

3500 Park Avenue Apartments Site

3500 Park Avenue

BRONX, NEW YORK

Periodic Review Report

NYSDEC Brownfield Cleanup Program Site Number: C203096

AKRF Project Number: 12477

Prepared for:

3500 Park Apts. HDFC, Inc. and 3500 Park Apts. L.P.
290 Lenox Avenue, 3rd Floor
New York, NY 10027

Prepared by:



AKRF, Inc.
440 Park Avenue South
New York, NY 10016
212-696-0670

MAY 2021

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
1.0 INTRODUCTION.....	2
2.0 BACKGROUND.....	3
2.1 Site History	3
2.2 Site Redevelopment.....	3
2.3 Geology and Hydrogeology	3
2.4 Nature and Extent of Contamination Prior to Remediation	3
3.0 SITE REMEDIATION.....	4
3.1 Contaminated Materials Removal and Endpoint Sampling	4
3.1.1 Spill and Tank Closure and Removal	4
3.2 Endpoint Sampling	5
3.3 Import Soil Sample Analytical Results	6
3.4 Completion of Remediation Activities	6
4.0 SITE MANAGEMENT REQUIREMENTS.....	7
4.1 Introduction	7
4.2 Cover System Requirements	7
4.3 Monitoring Requirements.....	7
4.3.1 Site-wide Inspection Requirements	7
4.4 Monitoring Reporting Requirements.....	8
5.0 POST-REMEDIAL CONSTRUCTION ACTIVITIES	9
5.1 Composite Cover System	9
6.0 REMEDY PERFORMANCE EVALUATION AND MAINTENANCE.....	11
6.1 Site-wide Inspection	11
7.0 CONCLUSIONS AND RECOMMENDATIONS.....	12

DATA TABLES/CHARTS

Table T1	Off-Site Soil/Fill Disposal Summary
Table T2	Post-Excavation Endpoint Sample Summary
Table T3	Monitoring/Inspection Requirement Summary
Table T4	Monitoring/Inspection Report Summary

FIGURES

Figure 1	Site Location
Figure 2	Site Plan
Figure 3	Site Cover System Plan

APPENDICES

Appendix A	Site-wide Inspection Form
Appendix B	Photographic Log
Appendix C	Institutional Control and Engineering Control (IC-EC) Certification Form

P.E. CERTIFICATION

I, Michelle Lapin, am currently a registered professional engineer licensed by the State of New York. I had primary direct responsibility for implementation of the approved Site Management Plan protocols, and I certify that the documentation of site management activities is accurately presented in this Periodic Review Report for the 3500 Park Avenue Apartments Site (the Site) located at 3500 Park Avenue in the Bronx, New York (BCP Site No. C203096).

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

- a) The institutional control and engineering controls employed at this Site are unchanged from the date the controls were put in place, or last approved by the New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation (DER), with the exceptions cited in this Periodic Review Report;
- b) Nothing has occurred that would impair the ability of such controls to protect public health and the environment;
- c) Nothing has occurred that would constitute a violation or failure to comply with any Site Management Plan requirement for these controls; and
- d) Access to the Site will continue to be provided to DER to evaluate the remedy, including access to evaluate the continued maintenance of these controls.



NYS P.E. License #073934-1

5/18/2021

Date

EXECUTIVE SUMMARY

This Periodic Review Report (PRR) was prepared on behalf of 3500 Park Apts. HDfC, Inc. and 3500 Park Apts. L.P. (collectively the “Volunteer”) as an element of the remedial program at the 3500 Park Avenue Apartments Site located at 3500 Park Avenue, Bronx, New York (Tax Block 2389, Lot 20) (hereinafter referred to as the “Site”). The remedial program was performed under the New York State (NYS) Brownfield Cleanup Program (BCP), administered by New York State Department of Environmental Conservation (NYSDEC). The Site was remediated in accordance with Brownfield Cleanup Agreement (BCA) Index #C203096-09-17, Site #C203096, which was executed on November 28, 2017. A Site location map is provided as Figure 1, and the Site layout and surrounding properties are shown on Figure 2.

As reported to NYSDEC and the New York State Department of Health (NYSDOH), Remedial Investigations (RI) completed at the Site in May 2016 and December 2017 confirmed that soil was contaminated with semi-volatile organic compounds (SVOCs) and metals. Remedial activities included soil removal and construction of a site cover system, completed between June 2018 and December 2019, in accordance with the NYSDEC-approved Remedial Action Work Plan (RAWP) and Decision Document (DD). The Site achieved a dual Track 2 cleanup/Track 4 cleanup. The Track 2 cleanup [meeting Restricted Residential Soil Cleanup Objectives (RRSCOs)] was achieved on the western portion of the Site and a Track 4 cleanup was achieved on the eastern portion of the Site. NYSDEC approved the Final Engineering Report (FER) and Site Management Plan (SMP) in December 2019 and the Certificate of Completion (COC) was issued on December 18, 2019.

