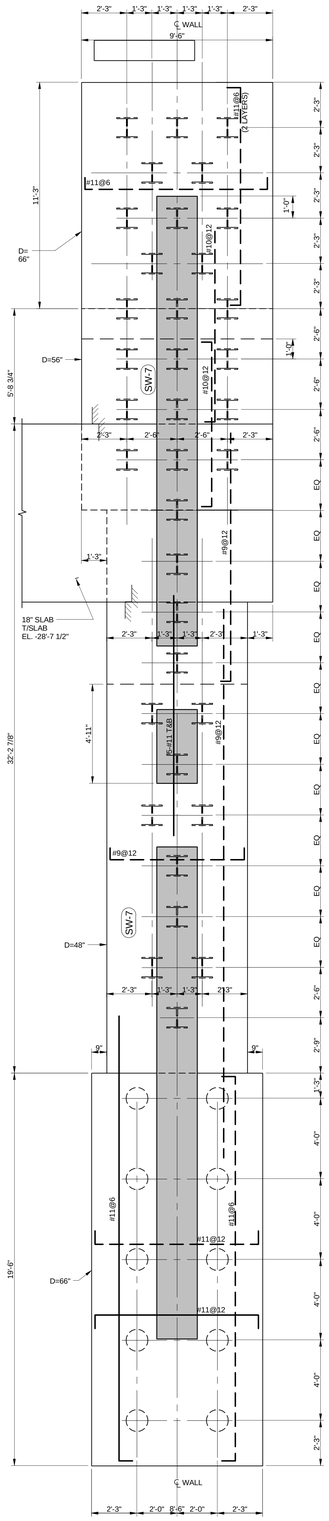


1 FO-112 **FOUNDATION MAT (SW-10)**
SCALE 3/8" = 1'-0"



2 FO-112 **FOUNDATION MAT (SW-7)**
SCALE 3/8" = 1'-0"

LEGEND:

- ON PLAN INDICATES 180T CAPACITY TIE DOWN ANCHOR. (FOR DETAILS SEE DRAWING FO-200) PROVIDE MINIMUM ONE TIE DOWN 13'-0" O/C EACH WAY.
- ON PLAN INDICATES 250T TENSION/COMPRESSION CAPACITY MINI CAISSONS, (FOR DETAILS SEE DWG. FO-200)
- ON PLAN INDICATES 24"Ø CAISSON WITH 1500T COMPRESSION AND 750T TENSION CAPACITY. (FOR DETAILS SEE FO-200 SERIES)
- ON PLAN INDICATES 250T CAPACITY HP14x89 PILES. (FOR DETAILS SEE FO-200 SERIES)

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SITE DIAGRAM

DATE	ISSUE
10.20.14	BULLETIN #3
09/22/14	BULLETIN #2
05.05.14	DOB FILING SET
04.04.14	100% CONSTRUCTION DOCUMENTS
02.20.14	ISSUED FOR FOUNDATION CONSTRUCTION
11.15.13	50% CD
11.07.13	SUPERSTRUCTURE BID ISSUE
10.23.13	100% FOUNDATION CD
08.16.13	100% DD SUBMISSION
06.07.13	90% FOUNDATION CD
05.07.13	80% CD FOR PURCHASING
05.03.13	100% SD SUBMISSION

NO.	DATE	REVISION
1	07.09.14	BULLETIN #1

626 1ST AVENUE

NEW YORK, NY 10016

DRAWING TITLE

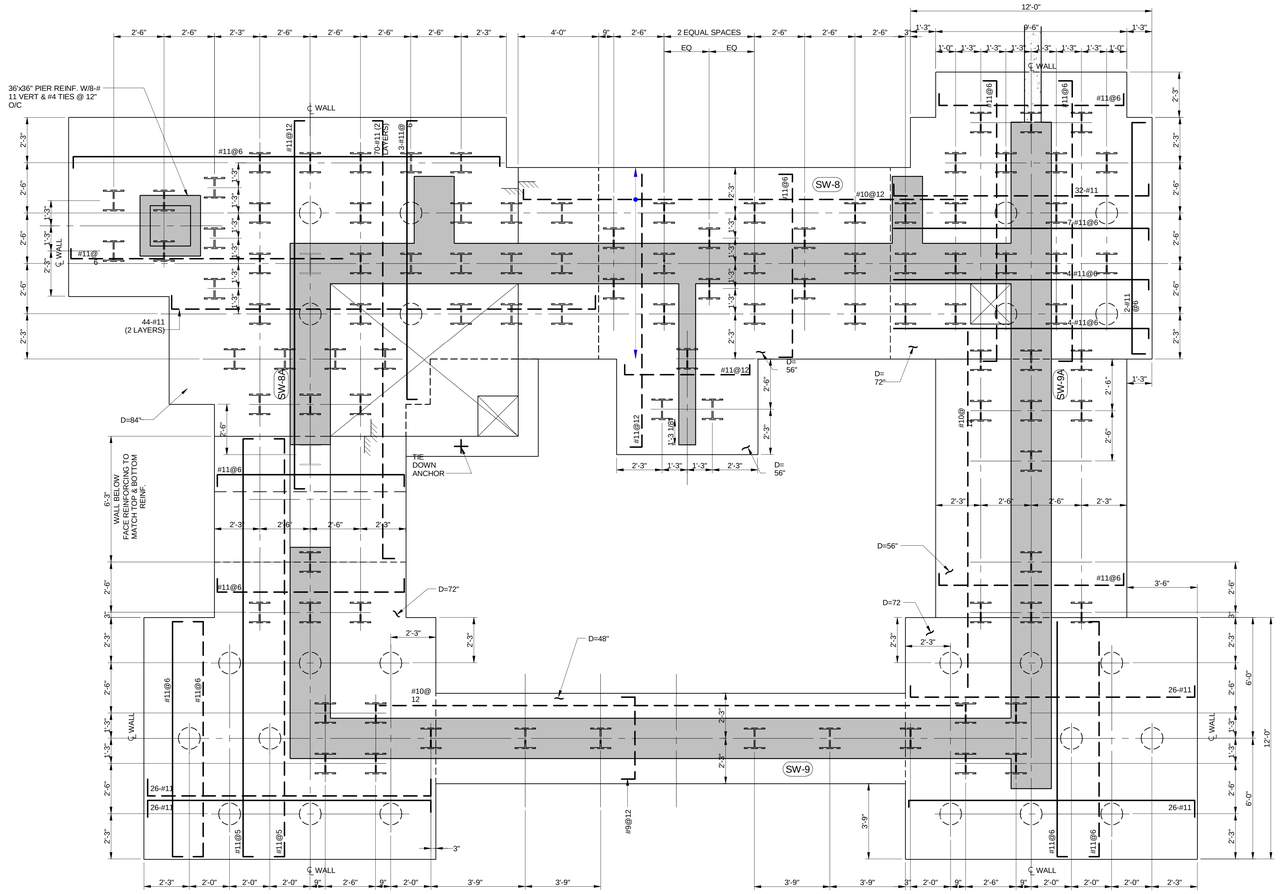
MAT FOUNDATION DETAILS 2

SEAL & SIGNATURE

DATE	05/01/13
PROJECT NO.	1302180
DRAWN BY	CADD
CHECKED BY	SH
DOB NO.	
DRAWING NUMBER	FO-112.00

SHEET XX OF XX

1302180 FO-112.00.dwg



1 FO-113 **FOUNDATION MAT (SW-8, 8A, 9, 9A)**

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

LEGEND:

ON PLAN INDICATES 180T CAPACITY TIE DOWN ANCHOR. (FOR DETAILS SEE DRAWING FO-200) PROVIDE MINIMUM ONE TIE DOWN 13'-0" O/C EACH WAY.

ON PLAN INDICATES 250T TENSION/COMPRESSION CAPACITY MINI CAISSONS, (FOR DETAILS SEE DWG. FO-200)

ON PLAN INDICATES 24'Ø CAISSON WITH 1500T COMPRESSION AND 750T TENSION CAPACITY. (FOR DETAILS SEE FO-200 SERIES)

ON PLAN INDICATES 250T CAPACITY HP14x89 PILES. (FOR DETAILS SEE FO-200 SERIES)

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SITE DIAGRAM

10.20.14	BULLETIN #3	
09/22/14	BULLETIN #2	
05.05.14	DOB FILING SET	
04.04.14	100% CONSTRUCTION DOCUMENTS	
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11.15.13	50% CD	
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10.23.13	100% FOUNDATION CD	
08.16.13	100% DD SUBMISSION	
06.07.13	90% FOUNDATION CD	
05.07.13	90% CD FOR PURCHASING	
05.03.13	100% SD SUBMISSION	

NO.	DATE	REVISION
2.	09.15.14	BULLETIN #2
1.	07.09.14	BULLETIN #1

THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND AS SUCH MAY NOT BE USED FOR OTHER PROJECTS, FOR ADDITIONS TO THIS PROJECT OR COMPLETION OF THIS PROJECT BY OTHERS.

626 1ST AVENUE
NEW YORK, NY 10016

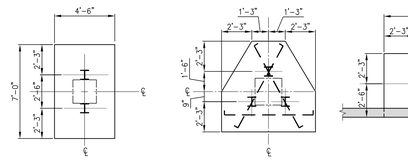
DRAWING TITLE
MAT FOUNDATION DETAILS 3

SEAL & SIGNATURE

DATE	05/02/13
PROJECT NO.	1302180
DRAWN BY	CADD
CHECKED BY	SH
DOB NO.	

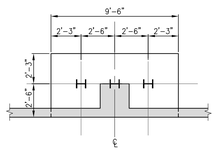
DRAWING NUMBER
FO-113.00

SHEET XX OF XX

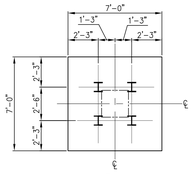


P2
DEPTH: 3'-3"
REINF: 6-#9 E.W.

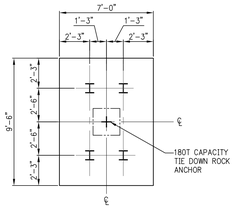
P3
DEPTH: 4'-0"
REINF: 7-#10 E.W. (3 WAYS)



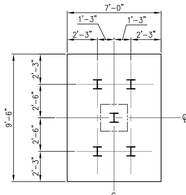
P3A
DEPTH: 4'-0"
REINF: 9-#11 L.W.
10-#8 S.W.



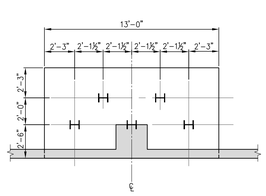
P4
DEPTH: 4'-6"
REINF: 8-#10 E.W.



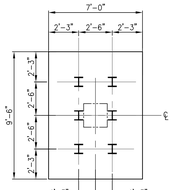
P4A
DEPTH: 4'-6"
REINF: 15-#11 E.W.



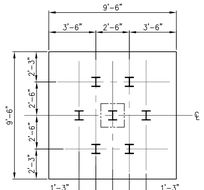
P5
DEPTH: 4'-9"
REINF: 11-#11 L.W.
8-#11 S.W.



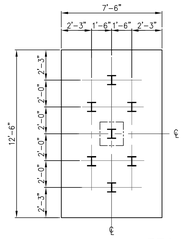
P5A
DEPTH: 5'-0"
REINF: 16-#11 L.W.
14-#9 B S.W.



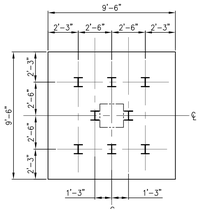
P6
DEPTH: 5'-9"
REINF: 11-#11 L.W.
10-#11 S.W.



P7
DEPTH: 5'-9"
REINF: 11-#11 E.W.



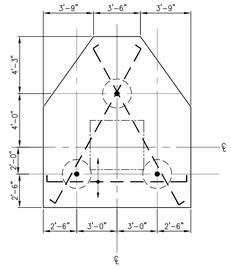
P7A
DEPTH: 5'-9"
REINF: 12-#11 L.W.
13-#10 S.W.



P8
DEPTH: 6'-0"
REINF: 14-#11 E.W.

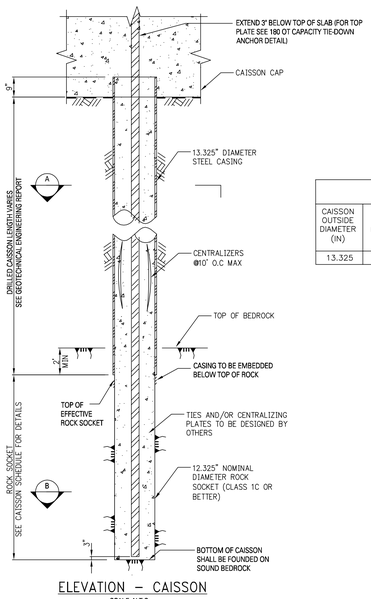
250 TON CAPACITY PILE CAP DETAILS

NOTE:
ALL REINFORCEMENT IS BOTTOM REINFORCEMENT, U.O.N.
(f'c PILE CAP = 7000psi, U.O.N.)
ALL BOTTOM REBARS IN P.C. TO BE HOOKED 90° EACH END

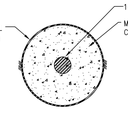


CC3
DEPTH: 6'-8"
REINF: 10-#11 TOP (3 WAY)
14-#10 @ 6 (BOTT. 3 WAY)
(f'c = 8000psi)

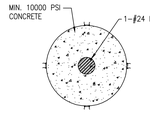
3-1500 TON COMPRESSION/750 TON TENSION CAPACITY CAISSON CAP DETAIL



ELEVATION – CAISSON
SCALE: N.T.S



SECTION A
SCALE: N.T.S.



SECTION B
SCALE: N.T.S.

CAISSON SCHEDULE					
CAISSON OUTSIDE DIAMETER (IN)	ROCK SOCKET DIAMETER TYP.(IN)	ROCK SOCKET LENGTH MIN (FT)	CAISSON CAPACITY		STEEL REINFORCEMENT (GRADE 150)
			AXIAL (KIPS)	UPLIFT (KIPS)	
13.325	12.325	10	500	500	1-#24 BARS

NOTES:

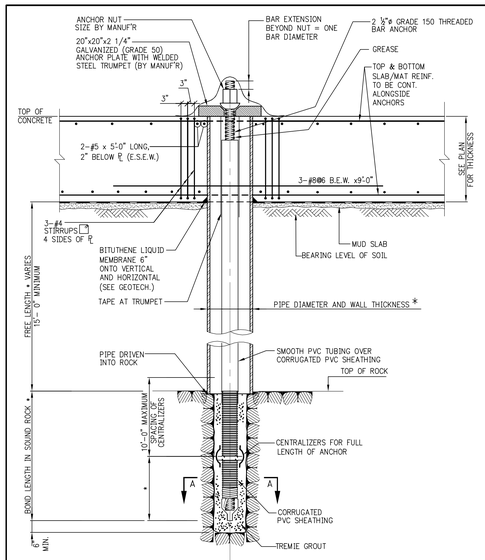
1. GENERAL:
   A. CAISSONS SHALL BE MINIMUM 18 INCHES CLEAR FROM ADJACENT STRUCTURES..
   B. CONTRACTOR TO SUBMIT DESIGN AND DETAILS PREPARED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK.
   C. ALL CAISSONS SHALL BE INSTALLED IN THE LOCATIONS AS SHOWN ON THE CONTRACT DRAWINGS.
   D. REJECTED CAISSON SHELLS SHALL BE FILLED WITH CONCRETE.
2. REINFORCEMENT:
   A. ALL CAISSONS SHALL BE REINFORCED WITH DYWIDAG/WILLIAMS/SAS THREADED BARS OR APPROVED EQUIVALENT WITH STEEL SHOWN IN CAISSON SCHEDULE.
   B. ALL REINFORCEMENT SHALL CONFORM TO THE GRADE OF STEEL AS SPECIFICED IN THE CAISSON SCHEDULE.
   C. MECHANICAL COUPLERS SHALL BE USED AS NEEDED TO MAKE UP REQUIRED LENGTHS.
   D. CAISSON REINFORCEMENT EXTENDING INTO THE CAP SHALL BE DEVELOPED AS SHOWN IN THE SECTIONS AND DETAILS.
   E. CENTRALIZERS SHALL BE PLACED ON REINFORCEMENT TO CENTER THE STEEL WITHIN THE CAISSON AT A MAXIMUM SPACING OF 10 FT C/C.
3. INSTALLATION:
   A. SET UP DRILL RIG ON PROPER LOCATION AND PLUMB MAST.
   B. INSTALL FIRST PIECE OF CASING WITH ATTACHED CARBIDE CUTTING TEETH AND INSTALL INNER ROD AND DRILL.
   C. DRILL CASING DOWN WITH EITHER WATER OR WATER AND POLYMER DRILLING MUD, AS NECESSARY
   D. FOLLOW UP WITH ADDITIONAL RODS AND CASING UNTIL CORRECT TIP ELEVATION IS REACHED AND CASING IS EMBEDDED IN ROCK.
   E. DRILL THE SOCKET.
   F. FLUSH HOLE WITH CLEAN WATER.
   G. BEFORE PLACEMENT OF CONCRETE, THE SOCKET SHALL BE THOROUGHLY CLEANED AND THE ROCK INSPECTED TO VERIFY THAT THE ROCK IS OF THE CLASS ON WHICH THE DESIGN HAS BEEN PREDICATED, OR OF A BETTER CLASS. PERFORM VISUAL INSPECTION (VIDEO SURVEY) OF ROCK SOCKET.
   H. INTRODUCE REINFORCEMENT AS REQUIRED.
   I. PLACE GROUT PIPE TO WITHIN 1 FT OF THE BOTTOM OF HOLE AND PUMP GROUT UNTIL CLEAN GROUT FLOWS OUT OF THE TOP.

TYPICAL MINI CAISSON DETAIL

SCALE: ¾" = 1'-0"

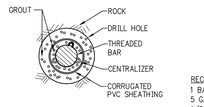
NOTES:

1. WHERE SLAB IS POURED OVER FOUNDATION PRIOR TO COLUMN, VERTICAL REINFORCING AND DOWEL LAP TO START AT TOP OF SLAB.
2. L INDICATES LENGTH OF THE PILES.
3. ✱ INDICATES THAT DEPTH OF PILE CAP SHALL BE INCREASED BY 9" WHEN LENGTH OF THE PILES (L) IS 7'-0"< L< 10'-0" (I.E. PILE EMBED. = 1'-3")
4. ✱✱ PILE CAP REINF. PLACED EITHER SIDE OF PILE WHEN PILE EMBED. = 1'-3"
5. IF LENGTH OF PILES IS LESS THAN 7'-0", PILES SHALL BE CUT AT ROCK LEVEL AND PILE CAP SHALL BE EXTENDED DOWN TO REST ON A MINIMUM 40 TON/SF ROCK.



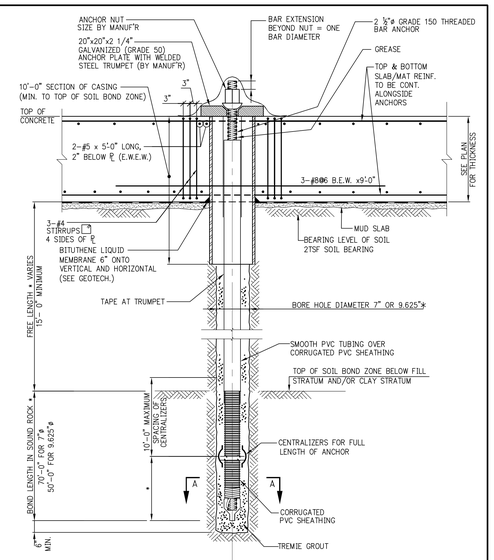
TIE-DOWN ROCK ANCHOR AT PRESURE SLAB (180 TON CAPACITY IN TENSION)

NOTE:
1. ✱ INDICATES COORDINATE WITH GEOTECH.
2. SEE GEOTECH. FOR SOIL ANCHOR DETAILS
3. TIEDOWN SHOULD BE TESTED AGAINST TOP OF CASING PRIOR TO CONSTRUCTION OF PRESSURE SLAB.



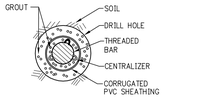
SECTION A-A

RECOMMENDED GROUT MIX
1 BAG – PORTLAND CEMENT TYPE III
5 GALLONS – POTABLE WATER
1/2 LB. SIKA ENTRAPLAST "N"



TIE-DOWN SOIL ANCHOR AT PRESURE SLAB (180 TON CAPACITY IN TENSION)

NOTE:
1.✱ INDICATES COORDINATE WITH GEOTECH.
2. SEE GEOTECH. FOR SOIL ANCHOR DETAILS
3. TIEDOWN SHOULD BE TESTED PRIOR TO CONSTRUCTION OF PRESSURE SLAB

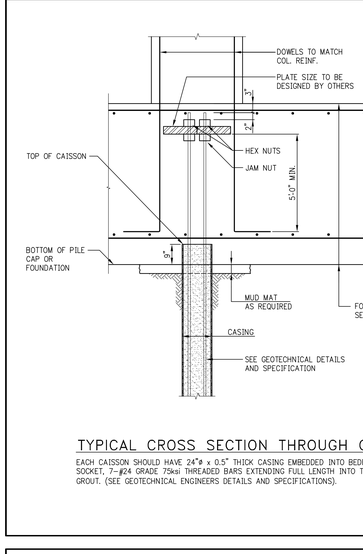


SECTION A-A

RECOMMENDED GROUT MIX
1 BAG – PORTLAND CEMENT TYPE III
5 GALLONS – POTABLE WATER
1/2 LB. SIKA ENTRAPLAST "N"

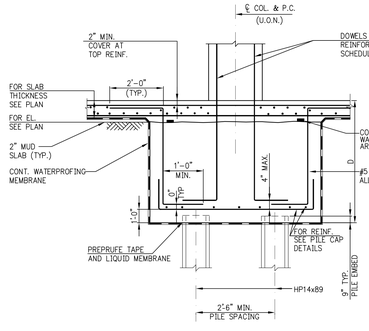
D. ROCK ANCHOR GENERAL NOTES

1. ROCK ANCHORS SHALL BE IN CONFORMANCE WITH LATEST PTI (POST – TENSIONING INSTITUTE) "RECOMMENDATIONS FOR PRESTRESSED ROCK AND SOIL ANCHORS", FOR SIZES AND LOCATIONS SEE FOUNDATION DRAWINGS.
2. ALL ROCK ANCHORS SHALL BE GRADE 150 THREADED BARS CONFORMING TO ASTM A-722. THREADED BARS SHALL BE PROVIDED WITH SHOP FABRICATED DOUBLE CORROSION PROTECTION. THREADED BARS, ANCHORAGE'S, CENTRALIZERS, ACCESSORIES, CORROSION PROTECTION SYSTEM, ETC. SHALL BE PROVIDED BY SAS STRESSTEEL OR APPROVED EQUAL.
3. THREADED BARS SHALL BE ENCAPSULATED WITH HIGH STRENGTH PVC CORRUGATED SHEATHING (COMPRESSIVE STRENGTH = 7,000 PSI) AND SHALL BE PRE-GROUTED BY THE MANUFACTURER.
4. PLATES SHALL CONFORM TO ASTM A-36.
5. ANCHOR NUTS AND COUPLERS SHALL BE CAPABLE OF DEVELOPING 100% OF THE ULTIMATE STRENGTH OF THE THREADED BAR.
6. CARE MUST BE TAKEN NOT TO DAMAGE THE TENDONS. KEEP ALL COMPONENTS OF THE SYSTEM FREE OF DIRT OR OTHER DELETERIOUS SUBSTANCES.
7. DO NOT WELD IN THE VICINITY OF THE THREADED BARS.
8. DO NOT USE ANCHORS AS A GROUND FOR WELDING.
9. THE FIRST THREE ANCHORS INSTALLED, AND TEN PER CENT OF REMAINING ANCHORS, SHALL BE PERFORMANCE TESTED. ALL OTHER ANCHORS SHALL BE PROOF TESTED. ALL TESTS SHALL BE PERFORMED USING A CALIBRATED CENTER HOLE JACK.
10. PERFORMANCE TESTS SHALL BE MADE BY INCREMENTALLY LOADING AND UNLOADING THE ANCHOR IN ACCORDANCE WITH THE FOLLOWING SCHEDULE, WHERE AL= ALIGNMENT LOAD AND P= DESIGN LOAD:
    10.1 AL .25P
    10.2 AL, .25P, .50P
    10.3 AL, .25P, .50P, .75P
    10.4 AL, .25P, .50P, .75P, 1.00P
    10.5 AL, .25P, .50P, .75P, 1.00P, 1.20P
    10.6 AL, .25P, .50P, .75P, 1.00P, 1.20P, 1.33P (TEST LOAD)
    HOLD 1.33P FOR CREEP TEST. RECORD MOVEMENTS AT EACH INCREMENT USING A DIAL INDICATOR CAPABLE OF READING INCREMENTS OF .001 INCH, ALL IN CONFORMANCE WITH PTI RECOMMENDATIONS. RELEASE TO TRANSFER LOAD AND LOCK OFF ANCHOR NUT.
11. PROOF TESTS SHALL BE MADE BY INCREMENTALLY LOADING THE ANCHOR: AL, .25P, .50P, .75P, 1.00P, 1.20P, 1.33P (TEST LOAD, TEN MINUTE HOLD) RECORD MOVEMENTS AT EACH INCREMENT IN CONFORMANCE WITH PTI RECOMMENDATIONS. RELEASE TO TRANSFER LOAD AND LOCK OFF ANCHOR NUT.
12. CONTRACTOR SHALL SUBMIT ANCHOR SHOP DRAWING(S) FOR APPROVAL PRIOR TO COMMENCING ANCHOR INSTALLATION. SHOP DRAWING(S) SHALL CONTAIN ANCHOR DETAILS, AND INSTALLATION AND TESTING PROCEDURES.



TYPICAL CROSS SECTION THROUGH CAISSON CAP

EACH CAISSON SHOULD HAVE 24"ø x 0.5" THICK CASING EMBEDDED INTO BEDROCK, A 20-FT ROCK SOCKET, 7-#24 GRADE 75ksi THREADED BARS EXTENDING FULL LENGTH INTO THE ROCK SOCKET,10ksi GROUT. (SEE GEOTECHNICAL ENGINEERS DETAILS AND SPECIFICATIONS).



TYPICAL CROSS SECTION THRU PILE CAP

FOR WATERPROOFING DETAILS SEE GEOTECH./ARCH. SPECIFICATIONS DWGS.

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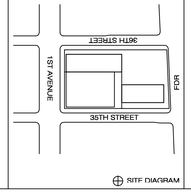


SITE DIAGRAM

DATE	ISSUE
10.30.14	BULLETIN #3
08.20.14	BULLETIN #2
06.06.14	DOB FILING SET
04.04.14	ISSUED FOR 100% CONSTRUCTION DOCUMENTS
02.20.14	ISSUED FOR FOUNDATION CONSTRUCTION
11.16.13	90% CD
11.07.13	SUPERSTRUCTURE BID ISSUE
10.23.13	100% FOUNDATION CD
06.16.13	100% DD SUBMISSION
06.07.13	90% FOUNDATION DD
05.07.13	60% CD FOR PURCHASING
05.03.13	100% SD SUBMISSION

DATE	ISSUE	NO.	DATE	REVISION
		07.09.14	BULLETIN #1	

THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND AS SUCH MAY NOT BE USED FOR OTHER PROJECTS, FOR ADDITIONS TO THIS PROJECT OR COMPLETION OF THIS PROJECT BY OTHERS.

626 1ST AVENUE

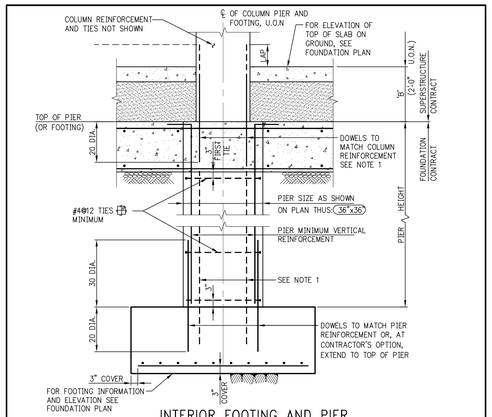
626 1ST AVENUE
NEW YORK, NY 10016

DRAWING TITLE
FOUNDATION TYPICAL DETAILS 1

SEAL & SIGNATURE

DATE	05/16/1
PROJECT NO.	130218
DRAWN BY	CADI
CHECKED BY	SJ
DOB NO.	
DRAWING NUMBER	FO-200.00

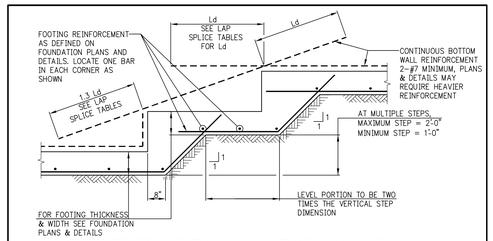
SHEET XX OF XX



INTERIOR FOOTING AND PIER AT CONCRETE COLUMN

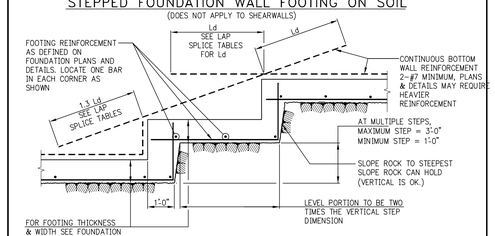
NOTES:

1. WHERE PIER HEIGHT IS LESS THAN EMBEDMENT LENGTH OF COLUMN DOWELS, EMBED DOWELS IN FOOTING AND EXTEND THROUGH PIER INTO COLUMN ABOVE.
2. AT CONTRACTOR'S OPTION, A SHORT PIER MAY BE ELIMINATED BY THICKENING THE COLUMN FOOTING TO THE TOP OF PIER ELEVATION.
3. MAXIMUM PIER HEIGHT TO BE EIGHT TIMES THE LEAST PIER DIMENSION. INCREASE PIER SIZE AS REQUIRED TO MAINTAIN THIS RATIO.



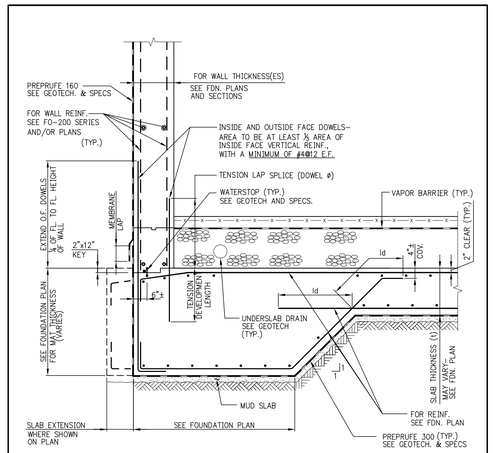
STEPPED FOUNDATION WALL FOOTING ON SOIL

(DOES NOT APPLY TO SHEARWALLS)

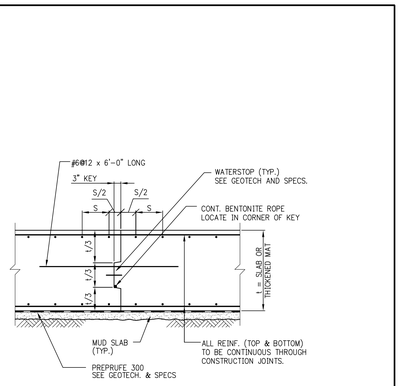


STEPPED FOUNDATION WALL FOOTING ON ROCK

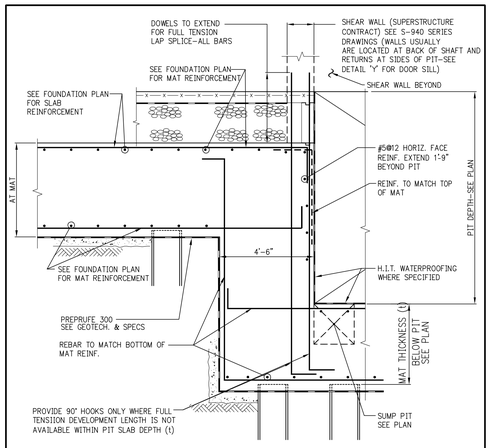
(DOES NOT APPLY TO SHEARWALLS)



MAT FOUNDATION AT EXTERIOR WALL

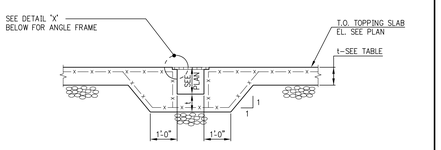


MAT FOUNDATION CONSTRUCTION JOINT

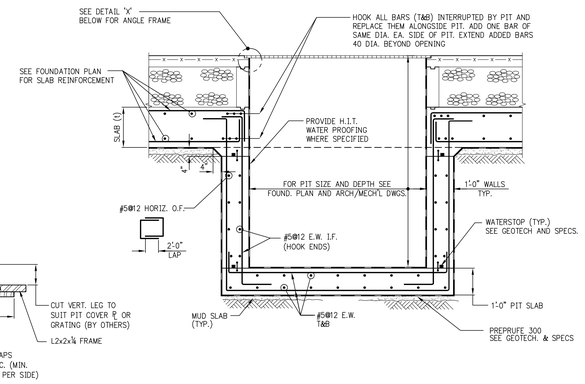


MAT FOUNDATION ELEVATOR PIT (3 SIDES)

SEE DETAIL 'Y' FOR FOURTH SIDE

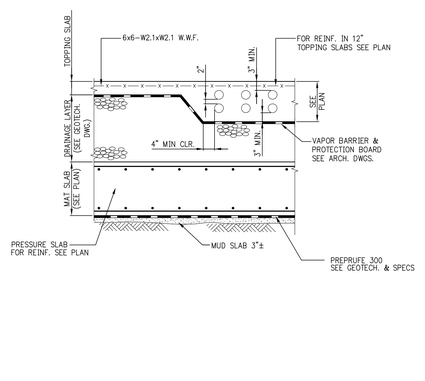


ELEVATOR DETAIL 'Y' AT SILL RECESS

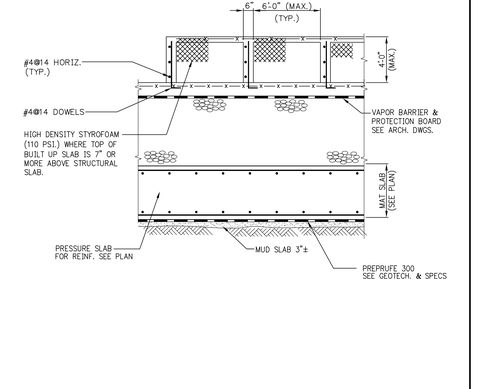


DETAIL X

MAT FOUNDATION PIT IN SLAB AREA

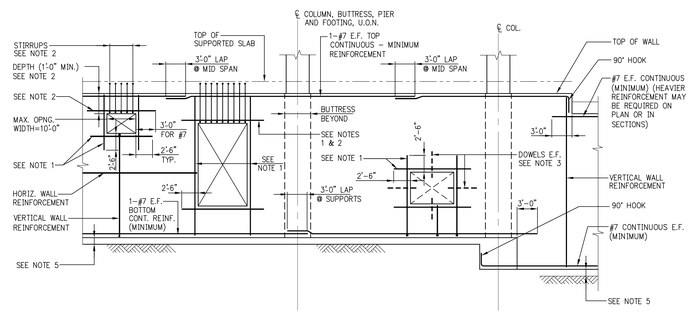


TYPICAL CONDUIT CONCRETE ENCASEMENT DETAIL IN TOPPING SLAB



TYPICAL DETAILS OF BUILT UP SLABS OVER TOPPING SLAB ON GRAVEL

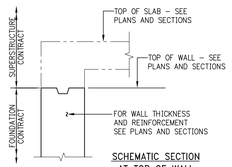
TYPICAL TRENCH DETAIL IN TOPPING SLAB



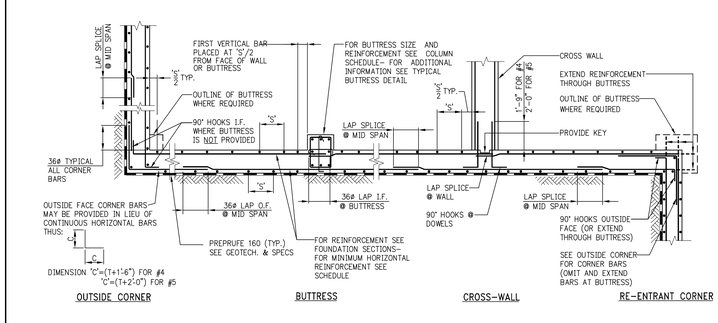
FOUNDATION WALL ELEVATION SHOWING REINFORCEMENT AT OPENINGS AND MISCELLANEOUS DETAILS

NOTES:

1. ADD #5 BARS (HORIZ. & VERT.) AT ALL FOUR EDGES OF OPENINGS. AREA OF ADDED BARS AT EACH EDGE TO BE EQUAL TO ONE HALF OF AREA OF INTERRUPTED BARS IN THE CORRESPONDING DIRECTION. PROVIDE A MINIMUM OF 1—#5 E.F.
2. WHERE TOP EDGE OF OPENING IS LESS THEN 2'-6" FROM TOP OF WALL ADD 1—#7 E.F. (IN LIEU OF #5) OVER OPENING. PROVIDE #4 [ ] STIRRUPS @ 8" EXTEND INTO SLAB WITH 2" COVER AT TOP OF STIRRUPS.
3. AT UTILITY ACCESS OPENINGS WHICH ARE TO BE FILLED IN WITH CONCRETE, PROVIDE DOWELS PROJECTING 1'-0" INTO OPENING. EITHER EXTEND HORIZONTAL AND VERTICAL WALL REINFORCEMENT, OR ADD #4@12± E.F. DOWELS x2'-6" LONG.
4. FOR ACTUAL OPENING SIZES AND LOCATIONS, SEE PLANS, SECTIONS, ARCHITECTURAL DWGS., AND MEP DWGS. SUBMIT SHOP DRAWINGS WITH WALL ELEVATIONS SHOWING ALL OPENINGS AND REINFORCEMENT.
5. PROVIDE FOOTING OR CONCRETE MUD SLAB TO SUPPORT WALL FORMS AND WET CONCRETE. SEE FOUNDATION SECTIONS ON FS-300 SERIES DRAWINGS FOR ADDITIONAL DETAILS.



