434 MANHATTAN AVENUE

BROOKLYN, NEW YORK 11222

Remedial Action Report

NYC VCP Number: 14CVCP218K

E-Designation Site Number: 14EHAZ256K

Prepared for:

434 Manhattan Avenue LLC
1303 53rd Street STE 308
Brooklyn, NY 11219

Prepared by:

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EBC

ENVIRONMENTAL BUSINESS CONSULTANTS

1808 Middle Country Road

Ridge, NY 11961

AUGUST 2016

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LIST OF ACRONYMS

Acronym	Definition
CAMP	Community Air Monitoring Plan
DER-10	NYS DEC Division of Environmental Remediation Technical Guidance Manual 10
EC	Engineering Control
HASP	Health and Safety Plan
IC	Institutional Control
NYC VCP	New York City Voluntary Cleanup Program
NYC DEP	New York City Department of Environmental Protection
NYC DOHMH	New York City Department of Health and Mental Hygiene
NYC OER	New York City Office of Environmental Remediation
ORC	Oxygen Release Compound
PID	Photoionization Detector
QA/QC	Quality Assurance/Quality Control
QEP	Qualified Environmental Professional
RAR	Remedial Action Report
RAWP	Remedial Action Work Plan
SCG	Standards, Criteria and Guidance
SCO	Soil Cleanup Objective
SMMP	Soil/Materials Management Plan
SMP	Site Management Plan
SVOCs	Semi-Volatile Organic Compounds
UST	Underground Storage Tank
VOCs	Volatile Organic Compounds

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CERTIFICATION

I, Ariel Czemerinski, certify:

- I am currently a registered professional engineer licensed by the State of New York.
- I performed professional engineering services and had primary direct responsibility for implementation of the remedial program for the redevelopment project located at 434 Manhattan Avenue, Brooklyn, NY, site number 14CVCP218K.
- I have reviewed this document, to which my signature and seal are affixed.
- Engineering Controls implemented during this remedial action were designed by me or a person under my direct supervision and achieve the goals established in the Remedial Action Work Plan for this site.
- The Engineering Controls constructed during this remedial action were professionally observed by me or by a person under my direct supervision and (1) are consistent with the Engineering Control design established in the Remedial Action Work Plan; (2) are accurately reflected in the text and drawings for as-built design reported in this Remedial Action Report; and (3) will achieve the goal of the Remedial Action Work Plan to prevent soil vapor intrusion and provide protection of public health for the occupants of the building.
- The OER-approved Remedial Action Work Plan dated March 2014 and Stipulations in a letter dated April 14, 2014, were implemented and that all requirements in those documents have been substantively complied with. I certify that contaminated soil, fill, liquids or other material from the property were taken to facilities licensed to accept this material in full compliance with applicable laws and regulations.

Name Ariel Czemerinski

PE License Number 076508

Signature

Date 8/15/2016

I, Kevin Brussee, certify:

- I am a Qualified Environmental Professional.
- I had primary direct responsibility for implementation of the remedial program for the redevelopment project located at 434 Manhattan Avenue, Brooklyn, NY, site number 14CVCP218K .
- The OER-approved Remedial Action Work Plan dated March 2014 and Stipulations in a letter dated April 14, 2014, were implemented and that all requirements in those documents have been substantively complied with. I certify that contaminated soil, fill, liquids or other material from the property were taken to facilities licensed to accept this material in full compliance with applicable laws and regulations.

QEP Name KEVIN BRUSSEE

QEP Signature

Date 8/15/2016

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EXECUTIVE SUMMARY

434 Manhattan Avenue LLC has enrolled in the New York City Voluntary Cleanup Program (NYC VCP) to investigate and remediate a property located at 434 Manhattan Avenue in Greenpoint section of Brooklyn, New York. A Remedial Investigation (RI) was performed to compile and evaluate data and information necessary to develop a Remedial Action Work Plan (RAWP). A remedial action was performed pursuant to an OER-approved RAWP in a manner that has rendered the Site protective of public health and the environment consistent with the proposed use of the property. This RAR describes the remedial action performed under the RAWP. The remedial action described in this document provides for the protection of public health and the environment, complies with applicable environmental standards, criteria and guidance and applicable laws and regulations.

Site Location and Prior Usage

The Site is located at 434 Manhattan Avenue in the Greenpoint section of Brooklyn, New York, and is identified as Block 2724 and Lot 7 on the New York City Tax Map. Figure 1 shows the Site location. The Site is 2,350-square feet and is bounded by Bayard Street and Block 2719 Lots 36 and 7501, multi-story mixed use and residential properties, to the north, Block 2724 Lots 1 and 37, a residential building and an auto repair center to the south, Block 2724 Lot 10, a warehouse building to the east, and Manhattan Avenue and Block 2723 Lots 21 and 27, multi-story industrial/manufacturing properties, to the west. A map of the site boundary is shown in Figure 2.

Prior to redevelopment, the Site was developed with a single-story commercial building that was occupied with a dog grooming company, office space and an auto body shop which operated out of a small auto bay along the southern property line.

Summary of Redevelopment Plan

The Site has been redeveloped with a new 4-story residential building with a full cellar. The new building covers approximately 90% of the lot and the remaining sections on the northern and southern portions of the lot are capped with concrete. The current zoning designation for the Site is M1-2/R6A. The new use is consistent with existing zoning for the property.

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The cellar extends below the entire building and consists of the hot water heater room, electric meter room, gas meter room, sprinkler room, a restroom and laundry room, and accessory storage space for the apartments above. The cellar slab was installed at a depth of approximately 6 feet below sidewalk grade. Therefore, the majority of the Site required excavation to a depth of approximately 7 to 8 feet below grade for the buildings footings/foundation. Sloped excavation was required in the northern and southern concrete capped courtyard areas for installation of the building's cellar foundation. A minimum of 1 ft of excavation was performed within the non-sloped portions. A total of approximately 1,185 tons of soil was excavated and disposed off-Site. Layout of the proposed site development is presented in Figure 3.

Summary of Past Uses of Site and Environmental Findings

EBC was able to establish the following site history based upon Sanborn maps dating back to 1887:

- In 1887 the property is listed as part of a rope walk and is then vacant from 1905 through 1916.
- At some point between 1916 and 1942 the property was utilized for plumbing storage followed by a pretzel warehouse in 1951.
- From 1951 through 2007 the property was occupied by an auto repair facility.

The AOCs identified for this Site include:

1. Historic fill layer is present at the Site from grade to depths as great as 2 feet below grade.
2. Historic use of the property as an auto repair facility.

Summary of the Work Performed under the Remedial Investigation

434 Manhattan Avenue LLC performed the following scope of work:

1. Conducted a Site inspection to identify AOCs and physical obstructions (i.e. structures, buildings, etc.);
2. Installed three soil borings across the entire project Site, and collected six soil samples and one duplicate soil sample for chemical analysis from the soil borings to evaluate soil quality;

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3. Installed three groundwater monitoring wells throughout the Site to establish groundwater flow and collected three groundwater samples and one duplicate groundwater sample for chemical analysis to evaluate groundwater quality;
4. Installed three soil vapor probes and collected three samples for chemical analysis; and
5. Performed a supplemental soil/groundwater investigation on December 10, 2014, in accordance with the Remedial Action Work Plan. The supplemental investigation included the installation of one soil boring to collect two soil samples from the northern tip of the lot, and the installation of one groundwater monitoring well in the northern tip of the lot to collect one groundwater sample for chemical analysis. A copy of the Supplemental Soil/GW Investigation report is included in Appendix N.

Summary of Environmental Findings

1. Elevation of the property is approximately 14 to 15 feet.
2. Depth to groundwater ranges from 6.45 feet to 7.51 feet at the Site.
3. Groundwater flow is generally from northeast to southwest beneath the Site.
4. Depth to bedrock at the Site is greater than 100 feet.
5. Soil borings performed as part of the Remedial Investigation Report indicated the stratigraphy of the Site, from the surface down, consisted of 2 feet of historic fill underlain by brown and black silty sand. However, historic fill material was found to extend to depths as great as 8 feet below grade during remedial activities.
6. Soil/fill samples collected during the RI showed trace concentrations of eight VOCS, well below Track 1 Unrestricted Use SCOs. Six SVOCs including benzo(a)anthracene (max. of 9,900 µg/Kg), benzo(a)pyrene (max. of 8,900 µg/Kg), benzo(b)fluoranthene (max. of 9,900 µg/Kg), chrysene (max. of 10,000 µg/Kg), dibenz(a,h)anthracene (max. of 1,200 µg/Kg), and indeno(1,2,3-cd)pyrene (max. of 3,300 µg/Kg) were detected above their respective Track 2 Restricted Residential Use SCOs within five of the eight soil samples. Benzo(k)fluoranthene was also detected above its Track 1 Unrestricted Use SCOs, at a maximum concentration of 2,700 µg/Kg in three of the six soil samples. One pesticide, 4,4'-DDT was detected in the shallow soil sample, at a concentration of 12 µg/Kg, well below its Restricted Residential SCO. 4,4'-DDE was detected in the duplicate sample. PCB-1254 (110 µg/Kg) was detected above Unrestricted Use SCOs

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within the shallow soil sample collected in the northern tip of the lot. Metals including arsenic (max. of 85.3 mg/Kg), barium (max. of 442 mg/Kg), cadmium (max. of 5.63 mg/Kg), chromium (max. of 1,790 mg/Kg), copper (max. of 1,400 mg/Kg), lead (max. of 1,370 mg/Kg) and mercury (max. of 7.77 mg/Kg) exceeded Restricted Residential SCOs in all six soil samples obtained. Zinc (max. of 1,770 mg/Kg) also exceeded Unrestricted Use SCOs. Overall, the findings were consistent with observations for historic fill sites in areas throughout NYC.

7. Groundwater samples collected during the RI showed no PCBs detected above NYSDEC 6NYCRR Part 703.5 Groundwater Quality Standards (GQS). Three VOCs, hexachlorobutadiene (1 µg/L), methylene chloride (6.1 µg/L), and MTBE (max. of 14 µg/L), were detected in groundwater at concentrations exceeding their GQS. Three VOCs, including acetone (4.2 µg/L), cis-1,2-dichloroethene (0.23 µg/L), and toluene (2.2 µg/L) were detected within the groundwater sample collected from the northern tip of the lot at concentrations below GQS. Five SVOCs, benzo(a)anthracene (max. of 1.2 µg/L), benzo(b)fluoranthene (max of 1.2 µg/L), benzo(k)fluoranthene (max. of 0.42 µg/L), chrysene (max. of 0.87 µg/L), and indeno(1,2,3-cd)pyrene (max. of 0.38 µg/L) were detected in groundwater at concentrations above GQS. The pesticide dieldrin (0.009 µg/L) was detected above GQS within the groundwater sample collected from the northern tip of the lot. Several metals were detected, but only iron, manganese, and sodium, exceeded their respective GQS.
8. Soil vapor samples collected during the RI showed low levels of petroleum related compounds and slightly elevated levels of chlorinated VOCs in all soil vapor samples. Total concentrations of petroleum-related VOCs (BTEX) ranged from 41.45 µg/m^3 to 157.17 µg/m^3. Overall the highest reported concentrations were for acetone (maximum of 546 µg/m^3) and MTBE (maximum of 706 µg/m^3). Several chlorinated VOCs were detected at concentrations above the monitoring level ranges established within the New York State Department of Health (NYSDOH) Final Guidance on Soil Vapor Intrusion (October 2006) values (AGVs). Tetrachloroethylene (PCE) were detected in all three soil gas samples at concentrations ranging from 8 µg/m^3 to 82 µg/m^3. Trichloroethene (TCE) was also detected in all three soil gas samples at concentrations ranging from 0.752 µg/m^3 to 80.6 µg/m^3. Carbon tetrachloride and 1,1,1-tetrachloroethane both exceeded the

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NYSDOH monitoring level ranges, at concentrations of 8.42 µg/m^3 and 143 µg/m^3, respectively.

Summary of the Remedy

A summary of the milestones achieved in the Remedial Action is as follows: A Pre-Application Meeting was held on November 12, 2013. A Remedial Investigation (RI) was performed between October and November of 2013. A RI Report dated December 2013 was prepared to evaluate data and information necessary to develop a Remedial Action Work Plan (RAWP). A Site Contact List was established and a RAWP dated March 2014 was prepared and released with a Fact Sheet on March 24, 2014, for a 30-day public comment period. The RAWP with a Stipulation List dated April 14, 2014, was approved by the New York City Office of Environmental Remediation (OER) on May 15, 2014. A pre-construction meeting was held on December 9, 2014. A Fact Sheet providing notice of the start of the remedial action was issued on December 15, 2014. The remedial action was begun in January of 2015 and completed in May of 2015.

The remedial action consisted of the following tasks:

1. Installed one soil boring in the northern tip of the lot to collect two soil samples and one groundwater sample, and submitted a Supplemental Soil/GW Investigation Report;
2. Prepared a Community Protection Statement and implemented a Citizen Participation Plan;
3. Performed four delineation soil borings around Remedial Investigation soil sample B5(0-2) to collect horizontal and vertical delineation soil samples for laboratory analysis of VOCs;
4. Sampled and analyzed excavated media as required by disposal facilities.
5. Mobilized site security, equipment, utility mark outs and marking & staking excavation areas;
6. Implemented of storm-water pollution prevention measures in compliance with applicable laws and regulations;
7. Performed a Community Air Monitoring Program for particulates and volatile organic carbon compounds during soil disturbance activities;

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8. Established Track 4 Site Specific Soil Cleanup Objectives (SCOs). The following excavations were performed: Soil was excavated to a depth of approximately 7 to 8 feet beneath the area of the new building and southwestern open space area and soil was excavated to a depth of approximately 2 foot in the north open space area. A total of approximately 1,185.85 tons of soil/fill were excavated and removed from the property. All soil/fill excavated from the Site was disposed at the Soil Safe – Logan Facility;
9. Screened excavated soil/fill during intrusive work for indications of contamination by visual means, odor, and monitoring with a PID;
10. Collected and analyzed end-point samples to determine the performance of the remedy with respect to attainment of Track 4 Site-Specific SCOs. Endpoints did not achieve Track 4 SCOs but have been determined to be protective of public health with Engineering and Institutional Controls.
11. Installed a waterproofing/vapor barrier system. The waterproofing membrane installed below the entire cellar slab was Grace Preprufe® 300R. Preprufe® 300R is a 1.2 mm (0.046in) thick HDPE film with a pressure sensitive adhesive that bonds to the poured concrete. Grace Preprufe®, model number 160R was installed behind the eastern cellar wall to grade. Preprufe® 160R is a 0.8 mm (0.032in) thick HDPE film with a pressure sensitive adhesive that bonds to the poured concrete. All seams, penetrations, and repairs were sealed utilizing the tape method, in accordance with the manufacturer's installation instructions. Waterproofing consisting of Procor® 75 was sprayed at a thickness of 60-mil to the exterior of the north, west and south cellar foundation walls. Procor® 75 is a two component, synthetic rubber, cold vulcanized, fluid applied waterproofing membrane. It cures to form a resilient, monolithic, fully bonded elastomeric sheet. The waterproofing/vapor barrier system is a permanent Engineering Control. The waterproofing contractor Drip Drop Waterproofing installed the waterproofing/vapor barrier system.
12. Constructed an engineered composite cover to prevent human exposure to residual soil/fill remaining under the Site. The engineered composite cover system consists of the building's 4 inch concrete cellar slab underlain by a 6 inch layer of ¾" gravel, and a 4 inch thick concrete slab underlain by a 6 inch layer of ¾" gravel in the northern tip of the

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Site, and sidewalk area in front of the building's entrance. The contractor for the cover construction was Casa Concrete;

13. The building cellar is built below the water table and is protected by a waterproofing and vapor barrier. There is no vadose zone beneath the building slab and active ventilation of the sub-slab area was not contemplated because there was no potential for the accumulation of soil vapors;
14. Imported materials for backfill in compliance with this plan and in accordance with applicable laws and regulations;
15. Residual materials are present beneath the cover layer and will be subject to Site Management under this Remedial Action;
16. Performed all activities required for the remedial action, including permitting requirements and pretreatment requirements, in compliance with applicable laws and regulations;
17. Submitted a Sustainability Report;
18. Submitted a RAR that: certifies that the remedial requirements have been achieved; defines the Site boundaries: describes all Engineering and Institutional Controls applicable to the Site; includes a Site Management Plan; and describes the remedial activities including any changes from the RAWP;
19. Submitted a Site Management Plan (SMP) for long-term management of residual soil, including plans for operation, maintenance, inspection and certification of the performance of Engineering Controls and Institutional Controls. Inspections will be performed annually. Inspection and Certification reports will be submitted by July 31, 2026 (for calendar years 2016-2025), and by July 31 every tenth year thereafter. Inspection and Certification Reports will cover all calendar years since the prior reporting period; and
20. The property will continue to be registered with an E-Designation by the NYC Department of Buildings. Engineering Controls and Institutional Controls will be managed in compliance with the SMP. Institutional Controls will include prohibition of the following: (1) prohibition of vegetable gardening and farming in residual soil; (2) prohibition of the use of groundwater beneath the site without treatment rendering it safe for the intended use; (3) prohibition of disturbance of residual soil material unless it is

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conducted in accordance with the SMP; and (4) prohibition of higher levels of land usage than the restricted residential uses addressed by this remedial action without prior notification and approval by OER.