The purpose of this PRR is to document and certify that the Site’s engineering and institutional controls have been implemented in accordance with the SMP and all relevant BCP requirements during this reporting period.

In summary, the Site’s remedy remains effective and protective of human health and the environment with continued adherence to the SMP. Periodic inspections, including an annual site-wide and composite cover inspection, were performed to document Site conditions. As reported and certified herein, the Volunteer was fully compliant with the SMP for the first reporting period (under Site Management) from December 18, 2019 through April 18, 2021. The status of each of the remaining remedial program elements are summarized herein.

Site Cover System

The permanent site cover system was maintained in good condition to prevent contact with underlying soil and groundwater. The cover system underwent additional finishes and construction to complete the exterior courtyard.

The use of the on-site building has remained unchanged during the 2019-2021 PRR reporting period.

1.0 INTRODUCTION

This Periodic Review Report (PRR) was prepared for the 3500 Park Avenue Apartments Site located at 3500 Park Avenue in the Morrisania neighborhood of the Bronx, County of Bronx, New York (the “Site”), listed as Block 2389, Lot 20 on the New York City Tax Map. The Site was successfully remediated in accordance with Brownfield Cleanup Agreement (BCA) Index #C203096-09-17, Site #C203096, executed on November 28, 2017. The Site consists of an approximately 0.348-acre lot developed with an approximately 82,000-gross square-foot, 7-story building and rear landscaped courtyard. The Site is currently zoned R7-1 and C2-4 (residential and commercial district). A Site location map is provided as Figure 1. The Site layout and surrounding properties are shown on Figure 2.

The Site was occupied from 1951 to 1993 by a single-story industrial facility used for manufacturing of advertising displays and woodworking with a spray booth and paint vault. The former Site building was demolished in the mid-1990s. The Site was used as a commercial licensed parking lot from 1994 until May 2018.

Activities reported herein have been performed on behalf of 3500 Park Apts. HDPC, Inc. and 3500 Park Apts. L.P. (collectively the “Volunteer”). Remedial Investigations (RI) completed at the Site in May 2016 and December 2017 indicated that soil was contaminated with semi-volatile organic compounds (SVOCs) and metals. Remedial activities included soil removal and construction of a site cover system, completed between June 2018 and December 2019, in accordance with the NYSDEC-approved Remedial Action Work Plan (RAWP) and Decision Document (DD). The Site achieved a dual Track 2 cleanup/Track 4 cleanup. The Track 2 cleanup [meeting Restricted Residential Soil Cleanup Objectives (RRSCOs)] was achieved on the western portion of the Site and a Track 4 cleanup was achieved on the eastern portion of the Site. NYSDEC approved the Final Engineering Report (FER) and Site Management Plan (SMP) in December 2019 and the Certificate of Completion (COC) was issued on December 18, 2019.

Ongoing Site management activities are being performed in accordance with the NYSDEC-approved Site Management Plan (SMP). The SMP provides detailed descriptions of all procedures required to manage known and potential residual contamination. Required activities conducted at the Site under the approved SMP during the December 18, 2019 to April 18, 2021 reporting period included:

- Removal of scaffolding previously installed around the new building perimeter, including the rear courtyard within the Track 4 portion of the Site;
- Installation of hardscape and landscape components in the rear courtyard within the Track 4 portion of the Site; and
- Inspection and confirmation of the integrity of the site cover system.

The purpose of this PRR is to document and certify that the Site’s engineering and institutional controls have been implemented in accordance with the SMP and all relevant BCP requirements during this reporting period.

2.0 BACKGROUND

2.1 Site History

The Site was developed historically with a single-story industrial facility used for manufacturing of advertising displays and woodworking with a spray booth and paint vault from 1951 to 1993. The former Site building was demolished in the mid-1990s and the Site was converted to a commercial licensed parking lot in 1994. The Site was used as a concrete and asphalt-paved parking lot with a small attendant shed on the southwestern portion until May 2018. Past owners of the Site include: unknown prior to 1994; 3500 Park, Inc. from 1994 to 2006; 3500 Park Avenue LLC from 2006 to 2016; and 3500 Park Apts. HDFC, Inc. from 2016 to the present.