SCHEMATIC SECTION AT TOP OF WALL



MINIMUM HORIZONTAL WALL REINFORCEMENT REQUIRED AT EACH FACE	
T = WALL THICKNESS	HORIZONTAL REINFORCEMENT
UP TO 10"	#4@18 E.F.
11" TO 12"	#4@16 E.F.
13" TO 16"	#4@12 E.F.
17" TO 20"	#4@10 OR #5@15 E.F.
21" TO 22"	#4@9 OR #5@12 E.F.
23" TO 24"	#4@8 OR #5@12 E.F.
OVER 24"	SEE PLANS AND SECTIONS

HORIZONTAL SECTION SHOWING PLACEMENT OF FOUNDATION WALL REINFORCEMENT

NOTE:
VERTICAL CONSTRUCTION JOINT IN WALL IS NOT SHOWN HERE— SEE TYPICAL CONSTRUCTION JOINT DETAIL.

FOR WATERPROOFING DETAILS SEE GEOTECH./ARCH. SPECIFICATIONS DWGS.

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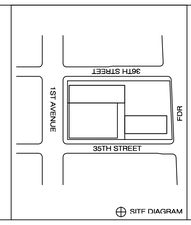

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11.19.13	90% CD
11.01.13	SUPERSTRUCTURE IMD ISSUE
10.23.13	100% FOUNDATION CD
09.16.13	100% DD SUBMISSION
06.07.13	90% FOUNDATION DD
05.07.13	80% CD FOR PURCHASING
05.03.13	100% SD SUBMISSION

NO.	DATE	REVISION
07.09.14	BULLETIN #1	

626 1ST AVENUE

626 1ST AVENUE
NEW YORK, NY 10016

DRAWING TITLE

FOUNDATION TYPICAL DETAILS 2

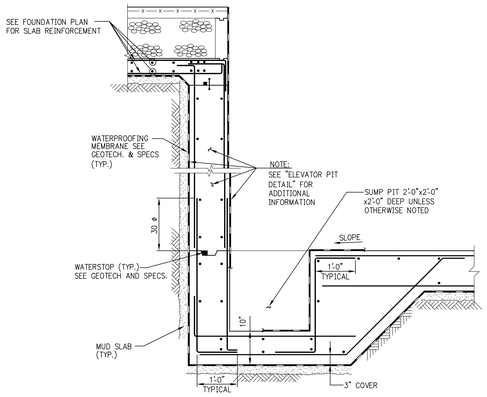
SEAL & SIGNATURE

DATE	08/16/1
PROJECT NO.	130218
DRAWN BY	CADI
CHECKED BY	SJ
DOB NO.	

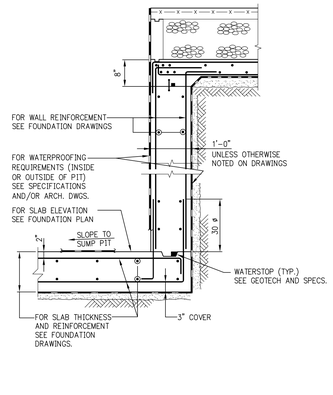
DRAWING NUMBER

FO-201.00

SHEET XX OF XX

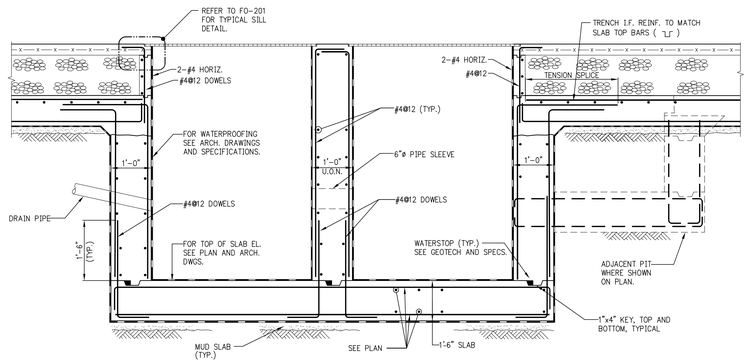


ELEVATOR PIT SILL AND SUMP PIT

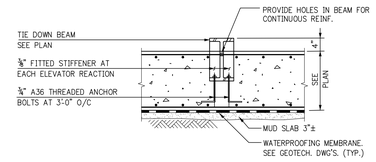


ELEVATOR PIT

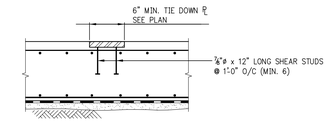
NOTE:
PROVIDE ELEVATOR TIE-DOWN BEAM AS REQUIRED. SEE PLAN AND "ELEVATOR TIE-DOWN BEAM" DETAIL.



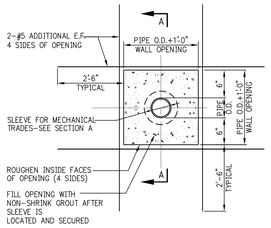
TYPICAL DOUBLE PIT



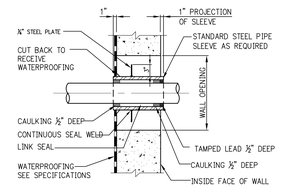
TYPICAL ELEVATOR TIE DOWN BEAM DETAIL
NOTE: FOR LOCATIONS SEE FO-100



ALTERNATE ELEVATOR TIE DOWN DETAIL
NOTE: FOR LOCATIONS SEE FO-100

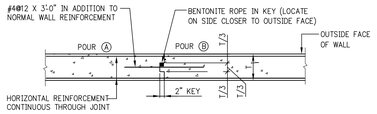


BOX-OUT OPENING THROUGH FOUNDATION WALL

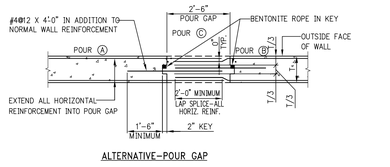


SECTION A-A

WATERPROOFED SLEEVE THROUGH WALL WITH WATERPROOFING



PLAN VIEW OF JOINT

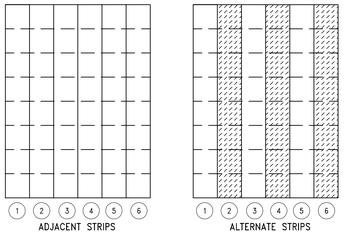


ALTERNATIVE-POUR GAP

VERTICAL CONSTRUCTION JOINT IN FOUNDATION WALL

NOTES:

1. CONSTRUCTION JOINTS IN WALLS SHALL BE LOCATED AT LEAST FOUR FEET FROM FACE OF SUPPORTING PIER, FOOTING, PILE CAP, ETC, OR FROM WALL OPENING.
2. MAXIMUM SPACING BETWEEN JOINTS SHALL BE FORTY FEET UNLESS NOTED OTHERWISE ON THE FOUNDATION DRAWINGS.
3. CONCRETE SHALL NOT BE PLACED IN THE POUR GAP UNTIL 24 HOURS AFTER PLACEMENT OF THE MOST RECENT ADJACENT SECTION.
4. FOR JOINTS IN SHEARWALLS SEE DETAILS IN S-940 SERIES.



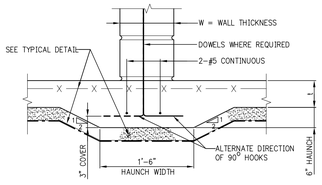
SUGGESTED SEQUENCE OF CASTING STRIPS

SLAB ON GROUND NOTES:

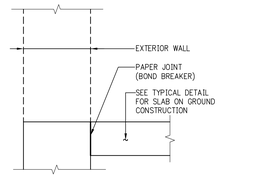
1. SLAB ON GROUND SHALL BE PLACED IN STRIPS, AS SHOWN IN "SUGGESTED SEQUENCE OF CASTING STRIPS".
2. CONTROL JOINTS SHALL BE SAWCUT AS SOON AS CONCRETE IS HARD ENOUGH NOT TO BE TORN OR DAMAGED BY THE BLADE, AND BEFORE THE CONCRETE STARTS TO COOL. TYPICALLY JOINTS SHOULD BE CUT 4 TO 12 HOURS AFTER THE SLAB HAS BEEN FINISHED, DEPENDING UPON WEATHER AND JOB CONDITIONS.
3. SPACING OF SAWCUT CONTROL JOINTS (IN FEET) TO BE APPROXIMATELY THREE TIMES THE SLAB THICKNESS IN INCHES, WITH A MAXIMUM OF TWENTY (20) FEET.
4. A MAXIMUM RATIO OF 1.5 SHALL BE MAINTAINED BETWEEN LONG AND SHORT DIMENSIONS OF PANELS FORMED BY CONSTRUCTION AND CONTROL JOINTS.

LEGEND:

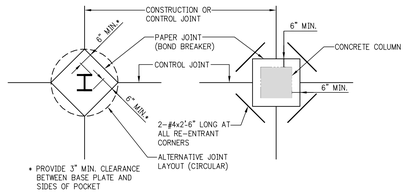
- STRIPS CAST FIRST
- INFILL STRIPS
- FORMED JOINTS
- SAWCUT JOINTS



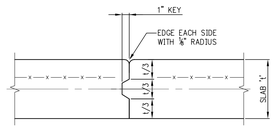
THICKENED SLAB AT MASONRY WALLS 6" THICK OR GREATER



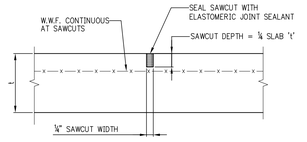
ISOLATION JOINT AT PERIMETER WALL



CONTROL JOINT LAYOUT AT COLUMNS

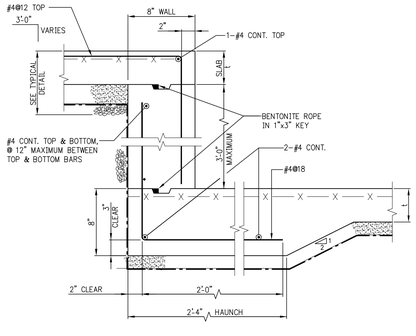


CONSTRUCTION JOINT

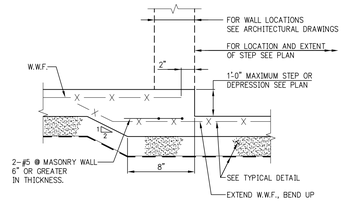


SAWCUT CONTROL JOINT

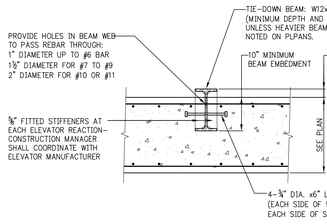
SLAB ON GROUND JOINT DETAILS



SLAB ON GROUND STEP OR DEPRESSION GREATER THAN 1'0"



SLAB ON GROUND STEP OR DEPRESSION 1'0" OR LESS



ELEVATOR TIE-DOWN BEAM

FOR WATERPROOFING DETAILS SEE GEOTECH./ARCH. SPECIFICATIONS DWGS.

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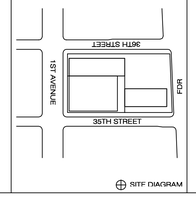

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08.16.13	100% CD SUBMISSION		
06.07.13	90% FOUNDATION CD		
05.07.13	80% CD FOR PURCHASING		
05.03.13	100% SD SUBMISSION	07.09.14	BULLETIN #1
DATE	ISSUE	NO. DATE	REVISION

626 1ST AVENUE

626 1ST AVENUE
NEW YORK, NY 10016

DRAWING TITLE

FOUNDATION TYPICAL DETAILS 3

SEAL & SIGNATURE	
DATE	08/15/1
PROJECT NO.	130218
DRAWN BY	CADI
CHECKED BY	S.>
DOB NO.	

DRAWING NUMBER

FO-202.00

SHEET XX OF XX

TABLE #1:
TENSION LAP SPLICE LENGTHS (CLASS B MINIMUM)

TABLE 1.A: ¾" COVER TO OUTER LAYER BARS
OUTER LAYER LAP LENGTHS (IN INCHES)

BAR / f'c	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000+
#3	16	16	16	16	16	16	16	16
#4	21	20	20	20	20	20	20	20
#5	31	27	24	24	24	24	24	24
#6	43	37	33	30	29	29	29	29
#7	69	60	53	49	45	42	40	38
#8	85	74	66	60	56	52	49	47
#9	103	89	80	73	67	63	59	56
#10	121	105	94	86	79	74	70	66
#11	140	122	109	99	92	86	81	77

TABLE 1.C: 1½" COVER TO OUTER LAYER BARS
OUTER LAYER LAP LENGTHS (IN INCHES)

NOTE: USE TABLE 1.A IF BAR SPACING IS LESS THAN 4" O/C UP TO #8, 5" O/C FOR #9, #10, #11

BAR / f'c	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000+
#3	16	16	16	16	16	16	16	16
#4	20	20	20	20	20	20	20	20
#5	24	24	24	24	24	24	24	24
#6	29	29	29	29	29	29	29	29
#7	42	37	34	34	34	34	34	34
#8	53	46	41	39	39	39	39	39
#9	66	57	51	46	44	44	44	44
#10	79	68	61	56	51	49	49	49
#11	92	80	72	65	60	57	54	54

TABLE 1.B: ¾" COVER TO OUTER LAYER BARS
INNER LAYER LAP LENGTHS (IN INCHES)

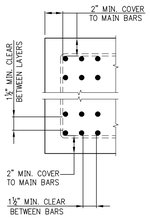
NOTE: USE TABLE 1.A IF BAR SPACING IS LESS THAN 4" O/C UP TO #8, 5" O/C FOR #9, #10, #11

BAR / f'c	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000+
#3	16	16	16	16	16	16	16	16
#4	20	20	20	20	20	20	20	20
#5	24	24	24	24	24	24	24	24
#6	30	29	29	29	29	29	29	29
#7	48	42	38	34	34	34	34	34
#8	61	53	47	43	40	39	39	39
#9	75	65	58	53	49	46	44	44
#10	89	77	69	63	58	55	51	49
#11	104	90	81	74	68	64	60	57

TABLE 1.D: 1½" COVER TO OUTER LAYER BARS
INNER LAYER LAP LENGTHS (IN INCHES)

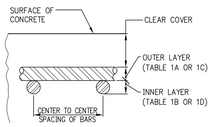
NOTE: USE TABLE 1.A IF BAR SPACING IS LESS THAN 5" O/C UP TO #8, 6" O/C FOR #9, #10, #11

BAR / f'c	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000+
#3	16	16	16	16	16	16	16	16
#4	20	20	20	20	20	20	20	20
#5	24	24	24	24	24	24	24	24
#6	29	29	29	29	29	29	29	29
#7	37	34	34	34	34	34	34	34
#8	43	39	39	39	39	39	39	39
#9	53	46	44	44	44	44	44	44
#10	64	55	49	49	49	49	49	49
#11	75	65	58	54	54	54	54	54



MULTIPLE LAYERS

PROVIDE MINIMUM COVER AND CLEARANCES SHOWN, USE TABLE 1.A FOR LAP SPLICE LENGTHS.



NOTE:

1. ALL REBARS LARGER THAN #11 SHALL HAVE A MINIMUM YIELD STRESS OF fy=75ksi AND SHALL BE MECHANICALLY TENSION/COMPRESSION SPLICED.

NOTES FOR TENSION LAP SPLICES

1. REINFORCEMENT IS UNCOATED, WITH Fy=60,000 PSI.
2. CONCRETE IS NORMAL WEIGHT (144-150#/C.F.).
3. FOR "TOP"" BAR SPLICE LENGTHS ("TOP" IS DEFINED BY ACI 318 AS HAVING MORE THAN 12 INCHES OF FRESH CONCRETE CAST BELOW THE BAR), TABULATED LENGTHS MUST BE MULTIPLIED BY 1.3.
4. LENGTHS TABULATED MUST BE MULTIPLIED BY THE FOLLOWING MODIFICATION FACTORS:
   a. LIGHTWEIGHT CONCRETE 1.3
   b. EPOXY-COATED BARS:
      1.) BARS WITH COVER < 3db, OR WITH CLEAR SPACING < 6db ...1.5 FOR BOTTOM & VERTICAL BARS, 1.3 FOR "TOP" BARS *
      2.) ALL OTHER CONDITIONS 1.2
   * FOR EPOXY-COATED "TOP" BARS THE MAXIMUM FOR COMBINED FACTORS = 1.7
5. WHERE TENSION DEVELOPMENT LENGTH (Ld) IS REQUIRED ON PLANS OR IN DETAILS, SEE TENSION DEVELOPMENT LENGTH TABLES.
6. CLASS A LAP SPLICE LENGTHS ARE EQUAL TO TENSION DEVELOPMENT LENGTHS. SEE TABLES FOR TENSION DEVELOPMENT LENGTHS (Ld). APPLY APPROPRIATE MODIFICATION FACTORS TO CLASS A SPLICE LENGTHS.

TABLE #2:
TENSION DEVELOPMENT LENGTHS (Ld) (IN INCHES)

TABLE 2.A: ¾" COVER TO OUTER LAYER BARS
OUTER LAYER DEVELOPMENT LENGTHS

BAR / f'c	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000+
#3	12	12	12	12	12	12	12	12
#4	16	14	13	12	12	12	12	12
#5	24	21	19	17	16	15	14	13
#6	33	28	25	23	22	20	19	18
#7	53	46	41	37	35	32	31	29
#8	66	57	51	46	43	40	38	36
#9	79	69	61	56	52	49	46	43
#10	93	81	72	66	61	57	54	51
#11	108	94	84	76	71	66	62	59

TABLE 2.C: 1½" COVER TO OUTER LAYER BARS
OUTER LAYER DEVELOPMENT LENGTHS

BAR / f'c	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000+
#3	12	12	12	12	12	12	12	12
#4	13	12	12	12	12	12	12	12
#5	16	14	13	13	13	13	13	13
#6	20	17	15	15	15	15	15	15
#7	32	28	25	23	21	20	19	18
#8	41	36	32	29	27	25	24	23
#9	50	44	39	36	33	31	29	28
#10	60	52	47	43	40	37	35	33
#11	71	61	55	50	46	43	41	39

TABLE 2.B: ¾" COVER TO OUTER LAYER BARS
INNER LAYER DEVELOPMENT LENGTHS

BAR / f'c	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000+
#3	12	12	12	12	12	12	12	12
#4	13	12	12	12	12	12	12	12
#5	16	14	13	13	13	13	13	13
#6	23	20	18	16	15	15	15	15
#7	37	32	29	26	24	23	22	20
#8	47	41	36	33	31	29	27	26
#9	57	50	44	41	38	35	33	31
#10	68	59	53	48	45	42	40	38
#11	80	69	62	57	52	49	46	44

TABLE 2.D: 1½" COVER TO OUTER LAYER BARS
INNER LAYER DEVELOPMENT LENGTHS

BAR / f'c	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000+
#3	12	12	12	12	12	12	12	12
#4	13	12	12	12	12	12	12	12
#5	16	14	13	13	13	13	13	13
#6	20	17	15	15	15	15	15	15
#7	29	25	22	20	19	18	18	18
#8	33	28	25	23	22	20	20	20
#9	41	35	31	29	27	25	23	23
#10	49	42	38	35	32	30	28	27
#11	58	50	45	41	38	35	33	32

NOTE:

1. ALL REBARS LARGER THAN #11 SHALL HAVE A MINIMUM YIELD STRESS OF fy=75ksi AND SHALL BE MECHANICALLY TENSION/COMPRESSION SPLICED.

NOTES FOR TENSION DEVELOPMENT LENGTHS (Ld)

1. REINFORCEMENT IS UNCOATED, WITH Fy=60,000 PSI.
2. CONCRETE IS NORMAL WEIGHT (144-150#/C.F.).
3. FOR "TOP"" BAR DEVELOPMENT LENGTHS ("TOP" IS DEFINED BY ACI 318 AS HAVING MORE THAN 12 INCHES OF FRESH CONCRETE CAST BELOW THE BAR), TABULATED LENGTHS MUST BE MULTIPLIED BY 1.3.
4. LENGTHS TABULATED MUST BE MULTIPLIED BY THE FOLLOWING MODIFICATION FACTORS:
   a. LIGHTWEIGHT CONCRETE 1.3
   b. EPOXY-COATED BARS:
      1.) BARS WITH COVER < 3db, OR WITH CLEAR SPACING < 6db ...1.5 FOR BOTTOM & VERTICAL BARS, 1.3 FOR "TOP" BARS *
      2.) ALL OTHER CONDITIONS 1.2
   * FOR EPOXY-COATED "TOP" BARS THE MAXIMUM FOR COMBINED FACTORS = 1.7
5. WHERE TENSION DEVELOPMENT LENGTH (Ld) IS REQUIRED ON PLANS OR IN DETAILS, SEE TENSION DEVELOPMENT LENGTH TABLES.
6. CLASS A LAP SPLICE LENGTHS ARE EQUAL TO TENSION DEVELOPMENT LENGTHS. SEE TABLES FOR TENSION DEVELOPMENT LENGTHS (Ld). APPLY APPROPRIATE MODIFICATION FACTORS TO CLASS A SPLICE LENGTHS.

TABLE #3
TENSION DEVELOPMENT LENGTHS FOR STANDARD END HOOKS (ldh)
(LENGTHS IN INCHES)

BAR SIZE	CONCRETE STRENGTH (PSI) 3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000+
#3	9	7	7	6	6	6	6	6
#4	11	10	9	8	7	7	7	6
#5	14	12	11	10	9	9	8	8
#6	17	15	13	12	11	10	10	9
#7	19	17	15	14	13	12	11	11
#8	22	19	17	16	15	14	13	12
#9	25	22	19	18	16	15	15	14
#10	28	24	22	20	19	17	16	16
#11	31	27	24	22	21	19	18	17
#14	37	32	29	27	25	23	22	21
#18	50	43	39	35	33	31	29	27

NOTES:

1. TABLE 3 CONFORMS TO ACI 318-2002 (AND 2005). TABULATED VALUES ARE BASED UPON ACI 12.5.2 , ASSUMING GRADE 60 REINFORCEMENT AND NORMALWEIGHT CONCRETE.
2. PER ACI 12.5.3 a), FOR #11 AND SMALLER BARS, IF COVER TO BAR IS 2½ INCHES OR MORE, AND FOR 90 DEGREE HOOK WITH COVER ON BAR EXTENSION BEYOND HOOK NOT LESS THAN 2 INCHES, A MODIFICATION FACTOR OF 0.7 MAY BE APPLIED. MINIMUM ldh SHALL NOT BE LESS THAN 8db NOR 6 INCHES.

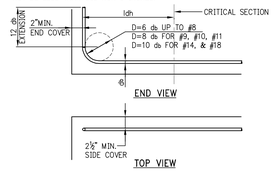


TABLE #4
COMPRESSION LAP SPLICES
(LENGTHS IN INCHES)

BAR SIZE	GRADE OF REINFORCEMENT 60 KSI (30 DIA.)	75 KSI (44 DIA.)	80 KSI (48 DIA.)
#3	12	17	18
#4	15	22	24
#5	19	28	30
#6	23	33	36
#7	27	39	42
#8	30	44	48
#9	34	50	54
#10	38	56	61
#11	43	62	68
#14 AND #18	1. LAP SPLICES ARE NOT PERMITTED USE MECHANICAL CONNECTIONS OR WELDED SPLICES FOR #14 AND #18, PER ACI 318 (12.14.3). 2. LAP SPLICES OF #14 AND #18 BARS TO #11 AND SMALLER BARS ARE PERMITTED PER ACI 318 (12.16.2).		

3. FOR BARS OF DIFFERENT SIZE, USE LARGER OF: SPLICE LENGTH OF SMALLER BAR (TABLE #4) OR DEVELOPMENT LENGTH OF LARGER BAR (FROM TABLE #5) PER ACI 318 (12.16.2).

NOTE:

TABLE #4 APPLIES FOR NORMALWEIGHT CONCRETE WITH f'c = 3,000 PSI OR GREATER.

TABLE #5
DEVELOPMENT LENGTHS FOR BARS IN COMPRESSION
(LENGTHS IN INCHES)

BAR SIZE	fy = 60,000 PSI CONC. f'c (IN PSI) 3,000	4,000	5,000 OR MORE	fy = 75,000 PSI CONC. f'c (IN PSI) 3,000	4,000	5,000 OR MORE	fy = 80,000 PSI CONC. f'c (IN PSI) 3,000	4,000	5,000 OR MORE
#3	12	12	12	12	12	12	12	12	12
#4	12	12	12	14	12	12	15	13	12
#5	14	12	12	17	15	14	18	16	15
#6	17	15	14	21	18	17	22	19	18
#7	19	17	16	24	21	20	26	22	21
#8	22	19	18	28	24	23	29	25	24
#9	25	22	21	31	27	25	33	28	27
#10	28	24	23	34	30	28	36	31	30
#11	31	27	26	38	33	31	40	34	33
#14	37	32	31	48	42	39	51	44	42
#18	50	43	41	62	54	51	65	56	54

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SITE DIAGRAM

DATE	ISSUE	NO	DATE	REVISION
10.20.14	BULLETIN #3			
08.20.14	BULLETIN #2			
06.06.14	DOB FILING SET			
04.04.14	ISSUED FOR 100% CONSTRUCTION DOCUMENTS			
02.20.14	ISSUED FOR FOUNDATION CONSTRUCTION			
11.19.13	90% CD			
11.07.13	SUPERSTRUCTURE BID ISSUE			
10.23.13	100% FOUNDATION CD			
08.16.13	100% DD SUBMISSION			
06.07.13	90% FOUNDATION CD			
05.07.13	80% CD FOR PURCHASING			
05.03.13	100% SD SUBMISSION	07.09.14	BULLETIN #1	

626 1ST AVENUE

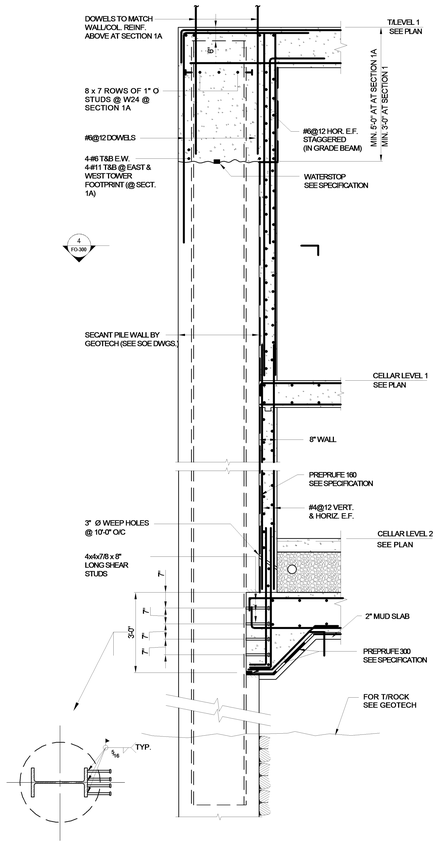
626 1ST AVENUE
NEW YORK, NY 10016

DRAWING TITLE
FOUNDATION TYPICAL DETAILS 4

SEAL & SIGNATURE

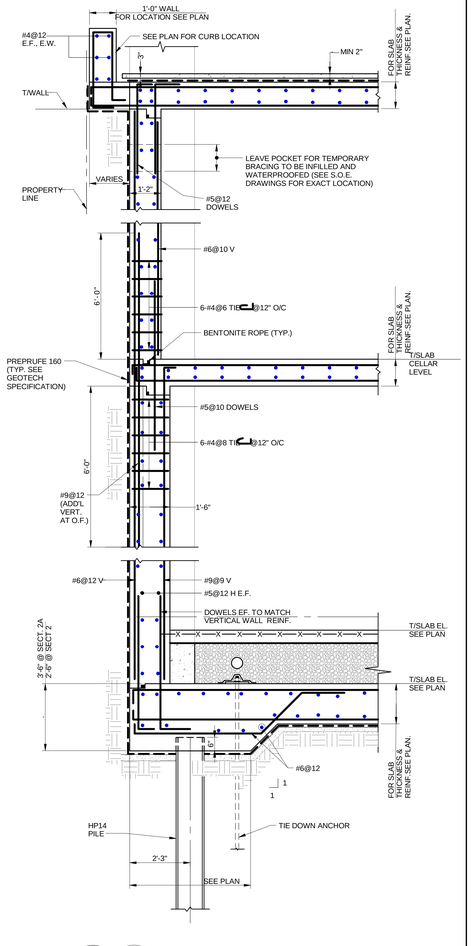
DATE	08/16/1
PROJECT NO.	130218
DRAWN BY	CADI
CHECKED BY	SJ
DOB NO.	

DRAWING NUMBER
FO-203.00



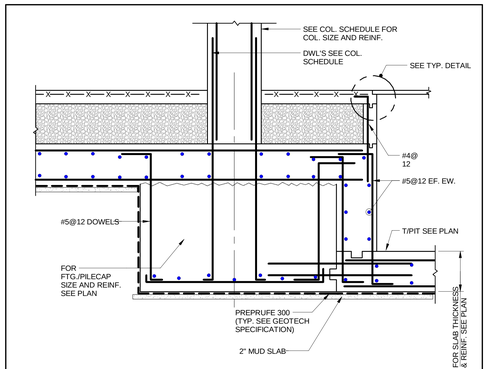
1 FO-300 1A FO-300 **TYPICAL SECTION AT SECANT WALL**

SCALE: 1/2" = 1'-0"



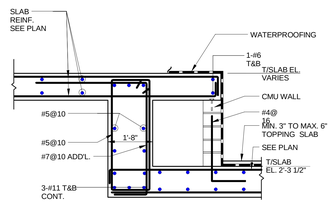
2 FO-300 2A FO-300 **SECTION (TYPICAL AT FOUNDATION WALLS)**

SCALE: 1/2" = 1'-0"



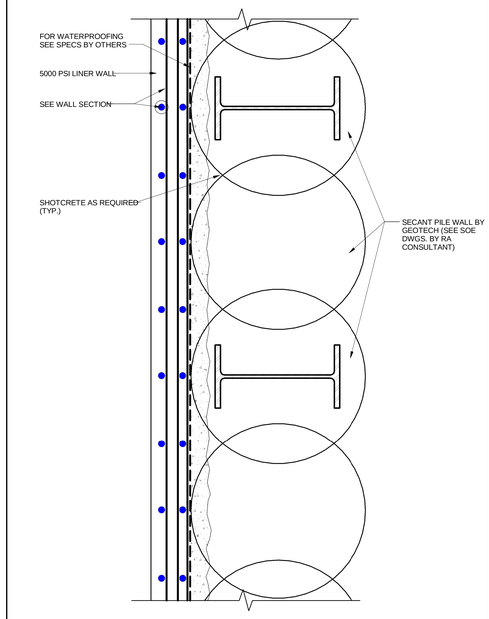
3 FO-300 **SECTION**

SCALE: 1/2" = 1'-0"



5 FO-300 **SECTION**

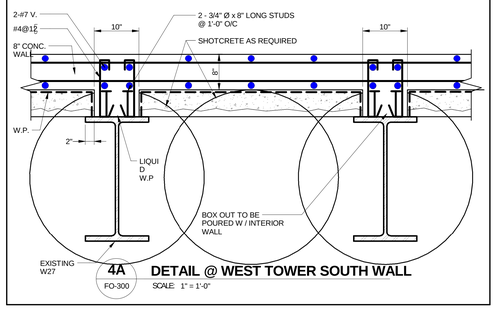
SCALE: 1/2" = 1'-0"



4 FO-300 **LINER WALL @ SECANT PILE (TYP.)**

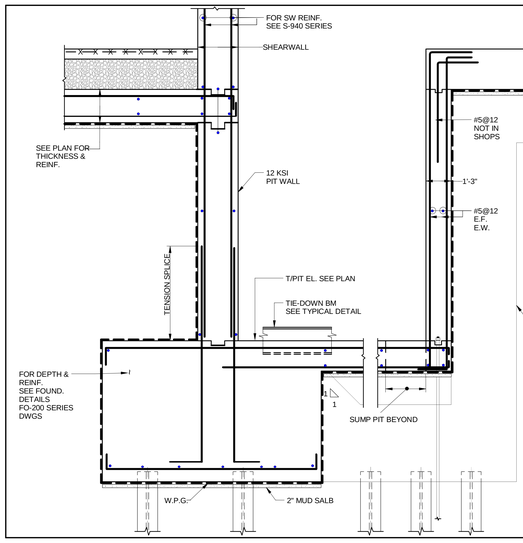
SCALE: 1" = 1'-0"

NOTE:
1. U.O.N. AT WEST TOWER SOUTH WALL.



4A FO-300 **DETAIL @ WEST TOWER SOUTH WALL**

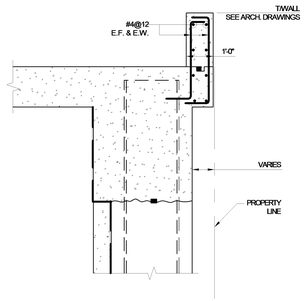
SCALE: 1" = 1'-0"



6 FO-300 **SECTION**

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

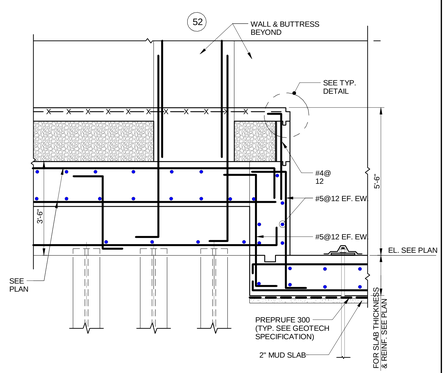
NOTE: BALANCE OF REINF. NOT SHOWN FOR CLARITY.



1B FO-300 **SECTION**

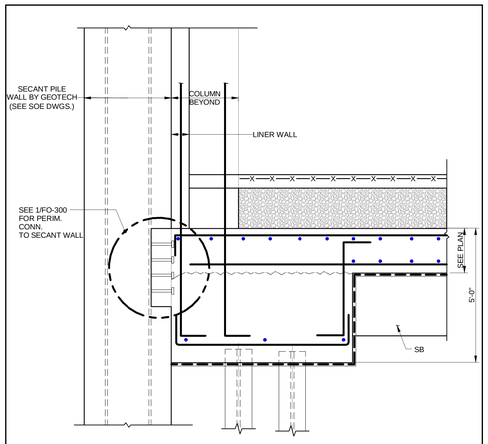
SCALE: 1/2" = 1'-0"

NOTE:
1. FOR BALANCE OF INFORMATION SEE SECTION 1/1A.



7 FO-300 **SECTION**

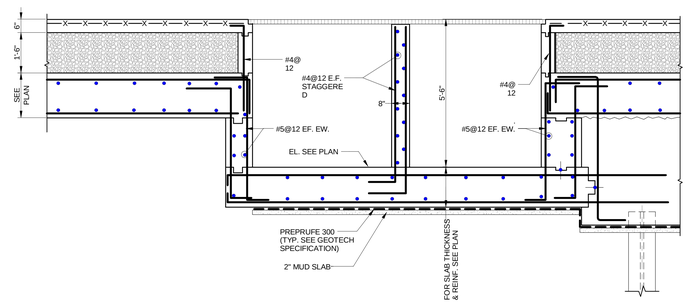
SCALE: 1/2" = 1'-0"



8 FO-300 **SECTION**

SCALE: 1/2" = 1'-0"

NOTE:
FOR BALANCE OF INFORMATION SEE SECTION 1A.