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REMEDIAL ACTION REPORT

1.0 OVERVIEW

434 Manhattan Avenue LLC has enrolled in the New York City Voluntary Cleanup Program (NYC VCP) to investigate and remediate a property located at 434 Manhattan Avenue in Greenpoint section of Brooklyn, New York. The boundary of the property subject to this Remedial Action is shown in Figure 2 and includes, in its entirety, Brooklyn, Block 2724, Lot 7. The Remedial Action was performed pursuant to the OER-approved RAWP in a manner that has rendered the property protective of public health and the environment consistent with its intended use. This RAR describes the remedial action performed under the RAWP. The remedial action described in this document provides for the protection of public health and the environment, complies with applicable environmental standards, criteria and guidance and applicable laws and regulations.

1.1 Site Location and Prior Usage

The Site is located at 434 Manhattan Avenue in the Greenpoint section of Brooklyn, New York, and is identified as Block 2724 and Lot 7 on the New York City Tax Map. Figure 1 shows the Site location. The Site is 2,350-square feet and is bounded by Bayard Street and Block 2719 Lots 36 and 7501, multi-story missed use and residential properties, to the north, Block 2724 Lots 1 and 37, a residential building and an auto repair center to the south, Block 2724 Lot 10, a warehouse building to the east, and Manhattan Avenue and Block 2723 Lots 21 and 27, multi-story industrial/manufacturing properties, to the west. A map of the site boundary is shown in Figure 2.

Prior to redevelopment, the Site was developed with a single-story commercial building that was occupied with a dog grooming company, office space and an auto body shop which operated out of a small auto bay along the southern property line.

1.2 Summary of Redevelopment Plan

The Site has been redeveloped with a new 4-story residential building with a full cellar. The new building covers approximately 90% of the lot and the remaining sections on the northern and

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southern portions of the lot are capped with concrete. The current zoning designation for the Site is M1-2/R6A. The new use is consistent with existing zoning for the property.

The cellar extends below the entire building and consists of the hot water heater room, electric meter room, gas meter room, sprinkler room, a restroom and laundry room, and accessory storage space for the apartments above. The cellar slab was installed at a depth of approximately 6 feet below sidewalk grade. Therefore, the majority of the Site required excavation to a depth of approximately 7 to 8 feet below grade for the buildings footings/foundation. Sloped excavation was required in the northern and southern concrete capped courtyard areas for installation of the building's cellar foundation. A minimum of 1 ft of excavation was performed within the non-sloped portions. A total of approximately 1,185 tons of soil was excavated and disposed off-Site. Layout of the proposed site development is presented in Figure 3.

1.3 Description of Surrounding Property

The area surrounding the Site consists of a mix of residential, industrial properties, and vacant properties. Figure 4 shows the surrounding land usage of the adjacent properties listed below as well as additional properties located up to 500 feet away from the Site. No hospitals, daycare facilities or schools are located within a 250 ft radius of the Site.

Surrounding Property Usage

Direction	Property Description
North – Opposite side of Bayard Street	Block 2719, Lot 7501 (460 Manhattan Avenue) – Developed as a parking lot and 6-story mixed-use commercial/residential building. Block 2719, Lot 7501 (133 Bayard Street) – Developed as a 2-story dwelling.
South – Adjacent property	Block 2724, Lot 1 (411 Meeker Avenue) – Developed with 3-story mixed-use commercial/apartment building. The rear of the property is a parking lot used by the adjacent property (Lot 37). Block 2724, Lot 37 (417 Meeker Avenue) – Developed with a 1-story auto repair building and rear parking/storage area.
East – Adjacent Property	Block 2724, Lot 10 (130 Bayard Street) – Developed with a 1-story warehouse.
West – Opposite side of Manhattan Avenue	Block 2723, Lot 21 (423 Manhattan Avenue) – Developed with a 2-story apartment building.

1.4 Remedial Investigation

A remedial investigation was performed and the results are documented in a document called "*Remedial Investigation Report, 434 Manhattan Avenue*", dated December 2013 (RIR).

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Summary of Past Uses of Site and Areas of Concern

EBC was able to establish the following site history based upon Sanborn maps dating back to 1887:

- In 1887 the property is listed as part of a rope walk and is then vacant from 1905 through 1916.
- At some point between 1916 and 1942 the property was utilized for plumbing storage followed by a pretzel warehouse in 1951.
- From 1951 through 2007 the property was occupied by an auto repair facility.

The AOCs identified for this Site include:

1. Historic fill layer is present at the Site from grade to depths as great as 2 feet below grade.
2. Historic use of the property as an auto repair facility.

Summary of the Work Performed under the Remedial Investigation

434 Manhattan Avenue LLC performed the following scope of work:

1. Conducted a Site inspection to identify AOCs and physical obstructions (i.e. structures, buildings, etc.);
2. Installed three soil borings across the entire project Site, and collected six soil samples and one duplicate soil sample for chemical analysis from the soil borings to evaluate soil quality;
3. Installed three groundwater monitoring wells throughout the Site to establish groundwater flow and collected three groundwater samples and one duplicate groundwater sample for chemical analysis to evaluate groundwater quality;
4. Installed three soil vapor probes and collected three samples for chemical analysis; and
5. Performed a supplemental soil/groundwater investigation on December 10, 2014, in accordance with the Remedial Action Work Plan. The supplemental investigation included the installation of one soil boring to collect two soil samples from the northern tip of the lot, and the installation of one groundwater monitoring well in the northern tip of the lot to collect one groundwater sample for chemical analysis. A copy of the Supplemental Soil/GW Investigation report is included in Appendix N.

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Summary of Environmental Findings

1. Elevation of the property is approximately 14 to 15 feet.
2. Depth to groundwater ranges from 6.45 feet to 7.51 feet at the Site.
3. Groundwater flow is generally from northeast to southwest beneath the Site.
4. Depth to bedrock at the Site is greater than 100 feet.
5. Soil borings performed as part of the Remedial Investigation Report indicated the stratigraphy of the Site, from the surface down, consisted of 2 feet of historic fill underlain by brown and black silty sand. However, historic fill material was found to extend to depths as great as 8 feet below grade during remedial activities.
6. Soil/fill samples collected during the RI showed trace concentrations of eight VOCS, well below Track 1 Unrestricted Use SCOs. Six SVOCs including benzo(a)anthracene (max. of 9,900 µg/Kg), benzo(a)pyrene (max. of 8,900 µg/Kg), benzo(b)fluoranthene (max. of 9,900 µg/Kg), chrysene (max. of 10,000 µg/Kg), dibenz(a,h)anthracene (max. of 1,200 µg/Kg), and indeno(1,2,3-cd)pyrene (max. of 3,300 µg/Kg) were detected above their respective Track 2 Restricted Residential Use SCOs within five of the eight soil samples. Benzo(k)fluoranthene was also detected above its Track 1 Unrestricted Use SCOs, at a maximum concentration of 2,700 µg/Kg in three of the six soil samples. One pesticide, 4,4'-DDT was detected in the shallow soil sample, at a concentration of 12 µg/Kg, well below its Restricted Residential SCO. 4,4'-DDE was detected in the duplicate sample. PCB-1254 (110 µg/Kg) was detected above Unrestricted Use SCOs within the shallow soil sample collected in the northern tip of the lot. Metals including arsenic (max. of 85.3 mg/Kg), barium (max. of 442 mg/Kg), cadmium (max. of 5.63 mg/Kg), chromium (max. of 1,790 mg/Kg), copper (max. of 1,400 mg/Kg), lead (max. of 1,370 mg/Kg) and mercury (max. of 7.77 mg/Kg) exceeded Restricted Residential SCOs in all six soil samples obtained. Zinc (max. of 1,770 mg/Kg) also exceeded Unrestricted Use SCOs. Overall, the findings were consistent with observations for historic fill sites in areas throughout NYC.
7. Groundwater samples collected during the RI showed no PCBs detected above NYSDEC 6NYCRR Part 703.5 Groundwater Quality Standards (GQS). Three VOCs, hexachlorobutadiene (1 µg/L), methylene chloride (6.1 µg/L), and MTBE (max. of 14 µg/L), were detected in groundwater at concentrations exceeding their GQS. Three

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VOCs, including acetone (4.2 µg/L), cis-1,2-dichloroethene (0.23 µg/L), and toluene (2.2 µg/L) were detected within the groundwater sample collected from the northern tip of the lot at concentrations below GQS. Five SVOCs, benzo(a)anthracene (max. of 1.2 µg/L), benzo(b)fluoranthene (max of 1.2 µg/L), benzo(k)fluoranthene (max. of 0.42 µg/L), chrysene (max. of 0.87 µg/L), and indeno(1,2,3-cd)pyrene (max. of 0.38 µg/L) were detected in groundwater at concentrations above GQS. The pesticide dieldrin (0.009 µg/L) was detected above GQS within the groundwater sample collected from the northern tip of the lot. Several metals were detected, but only iron, manganese, and sodium, exceeded their respective GQS.

8. Soil vapor samples collected during the RI showed low levels of petroleum related compounds and slightly elevated levels of chlorinated VOCs in all soil vapor samples. Total concentrations of petroleum-related VOCs (BTEX) ranged from 41.45 µg/m^3 to 157.17 µg/m^3. Overall the highest reported concentrations were for acetone (maximum of 546 µg/m^3) and MTBE (maximum of 706 µg/m^3). Several chlorinated VOCs were detected at concentrations above the monitoring level ranges established within the New York State Department of Health (NYSDOH) Final Guidance on Soil Vapor Intrusion (October 2006) values (AGVs). Tetrachloroethylene (PCE) were detected in all three soil gas samples at concentrations ranging from 8 µg/m^3 to 82 µg/m^3. Trichloroethene (TCE) was also detected in all three soil gas samples at concentrations ranging from 0.752 µg/m^3 to 80.6 µg/m^3. Carbon tetrachloride and 1,1,1-tetrachloroethane both exceeded the NYSDOH monitoring level ranges, at concentrations of 8.42 µg/m^3 and 143 µg/m^3, respectively.

For more detailed results, consult the RIR. Based on an evaluation of the data and information from the RIR and this RAWP, disposal of significant amounts of hazardous waste is not suspected at this Site.

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2.0 DESCRIPTION OF REMEDIAL ACTIONS

The remedial action was performed in accordance with an OER approved Remedial Action Work Plan and achieved the remedial action objectives established for the project. The remedial action was evaluated in an alternatives analysis and was determined to be protective of human health and the environment, compliant with standards, criteria, and guidelines (SCGs), effective in the short-term, effective in the long-term, capable of attaining appropriate levels of reduction of toxicity, mobility, or volume of contaminated material, implementable, cost effective, acceptable to the community, consistent with land uses, and sustainable.

A summary of the milestones achieved in the Remedial Action is as follows: A Pre-Application Meeting was held on November 12, 2013. A Remedial Investigation (RI) was performed between October and November of 2013. A RI Report dated December 2013 was prepared to evaluate data and information necessary to develop a Remedial Action Work Plan (RAWP). A Site Contact List was established and a RAWP dated March 2014 was prepared and released with a Fact Sheet on March 24, 2014, for a 30-day public comment period. The RAWP with a Stipulation List dated April 14, 2014, was approved by the New York City Office of Environmental Remediation (OER) on May 15, 2014. A pre-construction meeting was held on December 9, 2014. A Fact Sheet providing notice of the start of the remedial action was issued on December 15, 2014. The remedial action was begun in January of 2015 and completed in May of 2015.

The remedial action consisted of the following actions:

1. Installed one soil boring in the northern tip of the lot to collect two soil samples and one groundwater sample, and submitted a Supplemental Soil/GW Investigation Report;
2. Prepared a Community Protection Statement and implemented a Citizen Participation Plan;
3. Performed four delineation soil borings around Remedial Investigation soil sample B5(0-2) to collect horizontal and vertical delineation soil samples for laboratory analysis of VOCs;
4. Sampled and analyzed excavated media as required by disposal facilities.
5. Mobilized site security, equipment, utility mark outs and marking & staking excavation areas;

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6. Implemented of storm-water pollution prevention measures in compliance with applicable laws and regulations;
7. Performed a Community Air Monitoring Program for particulates and volatile organic carbon compounds during soil disturbance activities;
8. Established Track 4 Site Specific Soil Cleanup Objectives (SCOs). The following Track 4 SCOs were utilized:

Contaminant	**Track 4 Site-Specific SCOs**
Total SVOCs	250 ppm
Arsenic	23 ppm
Lead	1,000 ppm
Mercury	2.5 ppm

9. The following excavations were performed: Soil was excavated to a depth of approximately 7 to 8 feet beneath the area of the new building and southwestern open space area and soil was excavated to a depth of approximately 2 foot in the north open space area. A total of approximately 1,185.85 tons of soil/fill were excavated and removed from the property. All soil/fill excavated from the Site was disposed at the Soil Safe – Logan Facility;
10. Screened excavated soil/fill during intrusive work for indications of contamination by visual means, odor, and monitoring with a PID;
11. Collected and analyzed end-point samples to determine the performance of the remedy with respect to attainment of Track 4 Site-Specific SCOs. Endpoints did not achieve Track 4 SCOs but have been determined to be protective of public health with Engineering and Institutional Controls.
12. Installed a waterproofing/vapor barrier system. The waterproofing membrane installed below the entire cellar slab was Grace Preprufe® 300R. Preprufe® 300R is a 1.2 mm (0.046 in) thick HDPE film with a pressure sensitive adhesive that bonds to the poured concrete. Grace Preprufe®, model number 160R was installed behind the eastern cellar wall to grade. Preprufe® 160R is a 0.8 mm (0.032 in) thick HDPE film with a pressure sensitive adhesive that bonds to the poured concrete. All seams, penetrations, and repairs were sealed utilizing the tape method, in accordance with to the manufacturer's

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installation instructions. Waterproofing consisting of Procor® 75 was sprayed at a thickness of 60-mil to the exterior of the north, west and south cellar foundation walls. Procor® 75 is a two component, synthetic rubber, cold vulcanized, fluid applied waterproofing membrane. It cures to form a resilient, monolithic, fully bonded elastomeric sheet. The waterproofing/vapor barrier system is a permanent Engineering Control. The waterproofing contractor Drip Drop Waterproofing installed the waterproofing/vapor barrier system.

13. Constructed an engineered composite cover to prevent human exposure to residual soil/fill remaining under the Site. The engineered composite cover system consists of the building's 4 inch concrete cellar slab underlain by a 6 inch layer of ¾" gravel, and a 4 inch thick concrete slab underlain by a 6 inch layer of ¾" gravel in the northern tip of the Site and sidewalk area in front of the building's entrance. The contractor for the cover construction was Casa Concrete;
14. The building cellar is built below the water table and is protected by a waterproofing and vapor barrier. There is no vadose zone beneath the building slab and active ventilation of the sub-slab area was not contemplated because there was no potential for the accumulation of soil vapors;
15. Imported materials used for backfill in compliance with this plan and in accordance with applicable laws and regulations;
16. Residual soil is present beneath the cover layer and will be subject to Site Management under this Remedial Action;
17. Performed all activities required for the remedial action, including permitting requirements and pretreatment requirements, in compliance with applicable laws and regulations;
18. Submitted a Sustainability Report;
19. Submitted a RAR that: certifies that the remedial requirements have been achieved; defines the Site boundaries: describes all Engineering and Institutional Controls applicable to the Site; includes a Site Management Plan; and describes the remedial activities including any changes from the RAWP;
20. Submitted a Site Management Plan (SMP) for long-term management of residual soil, including plans for operation, maintenance, inspection and certification of the

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performance of Engineering Controls and Institutional Controls. Inspections will be performed annually. Inspection and Certification reports will be submitted by July 31, 2026 (for calendar years 2016-2025), and by July 31 every tenth year thereafter. Inspection and Certification Reports will cover all calendar years since the prior reporting period; and

21. The property will continue to be registered with an E-Designation by the NYC Department of Buildings. Engineering Controls and Institutional Controls will be managed in compliance with the SMP. Institutional Controls will include prohibition of the following: (1) prohibition of vegetable gardening and farming in residual soil; (2) prohibition of the use of groundwater beneath the site without treatment rendering it safe for the intended use; (3) prohibition of disturbance of residual soil material unless it is conducted in accordance with the SMP; and (4) prohibition of higher levels of land usage than the restricted residential uses addressed by this remedial action without prior notification and approval by OER.

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3.0 COMPLIANCE WITH REMEDIAL ACTION WORK PLAN

3.1 Construction Health & Safety Plan (CHASP)

The remedial construction activities performed under this program were in compliance with the Construction Health and Safety Plan and applicable laws and regulations. The Site Safety Coordinator was Kevin Waters - EBC.