2.2 Site Redevelopment

The Site was redeveloped between 2018 and 2020 into a 7-story residential building fronting Park Avenue and East 168th Street, with 115 affordable residential units. One partial cellar level beneath the western portion of the Site contains a bicycle storage room, building utilities, and tenant storage space. A partial crawl space occupies the remainder of the building footprint below sidewalk grade. The first floor includes a residential unit, residential lobbies, offices, a conference room, an activity room, a library, a waste compactor room, a laundry room, a maintenance storage room, a rear yard access passage, accessible from Park Avenue, with access to an exterior rear landscaped courtyard. Floors 2 through 7 include residential units for residential use exclusively. A Site Plan showing the BCP Site boundary and surrounding property uses is provided as Figure 2.

2.3 Geology and Hydrogeology

Based on the March 16, 2017 survey performed by Leonard J Strandberg and Associates, Consulting Engineers and Land Surveyors, P.C., the Site lies at an elevation of approximately 35.6 to 40.9 feet above the National Geodetic Vertical Datum (NGVD) of 1988 (an approximation of mean sea level) and slopes slightly to the west.

Based on subsurface investigation prior to development, soil beneath the Site consisted of fill comprising sand, silt, gravel, concrete, rock, brick, asphalt, and wood from sidewalk grade to varying depths up to approximately 20 feet below grade, underlain by sand, silt, and gravel. A June 2017 geotechnical investigation by GZA GeoEnvironmental, Inc. identified bedrock at depths ranging from 27 to 40 feet below grade.

During AKRF's December 2017 Supplemental Remedial Investigation (SRI), depth to groundwater beneath the Site was encountered at 21.54 feet below the top of polyvinyl chloride (PVC) well casing in groundwater monitoring well SRI-GW-1 on the northern portion of the Site. Based on topography and local hydrogeology, groundwater is expected to flow in a south-southeasterly direction. Groundwater in the Bronx is not used as a source of potable water.

2.4 Nature and Extent of Contamination Prior to Remediation

Based on the Remedial Investigation (RI) conducted in May 2016 and the SRI conducted in December 2017, the top approximately 15 to 20 feet of soil/fill throughout the Site consisted of historic fill, which was contaminated with polycyclic aromatic hydrocarbons (PAHs), pesticides, and heavy metals. The contaminants in the soil were not observed to be migrating and were concluded to have no adverse effect on groundwater quality. Elevated levels of VOCs were detected in soil vapor beneath the Site.

3.0 SITE REMEDIATION

Site remediation was conducted in accordance with the April 2018 NYSDEC-approved RAWP, as documented in the December 2019 FER. Remedial activities included soil removal, completed between June 2018 and December 2019. The Site achieved a dual Track 2 cleanup/Track 4 cleanup. A Track 2 cleanup (meeting RRSCOs) was achieved on the western portion of the Site and a Track 4 cleanup was achieved on the eastern portion of the Site. The Track 4 remedy additionally included the implementation of Institutional Controls and Engineering Controls (IC/ECs) including construction of a site cover system.

3.1 Contaminated Materials Removal and Endpoint Sampling

Contaminated soil exceeding RRSCOs was excavated and removed within the upper 15 feet below grade on the western portion of the Site (Track 2 cleanup area). Contaminated soil exceeding RRSCOs was excavated and removed to a maximum depth of 7 feet below grade on the eastern portion of the Site (Track 4 cleanup area). The required in-situ pre-characterization sampling was conducted prior to disposal.

The following materials were removed from the Site as part of remedial activities: 11,373.82 tons of non-hazardous soil/fill, and two 550-gallon underground storage tanks (USTs) and associated contents [429 gallons of a petroleum product/water mixture and one drum containing approximately 250 pounds of sludge from the USTs]. The tank removal is further described in Section 3.1.1. Table T1 summarizes the quantity of soil excavated and facilities where the material was disposed of off-site.

Table T1
Off-Site Soil/Fill Disposal Summary

Disposal Facility	Quantity Disposed
Capital Quarry Reclamation Project East Bangor, PA	11,346.84 tons
Bayshore Soil Management, Keasby, NJ	26.98 tons
Total	11,373.82 tons

3.1.1 Spill and Tank Closure and Removal

Prior to removal of the two 550-gallon USTs, one of the USTs rotated and approximately 100 gallons of residual gasoline/water and sludge from inside the tank spilled onto soil in the immediate vicinity of the tank grave. AKRF reported the petroleum spill to the NYSDEC spill hotline and NYSDEC Spill No. 1805320 was assigned on August 15, 2018. The petroleum-contaminated soil was excavated and the spill was closed on August 16, 2018.