9 FO-300 **SECTION**

SCALE: 1/2" = 1'-0"

FOR WATERPROOFING DETAILS SEE GEOTECH./ARCH. SPECIFICATIONS DWGS.

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SITE DIAGRAM

DATE	ISSUE	NO.	DATE	REVISON
10.20.14	BULLETIN #3			
08.22.14	BULLETIN #2			
05.05.14	DOB FILING SET			
04.04.14	100% CONSTRUCTION DOCUMENTS			
02.20.14	ISSUED FOR FOUNDATION CONSTRUCTION			
11.15.13	50% CD			
11.07.13	SUPERSTRUCTURE BID ISSUE			
10.23.13	100% FOUNDATION CD			
08.16.13	100% DD SUBMISSON			
06.07.13	90% FOUNDATION CD			
05.07.13	80% CD FOR PURCHASING			
05.03.13	100% SD SUBMISSION	1	07.09.14	BULLETIN #1

626 1ST AVENUE

NEW YORK, NY 10016

DRAWING TITLE

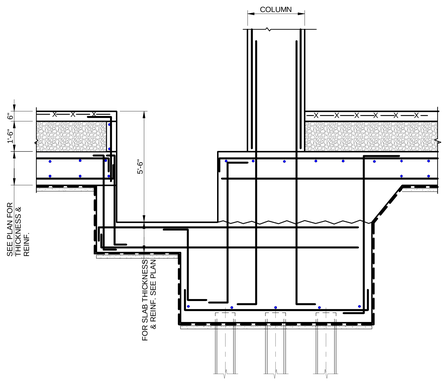
FOUNDATION SECTIONS 1

SEAL & SIGNATURE

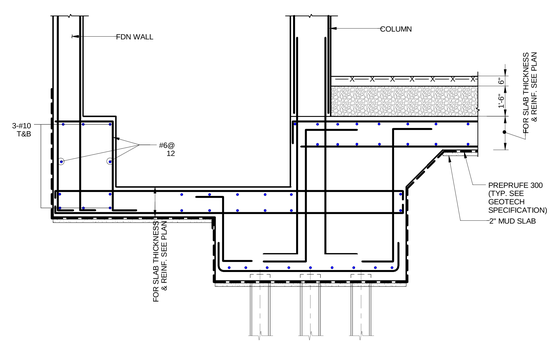
DATE	04/16/13
PROJECT NO.	1302180
DRAWN BY	CADD
CHECKED BY	SH
DOB NO.	
DRAWING NUMBER	FO-300.00

SHEET XX OF XX

PW:FO-300.00



1 FO-301 **SECTION**
SCALE 3/8" = 1'-0"



2 FO-301 **SECTION**
SCALE 3/8" = 1'-0"

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ELEVATOR CONSULTANT
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LIVINGSTON, NJ 07039
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SITE DIAGRAM

10.20.14	BULLETIN #3		
08.22.14	BULLETIN #2		
05.5.14	DOB FILING SET		
04.04.14	100% CONSTRUCTION DOCUMENTS		
02.20.14	ISSUED FOR FOUNDATION CONSTRUCTION	1 07.09.14	BULLETIN #1
DATE	ISSUE	NO. DATE	REVISION

626 1ST AVENUE

NEW YORK, NY 10016

DRAWING TITLE

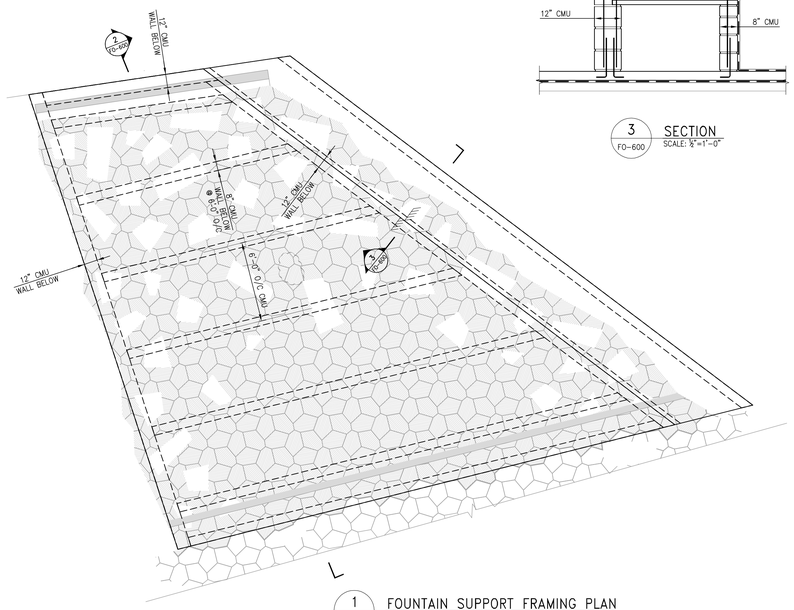
FOUNDATION SECTIONS 2

SEAL & SIGNATURE

DATE	02/18/14
PROJECT NO.	1302180
DRAWN BY	Author
CHECKED BY	Checker
DOB NO.	
DRAWING NUMBER	FO-301.00

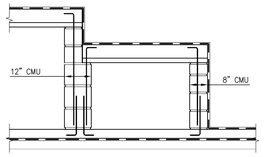
SHEET XX OF XX

PLOT DATE: 2/18/2014

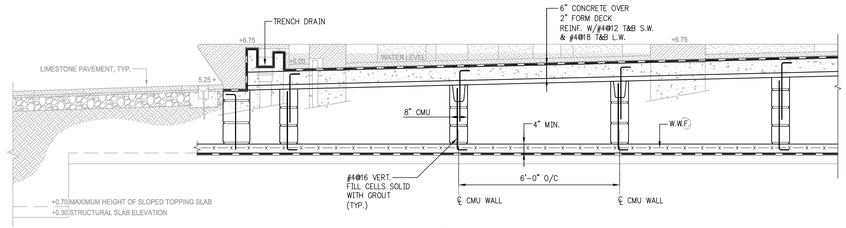


1 FO-600 **FOUNTAIN SUPPORT FRAMING PLAN**
SCALE: ¼"=1'-0"

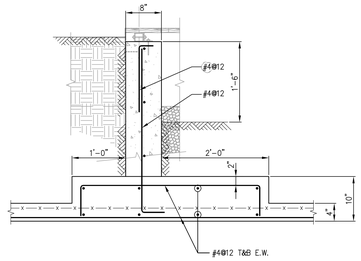
NOTE:
ALL REBARS IN THE FOUNTAIN SLAB TO BE EPOXY COATED.



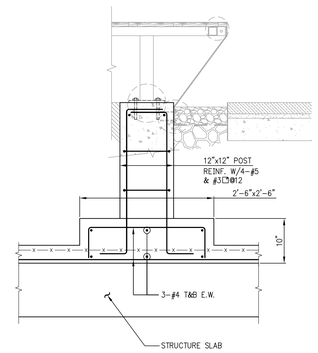
3 FO-600 **SECTION**
SCALE: ½"=1'-0"



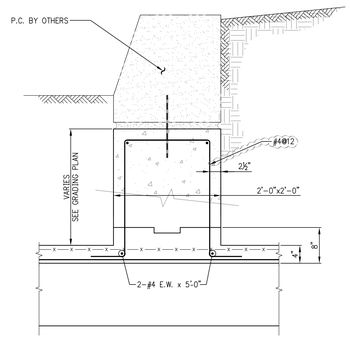
2 FO-600 **SECTION**
SCALE: ½"=1'-0"



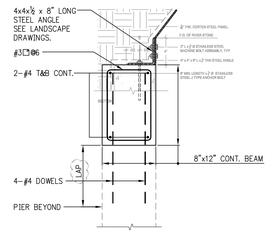
TYPICAL DETAIL FOR CONCRETE RETAINING WALL AT SEATING PLATFORM
SCALE: 1"=1'-0"



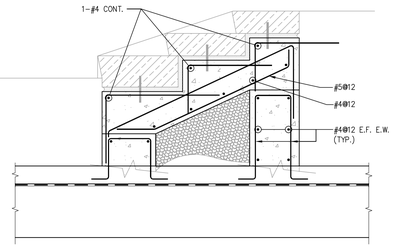
TYPICAL DETAIL AT SEATING PLATFORM FRAME CONNECTION
SCALE: 1"=1'-0"



TYPICAL DETAIL AT PRECAST PLANTER SUPPORT
SCALE: 1"=1'-0"



TYPICAL DETAIL OF SEATING PLATFORM AT PLANTING
SCALE: 1"=1'-0"



DETAIL AT STAIR CHEEK WALL
SCALE: 1"=1'-0"

NOTE:
FOR LOCATION SEE LANDSCAPE DRAWINGS.

NOTES:

1. ALL REBARS TO BE EPOXY COATED.
2. CONCRETE TO BE f'c=5000 psi AIR ENTRAINED N.W. CONCRETE.
3. FOR WATERPROOFING DETAILS SEE GETECH./ARCH. SPECIFICATIONS DRAWINGS.
4. FOR BALANCE OF DETAILS AT PLAZA LEVEL SEE LANDSCAPE AND ARCHITECTURAL PLANS.

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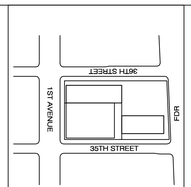
6 REGENT ST, STE 524
LIVINGSTON, NJ 07039
tel 212.889.9005



SITE DIAGRAM

10.20.14	BULLETIN #3		
08.22.14	BULLETIN #2		
06.09.14	DOB FILING SET		
04.04.14	100% CONSTRUCTION DOCUMENTS		
11.19.13	90% CD		
11.01.13	SUPERSTRUCTURE BID ISSUE		
10.23.13	100% FOUNDATION CD		
09.16.13	100% DD SUBMISSION		
08.07.13	90% FOUNDATION DD		
05.07.13	80% CD FOR PURCHASING		
05.03.13	100% SD SUBMISSION	07.09.14	BULLETIN #1
DATE	ISSUE	NO. DATE	REVISION

626 1ST AVENUE

626 1ST AVENUE
NEW YORK, NY 10016

DRAWING TITLE
STRUCTURAL LANDSCAPE DETAILS

SEAL & SIGNATURE

DATE	05/16/1
PROJECT NO.	130218
DRAWN BY	CADI
CHECKED BY	SJ
DOB NO.	

DRAWING NUMBER
FO-600.00

SHEET XX OF XX

APPENDIX B

LOT 2 – ANNUAL INSPECTION FORMS: 2015-2020 REPORTING PERIOD, PREPARED BY ATC GROUP SERVICES, LLC

ANNUAL INSPECTION REPORT
PUBLIC SCHOOL 281M
425 EAST 35TH STREET
NEW YORK, NY 10016

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: June 19, 2015

Cardno ATC Project No. Z214YI0129

TABLE OF CONTENTS

Attachments:

PROJECT DIRECTORY

OWNER/CLIENT:	New York City Department of Education Office of Environmental Health and Safety 44-36 Vernon Blvd. Long Island City, New York 11101
PROJECT LOCATION:	Kips Bay (P.S. 281M) 425 East 35th Street New York, NY, 10016
PROJECT TECHNICAL SUPPORT	New York City School Construction Authority 30-30 Thomson Avenue Long Island City, New York 11101 STV Incorporated 225 Park Avenue South New York, New York 10003
DESCRIPTION OF WORK:	Review O&M plan and prior reports; review custodian's logbook, walk-through visual inspection
ATC REPRESENTATIVES:	Nancy Guevara, Inspector

EXECUTIVE SUMMARY

Cardno ATC (ATC) conducted the annual site inspection of the Engineering Controls as they relate to the Gas Vapor Barrier and the Sub-Slab Depressurization System (SSDS) at P.S. 281M located at 425 East 35th Street New York, NY, 10016 on May 28, 2015.

During the inspection, ATC noted that the custodian's Monthly or Severe Condition Inspection Forms were prepared for the months of June 2014 through May 2015. In addition, the Routine and Preventative Maintenance Checklist was not completed. ATC observed that the SSDS fan unit was operational. The flexible connector on the fan stacks was observed to be cracked. ATC also observed that the Building Management System (BMS) is functional and connected to the SSDS. ATC did not observe any significant cracks in the ground floor. However, ATC observed surficial hairline cracks in Rooms 100 and 110. A spare fan unit was available at the school in Room 509. All monitoring points were checked and found to be in good condition, except MP-1 which was observed to be heavily rusted and missing all screws on the cover.

Based on the aforementioned, ATC concludes that the Engineering Controls have not changed and appear to be effective, and no changes have occurred that would reduce the ability of the controls to protect public health and the environment. However, monthly and routine/ preventative maintenance inspections should continue to be conducted and Monthly and Routine/Preventative Maintenance Forms should continue to be completed by the custodial staff. The cracked flexible connector on the SSDS fan unit stack should be replaced. Even though hairline cracks in Rooms 100 and 110 are not a concern, ATC advised the custodian that any significant cracks observed during the monthly inspections should be sealed with patching cement or grout. Additionally, monitoring point MP-1 should be clear of any rust obstruction and the cover should be securely tightened. These recommendations were brought to the attention of the custodial staff as part of the refresher training.

1.0 INTRODUCTION

ATC is pleased to provide this Annual Inspection Report to the New York City Department of Education Office of Environmental Health and Safety (NYC DOE/EHS) as it relates to P.S. 281M located at 425 35th Street, New York, NY, 10016. The school is currently attended by approximately 80 students. This work was completed as per the request of NYC DOE.

The scope of work for this service included:

1. Review of the school custodian's inspection logs indicating his routine walk-through to identify any observed changes to the interior surfaces and roof mounted fan units;
2. Roof vent SSDS inspection;
3. Ground floor inspection and exterior inspection for concrete cracks;
4. Verification of the condition of the monitoring points;
5. Review of prior reports; and
6. Photographic documentation of observations.

This report was developed to document: (a) the changes to the engineering controls if any, and (b) whether the program for maintenance and monitoring is being followed and is effective. Ms. Nancy Guevara under direct supervision of Mr. Gilbert Gedeon, PE of ATC, conducted the annual site inspections on May 28, 2015. During the inspection, ATC was accompanied by Mr. Lentini, the school's building manager.

2.0 ENGINEERING CONTROLS

According to the Operation and Maintenance (O&M) Plan prepared by STV Incorporated dated August 22, 2013, Public School 281M contains engineering controls that include a Gas Vapor Barrier and a Sub-Slab Depressurization System (SSDS) constructed beneath the school to prevent residual soil gas vapors from entering the building. A program for maintenance and monitoring was developed to ensure that the engineering controls implemented during the school's operation are properly maintained.

2.1 Gas Vapor Barrier

The gas vapor barrier was installed beneath the school as an added precaution to prevent any residual soil gas vapors from entering the school building in the future. The vapor barrier was installed above the SSDS gas permeable aggregate (gravel) layer below the ground floor slab.

2.2 Sub-Slab Depressurization System

An SSDS was also installed beneath the school as an added precaution to prevent any soil gas vapors from entering the school building in the future. The primary component of the SSDS contains four (4) sub-slab suction pits, one (1) vertical riser connecting the pits to one (1) roof top fan and four (4) monitoring points.

3.0 SITE INSPECTIONS AND SSDS REPAIRS

3.1 Review of the Custodian's Inspection Logs

The following was discussed with Mr. Lentini:

1. The custodian's Monthly or Severe Condition Inspection Forms were prepared for the months of June 2014 through May 2015. ATC noted the hairline cracks observed by the custodial staff in rooms 100 and 101 and verified that they were surficial cracks and thus not a concern. As part of the annual inspection, ATC provided annual refresher training and advised the custodial staff to continue to conduct the inspection on a monthly basis and document the observations in a monthly inspection form. The monthly inspection forms and training acknowledgement letter are included in Attachments 1 and 2, respectively.

2. The Routine and Preventative Maintenance Checklist was not completed. ATC advised the custodian to continue performing preventative maintenance and completing the checklist on a semiannual basis.

3.2 ATC's Visual Observations

ATC conducted visual observations and photographic documentation while accompanied by Mr. Lentini. Site photographs are included in Attachment 3, the Annual Inspection Form is included in Attachment 4 and the Annual Monitoring Point Inspection Checklist is included in Attachment 5.

During the walkthrough inspection, ATC noted the following:

- The SSDS fan unit is operational and connected to the BMS;
- Monitoring point MP-1 is heavily rusted and the cover is missing all screws; and
- A spare fan unit is available at the school and stored in Room 509.

3.2.1 SSDS Vent Inspection

1. The flexible connector on the SSDS fan stack was observed to be cracked. Mr. Lentini advised ATC that it would be replaced in a week's time;
2. ATC did not observe rust or other debris in the vicinity of the posts and sleeves of the vent stacks associated with the SSDS fan units;
3. SSDS fan stack guy wires were in good condition;
4. SSDS fan mounting and vibration isolators were intact;
5. Motor housing was intact and exterior surfaces were clean; and
6. Bolts and set screws were tight.

3.2.2 Ground Floor Inspection

ATC inspected the accessible areas of the ground floors and walls. ATC did not observe any significant concrete cracks penetrating into the ground floor during the annual inspection. As noted in the custodian's monthly inspection logs, ATC did observe hairline cracks in Rooms 100

and 110. The custodian was advised that monitoring during monthly inspections is required for any significant change in the width of the cracks. Significant cracks observed during these inspections will require patching with cement or grout.

ATC also checked the monitoring points associated with the SSDS system to verify their condition. ATC observed that monitoring point MP-1 was heavily rusted and the bolts on the cover were missing. All other monitoring points were observed to be in good condition.

ATC's observation of the ground concrete floors was limited due to architectural finishes such as ceramic floor tiles, vinyl floor tiles, wood flooring and miscellaneous equipment and furniture. ATC did not have access to the elevator pits.

3.2.3 Exterior Inspection

ATC inspected the perimeter of the property including paved and unpaved areas. There was no evidence of pavement removal. No structures have been constructed on the unpaved areas. There were no signs of soil washing or erosion.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on visual observations, ATC concludes the following:

1. The SSDS fan unit is operational and connected to the BMS;
2. The flexible connector on the SSDS fan stack is cracked;
3. The cover on monitoring point MP-1 is heavily rusted and the cover is missing all screws;
4. A spare fan is available in Room 509;
5. Engineering controls have not changed and appear to be effective; and
6. No changes have occurred that would reduce the ability of the controls to protect public health and the environment.

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

1. Clear monitoring point MP-1 of the rust on the cover and replace missing screws;
2. Replace the cracked flexible connector on the SSDS fan stack;
3. The surficial cracks observed in Rooms 100 and 110 are not a concern; however, these cracks should be monitored during monthly inspections for any significant change in the width of the cracks. Significant cracks observed during these inspections will require patching with cement or grout material; and
4. Monthly and routine/preventative maintenance inspections should continue to be conducted and Monthly and Routine/Preventative Maintenance Forms should continue to be completed by the custodial staff.

5.0 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, site documents review and real-time environmental measurements. 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 contact us at (212) 353-8280.

Sincerely,
CARDNO ATC

Gilbert Gedeon, PE
Division Manager

cc: Y. Efstathiou
N. Guevara

Attachment 1
Custodian Monthly or Severe Condition Inspection Forms

Custodian Monthly or Severe Condition Inspection Form

Vapor Barrier and SSDS

Inspector's Name: GREG PREVDI

Inspection Date/Time: 6-19-14

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor		
	* 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	
	* 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. Walk the entire roof surface.		
	* Any rust or other debris (bird nest, etc.) in or on SSDS Vent Stack #1?	NO	
	* Any rust or other debris in or on SSDS Vent Stack #2?	NO	
	* Are any SSDS fan units functioning at a lower air flow than other Vent Stacks?	NO	
	* Is a spare fan unit available in the school?	YES	
C. ACTIONS TAKEN			
	Inspector's Signature:		

* Any 'Yes' answers require immediate notification of Bernard Orlan, DSF, at 718-361-3808.
If no follow up inspection by DSF within 1 week of notification, re-inspection and re-notification required.

Custodian Monthly or Severe Condition Inspection Form

Vapor Barrier and SSDS

Inspector's Name: GREG PRENDI

Inspection Date/Time: 7-9-14

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

		Yes / No*	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor		
	* 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	
	* 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. Walk the entire roof surface.		
	* Any rust or other debris (bird nest, etc.) in or on SSDS Vent Stack #1?	NO	
	* Any rust or other debris in or on SSDS Vent Stack #2?	NO	
	* Are any SSDS fan units functioning at a lower air flow than other Vent Stacks?	NO	
	* Is a spare fan unit available in the school?	YES	
C. ACTIONS TAKEN			
	Inspector's Signature:		

* Any 'Yes' answers require immediate notification of Bernard Orlen, DSF, at 718-361-3608.
If no follow up inspection by DSF within 1 week of notification, re-inspection and re-notification required.

Custodian Monthly or Severe Condition Inspection Form

Vapor Barrier and SSDS

Inspector's Name: GREG FRENDI

Inspection Date/Time: 8-11-14

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor		
	* 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	
	* 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. Walk the entire roof surface.		
	* Any rust or other debris (bird nest, etc.) in or on SSDS Vent Stack #1?	NO	
	* Any rust or other debris in or on SSDS Vent Stack #2?	NO	
	* Are any SSDS fan units functioning at a lower air flow than other Vent Stacks?	NO	
	* Is a spare fan unit available in the school?	YES	
C. ACTIONS TAKEN			
	Inspector's Signature:		

* Any 'Yes' answers require immediate notification of Bernard Crian, DSF, at 718-361-3808.
If no follow up inspection by DSF within 1 week of notification, re-inspection and re-notification required.

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 9/2014

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor.**		
	* Any visible cracks in the floor or subgrade walls? Hairline	yes	SCA
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.		
B. SSDS INSPECTION	**1. Walk the entire roof surface and check the SSDS risers at basement level.**		
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	yes	
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: _____ in WC **Date taken:** _____

SF-2: _____ in WC **Date taken:** _____

SSDS Riser Measurements:

	Vaccum		Flow		
VR-1:	_____	in WC	**VR-1:** _____	CFM	**Date taken:** _____
VR-2:	_____	in WC	**VR-2:** _____	CFM	**Date taken:** _____

Inspector's Signature:

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 10/2014

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor.**		
	* Any visible cracks in the floor or subgrade walls? hairline	yes	SCA
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.		
B. SSDS INSPECTION	**1. Walk the entire roof surface and check the SSDS risers at basement level.**		
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	YES	
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: _____ in WC **Date taken:** _____

SF-2: _____ in WC **Date taken:** _____

SSDS Riser Measurements:

Vaccum		**Flow**		
VR-1: _____	in WC	**VR-1:** _____	CFM	**Date taken:** _____
VR-2: _____	in WC	**VR-2:** _____	CFM	**Date taken:** _____

Inspector's Signature:

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 11/2014

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor.**		
	* Any visible cracks in the floor or subgrade walls? hairline	Yes	SCA
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.		
B. SSDS INSPECTION	**1. Walk the entire roof surface and check the SSDS risers at basement level.**	[illegible]	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	YES	
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: _____ in WC Date taken: _____

SF-2: _____ in WC Date taken: _____

SSDS Riser Measurements:

	Vaccum		Flow	
VR-1:	_____ in WC	VR-1:	_____ CFM	Date taken: _____
VR-2:	_____ in WC	VR-2:	_____ CFM	Date taken: _____

Inspector's Signature:

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 12/2014

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor.**		
	* Any visible cracks in the floor or subgrade walls? hairline	YES	SCA
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.		
B. SSDS INSPECTION	**1. Walk the entire roof surface and check the SSDS risers at basement level.**		
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	YES	
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

	Vacuum		
SF-1:	_____ in WC	Date taken:	_____
SF-2:	_____ in WC	Date taken:	_____

SSDS Riser Measurements:

	Vaccum		Flow		
VR-1:	_____ in WC	VR-1:	_____ CFM	Date taken:	_____
VR-2:	_____ in WC	VR-2:	_____ CFM	Date taken:	_____

Inspector's Signature:

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 1/2015

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor.**		
	* Any visible cracks in the floor or subgrade walls? hairline @ f	YES	SCA
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.		
B. SSDS INSPECTION	**1. Walk the entire roof surface and check the SSDS risers at basement level.**		
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	YES	
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: _____ in WC Date taken: _____

SF-2: _____ in WC Date taken: _____

SSDS Riser Measurements:

	Vaccum		Flow		
VR-1:	_____	in WC	VR-1: _____	CFM	Date taken: _____
VR-2:	_____	in WC	VR-2: _____	CFM	Date taken: _____

Inspector's Signature:

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 2/2015

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor.**		
	* Any visible cracks in the floor or subgrade walls? hairline gf	YES	SA
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.		
B. SSDS INSPECTION	**1. Walk the entire roof surface and check the SSDS risers at basement level.**		
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	YES	
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: _____ in WC **Date taken:** _____

SF-2: _____ in WC **Date taken:** _____

SSDS Riser Measurements:

	Vaccum		Flow	
VR-1:	_____ in WC	**VR-1:**	_____ CFM	**Date taken:** _____
VR-2:	_____ in WC	**VR-2:**	_____ CFM	**Date taken:** _____

Inspector's Signature:

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 3/2015

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor.**		
	* Any visible cracks in the floor or subgrade walls? hairline	YES	
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.		
B. SSDS INSPECTION	**1. Walk the entire roof surface and check the SSDS risers at basement level.**		
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	YES	
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: _____ in WC Date taken: _____

SF-2: _____ in WC Date taken: _____

SSDS Riser Measurements:

	Vaccum		Flow		
VR-1:	_____	in WC	VR-1: _____	CFM	Date taken: _____
VR-2:	_____	in WC	VR-2: _____	CFM	Date taken: _____

Inspector's Signature:

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 4/2015

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor.**		
	* Any visible cracks in the floor or subgrade walls? hairline gf	YES	SCA
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.		
B. SSDS INSPECTION	**1. Walk the entire roof surface and check the SSDS risers at basement level.**		
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	YES	
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: _____ in WC **Date taken:** _____

SF-2: _____ in WC **Date taken:** _____

SSDS Riser Measurements:

Vaccum		**Flow**		
VR-1:	_____ in WC	**VR-1:**	_____ CFM	**Date taken:** _____
VR-2:	_____ in WC	**VR-2:**	_____ CFM	**Date taken:** _____

Inspector's Signature:

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 5/2015

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor.**		
	* Any visible cracks in the floor or subgrade walls? hairline @	Yes	SCA
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.		
B. SSDS INSPECTION	**1. Walk the entire roof surface and check the SSDS risers at basement level.**		
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	YES	
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

	Vacuum		
SF-1:	5.5 "	in WC	Date taken: 5/28/15
SF-2:		in WC	Date taken:

SSDS Riser Measurements:

	Vaccum		Flow		
VR-1:		in WC	VR-1:	CFM	Date taken:
VR-2:		in WC	VR-2:	CFM	Date taken:

Inspector's Signature:

Attachment 2
Training Acknowledgement

Cardno ATC
Shaping the Future

104 East 25th St, 10th Floor
New York, NY 10010-2917
www.cardnoatc.com
212-353-8280
Fax 212-353-8306

Annual Training Acknowledgement
Engineering Controls Operation and Maintenance

Location: P.S. 281M

Custodian/Fireman: Joseph Lentini

I, Joseph Lentini, received annual refresher training on Engineering Controls Operation and Maintenance by Cardno ATC on 5\28\15. As part of the annual refresher training I conducted a walkthrough with Cardno 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: _____ **Date:** 5\28\15
Custodian/Fireman

Recommendations:

- Monitoring point MP-1 in Room X2 missing screws, need replacement
- Flexible connector (vibration isolator) observed to be cracked on the SSDS fan. The connector should be replaced in kind.
- Continue conducting monthly inspections and completing monthly forms.

Attachment 3
Photographic Documentation

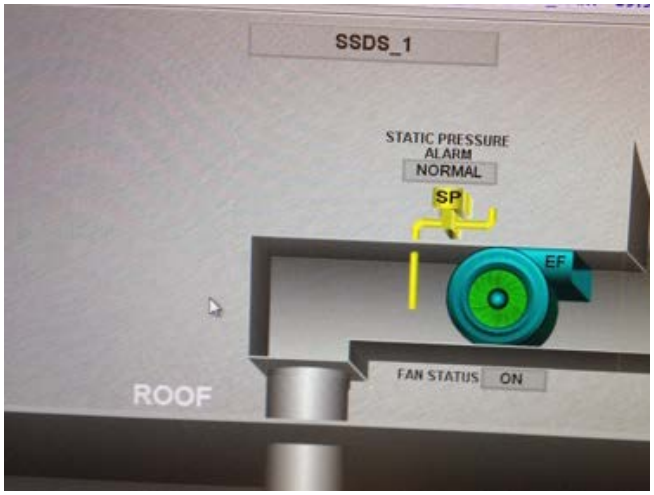


Photo 1: View of BMS indicating flow associated with fan unit SSDS-1.


Photo 2: View of spare fan unit stored in Room 509.


Photo 3: View of operational SSDS fan unit on the roof.

Photo 4: View of vacuum gauge associated with SSDS fan unit.


Photo 5: View of cracked flexible connector on the SSDS fan stack.


Photo 6: View of typical monitoring point in Room 114A.

Attachment 4
Annual Inspection Form

P.S./I.S. 281M
ANNUAL INSPECTION FORM

Inspector's Name:	Nancy Guevara	Weather Conditions:	Cloudy
Inspection Date:	6/28/15	Air Temperature (°F):	80°F
Inspection Time:			
Comments:			

A. PRE INSPECTION CHECKLIST

- ☑ * Schedule Annual Inspection when school is not occupied by students.
- ☑ * Review 12 Previous Monthly Inspection Checklists.
- ☑ * Meet with Custodial Engineer and Principal to solicit comments/concerns regarding the operation of the Engineering Controls over the last 12 months
- ☑ * Conduct Annual Refresher Training with DOE EHS.
- ☑ * Follow proper safety protocols including lockout/tagout.

Comments: N/A

B. SSDS SYSTEM INSPECTION

Walk the entire roof surface of school building amd check SSDS risers at basement !

- ☑ * Inspect fan stack guy wires. Good, tight
- ☑ * Inspect monitoring points (look for obstructions, check manhole bolts, quick connects). MP-1 (Room X2) missing screws
- ☑ * Record vacuum gauge and flowmeter readings on riser pipes and SSDS fans (as applicable); review monthly data to check for decreases in flow/vacuum. -5.5" WC
- ☑ * Ensure all SSDS accessories listed in section 15880 are functioning properly. flexible connector cracked
- ☑ Inspect bolts and set screws for tightness and rusty condition.
- ☑ * Inspect SSDS fan for cleanliness. Clean exterior surfaces only. Remove dust and grease on motor housing,
- ☑ * Are the indicator lights on the Building Management System functioning properly? yes
- ☑ * Is the spare fan unit present/available at the school? yes Room 509

Comments (see or hear anything unusual?):
NO, fan in good condition

C. VAPOR BARRIER INSPECTION

Walk all of the basement floor

- ☑ * Review all cracks or other openings identified in first floor during previous inspections.
- ☑ * Any new visible cracks in the floor? NO
- ☑ * Any new visible opening (unintended) in the floor? NO
- ☑ * Any new visible cracks in accessible pits? N/A
- ☑ Note the length of any new cracks/openings in the floor. N/A
- ☑ * Draw approximate location of floor cracks/openings that appear to have potential leak through vapor barrier

Comments: hairline cracks in Rooms 100 & 101

D. REPAIR

Summarize needed/completed repairs to Engineering Controls:

1. MP-1 in Room X2 is rusted & missing screws on cover.
2. flexible connector on SSDS fan stack is cracked.

Inspector's Signature: Nancy Guevara

Attachment 5
Annual Monitoring Point Inspection Checklist

P.S/I.S. 281M

ANNUAL MONITORING POINT INSPECTION CHECKLIST

Monitoring Point ID	Room Number	Any obstructions over MP	Manhole cover secure and bolts intact?	Comments
MP-1	Ground Storage	Y / (N)	Y / (N)	missing screws
MP-2	Compressor Room	Y / (N)	(Y) / N	Rm 111D
MP-3	Fire Pump Room	Y / (N)	(Y) / N	Rm 100
MP-4	Water Service	Y / (N)	(Y) / N	Rm 114A

Inspect all monitoring point locations for obstructions; check the manhole covers/bolts and quick connections inside the manhole.

ANNUAL INSPECTION REPORT
KIPS BAY (PUBLIC SCHOOL 281M)
425 EAST 35TH STREET
NEW YORK, NY 10016

PREPARED FOR:

NYC Department of Education
Joel I. Klein
Chancellor

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

PREPARED BY:

ATC
ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING

104 East 25th Street, 10th Floor

New York, New York

10010-2917

Date of Issue: November 11, 2016

ATC Project No. Z214YI0440

TABLE OF CONTENTS

Attachments:

PROJECT DIRECTORY

OWNER/CLIENT:	New York City Department of Education Office of Environmental Health and Safety 44-36 Vernon Blvd. Long Island City, New York 11101
PROJECT LOCATION:	Kips Bay (Public School 281M) 425 East 35th Street New York, NY, 10016
PROJECT TECHNICAL SUPPORT	New York City School Construction Authority 30-30 Thomson Avenue Long Island City, New York 11101 STV Incorporated 225 Park Avenue South New York, New York 10003
DESCRIPTION OF WORK:	Review O&M plan and prior reports; review custodian's logbook, walk-through visual inspection
ATC REPRESENTATIVES:	Nancy Guevara, Inspector Husam Zeidan, Inspector

EXECUTIVE SUMMARY

ATC Group Services, LLC (ATC) conducted the annual site inspection of the Engineering Controls as they relate to the Gas Vapor Barrier and the Sub-Slab Depressurization System (SSDS) at Kips Bay (Public School 281M) located at 425 East 35th Street New York, NY, 10016 on August 25, 2016.

During the inspection, ATC noted that the custodian's Monthly or Severe Condition Inspection Form was prepared for June 2015, however, forms were not prepared for the months of July 2015 through July 2016 due to a change in custodial staff. ATC completed the monthly form for August 2016 with the new custodian during the annual inspection. In addition, the Routine and Preventative Maintenance Checklist was not completed. ATC observed that the SSDS fan unit was operational. The flexible connector on the fan stacks that was observed to be cracked in last year's inspection has been repaired. ATC also observed that the Building Management System (BMS) is functional and connected to the SSDS. ATC did not observe any significant cracks in the ground floor. However, ATC observed surficial hairline cracks in Rooms 100 and 110. A spare fan unit was available at the school in Stair Bulkhead Room 712A. Monitoring points MP-3 and MP-4 were checked and found to be in good condition. MP-1 was observed to be heavily rusted and missing all screws on the cover. In addition, MP-2's cover was missing screws.

Based on the aforementioned, ATC concludes that the Engineering Controls have not changed and appear to be effective, and no changes have occurred that would reduce the ability of the controls to protect public health and the environment. However, monthly and routine/ preventative maintenance inspections should continue to be conducted and Monthly and Routine/Preventative Maintenance Forms should continue to be completed by the custodial staff. Even though hairline cracks in Rooms 100 and 110 are not a concern, ATC advised the custodian that any significant cracks observed during the monthly inspections should be sealed with patching cement or grout. Additionally, monitoring points MP-1 and MP-2 should be clear of any rust obstruction and the covers should be securely tightened. These recommendations were brought to the attention of the custodial staff as part of the refresher training.

1.0 INTRODUCTION

ATC is pleased to provide this Annual Inspection Report to the New York City Department of Education Office of Environmental Health and Safety (NYC DOE/EHS) as it relates to Kips Bay (Public School 281M) located at 425 35th Street, New York, NY, 10016. The school is currently attended by approximately 80 students. This work was completed as per the request of NYC DOE.

The scope of work for this service included:

1. Review of the school custodian's inspection logs indicating his routine walk-through to identify any observed changes to the interior surfaces and roof mounted fan units;
2. SSDS roof vent inspection;
3. Ground floor inspection and exterior inspection for concrete cracks;
4. Verification of the condition of the monitoring points;
5. Review of prior reports; and
6. Photographic documentation of observations.

This report was developed to document: (a) the changes to the engineering controls if any, and (b) whether the program for maintenance and monitoring is being followed and is effective. Ms. Nancy Guevara and Mr. Husam Zeidan under direct supervision of Mr. Gilbert Gedeon, PE of ATC, conducted the annual site inspections on August 25, 2016. During the inspection, ATC was accompanied by Mr. Robert Ramos, the school's building manager.