3.2 Community Air Monitoring Plan (CAMP)

The Community Air Monitoring Plan provided for the collection and analysis of air samples during remedial construction activities to ensure proper protections were employed to protect workers and the neighboring community. Monitoring was performed in compliance with the Community Air Monitoring Plan in the approved RAWP. The results of Community Air monitoring are shown in Appendix F.

3.3 Soil/Materials Management Plan

The Soil/Materials Management Plan in the RAWP provided detailed plans for managing all soils/materials that were disturbed at the Site, including excavation, handling, storage, transport and disposal. It also included a series of controls to assure effective, nuisance free remedial activity in compliance with applicable laws and regulations. Remedial construction activities performed under this program were in full compliance with the SMMP in the approved RAWP.

3.4 Storm-Water Pollution Prevention

Storm water pollution prevention included physical methods and processes to control and/or divert surface water flows and to limit the potential for erosion and migration of Site soils, via wind or water. Remedial construction activities performed under this program were in full compliance with methods and processes defined in the RAWP for storm water prevention and applicable laws and regulations.

3.5 Deviations From the Remedial Action Work Plan

Deviations from the Remedial Action Work Plan are summarized below:

- The metal mercury was detected above Track 4 SCOs in endpoint soil sample EP4A (3.59 mg/kg). Following discussion with OER, it was decided that it would be protective

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of public health and the environment to manage remaining material in place. The majority of historical fill was removed during the removal action and all remaining fill material would be present under a permanent cover consisting of the new building's 4 inch thick concrete slab underlain by 4 inches of ¾" blue stone, eliminating any potential for public health exposure. The cover will be inspected and maintained over the long term under a Site Management Plan ensuring that the cover remains intact and functioning as designed. Further, any future excavation on the property would be controlled by continued registration of the E-Designation and adherence to the Soil and Materials Management Plan to ensure safe handling and proper reconstruction of the cover when work was complete. The historical fill did not cause significant groundwater quality standard contravention for the parameters that exceeded SCO's and thus do not pose a threat to the environment. On-Site groundwater use prohibitions for potable supply would ensure that there are no direct exposures through ingestion of groundwater.

- A mercury and arsenic hot-spot was identified during the Remedial Investigation within soil sample B1 (8-10). However, due to the close proximity of an adjacent building's foundation, no additional excavation could be safely performed to remove the hot-spot. However, EBC collected one endpoint soil sample "B1 Hot Spot" in the same location as RI soil boring B1, after excavation for the cellar was completed to a depth of 8 feet. The "B1 Hot Spot" endpoint soil sample was submitted to Phoenix for laboratory analysis of mercury and arsenic. A copy of the laboratory report is attached in Appendix G. A tabular summary of the sample results is included on Table 4 (metals). As shown on Table 4, arsenic (12.8 mg/kg) was detected at concentration below the Track 4 Site-Specific SCO of 23 mg/kg. Mercury (3.24 mg/kg) was detected at a concentration slightly higher than the Track 4 Site-Specific SCO of 2.5 mg/kg. Following discussion with OER, OER decided that the mercury and arsenic hot-spot identified during the RI in soil sample B1(8-10) would be protective of public health and the environment to manage remaining material in place.

No other significant deviations from the Remedial Action Work Plan occurred during implementation of the Remedial Action Work Plan.

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4.0 REMEDIAL PROGRAM

4.1 Project Organization

The PE responsible for implementation of the remedial action for this project was Ariel Czemerinski P.E., AMC Engineering. On-Site air monitoring in accordance with the CHASP and CAMP, soil screening and soil sampling was performed by either Kevin Waters or Greg Swirson of EBC. The Qualified Environmental Professional which implemented the remedial action was Kevin Brussee, Senior Project Manager-EBC.

The excavation and foundation contractor was Casa Concrete, and the developer was 2455 8 Ave LLC.

4.2 Site Controls

Site Preparation

Plans for the building alteration for 434 Manhattan Avenue (NYC DOB Job number NB-320595316) were approved on December 15, 2014. Waste characterization soil sampling was performed on December 10, 2014, prior to mobilization to obtain soil disposal approval and to minimize the need for on-Site soil stockpiles. On January 12, 2015, equipment was mobilized to the Site to begin excavation of on-Site soil.

Soil Screening

All intrusive soil excavation activities were overseen by an EBC qualified environmental professional (QEP). In addition to extensive sampling and chemical testing of soils on the Site, excavated soil was screened continuously using hand-held instruments, by sight, and by smell to ensure proper material handling and management, and community protection. Soil consisting of historic fill was excavated to depths as great as 8 feet below grade for the new building. Native soil was not encountered at the base of the excavation. No physical or olfactory evidence of a spill was observed during Site excavation.

Stockpile Management

For the majority of the project, soil was excavated from the ground and live loaded into trucks to eliminate the need for stockpiling. However, any soil stockpiles that were generated and kept overnight were covered with 6-mil poly-sheeting to prevent dust. Stockpile covers were

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inspected by the EBC QEP.

Truck Inspection

Due to the small size of the Site, trucks were staged on the concrete sidewalk or in the street and directly loaded with soil. Before exiting the Site, trucks were examined for evidence of contaminated soil on the undercarriage, body, and wheels. All soil/debris that fell on the sidewalk during loading was removed utilizing brooms or shovels.

Site Security

An 8-ft high construction fence was constructed across the front of the Site. The fence was locked with a chain and padlock during non-working hours/days.

Nuisance Controls

No petroleum or other odors were detected during soil screening and no complaints were reported. Dust was minimized by excavating and live-loading directly into trucks, and covering stockpiles with 6-mil poly sheeting overnight during off-work hours.

Reporting

Daily status reports were prepared and forwarded to the OER project manager for construction days in which soil disturbance activities were performed (soil excavation/loading). A copy of each of the daily status reports is included in Appendix E.

Digital photographs of the remedial action are included in Appendix D.

4.3 Materials Excavation and Removal

Historic Fill was encountered across the Site from grade to the final excavation depth (approximately 7 to 8 feet). Excavation and removal of historic fill material for installation of the new building's foundation and cellar was completed from January to March of 2015. The laboratory results of endpoint soil sample EP4 noted mercury at 4.24 ppm and above Track 4 Site-Specific SCO of 2.5 ppm, so additional excavation of approximately 1 foot was performed in the EP4 soil sample collection location. A follow-up endpoint soil sample (EP4A) was collected and submitted to Phoenix for laboratory analysis of SVOCs (EPA Method 8270) and mercury. As shown on Table 4, mercury (3.59 mg/kg) was detected at a concentration marginally

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above Track 4 Site-Specific SCO of 2.5 mg/kg. Following discussion with OER, OER determined that it was decided that it would be protective of public health and the environment to manage remaining material in place.

A mercury hot-spot was identified during the Remedial Investigation within soil sample B1 (8-10). However, due to the close proximity of an adjacent building's foundation, no additional excavation could be safely performed to remove the hot-spot. Excavation was performed to a depth of approximately 7 to 8 feet for the new building. Because soil boring B1 was performed so close to the adjacent property, and because the adjacent building's foundation was approximately 8 feet below grade, any excavation beyond 8 feet would have undermined the adjacent building's foundation. The approximate installation location of soil boring RI is shown on Figure 5. The excavation contractor stated additional excavation was not structurally safe, and following a conversation with OER, it was determined that it would be protective of public health and the environment to manage remaining soil contamination in place. A total of 1,185.85 tons of soil was removed and transported to Soil Safe – Logan Facility. A map showing the location where excavations were performed is shown in Figure 5. No material was reused on-Site.

End Point Sample Results

In March of 2015, EBC collected endpoint soil samples EP1 through EP5 from within the area of the Site that was excavated to a depth of approximately 7 to 8 feet below grade for the new building's cellar. However, the collection location for EP1 within the RAP was to be in the northern tip of the Site that only required minimal excavation for installation of concrete capped courtyard. Therefore, in April of 2015, an additional endpoint soil sample (EP1A) was collected from the northern tip of the lot following removal of the top 2 feet of soil. The collection location of each of the endpoint soil samples is shown on Figure 6. Dedicated disposable sampling equipment was utilized to collect each endpoint sample, eliminating the need for field equipment (rinsate) blanks.

The endpoint soil samples were appropriately packaged, placed in a cooler and picked up by laboratory courier for transport to the analytical laboratory. The samples were containerized in

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laboratory provided glassware and shipped in plastic coolers preserved utilizing ice or "cold-paks" to maintain a temperature of 4^{o}C.

Endpoint samples EP1 through EP5 and EP4A were submitted to Phoenix Environmental Laboratories, Inc. located at 587 East Middle Turnpike, in Manchester, CT 06040 (NYS ELAP Certification No. 11301). Each of the endpoint samples were submitted for laboratory analysis utilizing the following methodology:

- Semi-volatile organic compounds by EPA Method 8270; and
- RCRA metals EPA Method 6010 and 7471.

A copy of each of the laboratory reports for the endpoint soil samples is attached in Appendix G. A tabular summary of the end-point soil sample results is included on Table 2 (SVOCs) and Table 4 (metals), and Track 4 SCO exceedences are posted on and Figure 6. The laboratory results of the three soil samples collected at the final excavation depth during the RI (8-10 feet below grade) are summarized on Tables 1 through 4. As depicted on Table 4, mercury was detected above Track 4 Site-Specific SCOs within EP4. The excavation contractor removed an additional 1 ft of soil from the EP4 sample collection location. A follow-up endpoint soil sample (EP4A) was collected and submitted to Phoenix for laboratory analysis of SVOCs (EPA Method 8270) and mercury. A copy of the laboratory report is attached in Appendix G. A tabular summary of the end-point soil sample results is included on Table 2 (SVOCs) and Table 4 (metals). As shown on Table 4, mercury (3.59 mg/kg) was detected at a concentration slightly above Track 4 Site-Specific SCO of 3.5 mg/kg. Following discussion with OER, OER decided that it would be protective of public health and the environment to manage remaining material in place.

A mercury and arsenic hot-spot was identified during the Remedial Investigation within soil sample B1 (8-10). However, due to the close proximity of an adjacent building's foundation, no additional excavation could be safely performed to remove the hot-spot. However, EBC collected one endpoint soil sample "B1 Hot Spot" in the same location as RI soil boring B1, after excavation for the cellar was completed to a depth of 8 feet. The "B1 Hot Spot" endpoint soil sample was submitted to Phoenix for laboratory analysis of mercury and arsenic. A copy of the laboratory report is attached in Appendix G. A tabular summary of the sample results is included

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on Table 4 (metals). As shown on Table 4, arsenic (12.8 mg/kg) was detected at concentration below the Track 4 Site-Specific SCO of 23 mg/kg. Mercury (3.24 mg/kg) was detected at a concentration slightly higher than the Track 4 Site-Specific SCO of 2.5 mg/kg. Following discussion with OER, OER decided that the mercury and arsenic hot-spot identified during the RI in soil sample B1(8-10) would be protective of public health and the environment to manage remaining material in place.

4.4 Materials Disposal

Waste characterization soil sampling was performed on December 10, 2014. Historic fill (light brown silty sand with brick and concrete) was encountered from grade to a depth of approximately 8 feet below grade within each of the soil borings. EBC formed one 5-pt composite soil sample from 5 soil borings performed across the Site. The laboratory results, profile form and a formal letter describing the sampling process and material type, was forwarded to Soil Safe to obtain soil disposal approval at Soil Safe – Logan Facility. A copy of the soil disposal request letter with the sampling plan and laboratory results is attached in Appendix H. A copy of the soil disposal acceptance letter issued by Soil Safe is attached in Appendix I.

From January 12, 2015 to April 23, 2015, a total 1,185.85 tons of historic fill was excavated and loaded into 10-wheel dump trucks for transport to Soil Safe – Logan Facility. The Soil Safe – Logan Facility is located at 378 Route 130 in Logan Township, New Jersey 08085. Soil Safe – Logan Facility is a NJDEP approved Class “B” Recycling Facility Center, Permit No. 203493. Copies of each of the non-hazardous manifests and associated scale tickets are included in Appendix J.

4.5 Backfill Import

On March 17, 2015, 2 truck loads (approximately 40 cubic yards) of 1” diameter blue stone with no fines was imported to backfill behind foundation walls, below the building slab, and below the concrete slab of the north and south open space areas. The stone was purchased from Evergreen Recycling of Corona, Inc. located at 127-50 Northern Boulevard, Flushing, NY 11368. No other backfill was imported to the Site.

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5.0 ENGINEERING CONTROLS

Engineering Controls were employed in the remedial action to address residual contamination remaining at the Site. The Site has three primary Engineering Control Systems. These are:

Composite Cover System

Exposure to residual soil/fill is prevented by an engineered Composite Cover System that has been built on the Site. This Composite Cover System is comprised of the following:

- 4-inch thick concrete cellar slab underlain by Grace Preprufe® 300R waterproofing membrane and 6 inch layer of ¾" gravel sub-base; and
- 4-inch thick concrete slab underlain by a 6 inch layer of ¾" gravel sub-base within the north (northern tip of lot) and south (in front of building entrance) open space areas.

The Composite Cover System was installed by the foundation contractor, Casa Concrete. Figure 8 shows the location of each cover type built at the Site. Photographs of construction of the Composite Cover System are included in Appendix D.

Vapor Barrier System

Migration of soil vapor is mitigated with a combination of building slab and waterproofing system/vapor barrier. A 46-mil Grace Preprufe® 300R HDPE waterproofing membrane/vapor barrier was installed prior to pouring the building's concrete cellar slab. The waterproofing membrane/vapor barrier extends throughout the area occupied by the footprint of the cellar. All seams, penetrations, and repairs were sealed utilizing the tape method, in accordance with to the manufacturer's installation instructions. Photos of the waterproofing membrane/vapor barrier being installed are included in Appendix D and the approximate layout is shown on Figure 7. The waterproofing/vapor barrier system was installed by the waterproofing contractor, Drip Drop Waterproofing.

A waterproofing system was also installed behind all foundation walls to grade. The waterproofing system consisted of Procor® 75 (spray grade) with Hydroduct® drainage composite boards for the 2 faced walls, and 32-mil Grace Preprufe® 160R behind blindside walls. Procor® 75 is a two component, synthetic rubber, cold vulcanized, fluid applied waterproofing membrane.

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6.0 INSTITUTIONAL CONTROLS

A series of Institutional Controls are required under this Remedial Action to implement, maintain, inspect and certify Engineering Controls and prevent future exposure to residual contamination by controlling disturbances of the subsurface soil. Adherence to these Institutional Controls is required under this remedial action and will be implemented under the Site Management Plan included in this RAR. These Institutional Controls for the Site are:

(1) The property will continue to be registered with an E-Designation with the NYC Department of Buildings. Property owner and property owner's successors and assigns are required to comply with the approved SMP;
(2) Compliance with an OER-approved Site Management Plan including procedures for appropriate operation, maintenance, inspection, and certification of performance of EC's and IC's. The property owner and property owner's successors and assigns will inspect EC's and IC's and submit to OER a written certification that evaluates their performance in a manner and at a frequency to be determined by OER;
(3) Engineering Controls will not be discontinued without prior OER approval;
(4) OER has the right to enter the Site upon notice for the purpose of evaluating the performance of EC's and IC's;
(5) The Site will be used for restricted residential use and will not be used for a higher level of use without prior approval by OER.
(6) Vegetable gardens and farming in residual soil/fill on the Site are prohibited;
(7) Use of groundwater underlying the Site without treatment rendering it safe for its intended use is prohibited;
(8) All future activities on the Site that will disturb residual soil/fill must be conducted pursuant to the Soil/Materials Management provisions of the SMP, or otherwise approved by OER;
(9) The Site is intended to be used for restricted residential use and will not be used for a higher level of use without prior approval by OER.

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7.0 SITE MANAGEMENT PLAN

Site management is the last phase of the remedial process and begins after the approval of the Remedial Action Report (RAR) and issuance of the Notice of Completion (NOC) by OER. It is the responsibility of the property owner (434 Manhattan Avenue LLC) to ensure that all Site management responsibilities are performed. The penalty for failure to implement the SMP includes revocation of the Notice of Completion and all associated certifications and liability protections. If the building is sold, the new owners will be notified of the SMP requirements.

Engineering Controls (ECs) and Institutional Controls (ICs) have been incorporated into this remediation to ensure that the Site remains protective of public health and the environment. EC's provide physical protective measures. ICs provide restrictions on Site usage and provide operation, maintenance, inspection and certification measures. This SMP includes all methods necessary ensure compliance with ECs and ICs required for the property.

The SMP provides a detailed description of procedures required to manage residual material at the Site following the completion of remedial construction in accordance with the NYC Voluntary Cleanup Agreement with OER. This includes: (1) operation and maintenance of Engineering Controls (2) periodic inspections of IC's and EC's and (3) certification of Engineering Controls and Institutional Controls.