2.0 ENGINEERING CONTROLS

According to the Operation and Maintenance (O&M) Plan prepared by STV Incorporated dated August 22, 2013, Public School 281M contains engineering controls that include a Gas Vapor Barrier and a Sub-Slab Depressurization System (SSDS) constructed beneath the school to prevent residual soil gas vapors from entering the building. A program for maintenance and monitoring was developed to ensure that the engineering controls implemented during the school's operation are properly maintained.

2.1 Fluid Applied Gas Vapor Barrier

The gas vapor barrier was installed beneath the school as an added precaution to prevent any residual soil gas vapors from entering the school building in the future. The vapor barrier was installed above the SSDS gas permeable aggregate (gravel) layer below the ground floor slab.

2.2 Sub-Slab Depressurization System

An SSDS was also installed beneath the school as an added precaution to prevent any soil gas vapors from entering the school building in the future. The primary component of the SSDS contains four (4) sub-slab suction pits, one (1) vertical riser connecting the pits to one (1) roof top fan and four (4) monitoring points.

3.0 SITE INSPECTIONS AND SSDS REPAIRS

3.1 Review of the Custodian's Inspection Logs

The following was discussed with Mr. Ramos:

1. The custodian's Monthly or Severe Condition Inspection Form was prepared for June 2015, however, forms were not prepared for the months of July 2015 through July 2016 due to a change in custodial staff. ATC completed the monthly form for August 2016 with the new custodian during the annual inspection. ATC provided annual refresher training and advised the custodial staff to continue to conduct the inspection on a monthly basis and document the observations in a monthly inspection form. The monthly inspection forms and training acknowledgement letter are included in Attachments 1 and 2, respectively.

2. The Routine and Preventative Maintenance Checklist was not completed. ATC advised the custodian to continue performing preventative maintenance and completing the checklist on a semiannual basis.

3.2 ATC's Visual Observations

ATC conducted visual observations and photographic documentation while accompanied by Mr. Ramos. Site photographs are included in Attachment 3, the Annual Inspection Form is included in Attachment 4 and the Annual Monitoring Point Inspection Checklist is included in Attachment 5.

During the walkthrough inspection, ATC noted the following:

- The SSDS fan unit is operational and connected to the BMS;
- Monitoring points MP-1 and MP-2 are heavily rusted and the cover is missing all screws; and
- A spare fan unit is available at the school and stored in Stair Bulkhead Room 712A.

3.2.1 SSDS Roof Vent Inspection

1. The flexible connector on the SSDS fan stack that was observed to be cracked during last year's inspection has been repaired;
2. ATC did not observe rust or other debris in the vicinity of the posts and sleeves of the vent stacks associated with the SSDS fan units;
3. SSDS fan stack guy wires were in good condition;
4. SSDS fan mounting and vibration isolators were intact;
5. Motor housing was intact and exterior surfaces were clean; and
6. Bolts and set screws were tight.

3.2.2 Ground Floor Inspection

ATC inspected the accessible areas of the ground floors and walls. ATC did not observe any significant concrete cracks penetrating into the ground floor during the annual inspection. As noted in the custodian's monthly inspection logs, ATC did observe hairline cracks in Rooms 100 and 110. The custodian was advised that monitoring during monthly inspections is required for any significant change in the width of the cracks. Significant cracks observed during these inspections will require patching with cement or grout.

ATC also checked the monitoring points associated with the SSDS system to verify their condition. ATC observed that monitoring points MP-1 and MP-2 were heavily rusted and the bolts on the covers were missing. All other monitoring points were observed to be in good condition.

ATC's observation of the ground concrete floors was limited due to architectural finishes such as ceramic floor tiles, vinyl floor tiles, wood flooring and miscellaneous equipment and furniture. ATC did not have access to the elevator pits.

3.2.3 Exterior Inspection

ATC inspected the perimeter of the property including paved and unpaved areas. There was no evidence of pavement removal. No structures have been constructed on the unpaved areas. There were no signs of soil washing or erosion.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on visual observations, ATC concludes the following:

1. The SSDS fan unit is operational and connected to the BMS;
2. The cover on monitoring points MP-1 and MP-2 are heavily rusted and the covers are missing all screws;
3. Surficial cracks were observed in Rooms 100 and 110;
4. A spare fan is available in Stair Bulkhead Room 712A;
5. Engineering controls have not changed and appear to be effective; and
6. No changes have occurred that would reduce the ability of the controls to protect public health and the environment.

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

1. Clear monitoring points MP-1 and MP-2 of the rust on the covers and replace missing screws;
2. The surficial cracks observed in Rooms 100 and 110 are not a concern; however, these cracks should be monitored during monthly inspections for any significant change in the width of the cracks. Significant cracks observed during these inspections will require patching with cement or grout material; and
3. Monthly and routine/preventative maintenance inspections should continue to be conducted and Monthly and Routine/Preventative Maintenance Forms should continue to be completed by the custodial staff.

5.0 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, site documents review and real-time environmental measurements. 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 contact us at (212) 353-8280.

Sincerely,
ATC GROUP SERVICES, LLC

Gilbert Gedeon, PE
Principal Engineer

cc: Y. Efstathiou
N. Guevara

Attachment 1
Custodian Monthly or Severe Condition Inspection Forms

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 6/23/15

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

		Yes / No *	Notified Person / D
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor.**		
	* Any visible cracks in the floor or subgrade walls?	NO	
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.		
B. SSDS INSPECTION	**1. Walk the entire roof surface and check the SSDS risers at basement level.**		
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	yes	
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: _____ in WC **Date taken:** _____

SF-2: _____ in WC **Date taken:** _____

SSDS Riser Measurements:

	Vaccum		Flow		
VR-1:	_____	in WC	**VR-1:** _____	CFM	**Date taken:** _____
VR-2:	_____	in WC	**VR-2:** _____	CFM	**Date taken:** _____

Inspector's Signature:

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 8/25/16

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor.**	✓Yes	
	* Any visible cracks in the floor or subgrade walls?	Yes	hair line/110. Room
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	**1. Walk the entire roof surface and check the SSDS risers at basement level.**	Yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	Yes	712A Room
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 5.59 in WC **Date taken:** 8/25/16

SF-2: _____ in WC **Date taken:** _____

SSDS Riser Measurements:

Vaccum		**Flow**		
VR-1: _____	in WC	**VR-1:** _____	CFM	**Date taken:** _____
VR-2: _____	in WC	**VR-2:** _____	CFM	**Date taken:** _____

Inspector's Signature: Roberto Ramos

Attachment 2
Training Acknowledgement

ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING

104 East 25th St, 10th Floor
New York, NY 10010-2917
www.cardnoatc.com
212-353-8280
Fax 212-353-8306

Annual Training Acknowledgement
Engineering Controls Operation and Maintenance

Location: M281

Custodian/Fireman: Roberto Ramos

I, Roberto Ramos, received annual refresher training on Engineering Controls Operation and Maintenance by ATC Group Services, LLC (ATC) on 8/25/16. 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: Roberto Ramos
Custodian/Fireman

Date: 8/25/16

Recommendations:

1. Replace missing bolts in MP-1 and MP-2 well covers in Room 111D and Ground Storage room.
2. Patch hairline cracks observed in Rooms 100 and 110 with cement/grout.
2. Continue conducting monthly inspections & completing monthly forms.

Attachment 3
Photographic Documentation

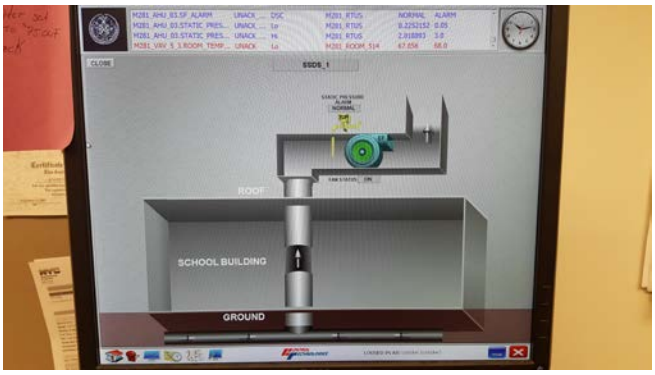


Photo 1: View of BMS indicating flow associated with fan unit SSDS-1.

Photo 2: View of spare fan unit stored in Stair Bulkhead Room 712A.

Photo 3: View of operational SSDS fan unit on the roof.

Photo 4: View of vacuum gauge associated with SSDS fan unit.

Photo 5: View of typical bare concrete floor in Room 100.

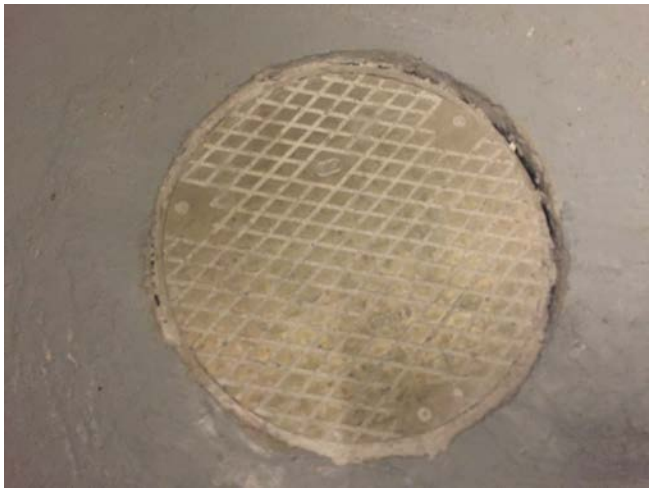


Photo 6: View of typical monitoring point in Room 100.

Attachment 4
Annual Inspection Form

P.S./I.S. 281M
ANNUAL INSPECTION FORM

Inspector's Name: Hosam Zeidan / Nancy Guevara
Weather Conditions: Sunny
Inspection Date: 8/25/16
Air Temperature (°F): 90°
Inspection Time:
Comments:

A. PRE INSPECTION CHECKLIST

- ☑ * Schedule Annual Inspection when school is not occupied by students.
- ☑ * Review 12 Previous Monthly Inspection Checklists.
- ☑ * Meet with Custodial Engineer and Principal to solicit comments/concerns regarding the operation of the Engineering Controls over the last 12 months
- ☑ * Conduct Annual Refresher Training with DOE EHS.
- ☑ * Follow proper safety protocols including lockout/tagout.

Comments: Met Roberto Ramos - Building Manager since March 2016

B. SSDS SYSTEM INSPECTION

Walk the entire roof surface of school building amd check SSDS risers at basement l yes

- ☑ * Inspect fan stack guy wires. good
- ☑ * Inspect monitoring points (look for obstructions, check manhole/bolts, quick connects). MP-1 & MP-2 missing bolts
- ☑ * Record vacuum gauge and flowmeter readings on riser pipes and SSDS fans (as applicable); review monthly data to check for decreases in flow/vacuum. -5" WC on fan unit
- ☑ * Ensure all SSDS accessories listed in section 15880 are functioning properly.
- ☑ * Inspect bolts and set screws for tightness and rusty condition. good
- ☑ * Inspect SSDS fan for cleanliness. Clean exterior surfaces only. Remove dust and grease on motor housing, good
- ☑ * Are the indicator lights on the Building Management System functioning properly? yes
- ☑ * Is the spare fan unit present/available at the school? yes Room 712A

Comments (see or hear anything unusual?):

C. VAPOR BARRIER INSPECTION

Walk all of the basement floor yes

- ☑ * Review all cracks or other openings identified in first floor during previous inspections.
- ☑ * Any new visible cracks in the floor? no
- ☑ * Any new visible opening (unintended) in the floor? no
- ☑ * Any new visible cracks in accessible pits? N/A
- ☑ * Note the length of any new cracks/openings in the floor. N/A
- ☑ * Draw approximate location of floor cracks/openings that appear to have potential leak through vapor barrier N/A

Comments: hair line Cracks Room 100 and 110.

D. REPAIR

Summarize needed/completed repairs to Engineering Controls:

1. Replace missing bolts on cover of MP-1 and MP-2.
2. Hairline cracks in Rooms 100 & 110 should be patched with cement/grout.

Inspector's Signature: Nancy Guevara

Attachment 5
Annual Monitoring Point Inspection Checklist

8/25/16

P.S/I.S. 281M

ANNUAL MONITORING POINT INSPECTION CHECKLIST

Monitoring Point ID	Room Number	Any obstructions over MP	Manhole cover secure and bolts intact?	Comments
MP-1	Ground Storage	Y / (N)	Y / N	missing bolts on cover
MP-2	Compressor Room	Y / (N)	Y / N	missing bolts on cover
MP-3	Fire Pump Room	Y / (N)	(Y) / N	
MP-4	Water Service	Y / (N)	(Y) / N	

Inspect all monitoring point locations for obstructions; check the manhole covers/bolts and quick connections inside the manhole.

Attachment 6
Inspection Documents by Other Consultants

Submittal Review
Prepared by: Robert Fields, STV
Page 1 of 1
12-21-15

Project
PS/IS 281 Kips Bay
SCA Project ID: 051114

Submission

Submittal:	SSDS PE Certification Report
Specification location:	02221, 1.05-L & 3.01
Submission date:	12/18/15
Copies:	electronic

The submission includes a Certification Letter dated November 12, 2015 and Field Inspection Reports completed and signed by the GC's Professional Engineer (PE) for the Sub-slab Depressurization System (SSDS). Though STV was the designer of the SSDS, the GC's PE is required to provide oversight of the installation and testing in accordance with the milestone inspection schedule specified in Article 3.01. It is understood that the GC's PE witnessed and supervised the tests which demonstrated installation of SSDS for preventing intrusion of vapors into the entire new construction, as required by Section 02221.

Specific actions are as follows:

Submittal	Review Action
02221 - Licensed Professional Engineer Certification Report	Approved as noted [1]

Notes:

1. Field Inspection Report dated 11/10/15 reports damage to the flexible connection from the rooftop exhaust duct to the suction fan. This issue will be reported to the DOE EHS so arrangements for appropriate repairs can be made.

225 PARK AVENUE SOUTH
NEW YORK, NEW YORK 10003-1604
(212) 777-4400 FAX: (212) 529-5237

Field inspection Report for SSDS:

Project Location: PS-281M

Inspection Location: FINAL INSPECTION / AS BUILT

Date 11/10/2015

Weather: RAINY, 58 f

1. Compliance with installation details:
   COMPLIES EXCEPT AS NOTED
2. Compliance with materials of construction:
   COMPLIES
3. Description of Risers:
   COMPLIES - AT TIME OF INSPECTION ALL RISERS HAD BEEN CONCEALED
4. Compliance with Blower installation:
   COMPLIES, EXCEPT AS NOTED
5. Compliance with pipe hangers:
   N/A
6. Completion of all components of SSDS:
   COMPLETED

Area of this inspection: _____sf

Comments:

CONDUCTED A FINAL INSPECTION: SCOPE WAS TO SEE SYSTEM OPERATING, SEE SPARE FAN, AND OBSERVE INSTALLED FANS. INSPECTION WITNESSED BY JOE LENTINI, THE SCHOOL'S SUPERINTENDENT. INSPECTED STUBOUT AS SEEN FROM THE INSPECTION PORT. INSPECTED FAN INSTALLATION. NOTED THAT FLEXIBLE CONNECTION CONNECTED TO THE SUCTION OF THE FAN HAD SIGNS OF WEAR AND AGING. MUST BE REPLACED SO THAT SYSTEM OPERATES MORE EFFICIENTLY. FAN WAS OPERATING. SPACE FAN WAS IN STORAGE. OBSERVED ONE MONITORING POINT. ALL OTHERS WERE CONCEALED, NOT AVAILABLE FOR INSPECTION. VACUUM WAS NOT MEASURED.

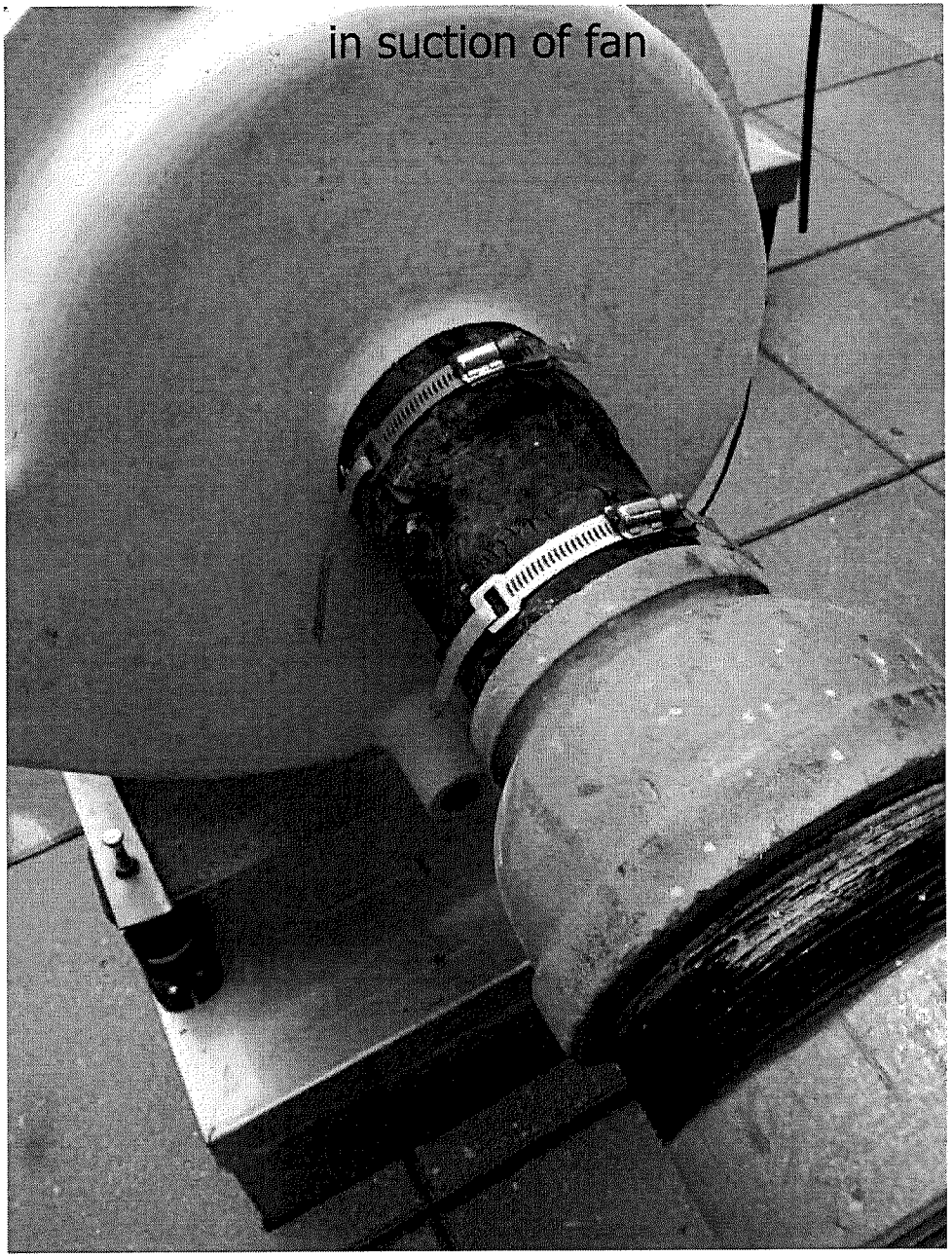
INSPECTED COMPUTER IN SUPER'S OFFICE. HE SHOWED THE SSDS SYSTEM DISPLAYED AND THE ALARM SYSTEM. NOT TESTED THE ALARM CONDITION.

THE INSPECTED ELEMENTS CONFORM WITH DESIGN.

Inspection by ARIEL CZEMERINSKI

Fan assembly on roof

Damaged flex coupling in suction of fan



Field inspection Report for SSDS:

Project Location: PS-281

Inspection Location: SSDS Risers and Pressure test

Date 12/10/12 - 9:00 am - 11:30 am

Weather: Rainy, 43 F

1. Compliance with installation details:
2. Compliance with materials of construction:
3. Description of Risers:
4. Compliance with Blower installation:
   n/a
5. Compliance with pipe hangers:
6. Completion of all components of SSDS:
   completed

Area of this inspection: _____sf

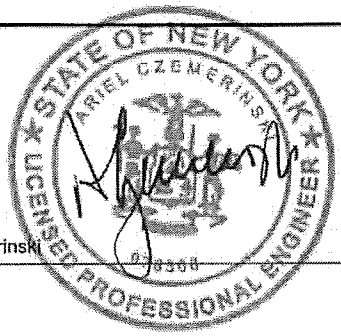
Comments:

Inspected the SSDS risers for compliance to LLW No 051114, spec. 02221, item 3.01B

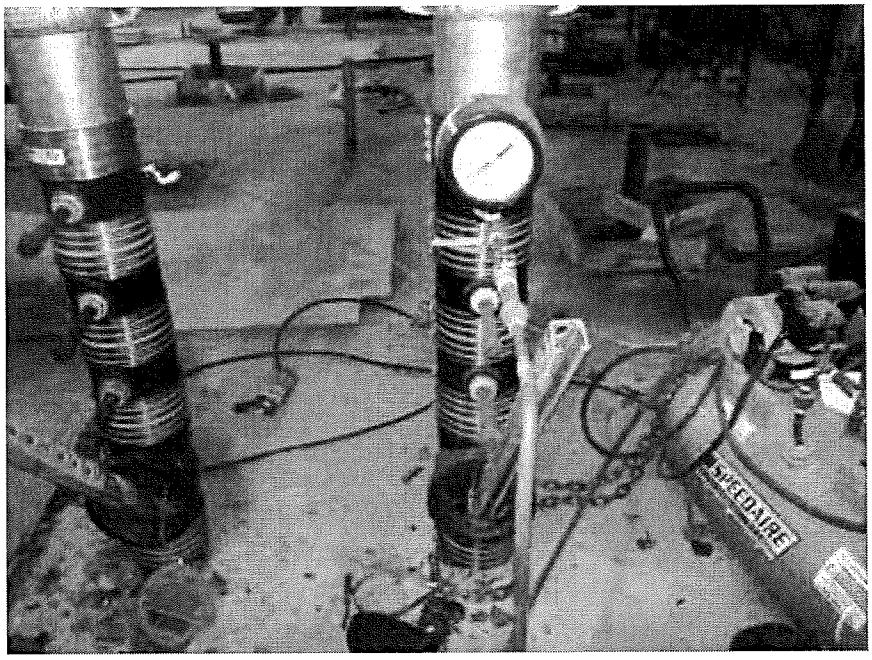
Test met the 10 psi - 30 minute specification criteria.

Inspection and test witnessed by Mat (SCA), P Burger (STV), Dan (Hunter Roberts)

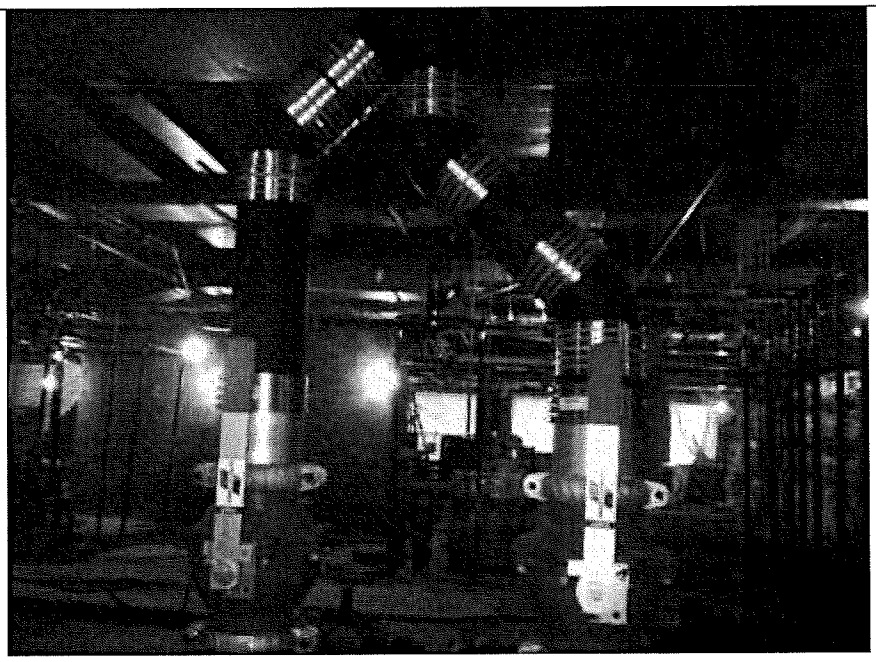
On site was Barry Eakin (HR).



Inspection by Ariel Czemerinski



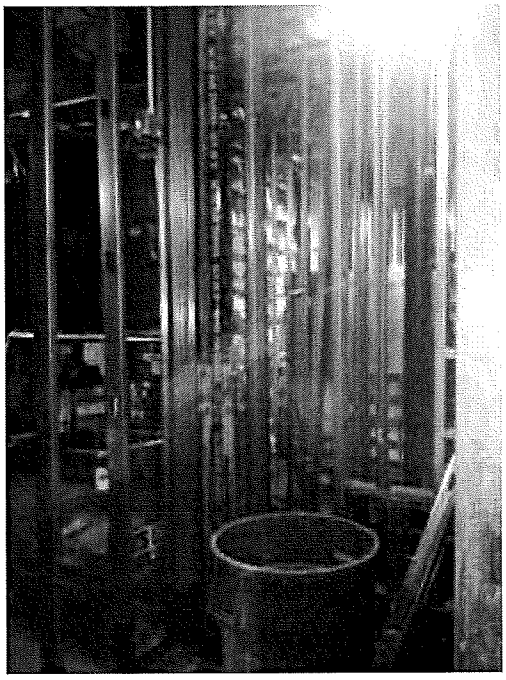
Risers Take off



Risers Manifold

FIELD PHOTOGRAPH
PS-281M

Date: 11/14/12
By AMC Engineering PLLC 516 417-8588

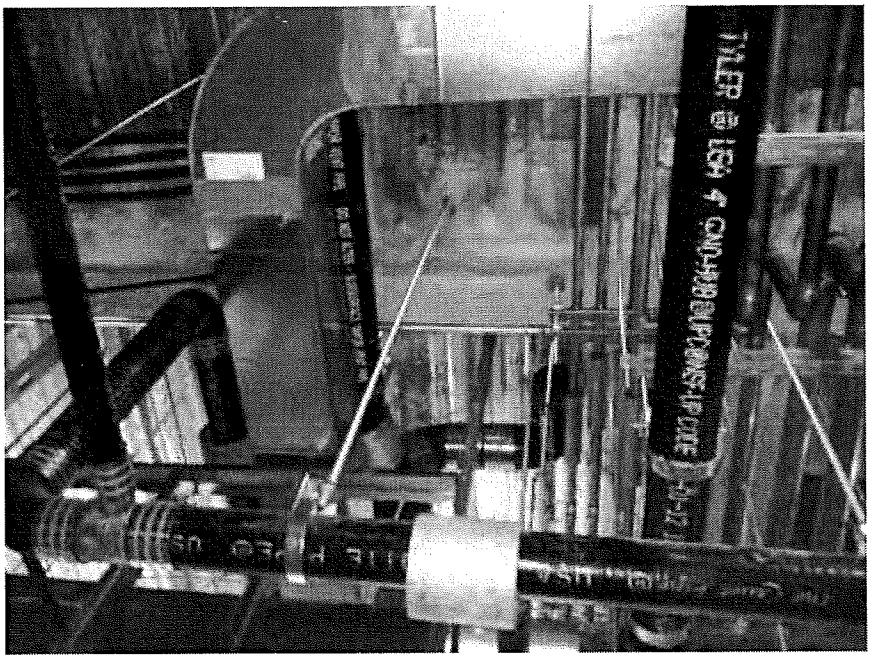


Riser 3rd Floor

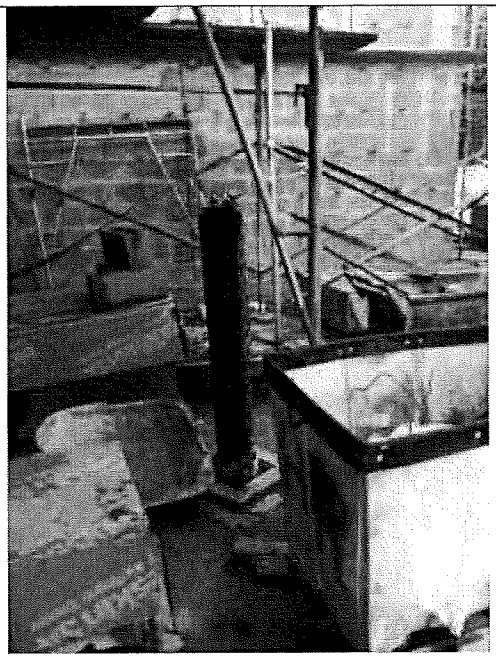
Riser 4th Floor

FIELD PHOTOGRAPH
PS-281M

Date: 11/14/12
By AMC Engineering PLLC 516 417-8588



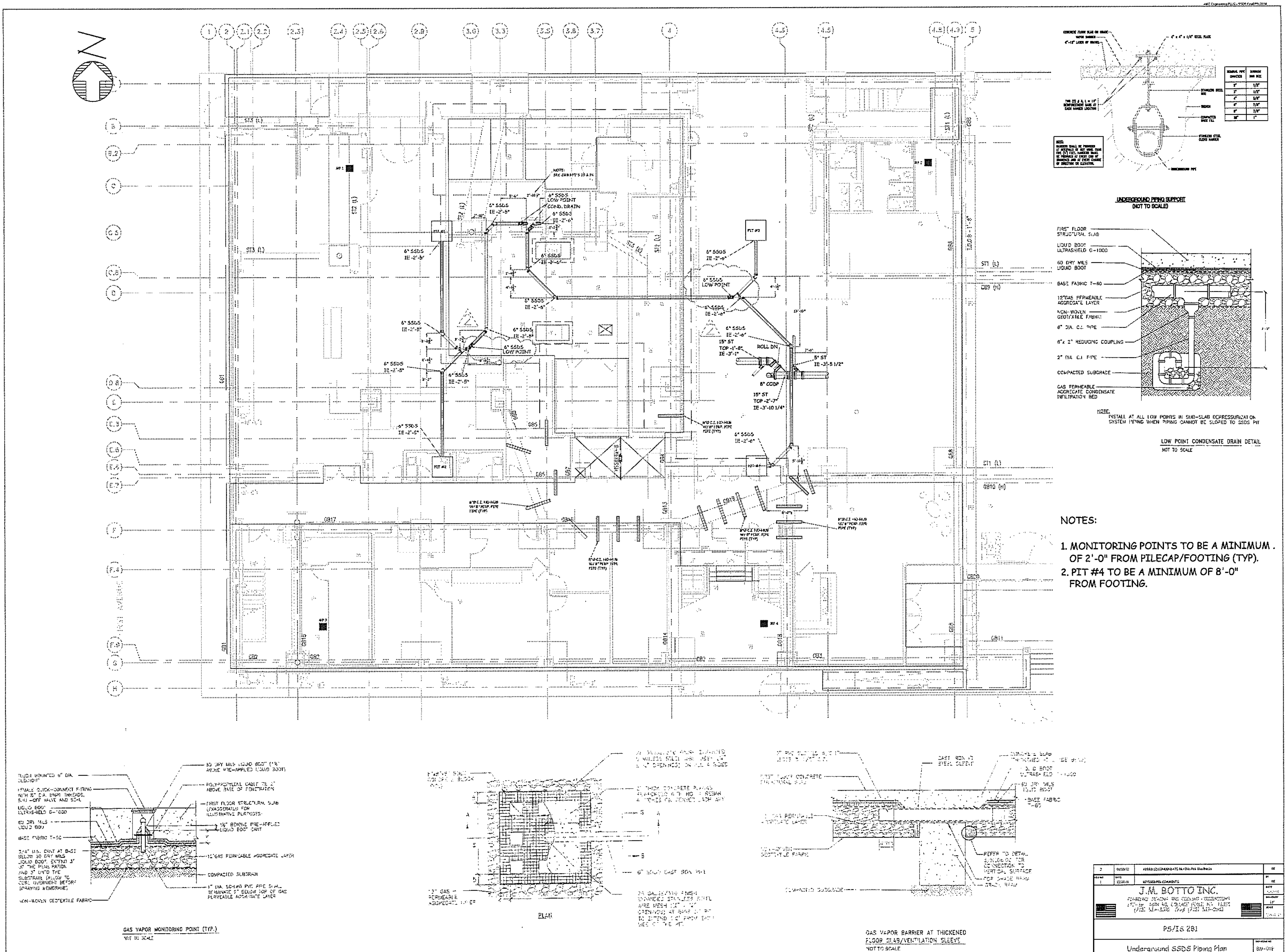
Riser 5th Floor – Roof Penetration



Riser - Roof

FIELD PHOTOGRAPH
PS-281M

Date: 11/14/12
By AMC Engineering PLLC 516 417-8588



UNDERGROUND PIPING SUPPORT
(NOT TO SCALE)
FIRST FLOOR STRUCTURAL SLAB
LIQUID BOOT ULTRASHIELD G-1000
60 DRY MILS LIQUID BOOT
BASE FABRIC T-60
12"GAS PERMEABLE AGGREGATE LAYER
NON-WOVEN GEOTEXTILE FABRIC
6" DIA. C.I. PIPE
6"x 2" REDUCING COUPLING
2" DIA. C.I. PIPE
COMPACTED SUBGRADE
GAS PERMEABLE AGGREGATE CONDENSATE INFILTRATION BED
NOTE:
INSTALL AT ALL LOW POINTS IN SUB-SLAB DEPRESSURIZATION SYSTEM PIPING WHEN PIPING CANNOT BE SLOPED TO SSDS PIT
LOW POINT CONDENSATE DRAIN DETAIL
NOT TO SCALE
NOTES:
1. MONITORING POINTS TO BE A MINIMUM OF 2'-0" FROM PILECAP/FOOTING (TYP).
2. PIT #4 TO BE A MINIMUM OF 8'-0" FROM FOOTING.
6" SSDS LOW POINT COND. DRAIN
6" SSDS LOW POINT
ROLL DN.
8" CODP
GAS VAPOR MONITORING POINT (TYP.)
NOT TO SCALE
PLAN
GAS VAPOR BARRIER AT THICKENED FLOOR SLAB/VENTILATION SLEEVE
NOT TO SCALE
J.M. BOTTO INC.
PS/IS 281
Underground SSDS Piping Plan

Field inspection Report for SSDS:

Project Location: PS-281

Inspection Location: SSDS Pipe, lines (2.9-3.4)-(C.5-E.6)

Date 2/8/12 - 7:00 am

Weather: Sunny, windy, 28 F

1. Compliance with installation details:
   pipe, drain, slopes and sub-base complies with details
2. Compliance with materials of construction:
   complies
3. Description of Risers:
   n/a
4. Compliance with Blower installation:
   n/a
5. Compliance with pipe hangers:
   stainless steel hangers partially intalled
6. Completion of all components of SSDS:
   not complete

Area of this inspection: _____sf

Comments:

Inspected the SSDS pipe installation for compliance to LLW No 051114, spec. 02221, item 3.01A #1,2 and partially #3, 5.

Inspected pipes were compliant. Pipes were leaded together with hub connections. hangers every 5 ft and on every bend.

Pits not complete.

Subbase largely installed.

Inspected pipe ready to be covered with stone as per plans and specs.

Monitoring points: not installed

Inspection by Ariel Czemerinski

ANNUAL INSPECTION REPORT
KIPS BAY (PUBLIC SCHOOL 281M)
425 EAST 35TH STREET
NEW YORK, NY 10016

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:

ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING
104 East 25th Street, 10th Floor
New York, New York 10010-2917

Date of Issue: April 24, 2018

ATC Project No. Z214YI0949

TABLE OF CONTENTS

Attachments:

PROJECT DIRECTORY

OWNER/CLIENT:	New York City Department of Education Office of Environmental Health and Safety 44-36 Vernon Blvd. Long Island City, New York 11101
PROJECT LOCATION:	Kips Bay (Public School 281M) 425 East 35th Street New York, NY, 10016
PROJECT TECHNICAL SUPPORT	New York City School Construction Authority 30-30 Thomson Avenue Long Island City, New York 11101 STV Incorporated 225 Park Avenue South New York, New York 10003
DESCRIPTION OF WORK:	Review O&M plan and prior reports; review custodian's logbook, walk-through visual inspection
ATC REPRESENTATIVES:	Gilbert Gedeon, Principal Engineer

EXECUTIVE SUMMARY

ATC Group Services, LLC (ATC) conducted the annual site inspection of the Engineering Controls as they relate to the Gas Vapor Barrier and the Sub-Slab Depressurization System (SSDS) at Kips Bay (Public School 281M) located at 425 East 35th Street New York, NY, 10016 on April 24, 2018.