ENGINEERING AND INSTITUTIONAL CONTROLS

Engineering Controls

Engineering Controls are employed in the remedial action to address residual materials remaining at the Site. The Site has a two Engineering Controls. These are:

- Soil Vapor Barrier System; and
- Composite Cover System

Operation and Maintenance of the Composite Cover System

The composite cover system is comprised of the cellar's 4-inch thick concrete slab and 4-inch gravel sub-base, and the 4-inch thick concrete slab and 4-inch gravel sub-base covering the north and south open space areas. The composite cover system is a permanent engineering control for the Site. The composite cover system does not require any special operation or maintenance in order to perform as designed in the RAWP. A Soil/Materials Management Plan is included in

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this Site Management Plan to outline the procedures to be followed in the event that the composite cover system and underlying residual soil/material must be disturbed after the remedial action is complete.

The system will be inspected and its performance certified at specified intervals defined in this SMP. Procedures for the inspection and maintenance of this cover are provided below.

Operation and Maintenance of Vapor Barrier System

Chapter 5 describes the Waterproofing/Vapor Barrier System utilized in this Remedial Action and provides as-built design details and the system location. The Waterproofing/Vapor Barrier System is a permanent Engineering Control for the Site. The system will be inspected and its performance certified at specified intervals defined in this SMP.

The Waterproofing/Vapor Barrier System does not require any special operation or maintenance activities. If the system is breached during future construction activities, the system will be rebuilt by reconstructing the waterproofing membrane layers and sealing the newly constructed materials with equivalent barrier materials in accordance with manufacturer specifications.

Institutional Controls

A series of Institutional Controls are required under this Remedial Action to assure permanent protection of public health by elimination of exposure to residual materials. These IC's define the program to operate, maintain, inspect and certify the performance of Engineering Controls and Institutional Controls on this property. These Institutional Controls will be implemented in accordance with the Site Management Plan included in this RAR.

Institutional Controls for this property are:

(1) The property will continue to be registered with an E-Designation with the NYC Department of Buildings. Property owner and property owner's successors and assigns are required to comply with the approved SMP;

(2) Compliance with an OER-approved Site Management Plan including procedures for appropriate operation, maintenance, inspection, and certification of performance of EC's and IC's. The property owner and property owner's successors and assigns will inspect

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EC's and IC's and submit to OER a written certification that evaluates their performance in a manner and at a frequency to be determined by OER;

(3) Engineering Controls will not be discontinued without prior OER approval;

(4) OER has the right to enter the Site upon notice for the purpose of evaluating the performance of EC's and IC's;

(5) The Site will be used for restricted residential use and will not be used for a higher level of use without prior approval by OER.

(6) Vegetable gardens and farming in residual soil/fill on the Site are prohibited;

(7) Use of groundwater underlying the Site without treatment rendering it safe for its intended use is prohibited;

(8) All future activities on the Site that will disturb residual soil/fill must be conducted pursuant to the Soil/Materials Management provisions of the SMP, or otherwise approved by OER;

(9) The Site is intended to be used for restricted residential use and will not be used for a higher level of use without prior approval by OER.

INSPECTIONS

Engineering Controls and Institutional Controls will be inspected by a qualified environmental professional and certification of inspection shall be submitted by July 31, 2026 (for calendar year 2016-2025), and every ten years thereafter.

The QEP inspections will evaluate the following:

- If Engineering Controls or Institutional Controls employed at the Site continue to perform as designed and continue to be protective of human health and the environment;
- If anything has occurred that impairs the ability of the Engineering Controls or Institutional Controls to protect public health and the environment;
- If changes are needed to the remedial systems or controls;
- If compliance with this SMP has been maintained;
- If site records are complete and up to date; and
- General Site conditions at the time of inspection.

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In an addition, if an emergency occurs, such as a natural disaster, or if an unforeseen failure of any of the Engineering Controls occurs, an inspection of the Site will be performed within 30 days to evaluate the Engineering Controls and a letter report of findings will be submitted to OER.

Engineering Control Inspection

Inspection of Composite Cover System

The Site consists of a four story apartment building with a full cellar level and two small courtyard areas. Inspection of the composite cover will consist of a visual inspection of the concrete cellar slab, and the concrete slab covering the northern tip of the property, and concrete slab covering the sidewalk area in front of the building entrance. The inspection will include all accessible locations including the site perimeter and all internal access points on the cellar level. The inspector will document any faulty or defective conditions observed during the inspection, broken or damaged concrete, or any failure in the integrity of the floor that would compromise the ability of the composite cover to perform as an engineering control. Cracks, holes, perforations or slab disturbances shall be recorded on the Inspection Checklist (Appendix L). Inspections by building superintendent will identify any obvious damage to the composite cover system.

Inspection of Vapor Barrier System

The Waterproofing/Vapor Barrier System will be inspected by a qualified environmental professional to assure that it is functioning properly. The Waterproofing/Vapor Barrier System is not visible and cannot be directly inspected. However, it can be inspected in concert with inspection of the building slab. If the inspector observes a failure in the slab that exposes the waterproofing membrane, then the underlying waterproofing membrane will be inspected for any damage, including tears or perforations, which would prevent the waterproofing membrane/vapor barrier from completing its intended purpose. Cracks, holes, perforations or slab disturbances shall be recorded on the Inspection Checklist (Appendix L) and remediated as appropriate.

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Site Use Prohibitions

Inspections to evaluate the status of site use prohibitions will include all of the institutional controls and an evaluation of whether the Site has been used for a higher level of use other than the restricted residential use addressed by the Remedial Action.

INSPECTION AND CERTIFICATION LETTER REPORT

Results of inspections performed during a reporting period and certification of performance of all Engineering Controls and Institutional Controls will be included in an Inspection and Certification Letter Report to be submitted by July 31, 2026 (for calendar years 2016-2025), and by July 31 every tenth year thereafter. Inspection and Certification Letter Reports will be submitted to OER in digital format. The letter report will include, at a minimum:

- Date of inspections;
- Personnel conducting inspections;
- Description of the inspection activities performed;
- Any observations, conclusions, or recommendations;
- Copy of any inspection forms;
- Certification of the performance of Engineering Controls and Institutional Controls, as discussed below; and
- Confirmation of regular periodic inspection of engineering controls by building superintendent.

The certification of the performance of EC's and IC's will establish:

- If Engineering Controls or Institutional Controls employed at the Site continue to be in place and perform as designed and continue to be protective of human health and the environment;
- If anything has occurred that impairs the ability of Engineering Controls or Institutional Controls to protect public health and the environment;
- If changes are needed to the remedial systems or controls;
- If compliance with this Site Management Plan has been maintained;
- If the Site has been used for a higher level of use other than the restricted residential use addressed by the Remedial Action;

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- If site records are complete and up to date;
- If the Site continues to be registered as an E-Designated property by the NYC Department of Buildings;
- OER may enter the Site upon notice for the purpose of evaluating the performance of EC's & IC's.

NOTIFICATIONS

Notifications are to be submitted by the property owner to OER as described below:

- 60-day advance notice of any proposed changes in Site use to Unrestricted Use that is not contemplated is the Remedial Action.
- Notice within 30 days 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.

SOIL/MATERIALS MANAGEMENT PLAN

Any future intrusive work that will disturb residual soil/fill beneath the property, including modifications or repairs to the existing composite cover system, will be performed in compliance with this Soil/Materials Management Plan (SMMP). Intrusive work will also be conducted in accordance with the procedures defined in the Community Air Monitoring Plan (CAMP) in this plan and a Construction Health and Safety Plan (HASP). The HASP is the responsibility of the property owner and should be in compliance with NYSDEC DER-10 Technical Guide and 29 CFR 1910 and 1926, and all other applicable Federal, State and City regulations. Intrusive construction work should be compliant with this SMMP and described in the next Inspection and Certification Letter Report.

Soil Screening Methods

Visual, olfactory and PID soil screening and assessment will be performed under the supervision of a Qualified Environmental Professional (QEP). Soil screening will be performed during any future intrusive work.

Stockpile Methods

Stockpiles will be used to isolate excavated soil and will be removed as soon as practicable. While stockpiles are in place, they will be inspected daily, and before and after every storm

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event. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by OER. Excavated soils will be stockpiled on, at minimum, double layers of 6-mil minimum sheeting, will be kept covered at all times with appropriately anchored plastic tarps, and will be routinely inspected. Broken or ripped tarps will be promptly replaced.

All stockpile activities will be compliant with applicable laws and regulations. Soil stockpile areas will be appropriately graded to control run-off in accordance with applicable laws and regulations. Stockpiles of excavated soils and other materials shall be located at least of 50 feet from the property boundaries, where possible. Hay bales or equivalent will surround soil stockpiles except for areas where access by equipment is required. Silt fencing and hay bales will be used as needed near catch basins, surface waters, and other discharge points.

Characterization of Excavated Materials

Soil/fill or other excavated media that is transported off-Site for disposal will be sampled in a manner required by the receiving facility, and in compliance with applicable laws and regulations. Excavated soil will only be reused on-site with prior approval by OER.

Materials Excavation, Load-Out and Departure

The PE/QEP overseeing the remedial action will:

- oversee intrusive work and the excavation and load-out of excavated material;
- ensure that there is a party responsible for the safe execution of invasive and other work performed under this management plan;
- ensure that Site maintenance activities and maintenance-related grading cuts will not interfere with, or otherwise impair or compromise the remedial measures established during the remediation construction phase;
- ensure that the presence of utilities and easements on the Site has been investigated and that any identified risks from work proposed under this plan are properly addressed by appropriate parties;
- ensure that all loaded outbound trucks are inspected and cleaned if necessary before leaving the Site;
- ensure that all egress points for truck and equipment transport from the Site will be kept clean of Site-derived materials during Site intrusive work.

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Locations where vehicles exit the Site shall be inspected daily for evidence of soil tracking off premises. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to Site-derived materials.

Off-Site Materials Transport

Loaded vehicles leaving the Site will comply with all applicable materials transportation requirements (including appropriate covering, manifests, and placards) in accordance with applicable laws and regulations, including use of licensed haulers in accordance with 6 NYCRR Part 364. If loads contain wet material capable of causing leakage from trucks, truck liners will be used. Queuing of trucks will be performed on-Site, when possible in order to minimize off Site disturbance.

Outbound truck transport routes are as follows:

a) Continue north on Manhattan Avenue to Newton Street
b) Turn right on Newton Street continue east to McGuiness Boulevard
c) Turn right on McGuiness Boulevard and follow signs to Brooklyn Queens Expressway

This routing takes into account the following factors: (a) limiting transport through residential areas and past sensitive sites; (b) use of mapped truck routes; (c) minimizing off-Site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport. To the extent possible, all trucks loaded with Site materials will travel from the Site using these truck routes. Trucks will not stop or idle in the neighborhood after leaving the project Site.

Materials Disposal Off-Site

The following documentation will be established and reported by the PE/QEP for each disposal destination used in this project to document that the disposal of regulated material exported from the Site conforms with applicable laws and regulations: (1) a letter from the PE/QEP or Enrollee to each disposal facility describing the material to be disposed and requesting written acceptance of the material. This letter will state that material to be disposed is regulated material generated at an environmental remediation Site in Brooklyn, New York under a governmental remediation program. The letter will provide the project identity and the name and phone number of the

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PE/QEP or Enrollee. The letter will include as an attachment a summary of all chemical data for the material being transported; and (2) a letter from each disposal facility stating it is in receipt of the correspondence (1, above) and is approved to accept the material.

Documentation associated with disposal of all material will include records and approvals for receipt of the material. All impacted soil/fill or other waste excavated and removed from the Site will be managed as regulated material and will be disposed in accordance with applicable laws and regulations. Historic fill and contaminated soils taken off-Site will be handled as solid waste and will not be disposed at a Part 360-16 Registration Facility (also known as a Soil Recycling Facility).

Waste characterization will be performed for off-Site disposal in a manner required by the receiving facility and in conformance with its applicable permits. Waste characterization sampling and analytical methods, sampling frequency, analytical results and QA/QC will be retained and included in the following Inspection and Certification Report. A manifest system for off-Site transportation of exported materials will be employed. Hazardous wastes derived from on-Site will be stored, transported, and disposed of in compliance with applicable laws and regulations.

Materials Reuse On-Site

All of the soil excavated during any future repair or construction purposes will be placed in the same excavation it was derived from or will be disposed of off-site unless otherwise approved by OER beforehand.

Repair of Remedial Systems

After completion of invasive work, any damage of the engineering controls (composite cover system, vapor barrier, etc.) will be restored to the original condition established during initial construction.

Import of Backfill Soil from Off-Site Sources

In the event that soil importation is needed for the backfilling purposes, this Section presents the requirements for imported fill materials. All imported soils will meet OER-approved backfill and cover soil quality objectives for this Site. The backfill and cover soil quality objectives

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including NYSDEC Part 375 Track 2 Residential SCOs and groundwater protections standards. A process will be established to evaluate sources of backfill and cover soil to be imported to the Site, and will include an examination of source location, current and historical use(s), and any applicable documentation. Material from industrial sites, spill sites, environmental remediation sites or other potentially contaminated sites will not be imported to the Site.

The following potential sources may be used pending attainment of backfill and cover soil quality objectives:

- Clean soil from construction projects at non-industrial sites in compliance with applicable laws and regulations;
- Clean soil from roadway or other transportation-related projects in compliance with applicable laws and regulations;
- Clean recycled concrete aggregate (RCA) from facilities permitted or registered by the regulations of NYS DEC; and
- Virgin quarried material or other materials with an approved Beneficial Use Determination (BUD) from NYSDEC for reuse as clean fill.

All materials received for import to the Site will be approved by a PE/QEP and will be in compliance with provisions in this SMP. The Inspection and Certification Report will report the source of the fill, evidence that an inspection was performed on the source, chemical sampling results, frequency of testing, and a Site map indicating the locations where backfill or soil cover was placed.

Source Screening and Testing

Inspection of imported fill material will include visual, olfactory, and PID screening for evidence of contamination. Materials imported to the Site will be subject to inspection, as follows:

- Trucks with imported fill material will be in compliance with applicable laws and regulations and will enter the Site at designated locations;
- The PE/QEP is responsible to ensure that every truck load of imported material is inspected for evidence of contamination; and

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- Fill material will be free of solid waste including pavement materials, debris, stumps, roots, and other organic matter, as well as ashes, oil, perishables or foreign matter.

Composite samples of imported material from the identified clean soil sources will be taken at a minimum frequency of one sample for every 500 cubic yards of material. One composite sample will be collected form each source of virgin quarried material or other material with an NYSDEC approved BUD, unless otherwise approved by OER. Once it is determined that the fill material meets imported backfill or cover soil chemical requirements and is non-hazardous, and lacks petroleum contamination, the material will be loaded onto trucks for delivery to the Site.

Recycled concrete aggregate (RCA) may be imported from facilities permitted or registered by NYSDEC. A PE/QEP is responsible to ensure that the facility is compliant with 6NYCRR Part 360 registration and permitting requirements for the period of acquisition of RCA. RCA imported from compliant facilities will not require additional testing, unless required by NYSDEC under its terms for operation of the facility. RCA imported to the Site must be derived from recognizable and uncontaminated concrete. RCA will not be used as cover material.

Fluids Management

All liquids to be removed from the Site, including dewatering fluids, will be handled, transported, and disposed in accordance with applicable laws and regulations. Liquids discharged into the New York City sewer system will receive prior approval by New York City Department of Environmental Protection (NYC DEP). The NYC DEP regulates discharges to the New York City sewers under Title 15, Rules of the City of New York Chapter 19. If discharge to the City sewer system is not appropriate, the dewatering fluids will be managed by transportation and disposal at an off-Site treatment facility. Discharge of water generated during remedial construction to surface waters (i.e. a stream or river) is prohibited without a SPDES permit issued by NYSDEC.

Storm-water Pollution Prevention

Applicable laws and regulations pertaining to storm-water pollution prevention will be addressed during the remedial program. All existing stormwater systems will be inspected to ensure proper operation.

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Odor Control

All necessary means will be employed to prevent on- and off-Site odor nuisances. At a minimum, procedures will include: (a) limiting the area of open excavations; (b) shrouding open excavations with tarps and other covers; and (c) use of foams to cover exposed odorous soils. If odors develop and cannot otherwise be controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-Site disposal; and (e) use of chemical odorants in spray or misting systems.

This odor control plan is capable of controlling emissions of nuisance odors. If nuisance odors are identified, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. OER will be notified of all odor complaint events. Implementation of all odor controls, including halt of work, will be the responsibility of the PE/QEPs.

Dust Control

Dust management during invasive on-Site work will include, at a minimum:

- Use of a dedicated water spray methodology for roads, excavation areas and stockpiles.
- Use of properly anchored tarps to cover stockpiles.
- Exercise extra care during dry and high-wind periods.
- Use of gravel or recycled concrete aggregate on egress and other roadways to provide a clean and dust-free road surface.

If nuisance dust emissions are identified, work will be halted and the source of dusts will be identified and corrected. Work will not resume until all nuisance dust emissions have been abated. OER will be notified of all dust complaint events. Implementation of all dust controls, including halt of work, will be the responsibility of the PE/QEPs.