During the inspection, ATC noted that the custodian's Monthly or Severe Condition Inspection Forms were prepared from September 2016 to April 2018. However, the Routine and Preventative Maintenance Checklist was not completed. ATC observed that the SSDS fan unit was operational. ATC also observed that the Building Management System (BMS) is not functional. ATC did not observe any significant cracks in the ground floor except for surficial hairline cracks in Rooms 100, 110 and 111D. A spare fan unit was available at the school in Stair Bulkhead Room 712A. All four (4) monitoring points were checked and found to be in good condition. However, MP-1 and MP-2 well caps were missing screws.

ATC revisited the site on May 8, 2018 to conduct a smoke test on the hairline crack located in Rooms 100, 110 and 111D. The results of the smoke test indicated no potential vapor barrier leaks through the hairline crack.

Based on the aforementioned, ATC concludes that the Engineering Controls have not changed and appear to be effective, and no changes have occurred that would reduce the ability of the controls to protect public health and the environment. However, the BMS should be repaired and connected to the SSDS. Even though hairline cracks in Rooms 100, 110 and 111D are not a concern, ATC advised the custodian that any significant cracks observed during the monthly inspections should be sealed with patching cement or grout. Additionally, the well caps associated with monitoring points MP-1 and MP-2 should be securely tightened. Monthly and routine/ preventative maintenance inspections should be conducted and Monthly and Routine/ Preventative Maintenance Forms should be completed by the custodial staff. These recommendations were brought to the attention of the custodial staff as part of the refresher training.

1.0 INTRODUCTION

ATC is pleased to provide this Annual Inspection Report to the New York City Department of Education Office of Environmental Health and Safety (NYC DOE/EHS) as it relates to Kips Bay (Public School 281M) located at 425 35th Street, New York, NY, 10016. The school is currently attended by approximately 80 students. This work was completed as per the request of NYC DOE.

The scope of work for this service included:

1. Review of the school custodian's inspection logs indicating his routine walk-through to identify any observed changes to the interior surfaces and roof mounted fan units;
2. SSDS roof vent inspection;
3. Ground floor inspection and exterior inspection for concrete cracks;
4. Verification of the condition of the monitoring points;
5. Review of prior reports; and
6. Photographic documentation of observations.

This report was developed to document: (a) the changes to the engineering controls if any, and (b) whether the program for maintenance and monitoring is being followed and is effective. Mr. Gilbert Gedeon, PE of ATC, conducted the annual site inspections on April 24, 2018. During the inspection, ATC was accompanied by Mr. Robert Ramos, the school's building manager.

2.0 ENGINEERING CONTROLS

According to the Operation and Maintenance (O&M) Plan prepared by STV Incorporated dated August 22, 2013, Public School 281M contains engineering controls that include a Gas Vapor Barrier and a Sub-Slab Depressurization System (SSDS) constructed beneath the school to prevent residual soil gas vapors from entering the building. A program for maintenance and monitoring was developed to ensure that the engineering controls implemented during the school's operation are properly maintained.

2.1 Fluid Applied Gas Vapor Barrier

The gas vapor barrier was installed beneath the school as an added precaution to prevent any residual soil gas vapors from entering the school building in the future. The vapor barrier was installed above the SSDS gas permeable aggregate (gravel) layer below the ground floor slab.

2.2 Sub-Slab Depressurization System

An SSDS was also installed beneath the school as an added precaution to prevent any soil gas vapors from entering the school building in the future. The primary component of the SSDS contains four (4) sub-slab suction pits, one (1) vertical riser connecting the pits to one (1) roof top fan and four (4) monitoring points.

3.0 SITE INSPECTIONS AND SSDS REPAIRS

3.1 Review of the Custodian's Inspection Logs

The following was discussed with Mr. Ramos:

1. The custodian's Monthly or Severe Condition Inspection Forms were prepared from September 2016 to April 2018.

2. The Routine and Preventative Maintenance Checklist was not completed.

3. As part of the annual refresher training, ATC advised the custodial staff to continue to conduct the inspection on a monthly basis and document the observations in a monthly inspection form. ATC also advised the custodian to perform preventative maintenance and completing the checklist on a semiannual basis.

The monthly inspection forms and training acknowledgement letter are included in Attachments 1 and 2, respectively.

3.2 ATC's Visual Observations

ATC conducted visual observations and photographic documentation while accompanied by Mr. Ramos. Site photographs are included in Attachment 3, the Annual Inspection Form is included in Attachment 4 and the Annual Monitoring Point Inspection Checklist is included in Attachment 5.

During the walkthrough inspection, ATC noted the following:

- The BMS was not functional;
- The SSDS fan unit was operational;
- Hairline cracks were observed in Rooms 100, 110 and 111D;
- Well caps for MP1 And MP2 were missing screws; and
- A spare fan unit is available at the school and stored in Stair Bulkhead Room 712A.

3.2.1 SSDS Roof Vent Inspection

1. ATC did not observe rust or other debris in the vicinity of the posts and sleeves of the vent stacks associated with the SSDS fan units;
2. SSDS fan stack guy wires were in good condition;
3. SSDS fan mounting and vibration isolators were intact;
4. Motor housing was intact and exterior surfaces were clean; and
5. Bolts and set screws were tight.

3.2.2 Ground Floor Inspection

ATC inspected the accessible areas of the ground floors and walls. ATC did not observe any significant concrete cracks penetrating into the ground floor during the annual inspection, except for hairline cracks in Rooms 100, 110 and 111D. As such, smoke testing was conducted. ATC did not observe potential vapor barrier leaks through the hairline cracks.

Although these cracks are not a concern, monitoring during monthly inspections is required for any significant change in the width of the cracks. Significant cracks observed during these inspections will require patching with cement or grout material.

ATC also checked the monitoring points associated with the SSDS system to verify their condition. ATC observed that monitoring points MP-1 and MP-2 were missing screws on their well caps. All other monitoring points were observed to be in good condition.

ATC's observation of the ground concrete floors was limited due to architectural finishes such as ceramic floor tiles, vinyl floor tiles, wood flooring and miscellaneous equipment and furniture. ATC did not have access to the elevator pits.

3.2.3 Exterior Inspection

ATC inspected the perimeter of the property including paved and unpaved areas. There was no evidence of pavement removal. No structures have been constructed on the unpaved areas. There were no signs of soil washing or erosion.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on visual observations, ATC concludes the following:

1. The BMS was not functional;
2. The SSDS fan unit is operational;
3. Surficial cracks were observed in Rooms 100, 110 and 111D. As such, smoke testing was conducted. ATC did not observe potential vapor barrier leaks through the hairline cracks;
4. The well caps cover on monitoring points MP-1 and MP-2 are missing screws;
5. A spare fan is available in Stair Bulkhead Room 712A;
6. Engineering controls have not changed and appear to be effective; and
7. No changes have occurred that would reduce the ability of the controls to protect public health and the environment.

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

1. Repair the BMS and connect to the SSDS.
2. Securely tighten the well caps associated with monitoring points MP-1 and MP-2;
3. The surficial cracks observed in Rooms 100, 110 and 111D are not a concern; however, these cracks should be monitored during monthly inspections for any significant change in the width of the cracks. Significant cracks observed during these inspections will require patching with cement or grout material; and
4. Monthly and routine/preventative maintenance inspections should be conducted and Monthly and Routine/Preventative Maintenance Forms should be completed by the custodial staff.

5.0 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, site documents review and real-time environmental measurements. 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 contact us at (212) 353-8280.

Sincerely,
ATC GROUP SERVICES, LLC

Gilbert Gedeon, PE
Principal Engineer

cc: Y. Efstathiou
H. Zeidan

Attachment 1
Custodian Monthly or Severe Condition Inspection Forms

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 9/20/16

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor.**	yes	
	* Any visible cracks in the floor or subgrade walls?	Yes	hair line / 110-2 room
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	**1. Walk the entire roof surface and check the SSDS risers at basement level.**	yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	Yes	712A Room
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 5 psi in WC Date taken: 9/20/16

SF-2: _____ in WC Date taken: _____

SSDS Riser Measurements:

	Vaccum		Flow		
VR-1:	_____	in WC	VR-1: _____	CFM	Date taken: _____
VR-2:	_____	in WC	VR-2: _____	CFM	Date taken: _____

Inspector's Signature: Robert Ramos

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 10/21/16

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor.**	Yes	
	* Any visible cracks in the floor or subgrade walls?	yes	hair line / 110 Room
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	**1. Walk the entire roof surface and check the SSDS risers at basement level.**	Yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	Yes	712 A Room
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 5 PSI in WC — Date taken: 10/21/16

SF-2: _____ in WC — Date taken: _____

SSDS Riser Measurements:

Vaccum		Flow		
VR-1: _____	in WC	VR-1: _____	CFM	Date taken: _____
VR-2: _____	in WC	VR-2: _____	CFM	Date taken: _____

Inspector's Signature: Roberto Ramos

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 11/08/16

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor.**	Yes	
	* Any visible cracks in the floor or subgrade walls?	Yes →	On Observation
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	**1. Walk the entire roof surface and check the SSDS risers at basement level.**	Yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	Yes	712 A Room
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 5 PSI in WC — Date taken: 11/08/16

SF-2: _____ in WC — Date taken: _____

SSDS Riser Measurements:

Vaccum		Flow		
VR-1: _____	in WC	VR-1: _____	CFM	Date taken: _____
VR-2: _____	in WC	VR-2: _____	CFM	Date taken: _____

Inspector's Signature: [signature]

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 12/05/16

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor.**	Yes	
	* Any visible cracks in the floor or subgrade walls?	Yes — observation on visible line	
	* Any other visible openings (unintended) in the floor or subgrade walls?	No	
	* Any construction activities affecting the floor or subgrade walls?	No	
	* Any visible cracks in any accessible pits?	No	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	**1. Walk the entire roof surface and check the SSDS risers at basement level.**	Yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	No	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	No	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	No	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	yes	712 A Room
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	No	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 5 PSI in WC — Date taken: 12/05/16

SF-2: _____ in WC — Date taken: _____

SSDS Riser Measurements:

Vaccum		Flow		
VR-1: _____	in WC	VR-1: _____	CFM	Date taken: _____
VR-2: _____	in WC	VR-2: _____	CFM	Date taken: _____

Inspector's Signature: Robert Lewis

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 1/12/17

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor.**	Yes	
	* Any visible cracks in the floor or subgrade walls?	yes - same size as hair line →	
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	**1. Walk the entire roof surface and check the SSDS risers at basement level.**	yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	yes	712 A Room
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 5 psi in WC — Date taken: 1/12/17

SF-2: _____ in WC — Date taken: _____

SSDS Riser Measurements:

Vaccum		Flow		
VR-1: _____	in WC	VR-1: _____	CFM	Date taken: _____
VR-2: _____	in WC	VR-2: _____	CFM	Date taken: _____

Inspector's Signature: Robert Ramos

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 2/14/17

Purpose: (circle one) (Monthly Inspection) (Severe Condition Inspection (describe)) Ice on raisers up in Roof stacks

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor.**	Yes	
	* Any visible cracks in the floor or subgrade walls?	N/A	
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	**1. Walk the entire roof surface and check the SSDS risers at basement level.**	Yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	Yes = Ice on Roof stacks Remove	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	Yes	712 A Room
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	

C. ACTIONS TAKEN

Notice Ice on Roof stack Remove and performed correctly.. ~~also~~ email SCA Due to NO Reading on BMS computer showing an Alarm static pressure checked on Roof all good ~~above~~ 5 psi

SSDS Fan Measurements:

Vacuum

SF-1: 5 psi in WC — Date taken: 2/14/17

SF-2: _____ in WC — Date taken: _____

SSDS Riser Measurements:

	Vaccum		Flow		
VR-1:	_____ in WC	VR-1:	_____ CFM	Date taken:	_____
VR-2:	_____ in WC	VR-2:	_____ CFM	Date taken:	_____

Inspector's Signature: [signature]

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 3/20/17

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor.**	yes	
	* Any visible cracks in the floor or subgrade walls?	N/A	
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	**1. Walk the entire roof surface and check the SSDS risers at basement level.**	yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	yes	712 A Room
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?		
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 5/ psi in WC — Date taken: 3/20/17

SF-2: _____ in WC — Date taken: _____

SSDS Riser Measurements:

	Vaccum		Flow		
VR-1:	_____ in WC	VR-1:	_____ CFM	Date taken:	_____
VR-2:	_____ in WC	VR-2:	_____ CFM	Date taken:	_____

Inspector's Signature: Robert Ramos

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 4/12/17

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor.**	Yes	
	* Any visible cracks in the floor or subgrade walls?	Yes -	Size inch hair line
	* Any other visible openings (unintended) in the floor or subgrade walls?	No	
	* Any construction activities affecting the floor or subgrade walls?	No	
	* Any visible cracks in any accessible pits?	No	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	**1. Walk the entire roof surface and check the SSDS risers at basement level.**	Yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	No	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	No	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	No	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	Yes	712 A Room
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	No	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 5psi in WC Date taken: 4/12/17

SF-2: _____ in WC Date taken: _____

SSDS Riser Measurements:

Vaccum		Flow		
VR-1: _____	in WC	VR-1: _____	CFM	Date taken: _____
VR-2: _____	in WC	VR-2: _____	CFM	Date taken: _____

Inspector's Signature: Robert Dames

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 5/18/17

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor.	yes	
	* Any visible cracks in the floor or subgrade walls?	yes	size inch hair line
	* Any other visible openings (unintended) in the floor or subgrade walls?	No	
	* Any construction activities affecting the floor or subgrade walls?	No	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	1. Walk the entire roof surface and check the SSDS risers at basement level.	yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	No	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	yes	717 A Room
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	No	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 5 psi in WC **Date taken:** 5/18/17

SF-2: _____ in WC **Date taken:** _____

SSDS Riser Measurements:

	Vaccum		Flow		
VR-1:	_____ in WC	**VR-1:**	_____ CFM	**Date taken:**	_____
VR-2:	_____ in WC	**VR-2:**	_____ CFM	**Date taken:**	_____

Inspector's Signature: [signature] ms

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 6/21/17

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor.	Yes	
	* Any visible cracks in the floor or subgrade walls?	Yes	Size inch hair line
	* Any other visible openings (unintended) in the floor or subgrade walls?	No	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	1. Walk the entire roof surface and check the SSDS risers at basement level.	Yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	No	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	No	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	yes	717 A Room
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	No	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 5 psi in WC Date taken: 6/21/17

SF-2: _____ in WC Date taken: _____

SSDS Riser Measurements:

	Vaccum		Flow		
VR-1:	_____ in WC	VR-1:	_____ CFM	Date taken:	_____
VR-2:	_____ in WC	VR-2:	_____ CFM	Date taken:	_____

Inspector's Signature: Robert Ramos

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 7/1/17

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor.**	Yes	
	* Any visible cracks in the floor or subgrade walls?	Yes	Size inch hair line
	* Any other visible openings (unintended) in the floor or subgrade walls?	No	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	**1. Walk the entire roof surface and check the SSDS risers at basement level.**	Yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	No	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	Yes	712 A Room
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 5 psi in WC **Date taken:** 7/1/17

SF-2: _____ in WC **Date taken:** _____

SSDS Riser Measurements:

	Vaccum		Flow		
VR-1:	_____	in WC	**VR-1:** _____	CFM	**Date taken:** _____
VR-2:	_____	in WC	**VR-2:** _____	CFM	**Date taken:** _____

Inspector's Signature: [signature]

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 8/21/17

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor.**	Yes	
	* Any visible cracks in the floor or subgrade walls?	Yes	Size inch hair line
	* Any other visible openings (unintended) in the floor or subgrade walls?	No	
	* Any construction activities affecting the floor or subgrade walls?	No	
	* Any visible cracks in any accessible pits?	No	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	**1. Walk the entire roof surface and check the SSDS risers at basement level.**	Yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	No	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	No	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	No	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	Yes	
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	No	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 5 PSI in WC — **Date taken:** 8/21/17

SF-2: _____ in WC — **Date taken:** _____

SSDS Riser Measurements:

	Vaccum		Flow	
VR-1:	_____ in WC	**VR-1:**	_____ CFM	**Date taken:** _____
VR-2:	_____ in WC	**VR-2:**	_____ CFM	**Date taken:** _____

Inspector's Signature: [signature]

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 9/3/17

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor.**	Yes	
	* Any visible cracks in the floor or subgrade walls?	Yes	Size inch hair line
	* Any other visible openings (unintended) in the floor or subgrade walls?	No	
	* Any construction activities affecting the floor or subgrade walls?	No	
	* Any visible cracks in any accessible pits?	No	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	**1. Walk the entire roof surface and check the SSDS risers at basement level.**	Yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	No	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	No	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	No	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	Yes	712 A Room
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	No	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 5 psi in WC **Date taken:** 9/3/17

SF-2: _____ in WC **Date taken:** _____

SSDS Riser Measurements:

	Vaccum		Flow	
VR-1:	_____ in WC	**VR-1:**	_____ CFM	**Date taken:** _____
VR-2:	_____ in WC	**VR-2:**	_____ CFM	**Date taken:** _____

Inspector's Signature: R. R.

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 10/28/17

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor.**	Yes	
	* Any visible cracks in the floor or subgrade walls?	Yes	Size inch hair line
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	**1. Walk the entire roof surface and check the SSDS risers at basement level.**	Yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	Yes	712 A Room
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 5.25i in WC **Date taken:** 10/28/17

SF-2: _____ in WC **Date taken:** _____

SSDS Riser Measurements:

Vaccum		Flow		
VR-1: _____	in WC	**VR-1:** _____	CFM	**Date taken:** _____
VR-2: _____	in WC	**VR-2:** _____	CFM	**Date taken:** _____

Inspector's Signature: [signature]

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 11/20/17

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor.**	Yes	
	* Any visible cracks in the floor or subgrade walls?	yes	Size inch hair line
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	**1. Walk the entire roof surface and check the SSDS risers at basement level.**	yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	yes	712 A Room
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 5 psi in WC **Date taken:** 11/20/17

SF-2: _____ in WC **Date taken:** _____

SSDS Riser Measurements:

	Vaccum		Flow		
VR-1:	_____ in WC	**VR-1:**	_____ CFM	**Date taken:**	_____
VR-2:	_____ in WC	**VR-2:**	_____ CFM	**Date taken:**	_____

Inspector's Signature: [signature]

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 12/28/17

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor.**	yes	
	* Any visible cracks in the floor or subgrade walls?	yes	Size inch, hair line
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	**1. Walk the entire roof surface and check the SSDS risers at basement level.**	yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	yes	712 A Room
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 5 PSI in WC — Date taken: 12/21/17

SF-2: _____ in WC — Date taken: _____

SSDS Riser Measurements:

	Vaccum		Flow		
VR-1:	_____	in WC	VR-1: _____	CFM	Date taken: _____
VR-2:	_____	in WC	VR-2: _____	CFM	Date taken: _____

Inspector's Signature: [signature]

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 1/8/18

Purpose: (circle one) (Monthly Inspection) **Severe Condition Inspection (describe)** Ice on risers up in Roof stacks

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor.**	yes	
	* Any visible cracks in the floor or subgrade walls?	N/A	
	* Any other visible openings (unintended) in the floor or subgrade walls?	no	
	* Any construction activities affecting the floor or subgrade walls?	no	
	* Any visible cracks in any accessible pits?	no	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	**1. Walk the entire roof surface and check the SSDS risers at basement level.**	yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	yes- Ice on Roof stacks Removed	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	no	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	no	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	yes	712 A Room
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	no	
C. ACTIONS TAKEN	Notice Ice on Roof stack. Removed and performed correctly. BMS showing no Alarm static pressure checked on Roof all good. 5 psi		

SSDS Fan Measurements:

Vacuum

SF-1: 5 psi in WC Date taken: 1/8/18

SF-2: _____ in WC Date taken: _____

SSDS Riser Measurements:

Vaccum		Flow		
VR-1: _____	in WC	VR-1: _____	CFM	Date taken: _____
VR-2: _____	in WC	VR-2: _____	CFM	Date taken: _____

Inspector's Signature: [signature]

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 2/6/18

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor.**	Yes	
	* Any visible cracks in the floor or subgrade walls?	N/A	Size inch hair line
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. · Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	**1. Walk the entire roof surface and check the SSDS risers at basement level.**	Yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	Yes	712 A Room
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 5 PSI in WC — Date taken: 2/6/18.

SF-2: _____ in WC — Date taken: _____

SSDS Riser Measurements:

	Vaccum		Flow		
VR-1:	_____	in WC	VR-1: _____	CFM	Date taken: _____
VR-2:	_____	in WC	VR-2: _____	CFM	Date taken: _____

Inspector's Signature: [signature]

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 3/11/18

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor.**	✓	
	* Any visible cracks in the floor or subgrade walls?	Yes	hair line
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	**1. Walk the entire roof surface and check the SSDS risers at basement level.**	Yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	Yes	712 A Room
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 5 psi in WC **Date taken:** 3/11/18

SF-2: _____ in WC **Date taken:** _____

SSDS Riser Measurements:

Vaccum		Flow		
VR-1: _____	in WC	**VR-1:** _____	CFM	**Date taken:** _____
VR-2: _____	in WC	**VR-2:** _____	CFM	**Date taken:** _____

Inspector's Signature: [signature]

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 4/11/18

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor.**	Yes	
	* Any visible cracks in the floor or subgrade walls?	Yes	Size inch hair line
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	**1. Walk the entire roof surface and check the SSDS risers at basement level.**	Yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	Yes	712A Room
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 6 psi in WC Date taken: 4/11/18

SF-2: _____ in WC Date taken: _____

SSDS Riser Measurements:

	Vaccum		Flow		
VR-1:	_____	in WC	VR-1: _____	CFM	Date taken: _____
VR-2:	_____	in WC	VR-2: _____	CFM	Date taken: _____

Inspector's Signature: Roberto R.

Attachment 2
Training Acknowledgement

ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING

104 East 25th St, 10th Floor
New York, NY 10010-2917
www.cardnoatc.com
212-353-8280
Fax 212-353-8306

Annual Training Acknowledgement
Engineering Controls Operation and Maintenance

Location: M281

Custodian/Fireman: Robert Ramos

I, Robert Ramos, received annual refresher training on Engineering Controls Operation and Maintenance by ATC Group Services, LLC (ATC) on 4/24/18. 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: Robert Ramos
Custodian/Fireman

Date: 4/24/18

Recommendations:

1) Repair BMS & connect to SSDS
2) Seal hairline cracks in Rms 1100, 1110 & 1120
3) Install screens on MP1 & MP2
4) Complete semi-annual inspection form

Attachment 3
Photographic Documentation

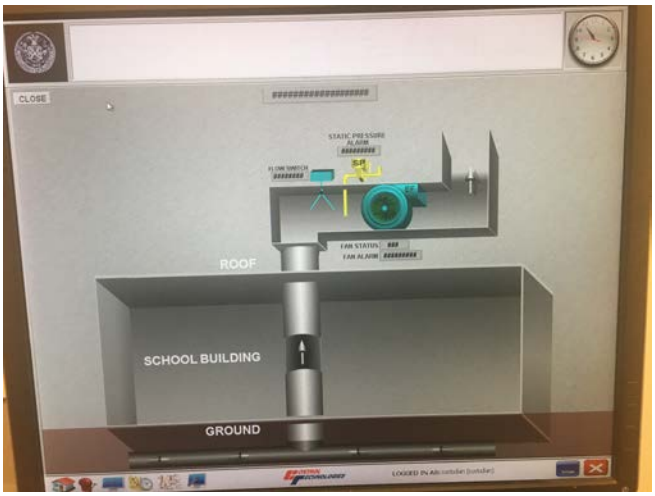


Photo 1: View of BMS indicating flow associated with fan unit SSDS-1.

Photo 2: View of spare fan unit stored in Stair Bulkhead Room 712A.


Photo 3: View of operational SSDS fan unit on the roof.

Photo 4: View of vacuum gauge associated with SSDS fan unit.


Photo 5: View of typical bare concrete floor in Room 100.

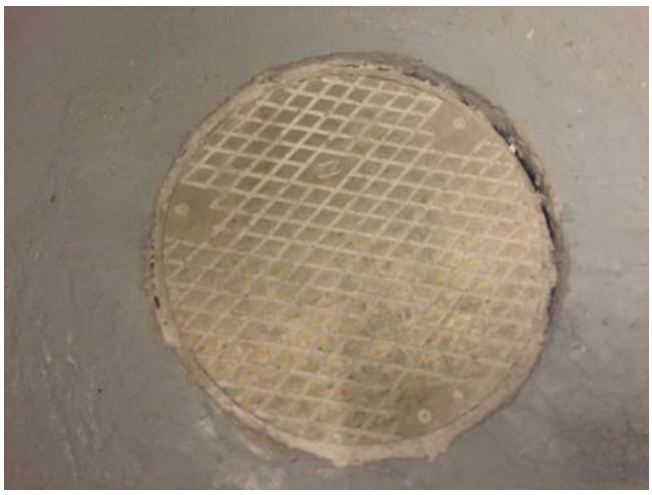


Photo 6: View of typical monitoring point in Room 100.

Attachment 4
Annual Inspection Form

P.S./I.S. 281M
ANNUAL INSPECTION FORM

Inspector's Name: G. Crocker	Weather Conditions: Sunny
Inspection Date: 4/24/16	Air Temperature (°F): 60° F
Inspection Time:	
Comments:	

A. PRE INSPECTION CHECKLIST

- [x] * Schedule Annual Inspection when school is not occupied by students.
- [x] * Review 12 Previous Monthly Inspection Checklists.
- [x] * Meet with Custodial Engineer ~~and Principal~~ and Custodian to solicit comments/concerns regarding the operation of the Engineering Controls over the last 12 months
- [x] * Conduct Annual Refresher Training with DOE EHS.
- [ ] * Follow proper safety protocols including lockout/tagout.

Comments:

B. SSDS SYSTEM INSPECTION

Walk the entire roof surface of school building amd check SSDS risers at basement l Not Accessed

- [x] * Inspect fan stack guy wires.
- [x] * Inspect monitoring points (look for obstructions, check manhole/bolts, quick connects).
- [ ] * Record vacuum gauge and flowmeter readings on riser pipes and SSDS fans (as applicable); review monthly data to check for decreases in flow/vacuum. 6" W.C.
- [ ] * Ensure all SSDS accessories listed in section 15880 are functioning properly.
- [x] * Inspect bolts and set screws for tightness and rusty condition.
- [x] * Inspect SSDS fan for cleanliness. Clean exterior surfaces only. Remove dust and grease on motor housing,
- [x] * Are the indicator lights on the Building Management System functioning properly? No
- [x] * Is the spare fan unit present/available at the school? Yes 7/2/4

Comments (see or hear anything unusual?):

C. VAPOR BARRIER INSPECTION

Walk all of the basement floor

- [x] * Review all cracks or other openings identified in first floor during previous inspections.
- [x] * Any new visible cracks in the floor? Yes (1/V) No
- [x] * Any new visible opening (unintended) in the floor? No
- [x] * Any new visible cracks in accessible pits? N/A
- [x] * Note the length of any new cracks/openings in the floor. 100 (17'), 110 (9'), 1110 (7')
- [x] * Draw approximate location of floor cracks/openings that appear to have potential leak through vapor barrier N/A

Comments:

D. REPAIR

Summarize needed/completed repairs to Engineering Controls:

1) Seal hairline cracks
2) Replace Bolts
3) Establish seam at VP12/VP3a
4) Complete seam and Tyvek Jurs.

Inspector's Signature: [signature]

Attachment 5
Annual Monitoring Point Inspection Checklist

P.S/I.S. 281M

ANNUAL MONITORING POINT INSPECTION CHECKLIST

Monitoring Point ID	Room Number	Any obstructions over MP	Manhole cover secure and bolts intact?	Comments
MP-1	Ground Storage	Y / N	Y / N	Rm x2 - Parked Sewer
MP-2	Compressor Room	Y / N	Y / N	Rm 110 - Parked Sewer
MP-3	Fire Pump Room	Y / N	Y / N	Rm 100
MP-4	Water Service	Y / N	Y / N	Rm 114A

Inspect all monitoring point locations for obstructions; check the manhole covers/bolts and quick connections inside the manhole.

ANNUAL INSPECTION REPORT
KIPS BAY (PUBLIC SCHOOL 281M)
425 EAST 35TH STREET
NEW YORK, NY 10016

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:

ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING
104 East 25th Street, 10th Floor
New York, New York 10010-2917

Date of Issue: April 24, 2019

ATC Project No. Z214YI1416

TABLE OF CONTENTS

Attachments:

PROJECT DIRECTORY

OWNER/CLIENT:	New York City Department of Education Office of Environmental Health and Safety 44-36 Vernon Blvd. Long Island City, New York 11101
PROJECT LOCATION:	Kips Bay (Public School 281M) 425 East 35th Street New York, NY, 10016
PROJECT TECHNICAL SUPPORT	New York City School Construction Authority 30-30 Thomson Avenue Long Island City, New York 11101 STV Incorporated 225 Park Avenue South New York, New York 10003
DESCRIPTION OF WORK:	Review O&M plan and prior reports; review custodian's logbook, walk-through visual inspection
ATC REPRESENTATIVES:	Gilbert Gedeon, Principal Engineer

EXECUTIVE SUMMARY

ATC Group Services, LLC (ATC) conducted the annual site inspection of the Engineering Controls as they relate to the Gas Vapor Barrier and the Sub-Slab Depressurization System (SSDS) at Kips Bay (Public School 281M) located at 425 East 35th Street New York, NY, 10016 on April 2, 2019.

During the inspection, ATC noted that the custodian's Monthly or Severe Condition Inspection Forms were prepared from April 2018 to April 2019. However, the Routine and Preventative Maintenance Checklist was not completed. ATC observed that the SSDS fan unit was not operational, and had reportedly out of service since March 26, 2019. ATC also observed that the Building Management System (BMS) is not functional. A spare fan unit was available at the school in Stair Bulkhead Room 712A. All four (4) monitoring points were checked and found to be in good condition.

ATC did not observe any significant cracks in the ground floor except for surficial hairline cracks in Rooms 100, 110 and 111D which were smoke tested on May 8, 2018 and indicated no potential vapor barrier leaks through the hairline crack.

Based on the aforementioned, the custodial staff is working on completing repairs of the SSDS fan units to ensure that the engineering controls continue to be fully operating as per the O&M specifications. A letter report confirming repairs will be generated by ATC once the repairs are completed.

Monthly and routine/ preventative maintenance inspections should continue to be conducted and Monthly and Routine/Preventative Maintenance Forms should continue to be completed by the custodial staff. The SSDS fan unit should be repaired promptly. The BMS should be repaired and connected to the SSDS. Even though hairline cracks in Rooms 100, 110 and 111D are not a concern, ATC advised the custodian that any significant cracks observed during the monthly inspections should be sealed with patching cement or grout.

These recommendations were brought to the attention of the custodial staff as part of the refresher training.

1.0 INTRODUCTION

ATC is pleased to provide this Annual Inspection Report to the New York City Department of Education Office of Environmental Health and Safety (NYC DOE/EHS) as it relates to Kips Bay (Public School 281M) located at 425 35th Street, New York, NY, 10016. The school is currently attended by approximately 80 students. This work was completed as per the request of NYC DOE.

The scope of work for this service included:

1. Review of the school custodian's inspection logs indicating his routine walk-through to identify any observed changes to the interior surfaces and roof mounted fan units;
2. SSDS roof vent inspection;
3. Ground floor inspection and exterior inspection for concrete cracks;
4. Verification of the condition of the monitoring points;
5. Review of prior reports; and
6. Photographic documentation of observations.

This report was developed to document: (a) the changes to the engineering controls if any, and (b) whether the program for maintenance and monitoring is being followed and is effective. Mr. Gilbert Gedeon, PE of ATC, conducted the annual site inspections on April 2, 2019. During the inspection, ATC was accompanied by Mr. Robert Ramos, the school's building manager.

2.0 ENGINEERING CONTROLS

According to the Operation and Maintenance (O&M) Plan prepared by STV Incorporated dated August 22, 2013, Public School 281M contains engineering controls that include a Gas Vapor Barrier and a Sub-Slab Depressurization System (SSDS) constructed beneath the school to prevent residual soil gas vapors from entering the building. A program for maintenance and monitoring was developed to ensure that the engineering controls implemented during the school's operation are properly maintained.

2.1 Fluid Applied Gas Vapor Barrier

The gas vapor barrier was installed beneath the school as an added precaution to prevent any residual soil gas vapors from entering the school building in the future. The vapor barrier was installed above the SSDS gas permeable aggregate (gravel) layer below the ground floor slab.

2.2 Sub-Slab Depressurization System

An SSDS was also installed beneath the school as an added precaution to prevent any soil gas vapors from entering the school building in the future. The primary component of the SSDS contains four (4) sub-slab suction pits, one (1) vertical riser connecting the pits to one (1) roof top fan and four (4) monitoring points.

3.0 SITE INSPECTIONS AND SSDS REPAIRS

3.1 Review of the Custodian's Inspection Logs

The following was discussed with Mr. Ramos:

1. The custodian's Monthly or Severe Condition Inspection Forms were prepared from April 2018 to April 2019.

2. The Routine and Preventative Maintenance Checklist was not completed.

3. As part of the annual refresher training, ATC advised the custodial staff to continue to conduct the inspection on a monthly basis and document the observations in a monthly inspection form. ATC also advised the custodian to perform preventative maintenance and completing the checklist on a semiannual basis.

The monthly inspection forms and training acknowledgement letter are included in Attachments 1 and 2, respectively.

3.2 ATC's Visual Observations

ATC conducted visual observations and photographic documentation while accompanied by Mr. Ramos. Site photographs are included in Attachment 3, the Annual Inspection Form is included in Attachment 4 and the Annual Monitoring Point Inspection Checklist is included in Attachment 5.

During the walkthrough inspection, ATC noted the following:

- The BMS was not functional;
- The SSDS fan unit was not operational;
- Hairline cracks were observed in Rooms 100, 110 and 111D; and
- A spare fan unit is available at the school and stored in Stair Bulkhead Room 712A.

3.2.1 SSDS Roof Vent Inspection

1. ATC did not observe rust or other debris in the vicinity of the posts and sleeves of the vent stacks associated with the SSDS fan units;
2. SSDS fan stack guy wires were in good condition;
3. SSDS fan mounting and vibration isolators were intact;
4. Motor housing was intact and exterior surfaces were clean; and
5. Bolts and set screws were tight.

3.2.2 Ground Floor Inspection

ATC inspected the accessible areas of the ground floors and walls. ATC did not observe any significant concrete cracks penetrating into the ground floor during the annual inspection, except for hairline cracks in Rooms 100, 110 and 111D. Smoke testing was conducted on these hairline cracks back on May 2018 and found to have no potential vapor barrier leaks.

Although these cracks are not a concern, monitoring during monthly inspections is required for any significant change in the width of the cracks. Significant cracks observed during these inspections will require patching with cement or grout material.

ATC also checked the monitoring points associated with the SSDS system to verify their condition. All other monitoring points were observed to be in good condition.

ATC's observation of the ground concrete floors was limited due to architectural finishes such as ceramic floor tiles, vinyl floor tiles, wood flooring and miscellaneous equipment and furniture. ATC did not have access to the elevator pits.

3.2.3 Exterior Inspection

ATC inspected the perimeter of the property including paved and unpaved areas. There was no evidence of pavement removal. No structures have been constructed on the unpaved areas. There were no signs of soil washing or erosion.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on visual observations, ATC concludes the following:

1. The BMS was not functional;
2. The SSDS fan unit is not operational;
3. Surficial cracks were observed in Rooms 100, 110 and 111D. As such, smoke testing was conducted. ATC did not observe potential vapor barrier leaks through the hairline cracks; and
4. A spare fan is available in Stair Bulkhead Room 712A;

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

1. Promptly repair the SSDS fan unit and restore full functionality;
2. Repair the BMS and connect to the SSDS;
3. Securely tighten the well caps associated with monitoring points MP-1 and MP-2;
4. The surficial cracks observed in Rooms 100, 110 and 111D are not a concern; however, these cracks should be monitored during monthly inspections for any significant change in the width of the cracks. Significant cracks observed during these inspections will require patching with cement or grout material; and
5. Monthly and routine/preventative maintenance inspections should continue to be conducted and Monthly and Routine/Preventative Maintenance Forms should continue to be completed by the custodial staff; and
6. A letter report confirming repairs will be generated by ATC once the repairs are completed.

5.0 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, site documents review and real-time environmental measurements. 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 contact us at (212) 353-8280.