Noise

Noise control will be exercised during the remedial program. All remedial work will conform, at a minimum, to NYC noise control standards.

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COMMUNITY AIR MONITORING PLAN

Real-time air monitoring for volatile organic compounds (VOCs) and particulate levels at the perimeter of the exclusion zone or work area will be performed. Continuous monitoring will be performed for all ground intrusive activities and during the handling of contaminated or potentially contaminated media. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pit excavation or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be performed 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, for instance, will 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. Depending upon the proximity of potentially exposed individuals, continuous monitoring may be performed 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. Exceedences of action levels observed during performance of the Community Air Monitoring Plan (CAMP) will be reported to the OER Project Manager and included in the Daily Report.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) will be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuousbasis during invasive work. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work will be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment will be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment will 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

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15-minute average, work activities will be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities will 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 will be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities will 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 will be shutdown.

All 15-minute readings must be recorded and be available for OER personnel to review. Instantaneous readings, if any, used for decision purposes will also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations will be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring will 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 will 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 will be employed. Work will 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.

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- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work will be stopped and a re-evaluation of activities initiated. Work will 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 will be recorded and be available for OER personnel to review.

CONTINGENCY PLAN

Emergency Telephone Numbers

In the event of any emergency condition pertaining to this remedial system, or if the building slab is disturbed, removed or altered, the Owner's representative(s) should contact the appropriate parties from the contact list below. Prompt contact should also be made to Environmental Business Consultants. These emergency contact lists must be maintained in an easily accessible location at the Site.

Emergency Contact Numbers

Medical, Fire, and Police:	911
One Call Center: 3 day notice required for utility markout	(800) 272-4480
Poison Control Center:	(800) 222-1222
Pollution Toxic Chemical Oil Spills:	(800) 424-8802
NYSDEC Spills Hotline	(800) 457-7362

Contact Numbers

Environmental Business Consultants	(631) 504-6000
Office of Environmental Remediation	(212) 788-8841; 311

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TABLES

TABLE 1
434 Manhattan Avenue,
Brooklyn, New York
RI Soil Boring and Endpoint Soil Sample Results
Volatile Organic Compounds

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	Remedial Investigation Results (10/15/2013)						Supplemental (12/10/2014)	
			B1		B2		B3		B1	
			(8-10') µg/Kg		(8-10') µg/Kg		(8-10) µg/Kg		(8-10') µg/Kg	
			Result	RL	Result	RL	Result	RL	Result	RL
1,1,1,2-Tetrachlorothane			ND	10	ND	9.9	ND	7.9	< 6.0	6
1,1,1-Trichloroethane	680	100,000	ND	10	ND	9.9	ND	7.9	< 6.0	6
1,1,2,2-Tetrachloroethane			ND	6.2	ND	5.9	ND	4.7	< 6.0	6
1,1,2-Trichloroethane			ND	10	ND	9.9	ND	7.9	< 6.0	6
1,1-Dichloroethane	270	26,000	ND	10	ND	9.9	ND	7.9	< 6.0	6
1,1-Dichloroethene	330	100,000	ND	10	ND	9.9	ND	7.9	< 6.0	6
1,1-Dichloropropene			ND	10	ND	9.9	ND	7.9	< 6.0	6
1,2,3-Trichlorobenzene			ND	360	ND	9.9	ND	320	< 6.0	6
1,2,3-Trichloropropane			ND	360	ND	9.9	ND	320	< 6.0	6
1,2,4-Trichlorobenzene			ND	360	ND	9.9	ND	320	< 6.0	6
1,2,4-Trimethylbenzene	3,600	52,000	ND	360	ND	9.9	ND	320	< 6.0	6
1,2-Dibromo-3-chloropropane			ND	360	ND	9.9	ND	320	< 6.0	6
1,2-Dibromoethane			ND	10	ND	9.9	ND	7.9	< 6.0	6
1,2-Dichlorobenzene	1,100	100,000	ND	360	ND	9.9	ND	320	< 6.0	6
1,2-Dichloroethane	20	3,100	ND	10	ND	9.9	ND	7.9	< 6.0	6
1,2-Dichloropropane			ND	10	ND	9.9	ND	7.9	< 6.0	6
1,3,5-Trimethylbenzene	8,400	52,000	ND	360	ND	9.9	ND	320	< 6.0	6
1,3-Dichlorobenzene	2,400	4,900	ND	360	ND	9.9	ND	320	< 6.0	6
1,3-Dichloropropane			ND	10	ND	9.9	ND	7.9	< 6.0	6
1,4-Dichlorobenzene	1,800	13,000	ND	360	ND	9.9	ND	320	< 6.0	6
2,2-Dichloropropane			ND	10	ND	9.9	ND	7.9	< 6.0	6
2-Chlorotoluene			ND	360	ND	9.9	ND	320	< 6.0	6
2-Hexanone (Methyl Butyl Ketone)			ND	52	ND	49	ND	39	< 30	30
2-Isopropyltoluene			ND	360	ND	9.9	ND	320	< 6.0	6
4-Chlorotoluene			ND	360	ND	9.9	ND	320	< 6.0	6
4-Methyl-2-Pentanone			ND	52	ND	49	ND	39	< 30	30
Acetone	50	100,000	ND	90	ND	100	ND	150	**63**	50
Acrylonitrile			ND	10	ND	9.9	ND	7.9	< 12	12
Benzene	60	4,800	ND	10	ND	9.9	ND	7.9	< 6.0	6
Bromobenzene			ND	360	ND	9.9	ND	320	< 6.0	6
Bromochloromethane			ND	10	ND	9.9	ND	7.9	< 6.0	6
Bromodichloromethane			ND	10	ND	9.9	ND	7.9	< 6.0	6
Bromoform			ND	10	ND	9.9	ND	7.9	< 6.0	6
Bromomethane			ND	10	ND	9.9	ND	7.9	< 6.0	6
Carbon Disulfide			ND	10	ND	9.9	ND	7.9	**2**	6
Carbon tetrachloride	760	2,400	ND	10	ND	9.9	ND	7.9	< 6.0	6
Chlorobenzene	1,100	100,000	ND	10	ND	9.9	ND	7.9	< 6.0	6
Chloroethane			ND	10	ND	9.9	ND	7.9	< 6.0	6
Chloroform	370	49,000	ND	10	ND	9.9	ND	7.9	< 6.0	6
Chloromethane			ND	10	ND	9.9	ND	7.9	< 6.0	6
cis-1,2-Dichloroethene	250	100,000	ND	10	ND	9.9	ND	7.9	< 6.0	6
cis-1,3-Dichloropropene			ND	10	ND	9.9	ND	7.9	< 6.0	6
Dibromochloromethane			ND	5	ND	5	ND	4.7	< 6.0	6
Dibromomethane			ND	10	ND	9.9	ND	7.9	< 6.0	6
Dichlorodifluoromethane			ND	10	ND	9.9	ND	7.9	< 6.0	6
Ethylbenzene	1,000	41,000	ND	10	ND	9.9	ND	7.9	< 6.0	6
Hexachlorobutadiene			ND	360	ND	9.9	ND	320	< 6.0	6
Isopropylbenzene			ND	360	ND	9.9	ND	320	< 6.0	6
m&p-Xylenes	260	100,000	ND	10	ND	9.9	ND	7.9	< 6.0	6
Methyl Ethyl Ketone (2-Butanone)	120	100,000	ND	62	ND	59	ND	47	**12**	36
Methyl t-butyl ether (MTBE)	930	100,000	ND	21	ND	20	ND	16	< 12	12
Methylene chloride	50	100,000	ND	10	ND	9.9	ND	7.9	**2.6**	6
Naphthalene	12,000	100,000	ND	360	ND	9.9	ND	320	< 6.0	6
n-Butylbenzene	12,000	100,000	ND	360	ND	9.9	ND	320	< 6.0	6
n-Propylbenzene	3,900	100,000	ND	360	ND	9.9	ND	320	< 6.0	6
o-Xylene	260	100,000	ND	10	ND	9.9	ND	7.9	< 6.0	6
p-Isopropyltoluene			ND	360	**86**	9.9	ND	320	< 6.0	6
sec-Butylbenzene	11,000	100,000	ND	360	ND	9.9	ND	320	< 6.0	6
Styrene			ND	10	ND	9.9	ND	7.9	< 6.0	6
tert-Butylbenzene	5,900	100,000	ND	360	ND	9.9	ND	320	< 6.0	6
Tetrachloroethene	1,300	19,000	ND	10	ND	9.9	ND	7.9	< 6.0	6
Tetrahydrofuran (THF)			ND	21	ND	20	ND	16	< 12	12
Toluene	700	100,000	ND	10	ND	9.9	ND	7.9	< 6.0	6
Total Xylenes	260		ND	10	ND	9.9	ND	7.9	-	-
trans-1,2-Dichloroethene	190	100,000	ND	10	ND	9.9	ND	7.9	< 6.0	6
trans-1,3-Dichloropropene			ND	10	ND	9.9	ND	7.9	< 6.0	6
trabs-1,4-dichloro-2-butene			ND	720	ND	20	ND	640	< 12	12
Trichloroethene	470	21,000	ND	10	ND	9.9	ND	7.9	< 6.0	6
Trichlorofluoromethane			ND	10	ND	9.9	ND	7.9	< 6.0	6
Trichlorotrifluoroethane			ND	10	ND	9.9	ND	7.9	< 6.0	6
Vinyl Chloride	20	900	ND	10	ND	9.9	ND	7.9	< 6.0	6
Total BTEX Concentration			**0.0**		**0.0**		**0.0**		**0.0**	
Total VOCs Concentration			**0.0**		**86.0**		**0.0**		**79.6**	

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

ND - Not-detected

RL - Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

TABLE 2
434 Manhattan Avenue,
Brooklyn, New York
RI Soil Boring and Endpoint Soil Sample Results
Semi-Volatile Organic Compounds

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	Remedial Investigation Results (10/15/2013)						Supplemental (12/10/2014)		Endpoint Soil Sample Results											
			B1		B2		B3		B1		EP1		EP1A		EP2		EP3		EP4		EP4A		EP5	
			(8-10') µg/Kg		(8-10') µg/Kg		(8-10) µg/Kg		(8-10') µg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
			Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
1,2,4,5-Tetrachlorobenzene			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
1,2,4-Trichlorobenzene			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
1,2-Dichlorobenzene			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
1,2-Diphenylhydrazine			ND	450	ND	490	ND	420	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
1,3-Dichlorobenzene			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
1,4-Dichlorobenzene			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
2,4,5-Trichlorophenol			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
2,4,6-Trichlorophenol			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
2,4-Dichlorophenol			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
2,4-Dimethylphenol			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
2,4-Dinitrophenol			ND	720	ND	780	ND	670	< 2000	2,000	< 2000	2,000	< 1900	1,900	< 2000	2,000	< 2100	2,100	< 2100	2,100	< 2000	2,000	< 2000	2,000
2,4-Dinitrotoluene			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
2,6-Dinitrotoluene			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
2-Chloronaphthalene			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
2-Chlorophenol			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
2-Methylnaphthalene			**630**	320	ND	340	ND	290	< 280	280	**280**	280	< 270	270	**390**	280	< 290	290	< 290	290	< 270	270	< 280	280
2-Methylphenol (o-cresol)	330	100,000	ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
2-Nitroaniline			ND	720	ND	780	ND	670	< 2000	2,000	< 2000	2,000	< 1900	1,900	< 2000	2,000	< 2100	2,100	< 2100	2,100	< 2000	2,000	< 2000	2,000
2-Nitrophenol			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
3&4-Methylphenol (m&p-cresol)			**4,600**	450	ND	490	**560**	420	< 280	280	**210**	280	< 270	270	< 280	280	**710**	290	**340**	290	< 270	270	< 280	280
3,3'-Dichlorobenzidine			ND	320	ND	340	ND	290	< 800	800	< 790	790	< 780	780	< 810	810	< 840	840	< 820	820	< 780	780	< 810	810
3-Nitroaniline			ND	720	ND	780	ND	670	< 2000	2,000	< 2000	2,000	< 1900	1,900	< 2000	2,000	< 2100	2,100	< 2100	2,100	< 2000	2,000	< 2000	2,000
4,6-Dinitro-2-methylphenol			ND	1,300	ND	1,400	ND	1,200	< 2000	2,000	< 2000	2,000	< 1900	1,900	< 2000	2,000	< 2100	2,100	< 2100	2,100	< 2000	2,000	< 2000	2,000
4-Bromophenyl phenyl ether			ND	450	ND	490	ND	420	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
4-Chloro-3-methylphenol			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
4-Chloroaniline			ND	320	ND	340	ND	290	< 800	800	< 790	790	< 780	780	< 810	810	< 840	840	< 820	820	< 780	780	< 810	810
4-Chlorophenyl phenyl ether			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
4-Nitroaniline			ND	720	ND	780	ND	670	< 2000	2,000	< 2000	2,000	< 1900	1,900	< 2000	2,000	< 2100	2,100	< 2100	2,100	< 2000	2,000	< 2000	2,000
4-Nitrophenol			ND	1,300	ND	1,400	ND	1,200	< 2000	2,000	< 2000	2,000	< 1900	1,900	< 2000	2,000	< 2100	2,100	< 2100	2,100	< 2000	2,000	< 2000	2,000
Acenaphthene	20,000	100,000	**1,900**	320	ND	340	ND	290	< 280	280	**680**	280	< 270	270	**510**	280	**360**	290	**150**	290	**150**	270	**250**	280
Acenaphthylene	100,000	100,000	ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
Acetophenone			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
Aniline			ND	1,300	ND	1,400	ND	1,200	< 2000	2,000	< 2000	2,000	< 1900	1,900	< 2000	2,000	< 2100	2,100	< 2100	2,100	< 2000	2,000	< 2000	2,000
Anthracene	100,000	100,000	**3,000**	320	**550**	340	**710**	290	**210**	280	**1,400**	280	< 270	270	**610**	280	**1,600**	290	**260**	290	**220**	270	**470**	280
Benz(a)anthracene	1,000	1,000	**5,200**	320	**2,500**	340	**1,600**	290	**380**	280	**1,800**	280	< 270	270	**880**	280	**4,500**	290	**490**	290	**530**	270	**880**	280
Benzidine			ND	540	ND	580	ND	500	< 800	800	< 790	790	< 780	780	< 810	810	< 840	840	< 820	820	< 780	780	< 810	810
Benzo(a)pyrene	1,000	1,000	**4,700**	320	**1,900**	340	**880**	290	**320**	280	**1,400**	280	< 270	270	**710**	280	**3,700**	290	**450**	290	**440**	270	**710**	280
Benzo(b)fluoranthene	1,000	1,000	**6,100**	320	**2,400**	340	**1,000**	290	**430**	280	**1,600**	280	< 270	270	**840**	280	**3,900**	290	**520**	290	**580**	270	**900**	280
Benzo(ghi)perylene	100,000	100,000	**1,700**	320	**630**	340	**430**	290	**170**	280	**850**	280	< 270	270	**390**	280	**2,300**	290	**320**	290	< 270	270	**190**	280
Benzo(k)fluoranthene	800	3,900	**2,000**	320	**820**	340	**430**	290	< 280	280	**570**	280	< 270	270	**270**	280	**1,300**	290	**160**	290	**280**	270	**350**	280
Benzoic acid			ND	1,300	ND	1,400	ND	1,200	< 2000	2,000	< 2000	2,000	< 1900	1,900	< 2000	2,000	< 2100	2,100	< 2100	2,100	< 2000	2,000	< 2000	2,000
Benzyl butyl phthalate			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
Bis(2-chloroethoxy)methane			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
Bis(2-chloroethyl)ether			ND	450	ND	490	ND	420	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
Bis(2-chloroisopropyl)ether			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
Bis(2-ethylhexyl)phthalate			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
Carbazole			**3,500**	680	ND	730	ND	630	< 2000	2,000	**760**	2,000	< 1900	1,900	**570**	2,000	**450**	2,100	< 2100	2,100	< 2000	2,000	< 2000	2,000
Chrysene	1,000	3,900	**5,300**	320	**2,400**	340	**1,400**	290	**370**	280	**1,900**	280	< 270	270	**940**	280	**4,600**	290	**550**	290	**470**	270	**920**	280
Dibenz(a,h)anthracene	330	330	**440**	320	ND	340	ND	290	< 280	280	**220**	280	< 270	270	< 280	280	**590**	290	< 290	290	< 270	270	< 280	280
Dibenzofuran	7,000	59,000	**1,200**	320	ND	340	ND	290	< 280	280	**540**	280	< 270	270	**530**	280	**230**	290	**130**	290	< 270	270	**170**	280
Diethyl phthalate			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
Dimethylphthalate			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
Di-n-butylphthalate			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
Di-n-octylphthalate			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
Fluoranthene	100,000	100,000	**11,000**	320	**4,700**	340	**3,900**	290	**970**	280	**4,500**	280	**140**	270	**2,200**	280	**8,200**	1,500	**1,300**	290	**1,100**	270	**1,500**	280
Fluorene	30,000	100,000	**1,800**	320	ND	340	ND	290	< 280	280	**790**	280	< 270	270	**570**	280	**460**	290	**170**	290	**150**	270	**290**	280
Hexachlorobenzene			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
Hexachlorobutadiene			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
Hexachlorocyclopentadiene			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
Hexachloroethane			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
Indeno(1,2,3-cd)pyrene	500	500	**1,500**	320	**640**	340	**390**	290	**140**	280	**750**	280	< 270	270	**340**	280	**2,000**	290	**260**	290	< 270	270	**200**	280
Isophorone			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	**130**	280
Naphthalene	12,000	100,000	**1,600**	320	ND	340	ND	290	< 280	280	**450**	280	< 270	270	**940**	280	**330**	290	**260**	290	< 270	270	**180**	280
Nitrobenzene			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
N-Nitrosodimethylamine			ND	450	ND	490	ND	420	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
N-Nitrosodi-n-propylamine			ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
N-Nitrosodiphenylamine			ND	450	ND	490	ND	420	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
Pentachloronitrobenzene			ND	450	ND	490	ND	420	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
Pentachlorophenol	800	6,700	ND	450	ND	490	ND	420	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
Phenanthrene	100,000	100,000	**14,000**	320	**2,500**	340	**2,800**	290	**890**	280	**5,500**	280	< 270	270	**3,500**	280	**5,800**	1,500	**1,400**	290	**1,100**	270	**2,000**	280
Phenol	330	100,000	ND	320	ND	340	ND	290	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
Pyrene	100,000	100,000	**8,900**	320	**3,800**	340	**2,800**	290	**860**	280	**3,700**	280	< 270	270	**1,800**	280	**7,800**	1,500	**1,100**	290	**830**	270	**1,200**	280
Pyridine			ND	450	ND	490	ND	420	< 280	280	< 280	280	< 270	270	< 280	280	< 290	290	< 290	290	< 270	270	< 280	280
Total SVOCs			**79,070**		**22,840**		**16,900**		**4,740**		**27,900**		**140**		**15,990**		**48,830**		**7,860**		**5,850**		**10,340**	

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

ND - Not-detected

RL - Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

TABLE 3
434 Manhattan Avenue,
Brooklyn, New York
RI Soil Boring and Endpoint Soil Sample Results
Pesticides PCBs

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	Remedial Investigation Results (10/15/2013)						Supplemental (12/10/2014)	
			B1		B2		B3		B1	
			(8-10') µg/Kg		(8-10') µg/Kg		(8-10) µg/Kg		(8-10') µg/Kg	
			Result	RL	Result	RL	Result	RL	Result	RL
4,4' -DDD	3.3	13,000	< 8.6	8.6	< 9.5	9.5	< 8.0	8	< 2.4	2.4
4,4' -DDE	3.3	8,900	< 8.6	8.6	< 9.5	9.5	< 8.0	8	< 2.4	2.4
4,4' -DDT	3.3	7,900	< 8.6	8.6	< 9.5	9.5	< 8.0	8	< 2.4	2.4
a-BHC	20	480	< 4.3	4.3	< 4.8	4.8	< 4.0	4	< 7.9	7.9
Alachlor			< 4.3	4.3	< 4.8	4.8	< 4.0	4	< 4.0	4
Aldrin	5	97	< 1.4	1.4	< 1.5	1.5	< 1.2	1.2	< 4.0	4
b-BHC	36	360	< 4.3	4.3	< 4.8	4.8	< 4.0	4	< 7.9	7.9
Chlordane			< 14	14	< 15	15	< 12	12	< 7.9	7.9
d-BHC	40	100,000	< 4.3	4.3	< 4.8	4.8	< 4.0	4	< 4.0	4
Dieldrin	5	200	< 1.4	1.4	< 1.5	1.5	< 1.2	1.2	< 7.9	7.9
Endosulfan I	2,400	24,000	< 4.3	4.3	< 4.8	4.8	< 4.0	4	< 7.9	7.9
Endosulfan II	2,400	24,000	< 8.6	8.6	< 9.5	9.5	< 8.0	8	< 7.9	7.9
Endosulfan sulfate	2,400	24,000	< 8.6	8.6	< 9.5	9.5	< 8.0	8	< 7.9	7.9
Endrin	14	11,000	< 8.6	8.6	< 9.5	9.5	< 8.0	8	< 7.9	7.9
Endrin aldehyde			< 8.6	8.6	< 9.5	9.5	< 8.0	8	< 7.9	7.9
Endrin ketone			< 8.6	8.6	< 9.5	9.5	< 8.0	8	< 1.6	1.6
g-BHC	100	280	< 1.4	1.4	< 1.5	1.5	< 1.2	1.2	< 4.0	4
Heptachlor	42	420	< 2.7	2.7	< 3.0	3	< 2.5	2.5	< 7.9	7.9
Heptachlor epoxide			< 4.3	4.3	< 4.8	4.8	< 4.0	4	< 7.9	7.9
Methoxychlor			< 43	43	< 48	48	< 40	40	< 40	40
Toxaphene			< 43	43	< 48	48	< 40	40	< 160	160
PCB-1016	100	1,000	< 90	90	< 99	99	< 83	83	< 40	40
PCB-1221	100	1,000	< 90	90	< 99	99	< 83	83	< 40	40
PCB-1232	100	1,000	< 90	90	< 99	99	< 83	83	< 40	40
PCB-1242	100	1,000	< 90	90	< 99	99	< 83	83	< 40	40
PCB-1248	100	1,000	< 90	90	< 99	99	< 83	83	< 40	40
PCB-1254	100	1,000	< 90	90	< 99	99	< 83	83	< 40	40
PCB-1260	100	1,000	< 90	90	< 99	99	< 83	83	< 40	40
PCB-1262	100	1,000	< 90	90	< 99	99	< 83	83	< 40	40
PCB-1268	100	1,000	< 90	90	< 99	99	< 83	83	< 40	40

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

TABLE 4
434 Manhattan Avenue,
Brooklyn, New York
RI Soil Boring and Endpoint Soil Sample Results
Metals

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	Remedial Investigation Results (10/15/2013)						Supplemental (12/10/2014)		Endpoint Soil Sample Results													
			B1		B2		B3		B1		B1 Hot Spot		EP1		EP1A		EP2		EP3		EP4		EP4A		EP5	
			(8-10') mg/Kg		(8-10') mg/Kg		(8-10) mg/Kg		(8-10') mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
			Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Aluminum			4,430	67	9,780	75	8,720	64	10,300	40	-	-	-	-	11,400	40	-	-	-	-	-	-	-	-	-	-
Antimony			BRL	4.4	BRL	5	BRL	4.3	< 2.0	2	-	-	-	-	< 2.0	2.0	-	-	-	-	-	-	-	-	-	-
Arsenic	13	16	43.3	0.9	9.7	1	6.1	0.9	2.4	0.8	12.8	0.9	4.5	0.8	2.4	0.8	4	0.8	13.1	0.8	8.4	0.8	-	-	4.7	0.8
Barium	350	400	153	0.44	130	0.5	54.5	0.43	66	0.8	-	-	68.2	0.8	49.6	0.8	98.4	0.8	134	0.8	103	0.8	-	-	117	0.8
Beryllium	7.2	72	0.3	0.25	0.52	0.4	0.37	0.34	0.4	0.32	-	-	-	-	0.42	0.32	-	-	-	-	-	-	-	-	-	-
Cadmium	2.5	4.3	0.9	0.44	0.52	0.5	BRL	0.43	< 0.40	0.4	-	-	< 0.41	0.41	< 0.40	0.40	0.17	0.40	1.03	0.42	3.7	0.41	-	-	< 0.38	0.38
Calcium			6,570	6.7	10,800	7.5	2,920	6.4	3,640	4.2	-	-	-	-	647	4.0	-	-	-	-	-	-	-	-	-	-
Chromium	30	180	23.5	0.44	28.7	0.5	29.8	0.43	19.4	0.4	-	-	19.2	0.41	20	0.40	19.6	0.40	44.9	0.42	36.2	0.41	-	-	17.4	0.38
Cobalt			4.83	0.44	5.49	0.5	4.27	0.43	7.27	0.4	-	-	-	-	5.75	0.40	-	-	-	-	-	-	-	-	-	-
Copper	50	270	120	0.44	77.8	0.5	37.1	0.43	25.9	0.4	-	-	-	-	25.4	0.40	-	-	-	-	-	-	-	-	-	-
Iron			19,800	67	22,100	75	18,800	64	23,200	40	-	-	-	-	19,400	40	-	-	-	-	-	-	-	-	-	-
Lead	63	400	458	4.4	303	5	89.7	0.43	179	7.9	-	-	148	0.8	36.7	0.8	291	7.9	293	8.4	331	8.2	-	-	148	7.6
Magnesium			1,690	6.7	2,460	7.5	1,880	6.4	1,970	4	-	-	-	-	2,070	4.0	-	-	-	-	-	-	-	-	-	-
Manganese	1,600	2,000	1,040	4.4	298	5	142	0.43	299	4.2	-	-	-	-	122	0.40	-	-	-	-	-	-	-	-	-	-
Mercury	0.18	0.81	7.77	0.44	1.77	0.09	0.25	0.09	0.1	0.08	3.24	0.18	0.42	0.03	0.08	0.03	0.56	0.03	2.4	0.16	4.24	0.16	3.59	0.14	0.45	0.03
Nickel	30	310	15.2	0.44	13.6	0.5	9.81	0.43	11.7	0.4	-	-	-	-	11.8	0.40	-	-	-	-	-	-	-	-	-	-
Potassium			1,020	6.7	994	7.5	738	6.4	982	8	-	-	-	-	1,500	79	-	-	-	-	-	-	-	-	-	-
Selenium	3.9	180	BRL	1.8	BRL	2	BRL	1.7	< 1.6	1.6	-	-	< 1.7	1.7	< 1.6	1.6	< 1.6	1.6	< 1.7	1.7	< 1.6	1.6	-	-	< 1.5	1.5
Silver	2	180	BRL	0.44	BRL	0.5	BRL	0.43	< 0.40	0.4	-	-	< 0.41	0.41	< 0.40	0.40	< 0.40	0.40	< 0.42	0.42	< 0.41	0.41	-	-	< 0.38	0.38
Sodium			233	6.7	286	7.5	128	6.4	162	8	-	-	-	-	175	8	-	-	-	-	-	-	-	-	-	-
Thallium			BRL	4	BRL	4.5	BRL	3.8	< 1.6	1.6	-	-	-	-	< 1.6	1.6	-	-	-	-	-	-	-	-	-	-
Vanadium			16.8	0.44	24.7	0.5	20.3	0.43	29.3	0.4	-	-	-	-	31.7	0.4	-	-	-	-	-	-	-	-	-	-
Zinc	109	10,000	331	4.4	234	5	86.5	0.43	64.6	0.8	-	-	-	-	54	0.8	-	-	-	-	-	-	-	-	-	-

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

BRL - Below Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

TABLE 5
Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water	Unrestricted Use
		Residential	Restricted-Residential	Commercial	Industrial			
METALS								
Arsenic	7440-38 -2	16f	16f	16f	16f	13f	16f	13 [c]
Barium	7440-39 -3	350f	400	400	10,000 d	433	820	350 [c]
Beryllium	7440-41 -7	14	72	590	2,700	10	47	7.2
Cadmium	7440-43 -9	2.5f	4.3	9.3	60	4	7.5	2.5 [c]
Chromium, hexavalent [h]	18540-29-9	22	110	400	800	1e	19	1 [b]
Chromium, trivalent[h]	16065-83-1	36	180	1,500	6,800	41	NS	30 [c]
Copper	7440-50 -8	270	270	270	10,000 d	50	1,720	50
Total Cyanide [h]		27	27	27	10,000 d	NS	40	27
Lead	7439-92 -1	400	400	1,000	3,900	63f	450	63 [c]
Manganese	7439-96 -5	2,000f	2,000f	10,000 d	10,000 d	1600f	2,000f	1600 [c]
Total Mercury		0.81j	0.81j	2.8j	5.7j	0.18f	0.73	0.18 [c]
Nickel	7440-02 -0	140	310	310	10,000 d	30	130	30
Selenium	7782-49 -2	36	180	1,500	6,800	3.9f	4f	3.9[c]
Silver	7440-22 -4	36	180	1,500	6,800	2	8.3	2
Zinc	7440-66 -6	2200	10,000 d	10,000 d	10,000 d	109f	2,480	109 [c]
PESTICIDES / PCBs								
2,4,5-TP Acid (Silvex)	93-72-1	58	100a	500b	1,000c	NS	3.8	3.8
4,4'-DDE	72-55-9	1.8	8.9	62	120	0.0033 e	17	0.0033 [b]
4,4'-DDT	50-29-3	1.7	7.9	47	94	0.0033 e	136	0.0033 [b]
4,4'-DDD	72-54-8	2.6	13	92	180	0.0033 e	14	0.0033 [b]
Aldrin	309-00-2	0.019	0.097	0.68	1.4	0.14	0.19	0.005 [c]
alpha-BHC	319-84-6	0.097	0.48	3.4	6.8	0.04g	0.02	0.02
beta-BHC	319-85-7	0.072	0.36	3	14	0.6	0.09	0.036
Chlordane (alpha)	5103-71 -9	0.91	4.2	24	47	1.3	2.9	0.094
delta-BHC	319-86-8	100a	100a	500b	1,000c	0.04g	0.25	0.04
Dibenzofuran	132-64-9	14	59	350	1,000c	NS	210	7
Dieldrin	60-57-1	0.039	0.2	1.4	2.8	0.006	0.1	0.005[c]
Endosulfan I	959-98-8	4.8i	24i	200i	920i	NS	102	2.4
Endosulfan II	33213-65-9	4.8i	24i	200i	920i	NS	102	2.4
Endosulfan sulfate	1031-07 -8	4.8i	24i	200i	920i	NS	1,000c	2.4
Endrin	72-20-8	2.2	11	89	410	0.014	0.06	0.014
Heptachlor	76-44-8	0.42	2.1	15	29	0.14	0.38	0.042
Lindane	58-89-9	0.28	1.3	9.2	23	6	0.1	0.1
Polychlorinated biphenyls	1336-36 -3	1	1	1	25	1	3.2	0.1
SEMI-VOLATILES								
Acenaphthene	83-32-9	100a	100a	500b	1,000c	20	98	20
Acenapthylene	208-96-8	100a	100a	500b	1,000c	NS	107	100 [a]
Anthracene	120-12-7	100a	100a	500b	1,000c	NS	1,000c	100 [a]
Benz(a)anthracene	56-55-3	1f	1f	5.6	11	NS	1f	1[c]
Benzo(a)pyrene	50-32-8	1f	1f	1f	1.1	2.6	22	1[c]
Benzo(b) fluoranthene	205-99-2	1f	1f	5.6	11	NS	1.7	1[c]
Benzo(g,h,i) perylene	191-24-2	100a	100a	500b	1,000c	NS	1,000c	100
Benzo(k) fluoranthene	207-08-9	1	3.9	56	110	NS	1.7	0.8 [c]
Chrysene	218-01-9	1f	3.9	56	110	NS	1f	1[c]
Dibenz(a,h) anthracene	53-70-3	0.33e	0.33e	0.56	1.1	NS	1,000c	0.33 [b]
Fluoranthene	206-44-0	100a	100a	500b	1,000c	NS	1,000c	100 [a]
Fluorene	86-73-7	100a	100a	500b	1,000c	30	386	30
Indeno(1,2,3-cd) pyrene	193-39-5	0.5f	0.5f	5.6	11	NS	8.2	0.5 [c]
m-Cresol	108-39-4	100a	100a	500b	1,000c	NS	0.33e	0.33 [b]
Naphthalene	91-20-3	100a	100a	500b	1,000c	NS	12	12
o-Cresol	95-48-7	100a	100a	500b	1,000c	NS	0.33e	0.33 [b]
p-Cresol	106-44-5	34	100a	500b	1,000c	NS	0.33e	0.33 [b]
Pentachlorophenol	87-86-5	2.4	6.7	6.7	55	0.8e	0.8e	0.8[b]
Phenanthrene	85-01-8	100a	100a	500b	1,000c	NS	1,000c	100
Phenol	108-95-2	100a	100a	500b	1,000c	30	0.33e	0.33[b]
Pyrene	129-00-0	100a	100a	500b	1,000c	NS	1,000c	100