Sincerely,
ATC GROUP SERVICES, LLC

Gilbert Gedeon, PE
Principal Engineer

cc: Y. Efstathiou
N. Guevara

Attachment 1
Custodian Monthly or Severe Condition Inspection Forms

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 4/11/18

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor.	Yes	
	* Any visible cracks in the floor or subgrade walls?	Yes	Size inch hair line
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	1. Walk the entire roof surface and check the SSDS risers at basement level.	Yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE EHS to ensure a replacement fan is made available)	Yes	712 A Room
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 6 psi in WC Date taken: 4/11/18

SF-2: _____ in WC Date taken: _____

SSDS Riser Measurements:

	Vacuum		Flow		
VR-1:	_____	in WC	VR-1: _____	CFM	Date taken: _____
VR-2:	_____	in WC	VR-2: _____	CFM	Date taken: _____

Inspector's Signature: Roberto

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 5/3/18

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor.	YES	
	* Any visible cracks in the floor or subgrade walls?	YES	Main Office/110 Room 100
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	1. Walk the entire roof surface and check the SSDS risers at basement level.	YES	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (If NO, contact DOE DHS to ensure a replacement fan is made available)	YES	712 A Room
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 6 psi in WC Date taken: 5/3/18

SF-2: _____ in WC Date taken: _____

SSDS Riser Measurements:

	Vacuum		Flow		
VR-1:	_____	in WC	_____	CFM	Date taken: _____
VR-2:	_____	in WC	_____	CFM	Date taken: _____

Inspector's Signature: [signature]

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 6/21/18

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor.	yes	
	* Any visible cracks in the floor or subgrade walls?	yes	hair line / no, 100
	* Any other visible openings (unintended) in the floor or subgrade walls?	no	
	* Any construction activities affecting the floor or subgrade walls?	no	
	* Any visible cracks in any accessible pits?	no	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	1. Walk the entire roof surface and check the SSDS risers at basement level.	yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	no	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	no	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	no	
	* Is the spare fan unit present/available at the school? (If NO, contact DOE DHS to ensure a replacement fan is made available)	yes	712 A room
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	no	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

	Vacuum		
SF-1:	5 psi in WC	Date taken:	6/21/18
SF-2:	____ in WC	Date taken:	____

SSDS Riser Measurements:

	Vaccum		Flow		
VR-1:	____ in WC	VR-1:	____ CFM	Date taken:	____
VR-2:	____ in WC	VR-2:	____ CFM	Date taken:	____

Inspector's Signature: [signature]

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 7/10/18

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor.	Yes	
	* Any visible cracks in the floor or subgrade walls?	Yes	110/100 Lilo
	* Any other visible openings (unintended) in the floor or subgrade walls?	No	
	* Any construction activities affecting the floor or subgrade walls?	No	
	* Any visible cracks in any accessible pits?	No	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	1. Walk the entire roof surface and check the SSDS risers at basement level.	Yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	No	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	No	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	No	
	* Is the spare fan unit present/available at the school? (If NO, contact DOE EHS to ensure a replacement fan is made available)	Yes	7/2 A-Room
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	No	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 5 in WC Date taken: 7/10/18

SF-2: _____ in WC Date taken: _____

SSDS Riser Measurements:

	Vacuum		Flow		
VR-1:	_____ in WC	VR-1:	_____ CFM	Date taken:	_____
VR-2:	_____ in WC	VR-2:	_____ CFM	Date taken:	_____

Inspector's Signature: [signature]

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 8/16/18

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor.	Yes	
	* Any visible cracks in the floor or subgrade walls?	Yes	NO/NO / NO
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	1. Walk the entire roof surface and check the SSDS risers at basement level.	Yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE EHS to ensure a replacement fan is made available)	Yes	3/2 A. Fxxm
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 5 psi in WC Date taken: _____

SF-2: _____ in WC Date taken: _____

SSDS Riser Measurements:

	Vacuum		Flow		
VR-1:	_____	in WC	VR-1: _____	CFM	Date taken: _____
VR-2:	_____	in WC	VR-2: _____	CFM	Date taken: _____

Inspector's Signature: [signature]

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 9/11/18

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor.	yes	
	* Any visible cracks in the floor or subgrade walls?	yes	110/100/DHD
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	1. Walk the entire roof surface and check the SSDS risers at basement level.	yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (If NO, contact DOE DHS to ensure a replacement fan is made available)	yes	7/2 Room
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 5 psi in WC Date taken: _____

SF-2: _____ in WC Date taken: _____

SSDS Riser Measurements:

	Vacuum		Flow		
VR-1:	_____	in WC	_____	CFM	Date taken: _____
VR-2:	_____	in WC	_____	CFM	Date taken: _____

Inspector's Signature: [signature]

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 10/6/18

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor.	Yes	
	* Any visible cracks in the floor or subgrade walls?	Yes	110/100/110
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	1. Walk the entire roof surface and check the SSDS risers at basement level.	Yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE EHS to ensure a replacement fan is made available)	Yes	712 A Room
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 5 psi in WC Date taken: _____

SF-2: _____ in WC Date taken: _____

SSDS Riser Measurements:

	Vacuum		Flow		
VR-1:	_____	in WC	VR-1: _____	CFM	Date taken: _____
VR-2:	_____	in WC	VR-2: _____	CFM	Date taken: _____

Inspector's Signature: [signature]

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 11/29/16

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor.	Yes	
	* Any visible cracks in the floor or subgrade walls?	Yes	110/100/110
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	1. Walk the entire roof surface and check the SSDS risers at basement level.	Yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	Yes	7/8 A Room
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 5 psi in WC Date taken: _____

SF-2: _____ in WC Date taken: _____

SSDS Riser Measurements:

	Vaccum		Flow		
VR-1:	_____	in WC	VR-1: _____	CFM	Date taken: _____
VR-2:	_____	in WC	VR-2: _____	CFM	Date taken: _____

Inspector's Signature: [signature]

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 12/22/18

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor.	Yes	
	* Any visible cracks in the floor or subgrade walls?	Yes	10/100/111D
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	1. Walk the entire roof surface and check the SSDS risers at basement level.	Yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (If NO, contact DOE DHS to ensure a replacement fan is made available)	Yes	712 A Rm
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 5 in WC Date taken: 12/22/18.

SF-2: _____ in WC Date taken: _____

SSDS Riser Measurements:

Vacuum		Flow		
VR-1: _____	in WC	VR-1: _____	CFM	Date taken: _____
VR-2: _____	in WC	VR-2: _____	CFM	Date taken: _____

Inspector's Signature: [signature]

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 1/19/19

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor.	Yes	
	* Any visible cracks in the floor or subgrade walls?	yes	1/19/19
	* Any other visible openings (unintended) in the floor or subgrade walls?	No	
	* Any construction activities affecting the floor or subgrade walls?	No	
	* Any visible cracks in any accessible pits?	No	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	1. Walk the entire roof surface and check the SSDS risers at basement level.	Yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	No	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	No	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	No	
	* Is the spare fan unit present/available at the school? (if NO, contact DOE DHS to ensure a replacement fan is made available)	Yes	712 A Room
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 5 psi in WC Date taken: 1/19/19

SF-2: _____ in WC Date taken: _____

SSDS Riser Measurements:

	Vacuum		Flow		
VR-1:	_____	in WC	VR-1: _____	CFM	Date taken: _____
VR-2:	_____	in WC	VR-2: _____	CFM	Date taken: _____

Inspector's Signature: Robert D

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 2/10/19

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor.	Yes	
	* Any visible cracks in the floor or subgrade walls?	Yes	10/11.0/ 19
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	1. Walk the entire roof surface and check the SSDS risers at basement level.	Yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	NO	
	* Is the spare fan unit present/available at the school? (If NO, contact DOE EHS to ensure a replacement fan is made available)	Yes	712 M Room
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	NO	
C. ACTIONS TAKEN			

SSDS Fan Measurements:

Vacuum

SF-1: 5 PSI in WC Date taken: 2/10/19

SF-2: _____ in WC Date taken: _____

SSDS Riser Measurements:

	Vacuum		Flow		
VR-1:	_____	in WC	VR-1: _____	CFM	Date taken: _____
VR-2:	_____	in WC	VR-2: _____	CFM	Date taken: _____

Inspector's Signature: [signature]

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 3/26/19

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor.	yes	
	* Any visible cracks in the floor or subgrade walls?	yes	110/110/100
	* Any other visible openings (unintended) in the floor or subgrade walls?	No	
	* Any construction activities affecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	1. Walk the entire roof surface and check the SSDS risers at basement level.	yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	yes	Motor bearings / No Seal
	* Is the spare fan unit present/available at the school? (If NO, contact DOE DHS to ensure a replacement fan is made available)	yes	312 A Dorm
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	"	
C. ACTIONS TAKEN	Shut Down the sub/slab Due to motor Rotor/bearings/Heavy noise. call for service / 3/26/19		

SSDS Fan Measurements:

Vacuum

SF-1: 2 psi in WC Date taken: 3/26/19

SF-2: _____ in WC Date taken: _____

SSDS Riser Measurements:

	Vacuum		Flow		
VR-1:	_____	in WC	VR-1: _____	CFM	Date taken: _____
VR-2:	_____	in WC	VR-2: _____	CFM	Date taken: _____

Inspector's Signature: Rodolfo D

P.S./I.S. 281M
MONTHLY/SEVERE CONDITION INSPECTION FORM

Inspection Date/Time: 4/10/19

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

		Yes / No *	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor.	yes	
	* Any visible cracks in the floor or subgrade walls?	NO	
	* Any other visible openings (unintended) in the floor or subgrade walls?	NO	
	* Any construction activities effecting the floor or subgrade walls?	NO	
	* Any visible cracks in any accessible pits?	NO	
	** Notification of DOE EHS is required if cracks are noted. Include the following information: - Draw approximate location of floor/wall cracks/openings on site map. - Note the length and width of the crack/opening.	N/A	
B. SSDS INSPECTION	1. Walk the entire roof surface and check the SSDS risers at basement level.	yes	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Exhaust Stacks?	NO	
	* Are SSDS fan units functioning at a lower vacuum than the previous inspection? (record vacuum measurements below)	NO	
	* Are flow/vacuum readings at the SSDS risers lower than the previous inspection? (record flow/vacuum measurements below)	yes	out of service
	* Is the spare fan unit present/available at the school? (If NO, contact DOE DHS to ensure a replacement fan is made available)		out of service
	* Are any lights out on the SSDS Monitoring System (Light panel)? Which one(s)?	no	

C. ACTIONS TAKEN

Air cracks lines on Room 110/120/110
Was sealed on 3/28/19

SSDS Work order Number 00740598-2.

SSDS Fan Measurements:

Vacuum

SF-1: N/A in WC Date taken: _____

SF-2: _____ in WC Date taken: _____

SSDS Riser Measurements:

	Vacuum		Flow		
VR-1:	_____	in WC	VR-1: _____	CFM	Date taken: _____
VR-2:	_____	in WC	VR-2: _____	CFM	Date taken: _____

Inspector's Signature: Robert L.

Attachment 2
Training Acknowledgement

ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING

104 East 25th St, 10th Floor
New York, NY 10010-2917
www.cardnoatc.com
212-353-8280
Fax 212-353-8306

Annual Training Acknowledgement
Engineering Controls Operation and Maintenance

Location: M281

Custodian/Fireman: Roberto Ramos

I, Rob. L.R., received annual refresher training on Engineering Controls Operation and Maintenance by ATC Group Services, LLC (ATC) on 4/2/19. 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: Roberto Ramos **Date:** 4/2/19.
Custodian/Fireman

Recommendations:

1) Correct BMS functionality
2) Repair/replace SSDs fan unit ASAP & call Carl Gedeon from ATC (917-418-0224) to verify its operation once repaired.
3) Provide monthly & semi-annual forms to ATC for review.
4) Seal hair line cracks in Rooms 100, 110 & 111.

Attachment 3
Photographic Documentation

Photo 1: View of SSDS fan unit direct drive motor.

Photo 2: View of spare fan unit stored in Room 712.

Photo 3: View of SSDS fan unit on the roof.

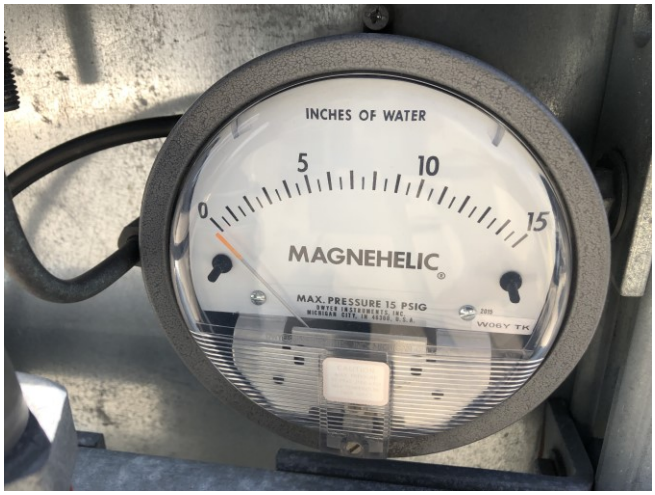


Photo 4: View of vacuum gauge for the SSDS fan unit.

Photo 5: View of typical bare concrete floor in Room 110.

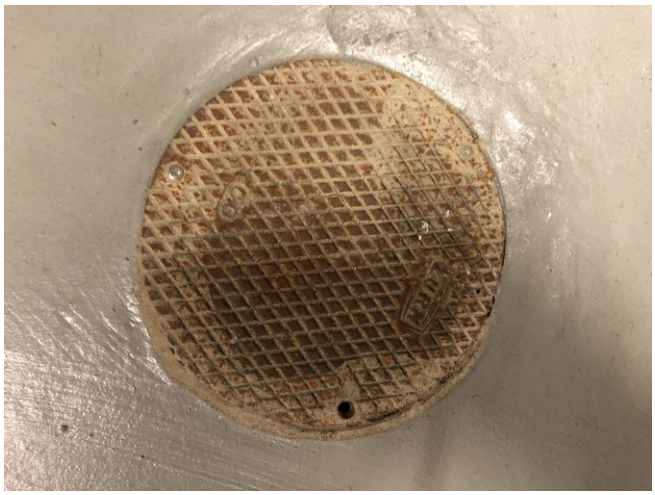


Photo 6: View of typical monitoring point in Room 114A.

Attachment 4
Annual Inspection Form

P.S./I.S. 281M
ANNUAL INSPECTION FORM

Inspector's Name: Gil Godoy
Weather Conditions: Sunny
Inspection Date: 4/2/19
Air Temperature (°F): 46°F
Inspection Time:
Comments:

A. PRE INSPECTION CHECKLIST

- [x] Schedule Annual Inspection when school is not occupied by students.
- [x] Review 12 Previous Monthly Inspection Checklists. to be provided
- [x] Meet with Custodial Engineer and Principal to solicit comments/concerns regarding the operation of the Engineering Controls over the last 12 months
- [x] Conduct Annual Refresher Training with DOE EHS.
- [ ] Follow proper safety protocols including lockout/tagout.

Comments:

B. SSDS SYSTEM INSPECTION

Walk the entire roof surface of school building amd check SSDS risers at basement I

- [ ] Inspect fan stack guy wires.
- [ ] Inspect monitoring points (look for obstructions, check manhole/bolts, quick connects). All Ok
- [x] Record vacuum gauge and flowmeter readings on riser pipes and SSDS fans (as applicable); review monthly data to check for decreases in flow/vacuum. SSDS Down - Advised Supervisor of event.
- [x] Ensure all SSDS accessories listed in section 15880 are functioning properly.
- [x] Inspect bolts and set screws for tightness and rusty condition.
- [x] Inspect SSDS fan for cleanliness. Clean exterior surfaces only. Remove dust and grease on motor housing.
- [x] Are the indicator lights on the Building Management System functioning properly? NO
- [x] Is the spare fan unit present/available at the school? Yes - Rm 712

Comments (see or hear anything unusual?):

C. VAPOR BARRIER INSPECTION

Walk all of the basement floor

- [ ] Review all cracks or other openings identified in first floor during previous inspections. Rms 102, 110 Ellis
- [ ] Any new visible cracks in the floor? NO
- [ ] Any new visible opening (unintended) in the floor? NO
- [ ] Any new visible cracks in accessible pits? NA
- [ ] Note the length of any new cracks/openings in the floor. NA
- [ ] Draw approximate location of floor cracks/openings that appear to have potential leak through vapor barrier NA

Comments:

D. REPAIR

Summarize needed/completed repairs to Engineering Controls:
1) Correct BMS functionality. 2) Repair/replace SSDS fan unit. 3) Seal leaks as req.

Inspector's Signature:

Attachment 5
Annual Monitoring Point Inspection Checklist

P.S/I.S. 281M

ANNUAL MONITORING POINT INSPECTION CHECKLIST

Monitoring Point ID	Room Number	Any obstructions over MP	Manhole cover secure and bolts intact?	Comments
MP-1 X2	Ground Storage	Y / (N)	Y / ~~N~~	~~Missing screws~~ *
MP-2 1142	Compressor Room	Y / (N)	Y / ~~N~~	1 Missing screws *
MP-3 1039	Fire Pump Room	Y / (N)	(Y) / N	
MP-4 1141	Water Service	Y / (N)	(Y) / N	

Inspect all monitoring point locations for obstructions; check the manhole covers/bolts and quick connections inside the manhole.

Screws were refilled on site.

Attachment 6
Work Order

Facility: DSF DIVISION OF SCHOOL FACILITIES
Unit : M Project :
W/O Type: CO Priority: 04 W/O Dspln: H
Planner : BORLAN ORLAN
W/O Title : 75/10X444/ PERFORM ANNUAL SSDS TRAIN
W/O Task Title: 75/02M281/ PERFORM ANNUAL SSDS TRAIN
Written To : M281
Task Dspln : Completed By:

Work Order Package

00741181 06

Rpt : TIPMC11
Date: 04/02/2019

NEW YORK CITY DEPT. OF EDUCATION

Page: 1

Work Order Task Written To

Facility : DSF Unit : M Op Sys : GEO-02
Division : Area : ISC3 Sys/Cls: M281
Equipment : ABLDG M281 Component:
Work Item : Eqt. List: Ops Review Reqd: N
Equip. Tag: Alt:
UTC : Tbl/Brkdwn: (Past 12 mo)
Catalog ID: Job Type : CO UCR: GN19
Client/Act:
Location : M00 96700001 000001 616 FIRST AV, NEW YORK, NY 10016
Cost Centr: G839 Activity : User Def:
Percentage: 100.000 Acct No. : GL

Work Order Task Instructions

PERFORM ANNUAL SSDS INSPECTION / TRAINING @ M281.

Completion Comments on Work Performed

Completion Comments Required : N

Comments:

Comments:

Comments:

Continued on Additional Sheets? : _____

***** E N D O F R E P O R T *****

ANNUAL INSPECTION REPORT
KIPS BAY (PUBLIC SCHOOL 281M)
425 EAST 35TH STREET
NEW YORK, NY 10016

PREPARED FOR:

NYC Department of Education
Joel I. Klein
Chancellor

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

PREPARED BY:

ATC
ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING

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

Date of Issue: May 20, 2020

ATC Project No. Z214YI1828

TABLE OF CONTENTS

Attachments:

PROJECT DIRECTORY

OWNER/CLIENT:	New York City Department of Education Office of Environmental Health and Safety 44-36 Vernon Blvd. Long Island City, New York 11101
PROJECT LOCATION:	Kips Bay (Public School 281M) 425 East 35th Street New York, NY, 10016
PROJECT TECHNICAL SUPPORT	New York City School Construction Authority 30-30 Thomson Avenue Long Island City, New York 11101 STV Incorporated 225 Park Avenue South New York, New York 10003
DESCRIPTION OF WORK:	Review O&M plan and prior reports; review custodian's logbook, walk-through visual inspection
ATC REPRESENTATIVES:	Gilbert Gedeon, Principal Engineer Otobong Eno, Inspector

EXECUTIVE SUMMARY

ATC Group Services, LLC (ATC) conducted the annual site inspection of the Engineering Controls as they relate to the Gas Vapor Barrier and the Sub-Slab Depressurization System (SSDS) at Kips Bay (Public School 281M) located at 425 East 35th Street New York, NY, 10016 on May 7, 2020.

During the inspection, ATC noted that the custodian's Monthly or Severe Condition Inspection Forms and the Routine and Preventative Maintenance Checklist were not available for this review year due to a change in custodial staff. The SSDS roof-top fan was observed to be operating as designed. The building manager had no access to the Building Management System (BMS) computer at the time of inspection, however, the system was reportedly connected to the SSDS. A spare fan unit was not available at the school. All four (4) monitoring points were checked and found to be in good condition. ATC did not observe any significant cracks in the ground floor and the surficial hairline cracks in Rooms 100, 110 and 111D which were smoke tested on May 8, 2018, and indicated no potential vapor barrier leaks through the hairline crack, had been sealed with grou.

Based on the aforementioned, ATC concludes that the Engineering controls have not changed and appear to be effective, and no changes have occurred that would reduce the ability of the controls to protect public health and the environment. However, Monthly and routine/ preventative maintenance inspections should continue to be conducted and Monthly and Routine/Preventative Maintenance Forms should continue to be completed by the custodial staff and made available to ATC at all times. A spare fan unit should be provided. These recommendations were brought to the attention of the custodial staff as part of the refresher training.

1.0 INTRODUCTION

ATC is pleased to provide this Annual Inspection Report to the New York City Department of Education Office of Environmental Health and Safety (NYC DOE/EHS) as it relates to Kips Bay (Public School 281M) located at 425 35th Street, New York, NY, 10016. The school is currently attended by approximately 433 students. This work was completed as per the request of NYC DOE.

The scope of work for this service included:

1. Review of the school custodian's inspection logs indicating his routine walk-through to identify any observed changes to the interior surfaces and roof mounted fan units;
2. SSDS roof vent inspection;
3. Ground floor inspection and exterior inspection for concrete cracks;
4. Verification of the condition of the monitoring points;
5. Review of prior reports; and
6. Photographic documentation of observations.

This report was developed to document: (a) the changes to the engineering controls if any, and (b) whether the program for maintenance and monitoring is being followed and is effective. Mr. Otobong Eno, under the direct supervision of Mr. Gilbert Gedeon, PE of ATC, conducted the annual site inspections on May 7, 2020. During the inspection, ATC was accompanied by Mr. Robert Ramos, the school's building manager.

2.0 ENGINEERING CONTROLS

According to the Operation and Maintenance (O&M) Plan prepared by STV Incorporated dated August 22, 2013, Public School 281M contains engineering controls that include a Gas Vapor Barrier and a Sub-Slab Depressurization System (SSDS) constructed beneath the school to prevent residual soil gas vapors from entering the building. A program for maintenance and monitoring was developed to ensure that the engineering controls implemented during the school's operation are properly maintained.

2.1 Fluid Applied Gas Vapor Barrier

The gas vapor barrier was installed beneath the school as an added precaution to prevent any residual soil gas vapors from entering the school building in the future. The vapor barrier was installed above the SSDS gas permeable aggregate (gravel) layer below the ground floor slab.

2.2 Sub-Slab Depressurization System

An SSDS was also installed beneath the school as an added precaution to prevent any soil gas vapors from entering the school building in the future. The primary components of the SSDS include:

- Four (4) sub-slab suction pits located beneath the ground floor of the building;
- Piping connecting the sub-slab suction pits to one (1) vertical riser leading to one (1) roof top fan; and
- Four (4) monitoring points located throughout the perimeter of the ground floor.

3.0 SITE INSPECTIONS AND SSDS REPAIRS

3.1 Review of the Custodian's Inspection Logs

The following was discussed with Mr. Ramos:

1. The custodian's Monthly or Severe Condition Inspection Forms were not available due to a change in custodial staff.

2. The Routine and Preventative Maintenance Checklist was not available.

3. As part of the annual refresher training, ATC advised the custodial staff to continue to conduct the inspection on a monthly basis and document the observations in a monthly inspection form. ATC also advised the custodian to perform preventative maintenance and completing the checklist on a semiannual basis.

The training acknowledgement letter is included in Attachment 1.

3.2 ATC's Visual Observations

ATC conducted visual observations and photographic documentation while accompanied by Mr. Ramos. Site photographs are included in Attachment 2, the Annual Inspection Form is included in Attachment 3 and the Annual Monitoring Point Inspection Checklist is included in Attachment 4.

During the walkthrough inspection, ATC noted the following:

- The building manager had no access to the BMS computer at the time of inspection, however, the system was reportedly connected to the SSDS;
- The SSDS fan unit was operational;
- Hairline cracks previously observed in Rooms 100, 110 and 111D were sealed with grout; and
- A spare fan unit is not available at the school.

3.2.1 SSDS Roof Vent Inspection

1. ATC did not observe rust or other debris in the vicinity of the posts and sleeves of the vent stacks associated with the SSDS fan units;
2. SSDS fan stack guy wires were in good condition;
3. SSDS fan mounting and vibration isolators were intact;
4. Motor housing was intact and exterior surfaces were clean; and
5. Bolts and set screws were tight.

3.2.2 Ground Floor Inspection

ATC inspected the accessible areas of the ground floors and walls. ATC did not observe any significant concrete cracks penetrating into the ground floor during the annual inspection. The surficial hairline cracks in Rooms 100, 110 and 111D which were smoke tested on May 8, 2018, and indicated no potential vapor barrier leaks through the hairline crack had been sealed with grout.

ATC also checked the monitoring points associated with the SSDS system to verify their condition. All other monitoring points were observed to be in good condition.

ATC's observation of the ground concrete floors was limited due to architectural finishes such as ceramic floor tiles, vinyl floor tiles, wood flooring and miscellaneous equipment and furniture. ATC did not have access to the elevator pits.

3.2.3 Exterior Inspection

ATC inspected the perimeter of the property including paved and unpaved areas. There was no evidence of pavement removal. No structures have been constructed on the unpaved areas. There were no signs of soil washing or erosion.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on visual observations, ATC concludes the following:

1. The building manager had no access to the BMS computer at the time of inspection, however, the system was reportedly connected to the SSDS;
2. The SSDS fan unit is operational as designed;
3. Surficial cracks previously observed in Rooms 100, 110 and 111D were sealed; and
4. A spare fan is not available in the school.

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

1. Provide spare SSDS fan unit; and
2. Monthly and routine/preventative maintenance inspections should continue to be conducted and Monthly and Routine/Preventative Maintenance Forms should continue to be completed by the custodial staff and made available to ATC at all times.

5.0 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, site documents review and real-time environmental measurements. 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 contact us at (212) 353-8280.

Sincerely,
ATC GROUP SERVICES, LLC

Gilbert Gedeon, PE
Principal Engineer

cc: Y. Efstathiou
N. Guevara

Attachment 1
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: _____

Custodian/Fireman: Roberto R

I, Roberto R, received annual refresher training on Engineering Controls Operation and Maintenance by ATC Group Services, LLC (ATC) on 05/07/2020. 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: Roberto R **Date:** 05/07/2020
Custodian/Fireman

Recommendations:

- Provide spare fan unit
- Provide monthly/Routine and preventative inspection forms.
- ~~Verify BMS functionality and notify ATC immediately.~~ Verified

_____

_____

_____

Attachment 2
Photographic Documentation

Photo 1: View of building exterior.

Photo 2: View of monitoring point in room X2

Photo 3: View of SSDS fan unit on the roof.

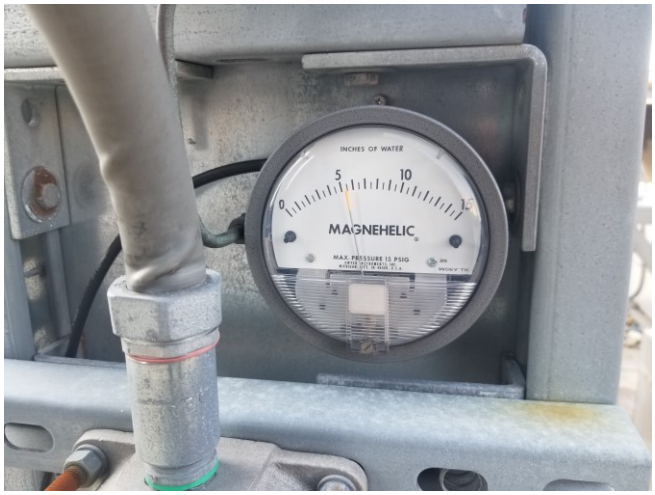


Photo 4: View of vacuum gauge for the SSDS fan unit.

Photo 5: View of typical sealed hairline crack in Room 110.

Photo 6: View of typical monitoring point in Room 114A.

Attachment 3
Annual Inspection Form

P.S./I.S. 281M
ANNUAL INSPECTION FORM

Inspector's Name: Qiubing Tan
Weather Conditions: Sunny
Inspection Date: 05/07/2020
Air Temperature (°F): 67
Inspection Time: 10 am
Comments:

A. PRE INSPECTION CHECKLIST

- [x] * Schedule Annual Inspection when school is not occupied by students.
- [x] * Review 12 Previous Monthly Inspection Checklists. Not available
- [x] * Meet with Custodial Engineer and Principal to solicit comments/concerns regarding the operation of the Engineering Controls over the last 12 months
- [x] * Conduct Annual Refresher Training with DOE EHS.
- [x] * Follow proper safety protocols including lockout/tagout.

Comments:

B. SSDS SYSTEM INSPECTION

Walk the entire roof surface of school building amd check SSDS risers at basement I

- [x] * Inspect fan stack guy wires.
- [x] * Inspect monitoring points (look for obstructions, check manhole/bolts, quick connects).
- [x] * Record vacuum gauge and flowmeter readings on riser pipes and SSDS fans (as applicable); review monthly data to check for decreases in flow/vacuum.
- [x] * Ensure all SSDS accessories listed in section 15880 are functioning properly.
- [x] * Inspect bolts and set screws for tightness and rusty condition.
- [x] * Inspect SSDS fan for cleanliness. Clean exterior surfaces only. Remove dust and grease on motor housing.
- [x] * Are the indicator lights on the Building Management System functioning properly? Could not be verified
- [x] * Is the spare fan unit present/available at the school? NO

Comments (see or hear anything unusual?):

C. VAPOR BARRIER INSPECTION

Walk all of the basement floor

- [x] * Review all cracks or other openings identified in first floor during previous inspections. All Sealed (Rms 100, 110, 110)
- [x] * Any new visible cracks in the floor? NO
- [ ] * Any new visible opening (unintended) in the floor? NO
- [ ] * Any new visible cracks in accessible pits? NO
- [ ] * Note the length of any new cracks/openings in the floor. NA
- [ ] * Draw approximate location of floor cracks/openings that appear to have potential leak through vapor barrier

Comments:

D. REPAIR

Summarize needed/completed repairs to Engineering Controls:

handle spare fan unit ② handle inspection forms ③ Vinyl BMS functionality

Inspector's Signature: Josh

Attachment 4
Annual Monitoring Point Inspection Checklist

P.S/I.S. 281M

ANNUAL MONITORING POINT INSPECTION CHECKLIST

Monitoring Point ID	Room Number	Any obstructions over MP	Manhole cover secure and bolts intact?	Comments
MP-1	Ground Storage	Y / (N)	(Y) / N	
MP-2	Compressor Room	Y / (N)	(Y) / N	
MP-3	Fire Pump Room	Y / (N)	(Y) / N	
MP-4	Water Service	Y / (N)	(Y) / N	

Inspect all monitoring point locations for obstructions; check the manhole covers/bolts and quick connections inside the manhole.

Attachment 5
Work Order

Emily Snead

From: M281 Custodian <CM281@schools.nyc.gov>
Sent: Tuesday, July 21, 2020 1:40 PM
To: Nancy Guevara
Cc: Emily Snead
Subject: Re: [EXTERNAL] RE: URGENT: SSDS REPAIRS
Attachments: Resized_Resized_20200422_085321.jpeg

Good Afternoon,
Fan replaced May 4, 2020.
Attached is the work order.

Matthew Wise
Custodian Engineer
M281 "The River School"
425 East 35th Street, Manhattan NY 10016

From: Nancy Guevara <nancy.guevara@atcgs.com>
Sent: Tuesday, July 21, 2020 8:16 AM
To: M281 Custodian <CM281@schools.nyc.gov>
Cc: Emily Snead <esnead@langan.com>
Subject: Fwd: [EXTERNAL] RE: URGENT: SSDS REPAIRS

Mr. Wise,

Can you provide the exact date that the SSDS fan unit was replaced at M281 a few months back. If you have the work order documenting the replacement, can you please send over.

Thank you,

Nancy G

Sent from my iPhone

Begin forwarded message:

From: Emily Snead <esnead@langan.com>
Date: July 20, 2020 at 4:59:40 PM EDT
To: Nancy Guevara <nancy.guevara@atcgs.com>
Subject: [EXTERNAL] RE: URGENT: SSDS REPAIRS

Facility: DSF DIVISION OF SCHOOL FACILITIES
Unit : M Project :
W/O Type: CO Priority: 04 W/O Dspln: I
Planner : JDIFFLE DIFFLEY
W/O Title : 02/02M281/R/R EXHAUST MOTOR/
W/O Task Title: 02/02M281/R/R EXHAUST MOTOR/
Written To : M281
Task Dspln : Completed By:

Work Order Package

00740598 02

Rpt : TIPMC11
Date: 04/14/2020

NEW YORK CITY DEPT. OF EDUCATION

Page: 1

Work Order Task Written To

Facility : DSF
Division :
Equipment : ABLDG M281
Work Item :
Equip. Tag:
UTC :
Catalog ID:
Client/Act:
Location : M00 96700001 000001 616 FIRST AV, NEW YORK, NY 10016
Cost Centr: G839
Percentage: 100.000

Unit : M
Area : ISC3
Component:
Eqt. List:
Alt:
Tbl/Brkdwn: (Past 12 mo)
Job Type : CO UCR: GN19
Activity :
Acct No. : GL

Op Sys : GEO-02
Sys/Cls: M281
Ops Review Reqd: N
User Def:

ERIC/CURM

Work Order Task Instructions

INSTALL SUB SLAB EXHAUSTER THAT IS ON SITE AND REPLACE
STOCKED UNIT

Contract and Outside Services

Contract	Rel	Vendor	Title
00010861	02971	113031918	02/02M281/R/R EXHAUST MOTOR/

Completion Comments on Work Performed

Completion Comments Required : N

Comments:

Comments:

APPENDIX C

LOT 1 - ANNUAL INSPECTION FORMS: 2015-2020 REPORTING PERIOD, PREPARED BY LANGAN

LANGAN

Lot 1 - SITE INSPECTION CHECKLIST
2015 - 2016

Site Name: Former Kips Bay Fuel Terminal Location: 626 First Avenue, New York Project Number: 170234201

Inspector Name: Monika Boguszewski Date: 11/30/2016 Weather Conditions: Cloudy, 50's F

Reason for Inspection (i.e., routine, severe condition, etc.): Annual Inspection 2016

Check one of the following: **Y:** Yes **N:** No **NA**: Not Applicable

		Y	N	NA	Normal Situation	Remarks
	General					
1	What are the current site conditions?	--	--	--	--	Lot 1 (entire site) was excavated to 24 feet below grade. The two towers (East and West) are under development (interior installations). The East and West towers include two sub-level floors. The East Tower is a 41-story building (including the roof level) and the West Tower is a 48-story building (including the roof level). Concrete cap covers the entire site.
2	Are all applicable site records (e.g., documentation of construction activity, most current easement, etc.) complete and up to date?	Y			Y	
	Easement					
3	Has site use (restricted residential, commercial) remained the same?	Y			Y	
4	Does it appear that all environmental easement restrictions have been followed?	Y			Y	
	Impermeable Cap					
5	Are there any indications of a breach in the capping system at the time of this inspection?	N			N	A cap throughout Lot 1; no breach in capping system was observed during the inspection.
6	Are there any cracks in the building slabs?	N			N	
7	Are there any cracks in the building walls?	N			N	No cracks were observe during the inspection.
8	Is there any construction activity, or indication of any construction activity within the past certification year (including any tenant improvements), that included the breaching of the capping system, on-site at the time of this inspection?	N			-	
9	If YES to number 8, is there documentation that the Soil Management Plan, HASP, and CAMP for the site was/is being followed?				NA if N to 6/ Y if Y to 8	

***** If the answer to any of the above questions indicate non-compliance with any IC/ECs for the site, additional remarks must be provided and, where applicable, documentation attached to this checklist detailing additional inspection and repair activities.**

Additional remarks _____

_____

_____

Minimum Inspection Schedule: Site-wide inspections will be conducted annually, per certification year, at a minimum. Additional inspections will also be conducted at times of severe condition events. All inspection events will utilize this checklist.