TABLE 5
Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Groundwater	Unrestricted Use
		Residential	Restricted-Residential	Commercial	Industrial			
VOLATILES								
1,1,1-Trichloroethane	71-55-6	100a	100a	500b	1,000c	NS	0.68	0.68
1,1-Dichloroethane	75-34-3	19	26	240	480	NS	0.27	0.27
1,1-Dichloroethene	75-35-4	100a	100a	500b	1,000c	NS	0.33	0.33
1,2-Dichlorobenzene	95-50-1	100a	100a	500b	1,000c	NS	1.1	1.1
1,2-Dichloroethane	107-06-2	2.3	3.1	30	60	10	0.02f	0.02[c]
cis-1,2-Dichloroethene	156-59-2	59	100a	500b	1,000c	NS	0.25	0.25
trans-1,2-Dichloroethene	156-60-5	100a	100a	500b	1,000c	NS	0.19	0.19
1,3-Dichlorobenzene	541-73-1	17	49	280	560	NS	2.4	2.4
1,4-Dichlorobenzene	106-46-7	9.8	13	130	250	20	1.8	1.8
1,4-Dioxane	123-91-1	9.8	13	130	250	0.1e	0.1e	0.1[b]
Acetone	67-64-1	100a	100b	500b	1,000c	2.2	0.05	0.05
Benzene	71-43-2	2.9	4.8	44	89	70	0.06	0.06
Butylbenzene	104-51-8	100a	100a	500b	1,000c	NS	12	12
Carbon tetrachloride	56-23-5	1.4	2.4	22	44	NS	0.76	0.76
Chlorobenzene	108-90-7	100a	100a	500b	1,000c	40	1.1	1.1
Chloroform	67-66-3	10	49	350	700	12	0.37	0.37
Ethylbenzene	100-41-4	30	41	390	780	NS	1	1
Hexachlorobenzene	118-74-1	0.33e	1.2	6	12	NS	3.2	0.33[b]
Methyl ethyl ketone	78-93-3	100a	100a	500b	1,000c	100a	0.12	0.12
Methyl tert-butyl ether	1634-04 -4	62	100a	500b	1,000c	NS	0.93	0.93
Methylene chloride	75-09-2	51	100a	500b	1,000c	12	0.05	0.05
n-Propylbenzene	103-65-1	100a	100a	500b	1,000c	NS	3.9	3.9
sec-Butylbenzene	135-98-8	100a	100a	500b	1,000c	NS	11	11
tert-Butylbenzene	98-06-6	100a	100a	500b	1,000c	NS	5.9	5.9
Tetrachloroethene	127-18-4	5.5	19	150	300	2	1.3	1.3
Toluene	108-88-3	100a	100a	500b	1,000c	36	0.7	0.7
Trichloroethene	79-01-6	10	21	200	400	2	0.47	0.47
1,2,4-Trimethylbenzene	95-63-6	47	52	190	380	NS	3.6	3.6
1,3,5-Trimethylbenzene	108-67-8	47	52	190	380	NS	8.4	8.4
Vinyl chloride	75-01-4	0.21	0.9	13	27	NS	0.02	0.02
Xylene (mixed)	1330-20 -7	100a	100a	500b	1,000c	0.26	1.6	0.26

All soil cleanup objectives (SCOs) are in parts per million (ppm). NS=Not specified. See Technical Support Document (TSD). Footnotes

a The SCOs for residential, restricted-residential and ecological resources use were capped at a maximum value of 100 ppm. See TSD section 9.3.

b The SCOs for commercial use were capped at a maximum value of 500 ppm. See TSD section 9.3.

c The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 ppm. See TSD section 9.3.

d The SCOs for metals were capped at a maximum value of 10,000 ppm. See TSD section 9.3.

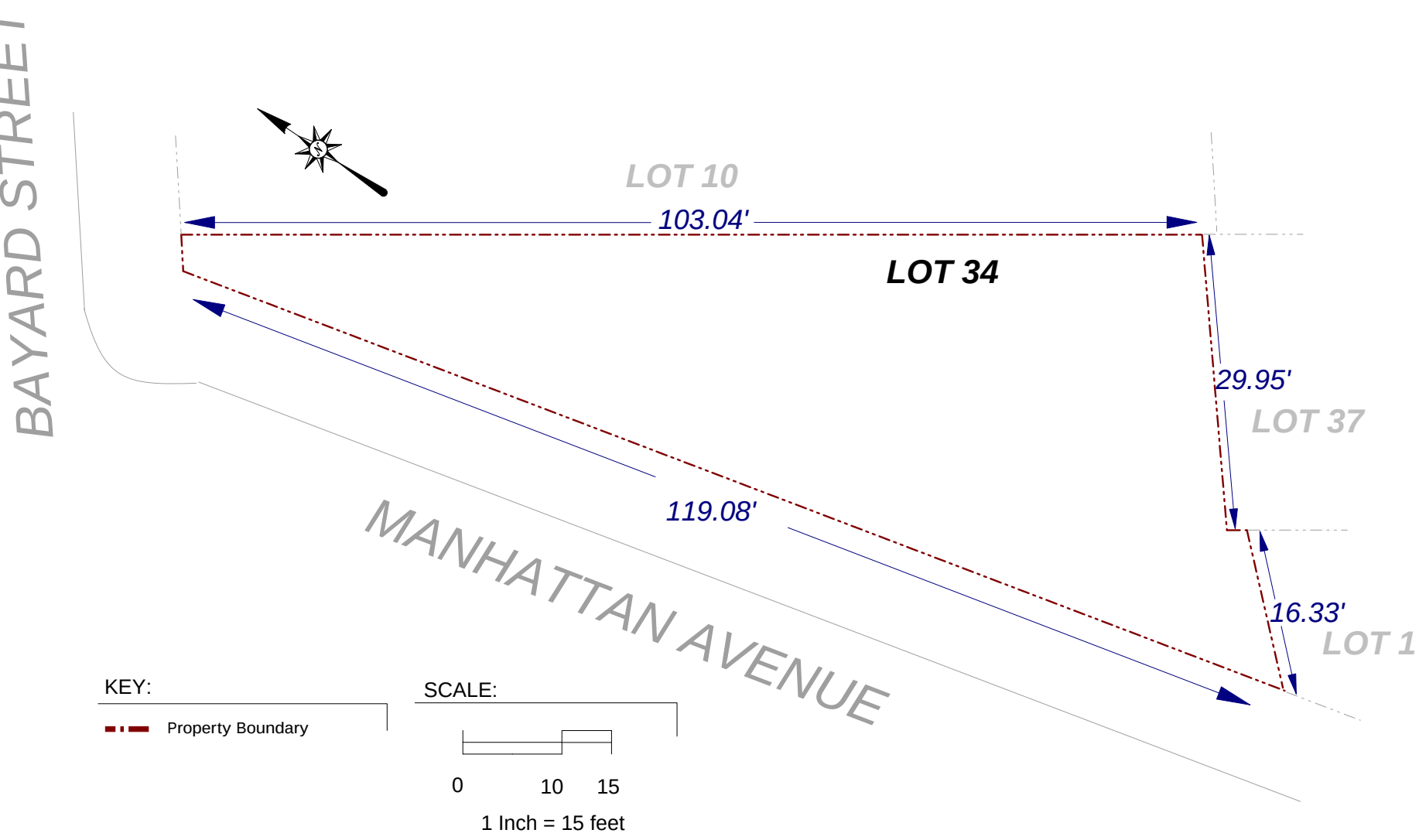
e For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the SCO value.

FIGURES

EBC
Environmental Business Consultants
Phone 631.504.6000
Fax 631. 924 .2870

Figure No. 1

Site Name: Redevelopment Site
Site Address: 434 Manhattan Avenue, Brooklyn, NY
Drawing Title: Site Location



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Environmental Business Consultants
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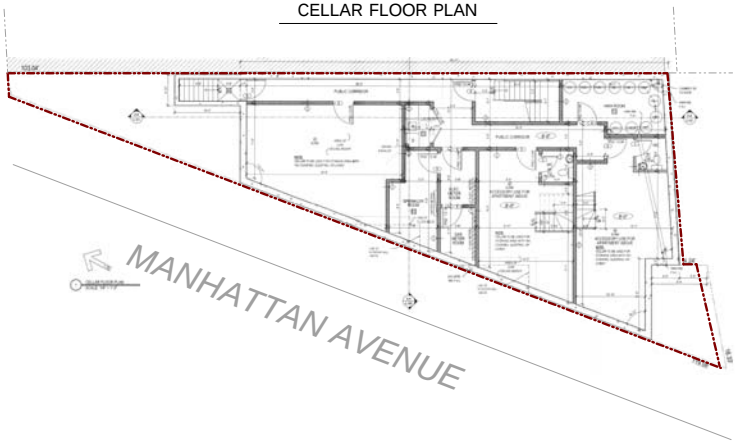
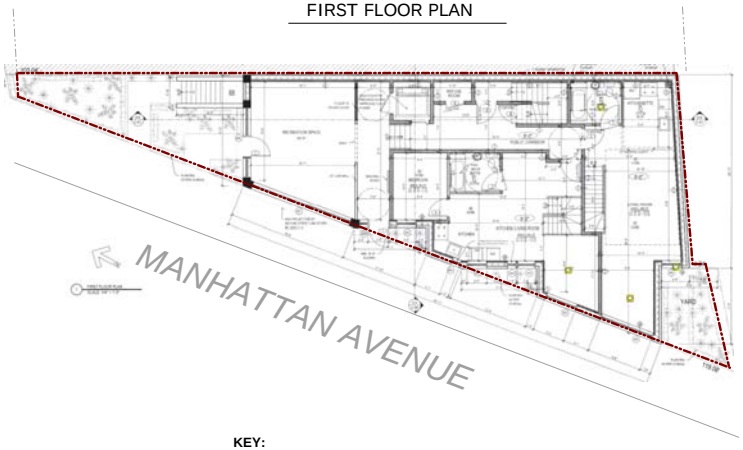
Figure No. 2

Site Name: Redevelopment Site
Site Address: 434 Manhattan Avenue, Brooklyn, NY
Drawing Title: Site Boundary Map

CELLAR FLOOR PLAN



FIRST FLOOR PLAN



KEY:

Property Boundary

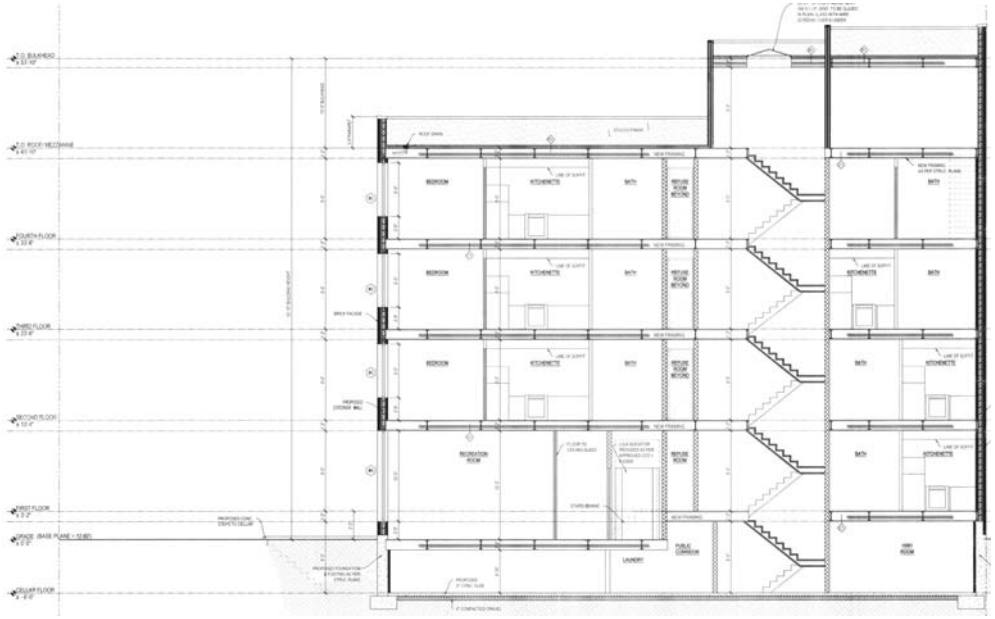


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Figure No. 3

Site Name: REDEVELOPMENT PROJECT
Site Address: 434 MANHATTAN AVENUE, BROOKLYN, NY
Drawing Title: REDEVELOPMENT PLAN

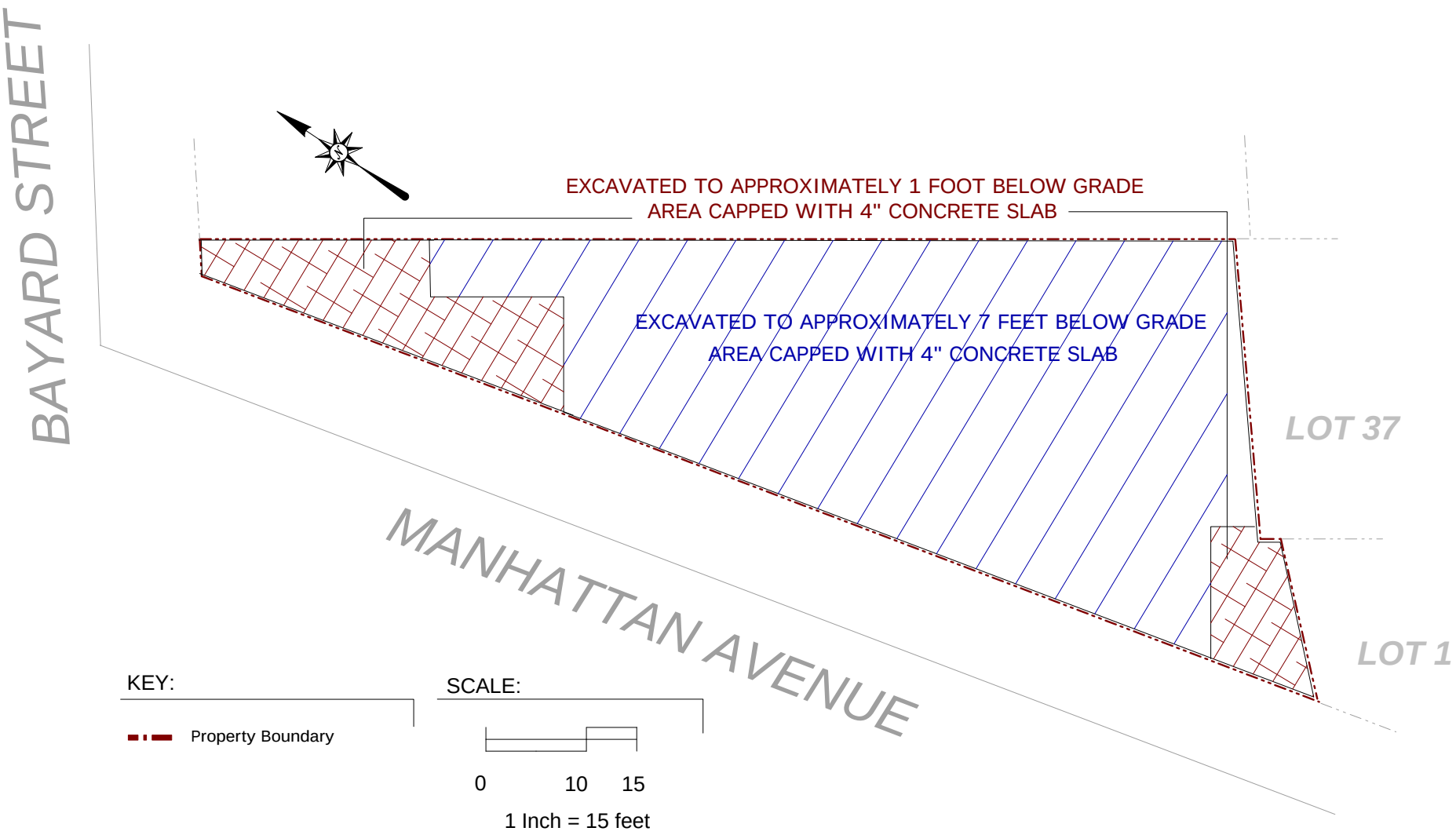
Source: http://www.oasisnyc.net/map.aspx

FIGURE 4

SURROUNDING LAND USE MAP

434 MANHATTAN AVENUE, BROOKLYN, NY

EBC
ENVIRONMENTAL BUSINESSS CONSULTANTS
1808 MIDDLE COUNTRY ROAD, RIDGE, NEW YORK 11961
PHONE: (631) 504-6000 FAX: (631) 924-2870



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ENVIRONMENTAL BUSINESS CONSULTANTS
Phone 631.504.6000
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Figure No. 5

Site Name: REDEVELOPMENT PLAN
Site Address: 434 MANHATTAN AVENUE, BROOKLYN, NY
Drawing Title: EXCAVATION AND CAPPING DIAGRAM