Lot 1 - SITE INSPECTION CHECKLIST
2016 - 2017

Site Name: Former Kips Bay Fuel Terminal Location: 626 First Avenue, New York Project Number: 170234201

Inspector Name: Joe Yanowitz Date: 12/19/2017 Weather Conditions: Sunny 40 - 50's F

Reason for Inspection (i.e., routine, severe condition, etc.): Annual Inspection 2017

Check one of the following: **Y:** Yes **N:** No **NA**: Not Applicable

		Y	N	NA	Normal Situation	Remarks
	General					
1	What are the current site conditions?	--	--	--	--	The two towers (East and West) are under development (interior installations).The East and West towers include two sub-level floors. The East Tower is a 41-story building (including the roof level) and the West Tower is a 48-story building (including the roof level). Concrete cap of the lowest cellar covers the entire site.
2	Are all applicable site records (e.g., documentation of construction activity, most current easement, etc.) complete and up to date?	Y			Y	
	Easement					
3	Has site use (restricted residential, commercial) remained the same?	Y			Y	
4	Does it appear that all environmental easement restrictions have been followed?	Y			Y	
	Impermeable Cap					
5	Are there any indications of a breach in the capping system at the time of this inspection?	N			N	
6	Are there any cracks in the building slabs?	N			N	Only superficial cracks were observed during the inspection.
7	Are there any cracks in the building walls?	N			N	No cracks were observe during the inspection.
8	Is there any construction activity, or indication of any construction activity within the past certification year (including any tenant improvements), that included the breaching of the capping system, on-site at the time of this inspection?				-	
9	If YES to number 8, is there documentation that the Soil Management Plan, HASP, and CAMP for the site was/is being followed?	NA			NA if N to 6/ Y if Y to 8	

***** If the answer to any of the above questions indicate non-compliance with any IC/ECs for the site, additional remarks must be provided and, where applicable, documentation attached to this checklist detailing additional inspection and repair activities.**

Additional remarks _____

_____

_____

Minimum Inspection Schedule: Site-wide inspections will be conducted annually, per certification year, at a minimum. Additional inspections will also be conducted at times of severe condition events. All inspection events will utilize this checklist.

Lot 1 - SITE INSPECTION CHECKLIST
2017 - 2018

Site Name: Former Kips Bay Fuel Terminal Location: 626 First Avenue, New York Project Number: 170234201

Inspector Name: Reid Balkind Date: 12/20/2018 Weather Conditions: Overcast 40-50's F

Reason for Inspection (i.e., routine, severe condition, etc.): Annual Inspection 2018

Check one of the following: **Y:** Yes **N:** No **NA**: Not Applicable

		Y	N	NA	Normal Situation	Remarks
	General					
1	What are the current site conditions?	--	--	--	--	The site includes two towers (east and west towers) with a shared cellar and sub-cellar. The East Tower is a 41-story building (including roof level) and the West Tower is a 48-story building (including roof level).
2	Are all applicable site records (e.g., documentation of construction activity, most current easement, etc.) complete and up to date?	Y			Y	
	Easement					
3	Has site use (restricted residential, commercial) remained the same?	Y			Y	
4	Does it appear that all environmental easement restrictions have been followed?	Y			Y	
	Impermeable Cap					
5	Are there any indications of a breach in the capping system at the time of this inspection?		N		N	
6	Are there any cracks in the building slabs?		N		N	Car lifts anchored into slab with 3-Inch bolts and sealed with epoxy. Only superficial cracks were observed during inspection
7	Are there any cracks in the building walls?		N		N	Minor cracks have been recently sealed using injected grout. No other cracks were observed during inspection.
8	Is there any construction activity, or indication of any construction activity within the past certification year (including any tenant improvements), that included the breaching of the capping system, on-site at the time of this inspection?		N		-	
9	If YES to number 8, is there documentation that the Soil Management Plan, HASP, and CAMP for the site was/is being followed?	NA			NA if N to 6/ Y if Y to 8	

***** If the answer to any of the above questions indicate non-compliance with any IC/ECs for the site, additional remarks must be provided and, where applicable, documentation attached to this checklist detailing additional inspection and repair activities.**

Additional remarks _____

_____

_____

Minimum Inspection Schedule: Site-wide inspections will be conducted annually, per certification year, at a minimum. Additional inspections will also be conducted at times of severe condition events. All inspection events will utilize this checklist.

Lot 1 - SITE INSPECTION CHECKLIST
2018 - 2019

Site Name: Former Kips Bay Fuel Terminal Location: 626 First Avenue, New York Project Number: 170234201

Inspector Name: Jack Donelan Date: 12/20/2019 Weather Conditions: Clear, 20's F

Reason for Inspection (i.e., routine, severe condition, etc.): Annual Inspection 2019

Check one of the following: **Y:** Yes **N:** No **NA**: Not Applicable

		Y	N	NA	Normal Situation	Remarks
	General					
1	What are the current site conditions?	--	--	--	--	The site includes two towers (east and west towers) with a shared cellar and sub-cellar. The East Tower is a 41-story building (including roof level) and the West Tower is a 48-story building (including roof level).
2	Are all applicable site records (e.g., documentation of construction activity, most current easement, etc.) complete and up to date?	Y			Y	
	Easement					
3	Has site use (restricted residential, commercial) remained the same?	Y			Y	
4	Does it appear that all environmental easement restrictions have been followed?	Y			Y	
	Impermeable Cap					
5	Are there any indications of a breach in the capping system at the time of this inspection?		N		N	
6	Are there any cracks in the building slabs?		N		N	Car lifts anchored into slab with 3-Inch bolts and sealed with epoxy. Only surficial cracks were observed during inspection.
7	Are there any cracks in the building walls?		N		N	Minor cracks have been recently sealed using injected grout. No other cracks were observed during inspection.
8	Is there any construction activity, or indication of any construction activity within the past certification year (including any tenant improvements), that included the breaching of the capping system, on-site at the time of this inspection?		N		-	
9	If YES to number 8, is there documentation that the Soil Management Plan, HASP, and CAMP for the site was/is being followed?				NA if N to 6/ Y if Y to 8	

***** If the answer to any of the above questions indicate non-compliance with any IC/ECs for the site, additional remarks must be provided and, where applicable, documentation attached to this checklist detailing additional inspection and repair activities.**

Additional remarks _____

_____

Lot 1 - SITE INSPECTION CHECKLIST
2018 - 2019

Check one of the following: **Y:** Yes **N:** No **NA**: Not Applicable

	Y	N	NA	Normal Situation	Remarks

Minimum Inspection Schedule: Site-wide inspections will be conducted annually, per certification year, at a minimum. Additional inspections will also be conducted at times of severe condition events. All inspection events will utilize this checklist.

APPENDIX D

LOT 1 - INSTITUTIONAL AND ENGINEERING CONTROLS

CERTIFICATION FORM

LANGAN

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. C231014

Site Name Kips Bay Fuel Terminal (First Ave.prop)

Site Address: 626 First Avenue and 425 E. 35th St. Zip Code: 10016-
City/Town: New York
County: New York
Site Acreage: 1.600

Reporting Period: June 14, 2015 to June 14, 2020

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

Box 2

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

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

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

Signature of Owner, Remedial Party or Designated Representative Date

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. C231014 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
967-1	616 First Avenue LLC	Ground Water Use Restriction Landuse Restriction Site Management Plan IC/EC Plan

1. The Property may only be used for restricted residential and commercial use below the Development Depth provided that the long term Engineering and Institutional Controls included in the Site Management Plan (SMP) are employed. No environmental easements, engineering controls, institutional controls, or any other consents, approvals, or authorizations are required for any activities above the Development Depth.

2. All future activities on the Property that will disturb remaining contaminated material must be conducted in accordance with the SMP; and,

3. The use of the groundwater underlying the Property is prohibited without treatment rendering it safe for intended use.

967-2	NYC School Construction Authority	Ground Water Use Restriction Landuse Restriction IC/EC Plan Site Management Plan

1. The Property may only be used for restricted residential and commercial use below the Development Depth provided that the long term Engineering and Institutional Controls included in the Site Management Plan (SMP) are employed. No environmental easements, engineering controls, institutional controls, or any other consents, approvals, or authorizations are required for any activities above the Development Depth.

2. All future activities on the Property that will disturb remaining contaminated material must be conducted in accordance with the SMP; and,

3. The use of the groundwater underlying the Property is prohibited without treatment rendering it safe for intended use.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
967-1	Fencing/Access Control Cover System
The cover system at the site includes greater than two feet of cover consisting of building structures, clean fill, landscaping, and/or concrete and asphalt paving.	
967-2	Cover System Fencing/Access Control
The site was partially backfilled with with a minimum of two feet and as much as 20 feet of clean sand and crushed stone and is surrounded by a security fence.	

Box 5

Periodic Review Report (PRR) Certification Statements

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

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

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

YES	NO
X	☐

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

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

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

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

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

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

YES	NO
X	☐

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

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

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. C231014

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 Michael Stern (print name) at 104 5th Avenue 9th floor (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

7-16-20
Date

IC/EC CERTIFICATIONS

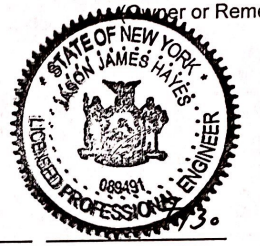
Box 7

Qualified Environmental Professional 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 Jason Hayes (print name) at 21 Penn Plaza, 8th Floor, New York, NY (print business address),

am certifying as a Qualified Environmental Professional for the 616 First Avenue LLC (Owner or Remedial Party)



Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification	Stamp (Required for PE)	7-30-2020 Date

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Work Permit Data

Premises: 624 1 AVENUE MANHATTAN — **Filed At: 626 1ST AVENUE MANHATTAN**

BIN: 1089237 Block: 967 Lot: 1 — **Job Type: NB - NEW BUILDING**

View Permit History | Printable (PDF) version of this Permit

DOB NOW: *Inspections*

Job No:	121331059			**Fee:**	STANDARD
Permit No:	121331059-01-NB	**Issued:**	08/02/2019	**Expires:**	08/01/2020
Seq. No.:	09	**Filing Date:**	08/02/2019 RENEWAL	**Status:**	ISSUED
Work:		**Proposed Job Start:**	06/29/2018	**Work Approved:**	10/01/2014

NEW BUILDING -
NEW BUILDING CONSTRUCTION

Use: R-2 - RESIDENTIAL: APARTMENT HOUSES **Landmark:** NO **Stories:** 47
Site Fill: ON-SITE
Review is requested under Building Code: 2008

Total Number of Dwelling Units at Location: 761
Number of Dwelling Units Occupied During Construction: 361

Adding more than three stories: No
Removing one or more stories: No
Performing work in 50% or more of the area of the building: No
Demolishing 50% or more of the area of the building: No
Performing a vertical or horizontal enlargement adding more than 25% of the area of the building: No
Mechanical equipment other than handheld devices to be used for demolition or removal of debris to be used: No
Altering 10% or more of the existing floor surface area of the building: No

Approved work includes concrete: Yes
Concrete work has been completed: No
Requesting concrete exclusion now: No
Work includes 2,000 cubic yards or more of concrete: No

Site Safety : RELEASE CS-SSM-SSC BY BEST mandated on 07/31/2019

Issued to: MICHAEL STERN

GENERAL CONTRACTOR - REGISTERED: GC 611852

Business: JDS CONSTRUCTION GROUP*
104 5TH AVE, 9TH FL NEW YORK NY 10011

Phone: 212-974-2844

If you have any questions please review these Frequently Asked Questions, the Glossary, or call the 311 Citizen Service Center by dialing 311 or (212) NEW YORK outside of New York City.

NYC Department of Buildings

Work Permit Data

Premises: 624 1 AVENUE MANHATTAN — **Filed At: 626 WEST 1 AVENUE MANHATTAN**
BIN: 1089237 Block: 967 Lot: 1 — **Job Type: A2 - ALTERATION TYPE 2**

DOB NOW: *Inspections*

Job No:	140837842			**Fee:**	STANDARD
Permit No:	140837842-01-EW-FP	**Issued:**	04/26/2019	**Expires:**	02/26/2020
Seq. No.:	01	**Filing Date:**	04/26/2019 INITIAL	**Status:**	ISSUED
Work:		**Proposed Job Start:**	04/26/2019	**Work Approved:**	04/25/2019

ALTERATION TYPE 2 - FIRE SUPPRESSION
FILING FOR KITCHEN RANGEHOOD FIRE SUPPRESSION SYSTEM IN CONJUNCTION WITH JOB#123597722, AS SHOWN ON PLAN. COOKING EQUIPMENT, FIRE SUPP SHUTOFF VALVE AND COOKING EXHAUST SYSTEM FILED UNDER JOB#123597722. NO CHANGE IN USE, OCCUPANCY, OR EGRESS

Use: RES - RESID. BLDG - OLD CODE **Landmark:** NO **Stories:** 47
Site Fill: NOT APPLICABLE
Review is requested under Building Code: 2014

Total Number of Dwelling Units at Location: 761
Number of Dwelling Units Occupied During Construction: 702
Altering 10% or more of the existing floor surface area of the building: No

Issued to: DOUGLAS L COGER
Business: RELIABLE FIRE PROT. INC
77 WATER STREET, 8TH FLOOR NEW YORK NY 10005

FIRE SUPPRESSION CONTRACTOR C
License No: FS 000151
Phone: 646-415-7707

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Work Permit Data

Premises: 624 1 AVENUE MANHATTAN — **Filed At: 626 WEST 1 AVENUE MANHATTAN**

BIN: 1089237 Block: 967 Lot: 1 — **Job Type: A2 - ALTERATION TYPE 2**

Printable (PDF) version of this Permit | **Inspection History**

DOB NOW: *Inspections*

Job No:	123156379			**Fee:**	STANDARD
Permit No:	123156379-01-EW-SP	**Issued:**	03/26/2019	**Expires:**	06/07/2020
Seq. No.:	01	**Filing Date:**	03/26/2019 INITIAL	**Status:**	ISSUED
Work:		**Proposed Job Start:**	03/26/2019	**Work Approved:**	12/21/2018

ALTERATION TYPE 2 - SPRINKLER

INSTALLATION OF NEW SPRINKLER SYSTEM AS PER PLANS FILED HEREWITH. NO CHANGE TO USE, OCCUPANCY OR EGRESS PROPOSED UNDER THIS APPLICATION.

Use: RES - RESID. BLDG - OLD CODE **Landmark:** NO **Stories:** 47

Site Fill: NOT APPLICABLE

Review is requested under Building Code: 2014

Total Number of Dwelling Units at Location:	761
Number of Dwelling Units Occupied During Construction:	761
Altering 10% or more of the existing floor surface area of the building:	No

Issued to: DAVID M ISRAEL

Business: RAEL AUTOMATIC SPR.CO INC

18 EAST 50TH STREET NEW YORK NY 10022

FIRE SUPPRESSION CONTRACTOR A

License No: FS 000123

Phone: 212-302-1484

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Work Permit Data

Premises: 624 1 AVENUE MANHATTAN — **Filed At: 626 WEST 1 AVENUE MANHATTAN**
BIN: 1089237 Block: 967 Lot: 1 — **Job Type: A2 - ALTERATION TYPE 2**

Printable (PDF) version of this Permit | **Inspection History**

DOB NOW: *Inspections*

Job No:	123597722			**Fee:**	STANDARD
Permit No:	123597722-01-PL	**Issued:**	03/26/2019	**Expires:**	06/07/2020
Seq. No.:	01	**Filing Date:**	03/26/2019 INITIAL	**Status:**	ISSUED
Work:		**Proposed Job Start:**	03/26/2019	**Work Approved:**	03/11/2019

PLUMBING - ALTERATION TYPE 2
TENANT BUILD OUT OF EXISTING COMMERCIAL SPACE AT FIRST FLOOR. NO CHANGE TO USE, OCCUPANCY OR EGRESS PROPOSED UNDER THIS APPLICATION.

Use: RES - RESID. BLDG - OLD CODE **Landmark:** NO **Stories:** 47
Site Fill: NOT APPLICABLE
Review is requested under Building Code: 1968

Total Number of Dwelling Units at Location:	761
Number of Dwelling Units Occupied During Construction:	761
Altering 10% or more of the existing floor surface area of the building:	No

Issued to: EDWARD J SWEENEY — **MASTER PLUMBER**
Business: CITY GAS HTG SVC CO INC — **License No:** MP 001891
431 BARRETTO STREET BRONX NY 10474 — **Phone:** 718-328-8396

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Work Permit Data

Premises: 624 1 AVENUE MANHATTAN — **Filed At: 626 WEST 1 AVENUE MANHATTAN**
BIN: 1089237 Block: 967 Lot: 1 — **Job Type: A2 - ALTERATION TYPE 2**

DOB NOW: *Inspections*

Job No:	123597722			**Fee:**	STANDARD
Permit No:	123597722-01-EW-MH	**Issued:**	03/19/2019	**Expires:**	05/15/2019
Seq. No.:	01	**Filing Date:**	03/19/2019 INITIAL	**Status:**	ISSUED
Work:		**Proposed Job Start:**	03/19/2019	**Work Approved:**	03/11/2019

ALTERATION TYPE 2 - MECH/HVAC
TENANT BUILD OUT OF EXISTING COMMERCIAL SPACE AT FIRST FLOOR. NO CHANGE TO USE, OCCUPANCY OR EGRESS PROPOSED UNDER THIS APPLICATION.

Use: RES - RESID. BLDG - OLD CODE **Landmark:** NO **Stories:** 47
Site Fill: NOT APPLICABLE
Review is requested under Building Code: 1968

Total Number of Dwelling Units at Location: 761
Number of Dwelling Units Occupied During Construction: 761
Altering 10% or more of the existing floor surface area of the building: No

Issued to: RICHARD MILLETTE
GENERAL CONTRACTOR - NON-REGISTERED: GC 007104

Business: GODFREY'S REFRIGERATION
1094 UTICA AVENUE BROOKLYN NY 11203 **Phone:** 718-345-0729

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Work Permit Data

Premises: 624 1 AVENUE MANHATTAN — **Filed At: 626 WEST 1 AVENUE MANHATTAN**
BIN: 1089237 Block: 967 Lot: 1 — **Job Type: A2 - ALTERATION TYPE 2**

CONCRETE WORK NOT AUTHORIZED - CONCRETE PLACEMENT, FORMWORK, STEEL REINFORCING NOT PERMITTED

DOB NOW: *Inspections*

Job No:	123597722			**Fee:**	STANDARD
Permit No:	123597722-01-EW-OT	**Issued:**	03/12/2019	**Expires:**	12/03/2019
Seq. No.:	01	**Filing Date:**	03/11/2019 INITIAL	**Status:**	ISSUED
Work:		**Proposed Job Start:**	03/12/2019	**Work Approved:**	03/11/2019

ALTERATION TYPE 2 - GEN. CONSTR.
TENANT BUILD OUT OF EXISTING COMMERCIAL SPACE AT FIRST FLOOR. NO CHANGE TO USE, OCCUPANCY OR EGRESS PROPOSED UNDER THIS APPLICATION.

Use: RES - RESID. BLDG - OLD CODE **Landmark:** NO **Stories:** 47
Site Fill: NOT APPLICABLE
Review is requested under Building Code: 1968

Total Number of Dwelling Units at Location: 0
Number of Dwelling Units Occupied During Construction: 0

Adding more than three stories: No
Removing one or more stories: No
Performing work in 50% or more of the area of the building: No
Demolishing 50% or more of the area of the building: No
Performing a vertical or horizontal enlargement adding more than 25% of the area of the building: No
Mechanical equipment other than handheld devices to be used for demolition or removal of debris to be used: No
Altering 10% or more of the existing floor surface area of the building: No

Approved work includes concrete: No
Concrete work has been completed: No
Requesting concrete exclusion now: No
Work includes 2,000 cubic yards or more of concrete: No

Issued to: JAMES FOSTER
GENERAL CONTRACTOR - NON-REGISTERED: GC 616078

Business: DCI CONSTRUCTION MANAGEME
2242 BOLLINGER MILL ROAD FINKSBURG MD 21048 **Phone:** 410-707-4830

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Work Permit Data

Premises: 624 1 AVENUE MANHATTAN — **Filed At: 626 FIRST AVENUE MANHATTAN**
BIN: 1089237 Block: 967 Lot: 1 — **Job Type: A3 - ALTERATION TYPE 3**

View Permit History

DOB NOW: *Inspections*

Job No:	122764473			**Fee:**	STANDARD
Permit No:	122764473-01-EQ-SH	**Issued:**	05/09/2018	**Expires:**	05/09/2019
Seq. No.:	03	**Filing Date:**	05/09/2018 RENEWAL	**Status:**	ISSUED
Work:		**Proposed Job Start:**	04/14/2016	**Work Approved:**	04/14/2016

ALTERATION TYPE 3 - CONSTRUCTION EQUIPMENT - SIDEWALK-SHED
SIDEWALK SHED PROPOSED INSTALLATION OF SIDEWALK SHED AS PER PLAN NO CHANGE IN USE, OCCUPANCY OF EGRESS UNDER THIS APPLICATION.

Electrical Application Number for Shed Lighting: M380278
Use: RES - RESID. BLDG - OLD CODE **Landmark:** NO **Stories:** 47
Review is requested under Building Code: 2014

Issued to: WILLIAM LAFFEY

GENERAL CONTRACTOR - NON-REGISTERED: GC 607447

Business: SPRING SCAFFOLDING LLC
49-30 31ST PLACE LONG ISLAND CIT NY 11101

Phone: 718-392-4921

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Work Permit Data

Premises: 624 1 AVENUE MANHATTAN — **Filed At: 626 FIRST AVENUE MANHATTAN**
BIN: 1089237 Block: 967 Lot: 1 — **Job Type: A3 - ALTERATION TYPE 3**

View Permit History

DOB NOW: *Inspections*

Job No:	122764455			**Fee:**	STANDARD
Permit No:	122764455-01-EQ-SF	**Issued:**	04/16/2018	**Expires:**	04/16/2019
Seq. No.:	03	**Filing Date:**	04/16/2018 ERENEWAL	**Status:**	ISSUED
Work:		**Proposed Job Start:**	04/14/2016	**Work Approved:**	04/14/2016

ALTERATION TYPE 3 - CONSTRUCTION EQUIPMENT - SCAFFOLD
PIPE SCAFFOLD PROPOSED INSTALLATION OF PIPE SCAFFOLD AS PER PLAN NO CHANGE IN USE, OCCUPANCY OF EGRESS UNDER THIS APPLICATION.

Use: RES - RESID. BLDG - OLD CODE **Landmark:** NO **Stories:** 47
Review is requested under Building Code: 2014

Issued to: WILLIAM LAFFEY

GENERAL CONTRACTOR - NON-REGISTERED: GC 607447

Business: SPRING SCAFFOLDING LLC
49-30 31ST PLACE LONG ISLAND CIT NY 11101

Phone: 718-392-4921

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Work Permit Data

Premises: 624 1 AVENUE MANHATTAN — **Filed At: 626 FIRST AVENUE MANHATTAN**
BIN: 1089237 Block: 967 Lot: 1 — **Job Type: A3 - ALTERATION TYPE 3**

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DOB NOW: *Inspections*

Job No:	122764455			**Fee:**	STANDARD
Permit No:	122764455-01-EQ-SF	**Issued:**	04/16/2018	**Expires:**	04/16/2019
Seq. No.:	03	**Filing Date:**	04/16/2018 ERENEWAL	**Status:**	ISSUED
Work:		**Proposed Job Start:**	04/14/2016	**Work Approved:**	04/14/2016

ALTERATION TYPE 3 - CONSTRUCTION EQUIPMENT - SCAFFOLD
PIPE SCAFFOLD PROPOSED INSTALLATION OF PIPE SCAFFOLD AS PER PLAN NO CHANGE IN USE, OCCUPANCY OF EGRESS UNDER THIS APPLICATION.

Use: RES - RESID. BLDG - OLD CODE **Landmark:** NO **Stories:** 47
Review is requested under Building Code: 2014

Issued to: WILLIAM LAFFEY

GENERAL CONTRACTOR - NON-REGISTERED: GC 607447

Business: SPRING SCAFFOLDING LLC
49-30 31ST PLACE LONG ISLAND CIT NY 11101 **Phone:** 718-392-4921

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Work Permit Data

Premises: 624 1 AVENUE MANHATTAN — **Filed At: 626 1 AVENUE MANHATTAN**

BIN: 1089237 Block: 967 Lot: 1 — **Job Type: A3 - ALTERATION TYPE 3**

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DOB NOW: *Inspections*

Job No:	122868049			**Fee:**	STANDARD
Permit No:	122868049-01-EQ-SH	**Issued:**	10/27/2017	**Expires:**	10/27/2018
Seq. No.:	02	**Filing Date:**	10/27/2017 RENEWAL	**Status:**	ISSUED
Work:		**Proposed Job Start:**	11/04/2016	**Work Approved:**	11/04/2016

ALTERATION TYPE 3 - CONSTRUCTION EQUIPMENT - SIDEWALK-SHED INSTALLATION OF 128 LINEAR FEET OF HEAVY DUTY SIDEWALK SHED DURING NEW BUILDING CONSTRUCTION, FILED SEPARATELY. SIDEWALK SHED SHALL COMPLY WITH CHAPTER #33 OF THE NYC BUILDING CODE. NO CHANGE IN USE, OCCUPANCY OR EGRESS UNDER THIS APPLICATION.

Electrical Application Number for Shed Lighting: M359882

Use: R-2 - RESIDENTIAL: APARTMENT HOUSES **Landmark:** NO **Stories:** 47

Review is requested under Building Code: 2014

Issued to: COLM COEN

GENERAL CONTRACTOR - NON-REGISTERED: GC 037441

Business: S&E BRIDGE & SCAFFOLD LLC

700 COMMERCIAL AVE GROUND FL CARLSTADT NJ 07072

Phone: 201-933-3418

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Work Permit Data

Premises: 624 1 AVENUE MANHATTAN — **Filed At: 626 FIRST AVENUE MANHATTAN**
BIN: 1089237 Block: 967 Lot: 1 — **Job Type: A3 - ALTERATION TYPE 3**

DOB NOW: *Inspections*

Job No:	123289093			**Fee:**	STANDARD
Permit No:	123289093-01-EQ-OT	**Issued:**	10/23/2017	**Expires:**	10/23/2018
Seq. No.:	01	**Filing Date:**	10/23/2017 INITIAL	**Status:**	ISSUED
Work:		**Proposed Job Start:**	10/23/2017	**Work Approved:**	10/23/2017

ALTERATION TYPE 3 - CONSTRUCTION EQUIPMENT - OTHER
INSTALLATION OF WORK PLATFORM AS PER PLANS. WORK SHALL COMPLY WITH THE NEW YORK CITY BUILDING CODE. NO CHANGES IN USE, EGRESS, OR OCCUPANCY.

Use: R-2 - RESIDENTIAL: APARTMENT HOUSES **Landmark:** NO **Stories:** 47
Review is requested under Building Code: 2014

Issued to: WILLIAM LOUGHEED

GENERAL CONTRACTOR - NON-REGISTERED: GC 615667

Business: CNB CONTRACTING CORP
1140 GRINNELL PLACE BRONX NY 10474

Phone: 718-618-7630

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Work Permit Data

Premises: 624 1 AVENUE MANHATTAN — **Filed At: 626 FIRST AVENUE MANHATTAN**

BIN: 1089237 Block: 967 Lot: 1 — **Job Type: A3 - ALTERATION TYPE 3**

DOB NOW: *Inspections*

Job No:	123289093			**Fee:**	STANDARD
Permit No:	123289093-01-EQ-OT	**Issued:**	10/23/2017	**Expires:**	10/23/2018
Seq. No.:	01	**Filing Date:**	10/23/2017 INITIAL	**Status:**	ISSUED
Work:		**Proposed Job Start:**	10/23/2017	**Work Approved:**	10/23/2017

ALTERATION TYPE 3 - CONSTRUCTION EQUIPMENT - OTHER
INSTALLATION OF WORK PLATFORM AS PER PLANS. WORK SHALL COMPLY WITH THE NEW YORK CITY BUILDING CODE. NO CHANGES IN USE, EGRESS, OR OCCUPANCY.

Use: R-2 - RESIDENTIAL: APARTMENT HOUSES **Landmark:** NO **Stories:** 47

Review is requested under Building Code: 2014

Issued to: WILLIAM LOUGHEED

GENERAL CONTRACTOR - NON-REGISTERED: GC 615667

Business: CNB CONTRACTING CORP
1140 GRINNELL PLACE BRONX NY 10474

Phone: 718-618-7630

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Work Permit Data

Premises: 624 1 AVENUE MANHATTAN — **Filed At: 626 1ST AVENUE MANHATTAN**

BIN: 1089237 Block: 967 Lot: 1 — **Job Type: A3 - ALTERATION TYPE 3**

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DOB NOW: *Inspections*

Job No:	122732454			**Fee:**	STANDARD
Permit No:	122732454-01-EQ-OT	**Issued:**	06/08/2017	**Expires:**	06/08/2018
Seq. No.:	02	**Filing Date:**	06/08/2017 RENEWAL	**Status:**	ISSUED
Work:		**Proposed Job Start:**	04/25/2016	**Work Approved:**	03/29/2016

ALTERATION TYPE 3 - CONSTRUCTION EQUIPMENT - OTHER
USE OF LIFTING DEVICE ON LEVELS 3 TO 48 ON WEST TOWER AND 3 TO 42 ON EAST TOWER
AS PER PLANS FILED HEREWITH. THIS WORK IS IN CONJUNCTION WITH NB-121331059.

Use: R-2 - RESIDENTIAL: APARTMENT HOUSES **Landmark:** NO **Stories:** 47

Review is requested under Building Code: 2014

Issued to: FRANZ STRECKER

GENERAL CONTRACTOR - NON-REGISTERED: GC 614402

Business: ELICC AMERICAS CORPORATIO
2181 MEYERS AVE SUITE C ESCONDIDO CA 92029 **Phone:** 760-233-0066

If you have any questions please review these Frequently Asked Questions, the Glossary, or call the 311 Citizen Service Center by dialing 311 or (212) NEW YORK outside of New York City.

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Work Permit Data

Premises: 624 1 AVENUE MANHATTAN — **Filed At: 626 1ST AVENUE MANHATTAN**

BIN: 1089237 Block: 967 Lot: 1 — **Job Type: A3 - ALTERATION TYPE 3**

View Permit History

DOB NOW: *Inspections*

Job No:	122775862			**Fee:**	STANDARD
Permit No:	122775862-01-EQ-OT	**Issued:**	05/05/2017	**Expires:**	05/05/2018
Seq. No.:	02	**Filing Date:**	05/05/2017 RENEWAL	**Status:**	ISSUED
Work:		**Proposed Job Start:**	05/03/2016	**Work Approved:**	05/03/2016

ALTERATION TYPE 3 - CONSTRUCTION EQUIPMENT - OTHER
FILING FOR A CONSTRUCTION EQUIPMENT FOR MINI CRAWLER SPIDER CRANE URW306 & URW506 AS SHOWN ON DRAWINGS FILED HEREWITH.

Use: R-2 - RESIDENTIAL: APARTMENT HOUSES **Landmark:** NO **Stories:** 47

Review is requested under Building Code: 2014

Issued to: MICHAEL STERN

GENERAL CONTRACTOR - REGISTERED: GC 611852

Business: JDS CONSTRUCTION GROUP*
104 5TH AVE, 9TH FL NEW YORK NY 10011

Phone: 212-974-2844

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Work Permit Data

Premises: 624 1 AVENUE MANHATTAN — **Filed At: 626 1ST AVENUE MANHATTAN**

BIN: 1089237 Block: 967 Lot: 1 — **Job Type: A3 - ALTERATION TYPE 3**

View Permit History

DOB NOW: *Inspections*

Job No:	122775862			**Fee:**	STANDARD
Permit No:	122775862-01-EQ-OT	**Issued:**	05/05/2017	**Expires:**	05/05/2018
Seq. No.:	02	**Filing Date:**	05/05/2017 RENEWAL	**Status:**	ISSUED
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ALTERATION TYPE 3 - CONSTRUCTION EQUIPMENT - OTHER
FILING FOR A CONSTRUCTION EQUIPMENT FOR MINI CRAWLER SPIDER CRANE URW306 & URW506 AS SHOWN ON DRAWINGS FILED HEREWITH.

Use: R-2 - RESIDENTIAL: APARTMENT HOUSES **Landmark:** NO **Stories:** 47

Review is requested under Building Code: 2014

Issued to: MICHAEL STERN

GENERAL CONTRACTOR REGISTERED: - GC 611852

Business: JDS CONSTRUCTION GROUP*
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Work Permit Data

Premises: 624 1 AVENUE MANHATTAN — **Filed At: 626 1ST AVENUE MANHATTAN**

BIN: 1089237 Block: 967 Lot: 1 — **Job Type: A3 - ALTERATION TYPE 3**

View Permit History

DOB NOW: *Inspections*

Job No:	122732454			**Fee:**	STANDARD
Permit No:	122732454-01-EQ-OT	**Issued:**	06/08/2017	**Expires:**	06/08/2018
Seq. No.:	02	**Filing Date:**	06/08/2017 RENEWAL	**Status:**	ISSUED
Work:		**Proposed Job Start:**	04/25/2016	**Work Approved:**	03/29/2016

ALTERATION TYPE 3 - CONSTRUCTION EQUIPMENT - OTHER
USE OF LIFTING DEVICE ON LEVELS 3 TO 48 ON WEST TOWER AND 3 TO 42 ON EAST TOWER
AS PER PLANS FILED HEREWITH. THIS WORK IS IN CONJUNCTION WITH NB-121331059.

Use: R-2 - RESIDENTIAL: APARTMENT HOUSES **Landmark:** NO **Stories:** 47

Review is requested under Building Code: 2014

Issued to: FRANZ STRECKER

GENERAL CONTRACTOR - NON-REGISTERED: GC 614402

Business: ELICC AMERICAS CORPORATIO
2181 MEYERS AVE SUITE C ESCONDIDO CA 92029 **Phone:** 760-233-0066

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Work Permit Data

Premises: 624 1 AVENUE MANHATTAN — **Filed At: 626 1ST AVENUE MANHATTAN**

BIN: 1089237 Block: 967 Lot: 1 — **Job Type: A3 - ALTERATION TYPE 3**

View Permit History

DOB NOW: *Inspections*

Job No:	122775862			**Fee:**	STANDARD
Permit No:	122775862-01-EQ-OT	**Issued:**	05/05/2017	**Expires:**	05/05/2018
Seq. No.:	02	**Filing Date:**	05/05/2017 RENEWAL	**Status:**	ISSUED
Work:		**Proposed Job Start:**	05/03/2016	**Work Approved:**	05/03/2016

ALTERATION TYPE 3 - CONSTRUCTION EQUIPMENT - OTHER
FILING FOR A CONSTRUCTION EQUIPMENT FOR MINI CRAWLER SPIDER CRANE URW306 & URW506 AS SHOWN ON DRAWINGS FILED HEREWITH.

Use: R-2 - RESIDENTIAL: APARTMENT HOUSES **Landmark:** NO **Stories:** 47

Review is requested under Building Code: 2014

Issued to: MICHAEL STERN

GENERAL CONTRACTOR - REGISTERED: GC 611852

Business: JDS CONSTRUCTION GROUP*
104 5TH AVE, 9TH FL NEW YORK NY 10011

Phone: 212-974-2844

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Work Permit Data

Premises: 624 1 AVENUE MANHATTAN — **Filed At: 626 1ST AVENUE MANHATTAN**

BIN: 1089237 Block: 967 Lot: 1 — **Job Type: A3 - ALTERATION TYPE 3**

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DOB NOW: *Inspections*

Job No:	122775862			**Fee:**	STANDARD
Permit No:	122775862-01-EQ-OT	**Issued:**	05/05/2017	**Expires:**	05/05/2018
Seq. No.:	02	**Filing Date:**	05/05/2017 RENEWAL	**Status:**	ISSUED
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ALTERATION TYPE 3 - CONSTRUCTION EQUIPMENT - OTHER
FILING FOR A CONSTRUCTION EQUIPMENT FOR MINI CRAWLER SPIDER CRANE URW306 & URW506 AS SHOWN ON DRAWINGS FILED HEREWITH.