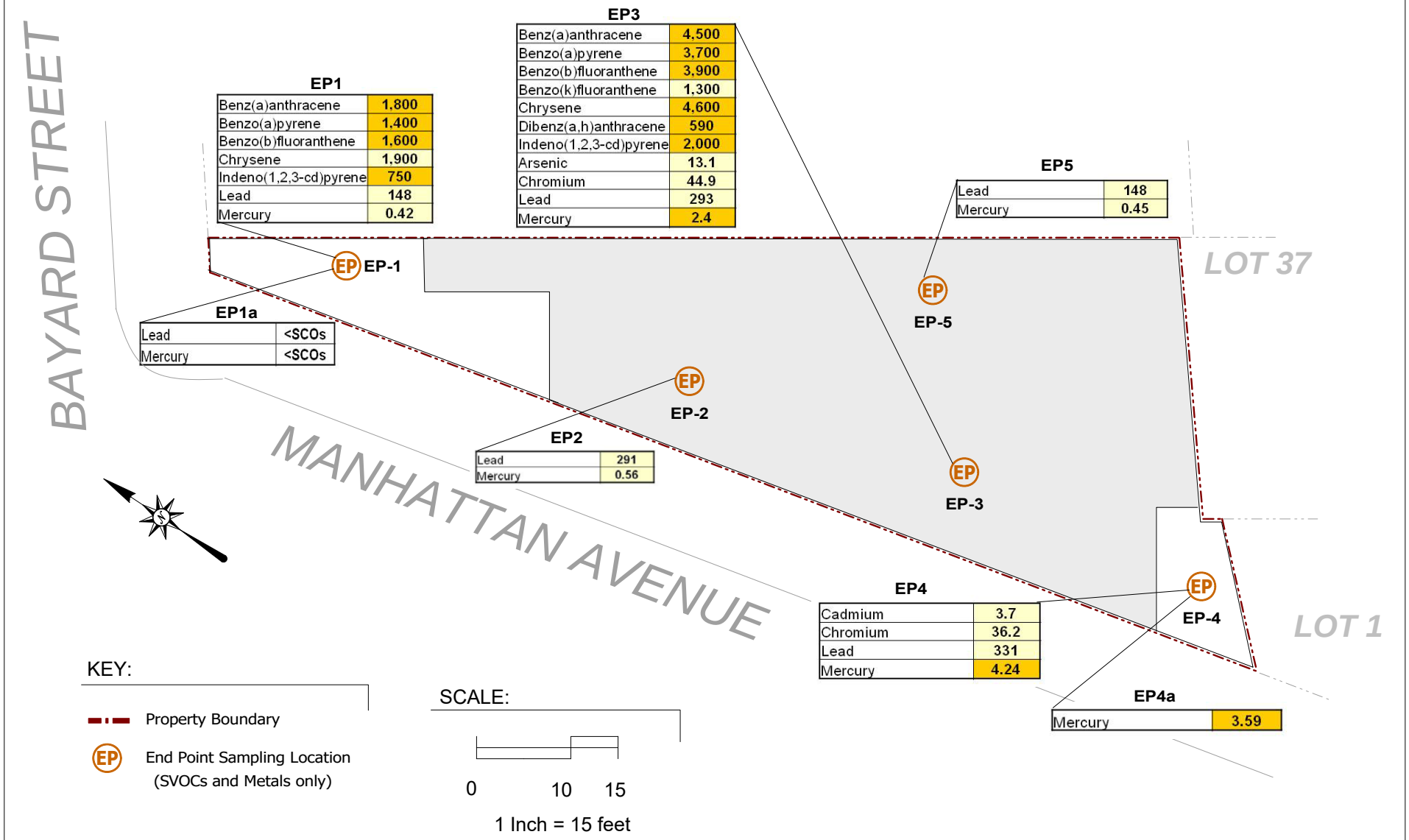

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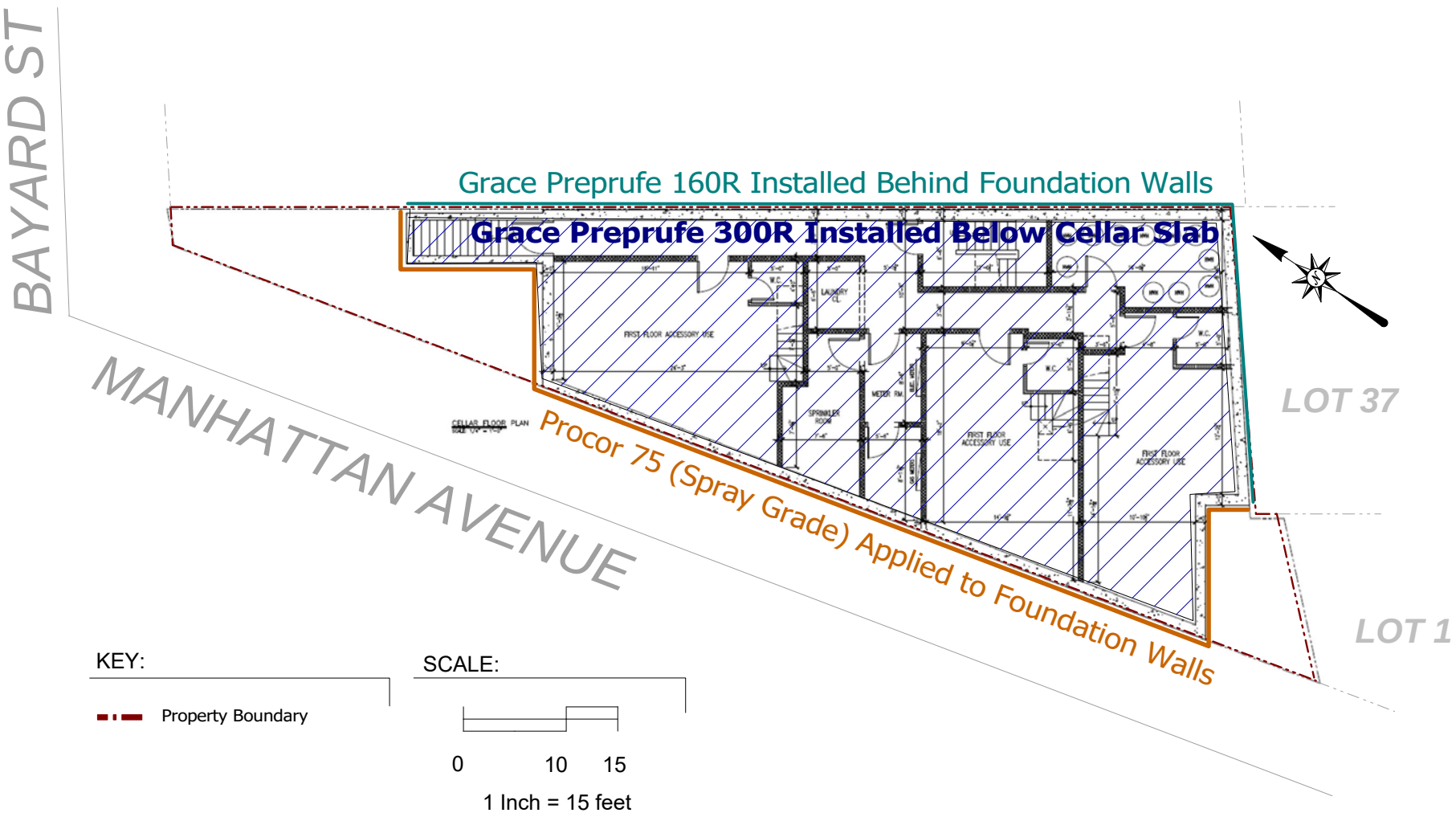
Figure No. 6

Site Name: Redevelopment Site
Site Address: 434 Manhattan Avenue, Brooklyn, NY
Drawing Title: Endpoint Samples



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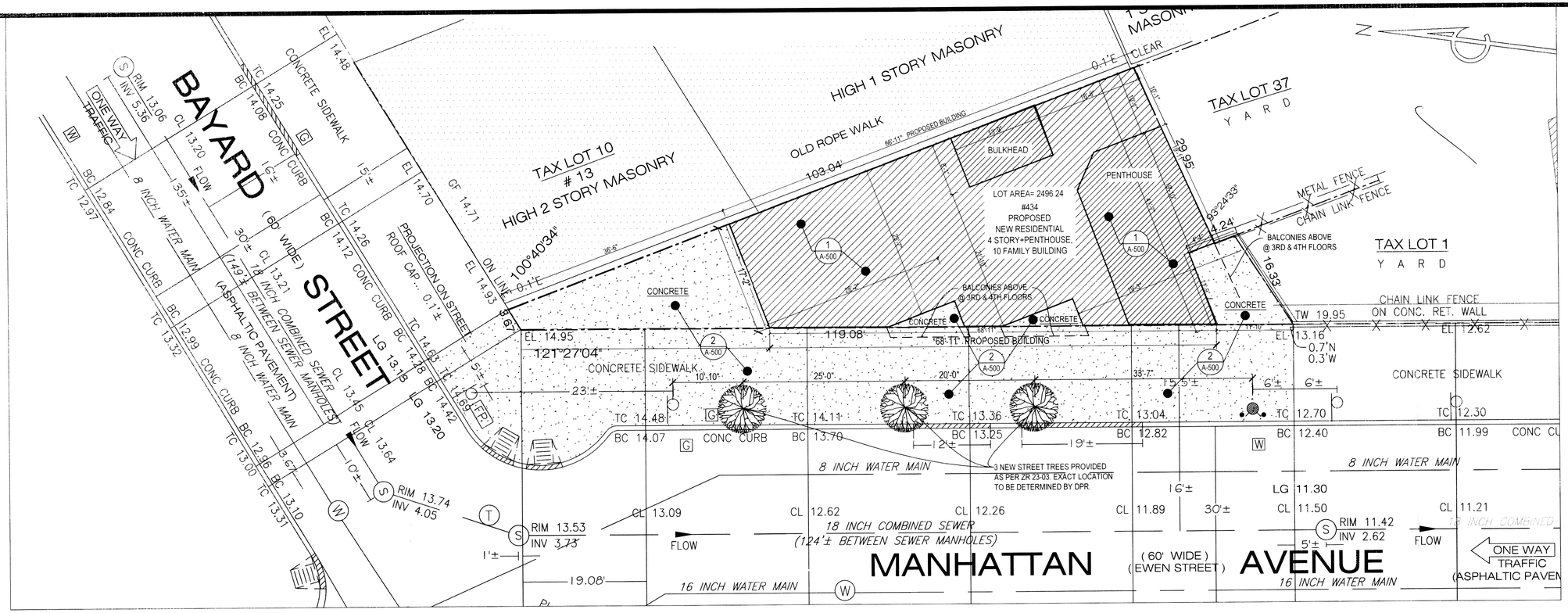
Phone 631.504.6000
Fax 631. 924 .2870

Figure No. 7

Site Name: REDEVELOPMENT PLAN
Site Address: 434 MANHATTAN AVENUE, BROOKLYN, NY
Drawing Title: WATERPROOFING DIAGRAM



DELTA DRAIN DRAINAGE SYSTEM

DELTA®-DRAIN

Technical Data Overview:

Color	drainage core: chocolate brown, geotextile: grey
Material	drainage core: recycled & virgin HDPE, geotextile: PP
Dimple height	5/16" (8 mm) ASTM D6364-06
Compressive strength	approx. 5,200 psf (250 kN/m2) ASTM D6364-06
Water penetration resistance (core)	> 120 psi (8.5 kPa) Watertight AATCC 127-1995
Flow rate / unit with	5.2 gal/min/ft (65 l/min/m) ASTM D4716-08 @ hydr. grad. 1.0; 180 kPa
Flow rate / unit with	4.1 gal/min/ft (17.4 l/min/m) ASTM D4716-08 @ hydr. grad. 0.1; 180 kPa
Application Temperature	-22° F to +176° F (-30° C to +80° C)
Chemical properties	Excellent chemical resistance, resistant to root penetration
Toxicity	non-toxic, non-polluting
Roll dimensions / weight	6' x 65'-7" (1.83 m x 20 m) 60 lbs (27.2 kg) 8' x 65'-7" (2.45 m x 20 m) 73 lbs (33.1 kg)
Installation depth	up to 12' (4 m)
Service life expectancy	>25 years (at pH between 4 and 9 and temperature below 77° F / 25° C). Do not expose to UV light for more than 30 days.

PREPRUFE 300R PLUS WATERPROOFING MEMBRANE

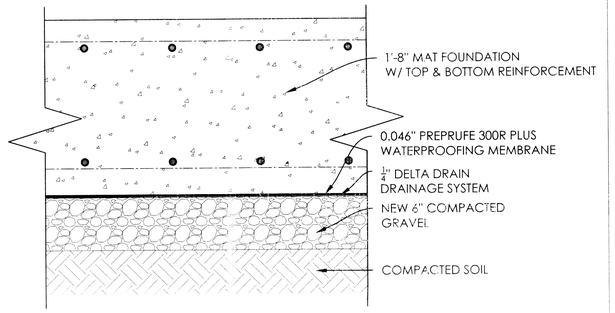
Supply

Dimensions (Nominal)	Preprufe 300R Plus Membrane
Thickness	0.046 in. (1.2 mm)
Roll size	3 ft. 10 in. x 102 ft. (1.17m x 31.15m)
Roll area	392 ft² (36 m²)
Roll weight	108 lbs (50 kg)
Minimum side/end laps	3 in. (75 mm)
* LT denotes Low Temperature (between 25°F (-4°C) and 86°F (+30°C)) HC denotes Hot Climate (50°F (>+10°C))	
Ancillary Products	
Bituthene Liquid Membrane—1.5 US gal (5.7 liter) or 4 US gal (15.1 liter)	

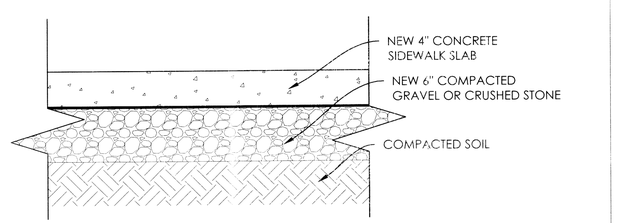
Physical Properties

Property	Typical Value 300R Plus	Test Method
Color	white	
Thickness	0.046 in. (1.2 mm)	ASTM D3767
Lateral Water Migration Resistance	Pass at 231 ft (71 m) of hydrostatic head pressure	ASTM D5385, modified[1]
Low temperature flexibility	Unaffected at -20°F (-29°C)	ASTM D1970
Resistance to hydrostatic head	231 ft (71 m)	ASTM D5385, modified[2]
Elongation	500%	ASTM D412, modified[3]
Tensile strength, film	4000 psi (27.6 MPa)	ASTM D412
Crack cycling at -9.4°F (-23°C), 100 cycles	Unaffected, Pass	ASTM C836[4]
Puncture resistance	221 lbs (990 N)	ASTM E154
Peel adhesion to concrete	5 lbs/in. (860 N/m)	ASTM D903, modified[5]
Lap peel adhesion at 72°F (22°C)	8 lbs/in. (1408 N/m)	ASTM D1876, modified[6]
Lap peel adhesion at 40°F (4°C)	8 lbs/in. (1408 N/m)	ASTM D1876, modified[6]
Permeance to water vapor transmission	0.01 perms (0.6 ng/(Pa x s x m²))	ASTM E96, method B

Footnotes:
1. Lateral water migration resistance is tested by casting concrete against membrane with a hole and subjecting the membrane to hydrostatic head pressure with water. The test measures the resistance of lateral water migration between the concrete and the membrane.
2. Hydrostatic head tests of Preprufe Membranes are performed by casting concrete against the membrane with a lap. Before the concrete cures, a 0.125 in. (3 mm) spacer is inserted perpendicular to the membrane to create a gap. The cured block is placed in a chamber where water is introduced to the membrane surface up to the head indicated.
3. Elongation of membrane is run at a rate of 2 in. (50 mm) per minute.
4. Concrete is cast against the Preprufe membrane and allowed to cure (7 days minimum)
5. Concrete is cast against the protective coating surface of the membrane and allowed to properly dry (7 days minimum). Peel adhesion of membrane to concrete is measured at a rate of 2 in. (50 mm) per minute at room temperature.
6. The test is conducted 15 minutes after the lap is formed (per Grace published recommendations) and run at a rate of 2 in. (50 mm) per minute at 72°F (22°C).



CAPPING DETAIL:
INTERIOR BUILDING
1 / A-500
SCALE: 1-1/2"= 1'-0"



CAPPING DETAIL:
SIDEWALK ON GRADE
2 / A-500
SCALE: 1-1/2"= 1'-0"

EDWARD F. ZEVALLOS ARCHITECT, P.C.
68 JAY STREET, SUITE 201
BROOKLYN, NY 11201
E: EZEVALLOS@EFZARCHITECT.COM
T: 212-470-6536

REGISTERED ARCHITECT
EDWARD F. ZEVALLOS
034198
STATE OF NEW YORK

PROJECT

PROPOSED NEW BUILDING AT
434 MANHATTAN AVENUE,
BROOKLYN, NY

FOR OER 4/6/2016

Date Revised

Date: 5/6/2016

Drawn By: A.M.
Checked By: EZ

WRITTEN DIMENSIONS ON THESE DRAWINGS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB, AND THIS OFFICE MUST BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN ON THESE DRAWINGS. SHOP DETAILS ARE TO BE SUBMITTED TO THIS OFFICE FOR APPROVAL BEFORE PROCEEDING WITH FABRICATION.

FIGURE 8

Project #:

Sheet Title:

AS-BUILT
SITE PLAN,
FOUNDATION & SIDEWALK
DETAILS

Scale:

Drawing No.:

A-500.00