Use: R-2 - RESIDENTIAL: APARTMENT HOUSES **Landmark:** NO **Stories:** 47

Review is requested under Building Code: 2014

Issued to: MICHAEL STERN

GENERAL CONTRACTOR REGISTERED: - GC 611852

Business: JDS CONSTRUCTION GROUP*
104 5TH AVE, 9TH FL NEW YORK NY 10011

Phone: 212-974-2844

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Work Permit Data

Premises: 624 1 AVENUE MANHATTAN — **Filed At: 626 1ST AVENUE MANHATTAN**

BIN: 1089237 **Block: 967 Lot: 1** — **Job Type: SG - SIGN**

DOB NOW: *Inspections*

Job No:	123017573			**Fee:**	STANDARD
Permit No:	123017573-01-SG	**Issued:**	03/08/2017	**Expires:**	NONE
Seq. No.:	01	**Filing Date:**	03/08/2017 INITIAL	**Status:**	ISSUED
Work:		**Proposed Job Start:**	03/08/2017	**Work Approved:**	03/08/2017

SIGN -
ILLUMINATED NON ADVERTISING ACCESSORY SIGN - INSIDE PROPERTY LINE. NO CHANGE TO USE EGRESS OR OCCUPANCY.

Use: N/A **Landmark:** NO **Stories:** 0

Review is requested under Building Code: 2014

Issued to: ARTHUR TORRONE JR
Business: FRANK TORRONE & SONS INC
147 WAYNE ST. UNIT 1 STATEN ISLAND NY 10310

MASTER SIGN HANGER
License No: SI 000210
Phone: 718-273-7600

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Work Permit Data

Premises: 624 1 AVENUE MANHATTAN **Filed At: 626 1ST AVENUE MANHATTAN**
BIN: 1089237 Block: 967 Lot: 1 **Job Type: SG - SIGN**

DOB NOW: *Inspections*

Job No:	123011454			**Fee:**	STANDARD
Permit No:	123011454-01-SG	**Issued:**	03/08/2017	**Expires:**	NONE
Seq. No.:	01	**Filing Date:**	03/08/2017 INITIAL	**Status:**	ISSUED
Work:		**Proposed Job Start:**	03/08/2017	**Work Approved:**	03/08/2017

SIGN -
ILLUMINATED NON ADVERTISING ACCESSORY SIGN - INSIDE PROPERTY LINE. NO CHANGE TO USE EGRESS OR OCCUPANCY.

Use: N/A **Landmark:** NO **Stories:** 0
Review is requested under Building Code: 2014

Issued to: ARTHUR TORRONE JR
Business: FRANK TORRONE & SONS INC
147 WAYNE ST. UNIT 1 STATEN ISLAND NY 10310

MASTER SIGN HANGER
License No: SI 000210
Phone: 718-273-7600

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Work Permit Data

Premises: 624 1 AVENUE MANHATTAN — **Filed At: 626 1ST AVENUE MANHATTAN**

BIN: 1089237 Block: 967 Lot: 1 — **Job Type: SG - SIGN**

DOB NOW: *Inspections*

Job No:	123017573			**Fee:**	STANDARD
Permit No:	123017573-01-SG	**Issued:**	03/08/2017	**Expires:**	NONE
Seq. No.:	01	**Filing Date:**	03/08/2017 INITIAL	**Status:**	ISSUED
Work:		**Proposed Job Start:**	03/08/2017	**Work Approved:**	03/08/2017

SIGN -
ILLUMINATED NON ADVERTISING ACCESSORY SIGN - INSIDE PROPERTY LINE. NO CHANGE TO USE EGRESS OR OCCUPANCY.

Use: N/A **Landmark:** NO **Stories:** 0

Review is requested under Building Code: 2014

Issued to: ARTHUR TORRONE JR
Business: FRANK TORRONE & SONS INC
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Work Permit Data

Premises: 624 1 AVENUE MANHATTAN — **Filed At: 626 1ST AVENUE MANHATTAN**

BIN: 1089237 **Block: 967 Lot: 1** — **Job Type: A2 - ALTERATION TYPE 2**

DOB NOW: *Inspections*

Job No:	140464049			**Fee:**	STANDARD
Permit No:	140464049-01-EW-BL	**Issued:**	08/24/2016	**Expires:**	06/05/2017
Seq. No.:	01	**Filing Date:**	08/24/2016 INITIAL	**Status:**	ISSUED
Work:		**Proposed Job Start:**	08/24/2016	**Work Approved:**	05/05/2016

ALTERATION TYPE 2 - BOILER
BOILER INSTALLATION, ONLY BOILER WORK FILED HERE, ALL ADDITIONAL WORK IS UNDER THE NB# 121331059.

Use: R-2 - RESIDENTIAL: APARTMENT HOUSES **Landmark:** NO **Stories:** 47
Site Fill: NOT APPLICABLE
Review is requested under Building Code: 2008

Issued to: ROBERT DIMICELI
Business: RCI PLBG, INC
545 MIDLAND AVENUE STATEN ISLAND NY 10306

MASTER PLUMBER
License No: MP 002136
Phone: 718-980-2070

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Work Permit Data

Premises: 624 1 AVENUE MANHATTAN — **Filed At: 626 1ST AVENUE MANHATTAN**

BIN: 1089237 Block: 967 Lot: 1 — **Job Type: A2 - ALTERATION TYPE 2**

DOB NOW: *Inspections*

Job No:	140464049			**Fee:**	STANDARD
Permit No:	140464049-01-EW-BL	**Issued:**	08/24/2016	**Expires:**	06/05/2017
Seq. No.:	01	**Filing Date:**	08/24/2016 INITIAL	**Status:**	ISSUED
Work:		**Proposed Job Start:**	08/24/2016	**Work Approved:**	05/05/2016

ALTERATION TYPE 2 - BOILER
BOILER INSTALLATION, ONLY BOILER WORK FILED HERE, ALL ADDITIONAL WORK IS UNDER THE NB# 121331059.

Use: R-2 - RESIDENTIAL: APARTMENT HOUSES **Landmark:** NO **Stories:** 47

Site Fill: NOT APPLICABLE

Review is requested under Building Code: 2008

Issued to: ROBERT DIMICELI — **MASTER PLUMBER**

Business: RCI PLBG, INC — **License No:** MP 002136

545 MIDLAND AVENUE STATEN ISLAND NY 10306 — **Phone:** 718-980-2070

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Work Permit Data

Premises: 624 1 AVENUE MANHATTAN — **Filed At: 626 1 AVENUE MANHATTAN**
BIN: 1089237 Block: 967 Lot: 1 — **Job Type: A3 - ALTERATION TYPE 3**

DOB NOW: *Inspections*

Job No:	140490467			**Fee:**	STANDARD
Permit No:	140490467-01-EQ-OT	**Issued:**	05/06/2016	**Expires:**	05/06/2017
Seq. No.:	01	**Filing Date:**	05/06/2016 INITIAL	**Status:**	ISSUED
Work:		**Proposed Job Start:**	05/06/2016	**Work Approved:**	05/04/2016

ALTERATION TYPE 3 - CONSTRUCTION EQUIPMENT - OTHER
PROPOSED INSTALLATION OF MONORAIL AS PER PLANS. NO CHANGE IN USE, EGRESS OR OCCUPANCY.

Use: R-2 - RESIDENTIAL: APARTMENT HOUSES **Landmark:** NO **Stories:** 47
Review is requested under Building Code: 2014

Issued to: MICHAEL STERN

GENERAL CONTRACTOR - GC 611852 REGISTERED:

Business: JDS CONSTRUCTION GROUP*
104 5TH AVE, 9TH FL NEW YORK NY 10011

Phone: 212-974-2844

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Work Permit Data

Premises: 624 1 AVENUE MANHATTAN — **Filed At: 626 1 AVENUE MANHATTAN**

BIN: 1089237 Block: 967 Lot: 1 — **Job Type: A3 - ALTERATION TYPE 3**

DOB NOW: *Inspections*

Job No:	140490467			**Fee:**	STANDARD
Permit No:	140490467-01-EQ-OT	**Issued:**	05/06/2016	**Expires:**	05/06/2017
Seq. No.:	01	**Filing Date:**	05/06/2016 INITIAL	**Status:**	ISSUED
Work:		**Proposed Job Start:**	05/06/2016	**Work Approved:**	05/04/2016

ALTERATION TYPE 3 - CONSTRUCTION EQUIPMENT - OTHER
PROPOSED INSTALLATION OF MONORAIL AS PER PLANS. NO CHANGE IN USE, EGRESS OR OCCUPANCY.

Use: R-2 - RESIDENTIAL: APARTMENT HOUSES **Landmark:** NO **Stories:** 47

Review is requested under Building Code: 2014

Issued to: MICHAEL STERN

GENERAL CONTRACTOR REGISTERED: GC 611852

Business: JDS CONSTRUCTION GROUP*
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Phone: 212-974-2844

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APPENDIX E

LOT 2 - INSTITUTIONAL AND ENGINEERING CONTROLS

CERTIFICATION FORM

LANGAN

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. **C231014**

Site Name **Kips Bay Fuel Terminal (First Ave.prop)** **FOR NYSCA PARCEL 967-2**

Site Address: 626 First Avenue and 425 E. 35th St. Zip Code: 10016-
City/Town: New York
County: New York
Site Acreage: 1.600

Reporting Period: ~~June 14, 2015 to June 14, 2020~~
May 28, 2015 to May 7, 2020

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

Box 2

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

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.

	YES	NO
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. C231014

Box 3

Description of Institutional Controls

Parcel	Owner	Institutional Control
967-1	616 First Avenue LLC	Ground Water Use Restriction Landuse Restriction Site Management Plan IC/EC Plan

1. The Property may only be used for restricted residential and commercial use below the Development Depth provided that the long term Engineering and Institutional Controls included in the Site Management Plan (SMP) are employed. No environmental easements, engineering controls, institutional controls, or any other consents, approvals, or authorizations are required for any activities above the Development Depth.

2. All future activities on the Property that will disturb remaining contaminated material must be conducted in accordance with the SMP; and,

3. The use of the groundwater underlying the Property is prohibited without treatment rendering it safe for intended use.

967-2	NYC School Construction Authority	Ground Water Use Restriction Landuse Restriction IC/EC Plan Site Management Plan

1. The Property may only be used for restricted residential and commercial use below the Development Depth provided that the long term Engineering and Institutional Controls included in the Site Management Plan (SMP) are employed. No environmental easements, engineering controls, institutional controls, or any other consents, approvals, or authorizations are required for any activities above the Development Depth.

2. All future activities on the Property that will disturb remaining contaminated material must be conducted in accordance with the SMP; and,

3. The use of the groundwater underlying the Property is prohibited without treatment rendering it safe for intended use.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
967-1	Fencing/Access Control Cover System
The cover system at the site includes greater than two feet of cover consisting of building structures, clean fill, landscaping, and/or concrete and asphalt paving.	
967-2	Cover System Fencing/Access Control
The site was partially backfilled with with a minimum of two feet and as much as 20 feet of clean sand and crushed stone and is surrounded by a security fence.	

Box 5

Periodic Review Report (PRR) Certification Statements

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

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

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

YES	NO
☑	☐

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

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

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

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

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

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

YES	NO
☑	☐

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. C231014

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 P ORLAN at 44-36 Vernon Blvd LIC 11101
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.

Bernard P Orlan 6/12/20
Signature of Owner, Remedial Party, or Designated Representative Date
Rendering Certification

IC/EC CERTIFICATIONS

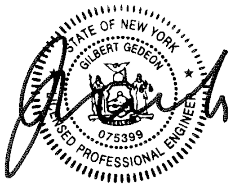
Box 7

Qualified Environmental Professional 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, New York, NY 10010 (print business address),

am certifying as a Qualified Environmental Professional for the New York City Board of Education (Owner or Remedial Party)



Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification	Stamp (Required for PE)	Date
		6/11/2020

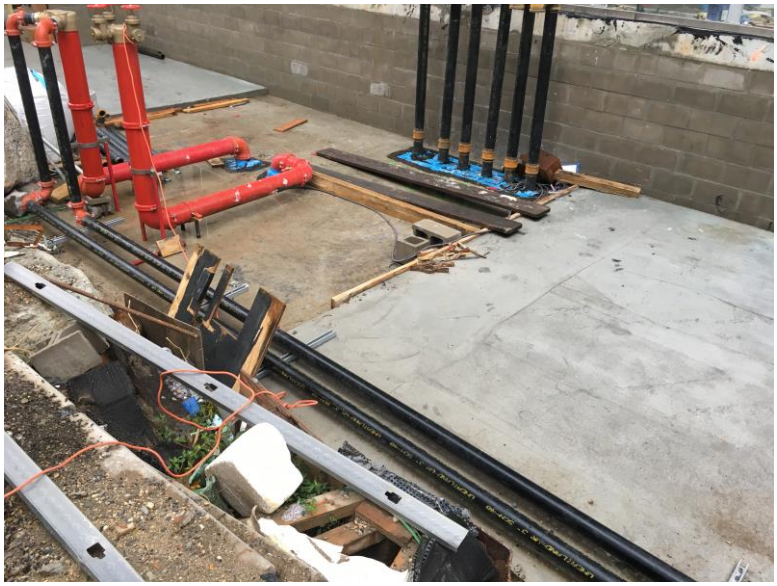
APPENDIX F

LOT 1 - PHOTOGRAPH LOGS: 2015-2020 REPORTING PERIOD

Photograph 1 – View of the East and West Towers; facing northeast. Dated 11/30/2016.

Photograph 2 – View of the school building located at the corner of 35th Street and First Ave; facing northeast. Dated 11/30/2016.

Photograph 3 – View of the concrete cap located in the northwest corner of the site; facing south. Dated 11/30/2016.



Photograph 4 – View of the concrete slab and utilities in the northwest portion of the site; facing southeast. Dated 11/30/2016.

Photograph 5 – View of the entrance to the 626 First Ave building and concrete cap in front of the entrance – West Tower; facing south. Dated 11/30/2016.

Photograph 6 – View the concrete cap located in the northeast portion of the site; near the construction gate; facing east. Dated 11/30/2016.

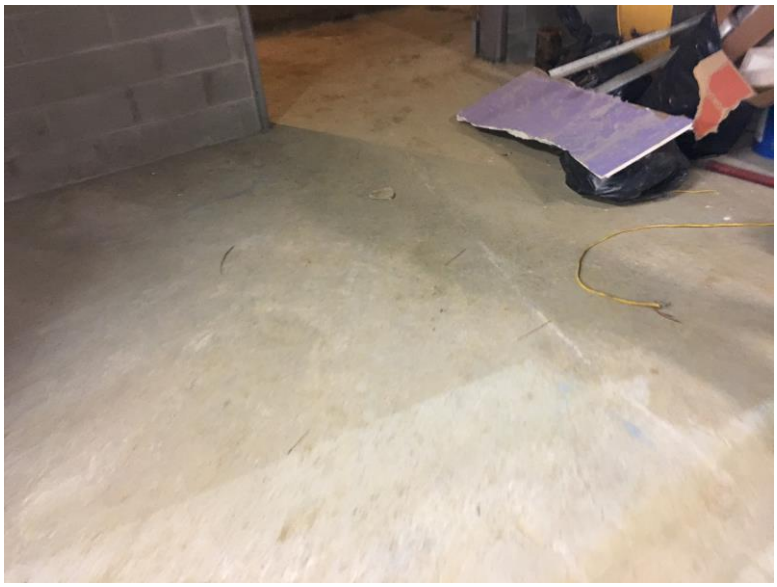
Photograph 7 – View of the concrete cap in the West Tower (street level); facing south. Dated 11/30/2016.

Photograph 8 – View of the concrete cap in the southeastern portion of the site; facing southwest. Dated 11/30/2016.

Photograph 9 – View of the concrete cap in the cellar of the West Tower; facing northwest. Dated 11/30/2016.

Photograph 10 – View of concrete cap in the cellar of the West Tower; facing west. Dated 11/30/2016.

Photograph 11 – View of the concrete cap in the sub-cellar of the West Tower; facing southwest. Dated 11/30/2016.



Photograph 12 – View of the concrete cap of the sub-cellar in the East Tower; facing south. Dated 11/30/2016.

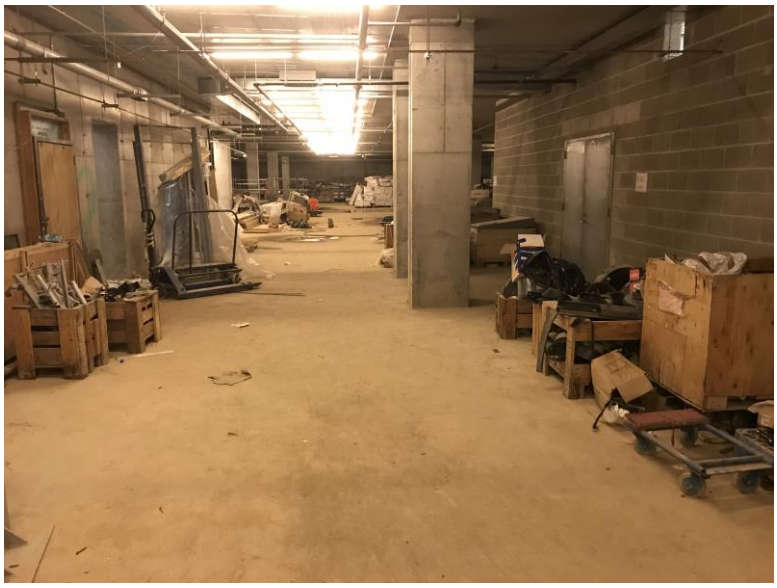
Photograph 13 – View of the concrete cap in the cellar of the East Tower; facing southwest. Dated 11/30/2016.

Photograph 1 – View of the East and West Towers; facing northeast. Dated 12/19/2017.

Photograph 2 – View of the school building located at the corner of 35th Street and First Ave; facing northeast. Dated 12/19/2017.

Photograph 3 –View of the site cap in the northeast portion of the site; facing west. Dated 12/19/2017.

Photograph 4 – View of utility easement area in the southeast region of the site temporarily capped with approximately 2 feet of imported gravel during building construction; facing north. Dated 12/19/2017.



Photograph 5 – View of the concrete floor in the cellar of the East Tower; facing east. Dated 12/19/2017.

Photograph 6 – View of the concrete floor in the cellar of the East Tower; facing north. Dated 12/19/2017.

Photograph 7 – View of the concrete floor in the cellar of the East Tower; facing southwest. Dated 12/19/2017.

Photograph 8 – View of the partially disturbed concrete floor in the south central portion of the cellar of the East Tower; facing north. Dated 12/19/2017.

Photograph 9 – View of exposed tie down and concrete floor in the northwest cellar of the East Tower; facing west. Dated 12/19/2017.

Photograph 10 – View of the concrete floor in the cellar of the West Tower; facing west. Dated 12/19/2017.

Photograph 11 – View of the concrete floor of the cellar in the West Tower; facing southwest. Dated 12/19/2017.

Photograph 12 – View of the concrete floor in the cellar of the West Tower; facing northwest. Dated 12/19/2017.

Photograph 13 – View of the superficial crack in concrete floor of the cellar in the East Tower; facing west. Dated 12/19/2017.

Photograph 1 – View of the concrete floor in the sub-cellar of the East Tower; facing northeast. Dated 12/20/2018.

Photograph 2 – View of car lifts in the cellar parking garage of the East Tower; facing north. Dated 12/20/2018.

Photo 3 - View of the concrete floor in the sub-cellar of the East Tower. Dated 12/20/2018.

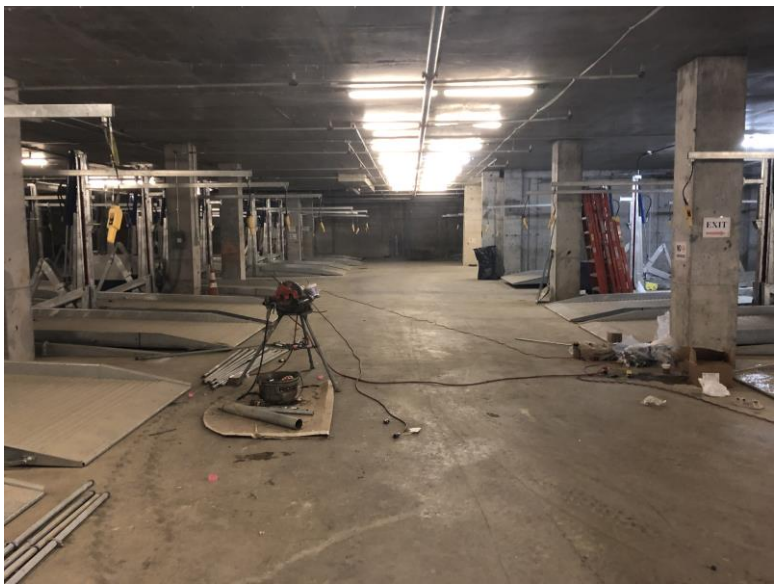
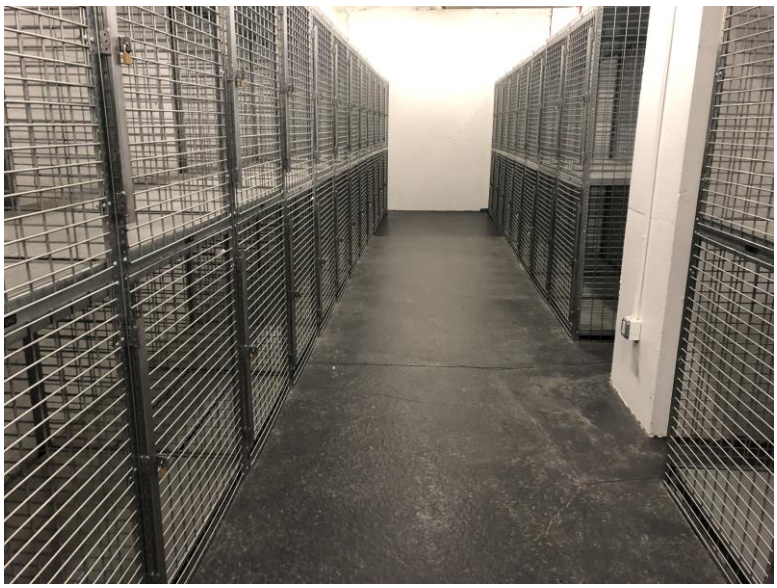


Photo 4 – View of car parking garage of the East Tower, facing west. Dated 12/20/2018.

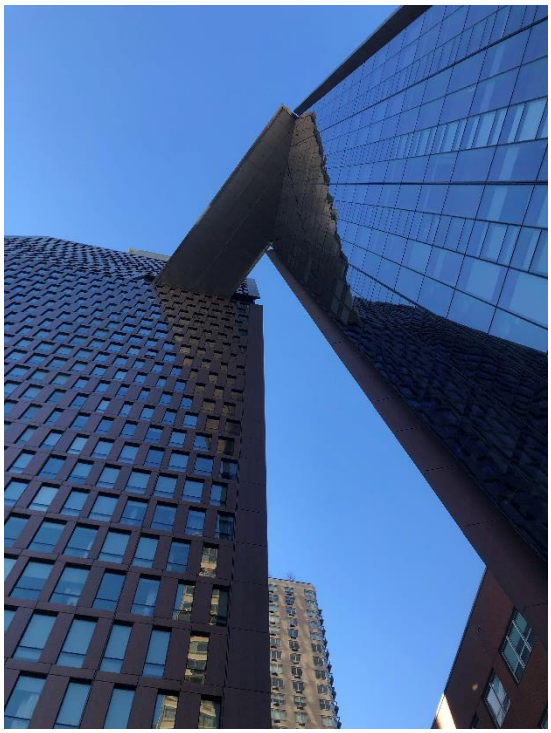
Photograph 5 – View of the concrete floor in the cellar of the West Tower; facing southeast. Dated 12/20/2018.



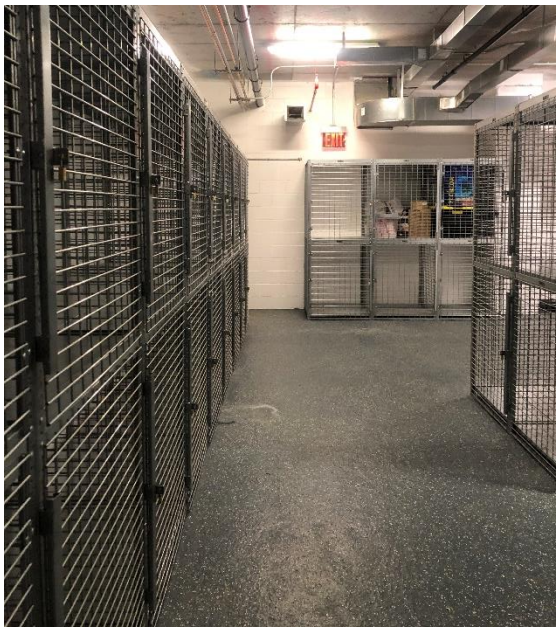
Photograph 6 – View of the concrete floor in the cellar tenant storage area of the West Tower; facing northwest. Dated 12/20/2018.

Photo 7 – View of concrete floor in hallway of the West Tower. Dated 12/20/2018.

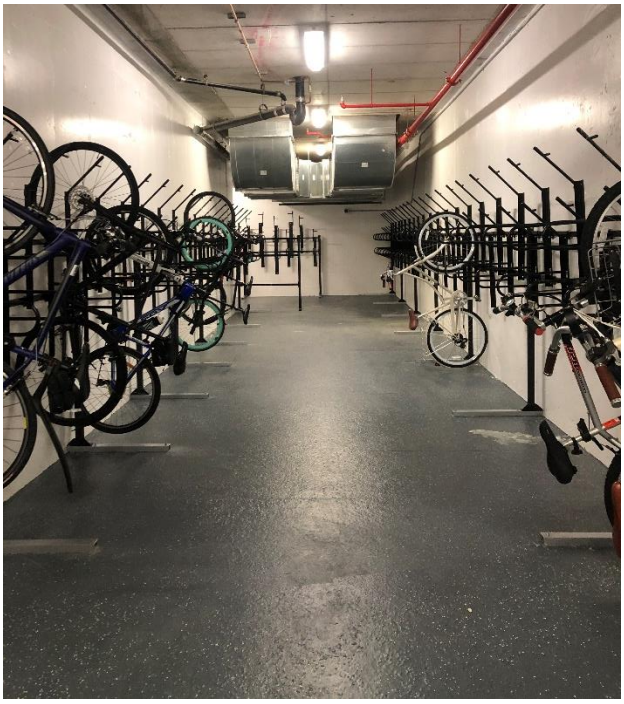
Photo 8 – View of concrete floor beneath stairwell in West Tower. Dated 12/20/2018.



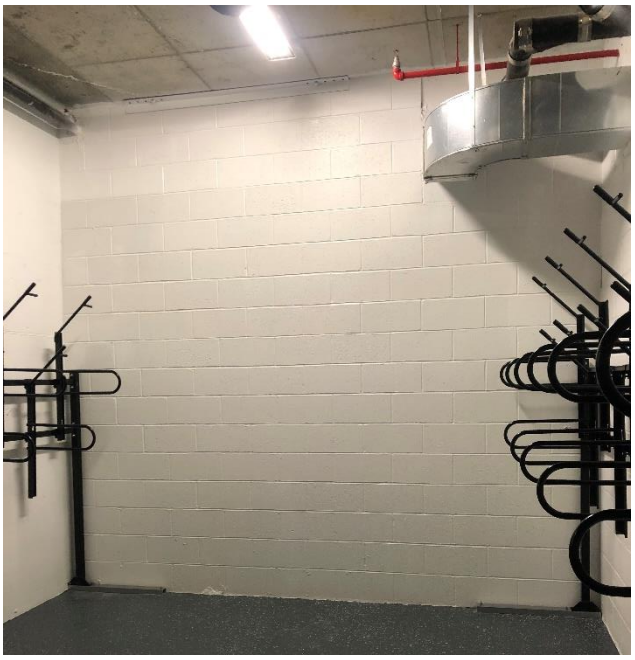
Photograph 1 - View of East and West Towers of the American Copper Building (626 First Avenue; facing northwest. Dated 12/20/2019.



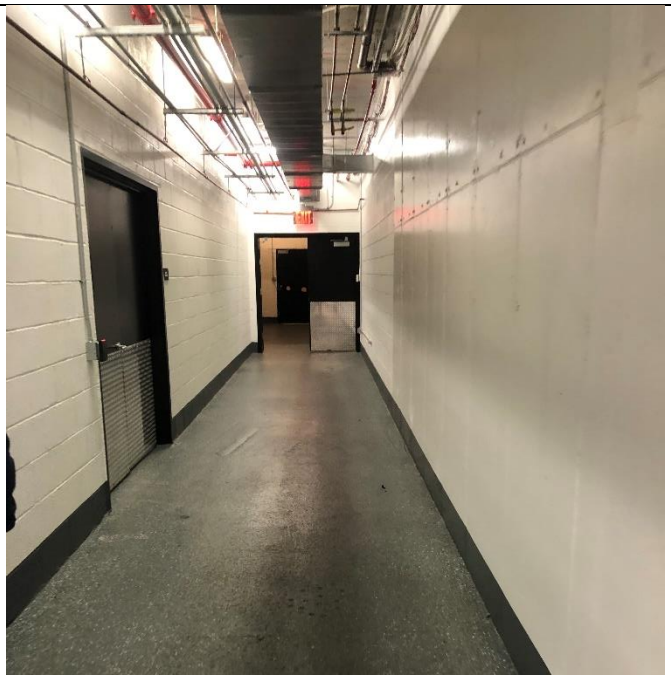
Photograph 2 - View of foundation slab in the tenant storage room in the sub-cellar of 626 First Avenue; facing west. Dated 12/20/2019.



Photograph 3 - View of foundation slab in the bicycle storage room in the sub-cellar of 626 First Avenue; facing north. Dated 12/20/2019.



Photograph 4 - View of wall in the sub-cellar; facing west. Dated 12/20/2019.



Photograph 5 - View of typical hallway concrete slab in the sub-cellar; facing east. Dated 12/20/2019.

Photograph 6 - View of car lift in the cellar parking garage fastened with 3-inch bolts and sealed with epoxy; facing north. Dated 12/20/2019.

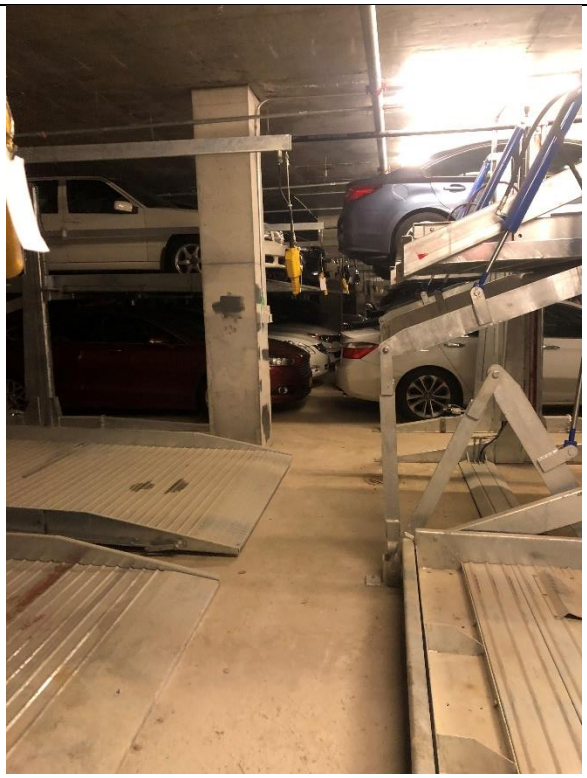
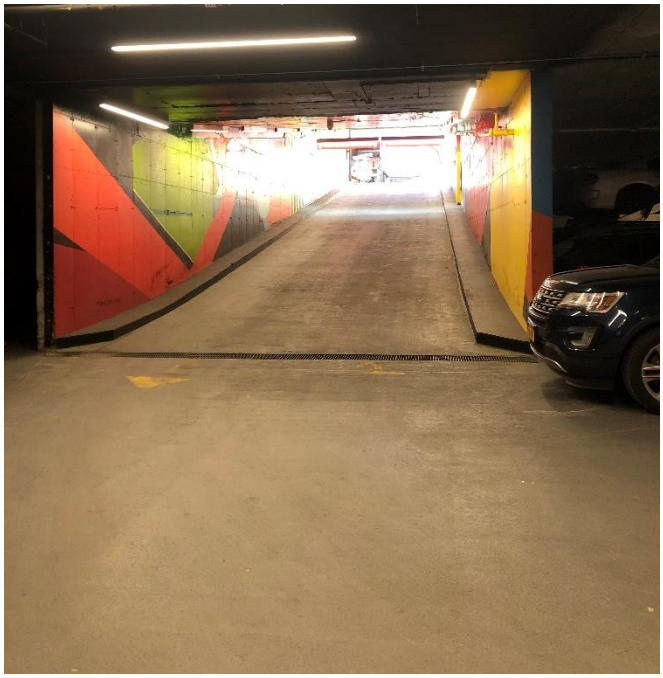
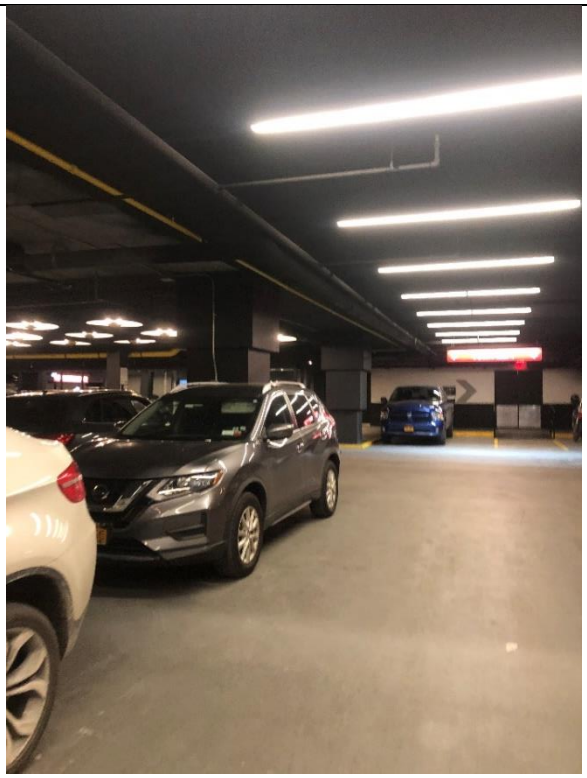


Photo 7 – View of car lifts in the cellar parking garage, facing south. Dated 12/20/2019.



Photograph 8 - View of cellar parking garage egress ramp to street; facing south. Dated 12/20/2019.



Photograph 9 – View of cellar parking garage; facing north. Dated 12/20/2019.

Photo 10 – View of cellar concrete slab. Dated 12/20/2019.

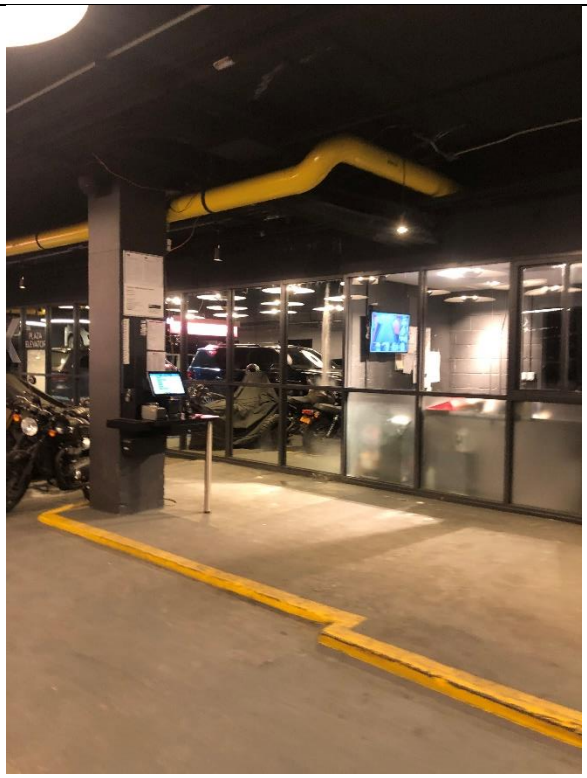


Photo 11 – View of parking garage attending area, facing northwest. Dated 12/20/2019.

Photo 12 – View of foundation slab in sub-cellar. Dated 12/20/2019.

Photograph 13 – View of 626 First Avenue building entrance; facing south. Dated 12/20/2019.

Photograph 14 - View of building façade; facing north. Dated 7/10/2020

Photograph 15- View of the southeast corner of the site, where the utility easement area is located and capped with concrete. Planters and landscape pavers were placed above the concrete cover in this area; facing east. Dated 7/10/2020.

Photograph 16 - View of the sidewalk in the southeast corner of the site; facing south. Dated 7/10/2020.

Photograph 17 - View of the sidewalk and landscaped areas placed over concrete cover in the southeast corner of the site (utility easement area); facing east. Dated 7/10/2020.

Photograph 18 - View of P.S. 281 situated in the southwest corner of the site; facing west. Dated 7/10/2020.