Following the UST removals, AKRF collected endpoint samples from each of the four side walls at approximately 8 feet below grade and at the bottom of the tank graves/extent of the petroleum-contaminated soil associated with NYSDEC Spill No.1805320, approximately 10 feet below grade. The samples were analyzed for TCL VOCs, TCL SVOCs, TCL pesticides, PCBs, and TAL metals. In addition, one trip blank, one field blank, one matrix spike/matrix spike duplicate, and one blind duplicate sample were collected. On August 21, 2018, AKRF collected one additional endpoint sample from the

bottom of the tank graves/extent of the spill at approximately 10 feet below grade and submitted it with the same sample delivery group.

While some tank excavation endpoint samples exceeded the UUSCOs and/or RRSCOs, the exceedances of UUSCOs and RRSCOs were likely associated with the fill material observed around the tanks and not indicative of a release or spill. The tank endpoint sample analytical results are included in Tables 4a through 4e of the SMP. Following confirmation of endpoint sample analytical results, NYSDEC Spill No. 1805320 was closed by NYSDEC on August 16, 2018. Although there was no additional evidence of contamination, soil surrounding the tanks was further excavated as part of the Site-wide remedy and disposed of off-site at the designated facility.

3.2 Endpoint Sampling

In accordance with the NYSDEC-approved RAWP, confirmatory endpoint samples were collected to document concentrations of contaminants of concern in soil left in place following the remedy. Based on NYSDEC Division of Environmental Remediation (DER)-10 Section 5.4, samples were collected at the approximate locations identified in the RAWP. All confirmatory endpoint samples were indicated with “EP”, the approximate depth below grade, and the date on which they were collected in the sample name.

Nineteen post-excavation endpoint samples were collected Site-wide to confirm the attainment of Track 2 RRSCOs. Table T2 identifies each endpoint sample location, the associated sample depth, and whether any exceedances of UUSCOs or RRSCOs were detected. The analytical results indicated that all concentrations in endpoint samples EP-1 through EP-8 were below the RRSCOs. Exceedances of the RRSCOs were detected at samples EP-2(15), EP-A2(16), and all endpoint samples related to UST-1, UST-2 and UST-3; however, the remedy still achieved Track 2, since excavation extended down to at least 15 feet below sidewalk grade and the contaminated soil exceeding RRSCOs below 15 feet below grade was not identified as source material. Endpoint samples EP-9 through EP-18 were collected at varying depths ranging from 2 to 10 feet below sidewalk grade and several SVOCs and metals were detected at concentrations above the RRSCOs. Additional excavation was not feasible in these areas, thus, these endpoint samples created the boundaries for the Track 4 cleanup portion of the Site. Table T2 summarizes the post-excavation endpoint samples.

Table T2
Post-Excavation Endpoint Sample Summary

Endpoint Sample ID	Sample Depth (feet below sidewalk grade)	Exceeds UUSCOs (Yes/No)	Exceeds RRSCOs (Yes/No)	BCP Cleanup Track Area (2/4)
EP-1	15	No	No	Track 2
EP-2	15	Yes	Yes	Track 2
EP-3	22	Yes	No	Track 2
EP-4	15	Yes	No	Track 2
EP-5	15	No	No	Track 2
EP-6	20	Yes	No	Track 2
EP-7	13	Yes	No	Track 2
EP-8	11	Yes	No	Track 2
EP-9	7	Yes	Yes	Track 4

Endpoint Sample ID	Sample Depth (feet below sidewalk grade)	Exceeds UUSCOs (Yes/No)	Exceeds RRSCO's (Yes/No)	BCP Cleanup Track Area (2/4)
EP-10	5	Yes	Yes	Track 4
EP-11	5	Yes	Yes	Track 4
EP-12	3	Yes	Yes	Track 4
EP-13	10	Yes	Yes	Track 4
EP-14	10	Yes	No	Track 4
EP-15	5	Yes	Yes	Track 4
EP-16	2	Yes	No	Track 4
EP-17	2	Yes	Yes	Track 4
EP-18	2	Yes	Yes	Track 4
EP-A2	16	Yes	Yes	Track 2

All final post-excavation endpoint samples within the Track 2 BCP cleanup boundary were either collected from approximately 15-16 feet below sidewalk grade or there were no exceedances of Track 2 RRSCO's. The depths were confirmed by an endpoint sample survey conducted by Empire State Layout, Inc. It is noted that the SVOC indeno(1,2,3-c,d)pyrene was detected at a concentration of 0.577milligrams per kilogram (mg/kg), above the RRSCO of 1 mg/kg in endpoint sample EP-2. However, as this area was excavated down to 15 feet below sidewalk grade, no further excavation was required.

3.3 Import Soil Sample Analytical Results

Approximately 180 cubic yards of clean fill were imported to the Site from 284 Aggregates, LLC of Sussex, New Jersey to establish the minimum two-foot clean fill buffer above a demarcation barrier in all landscaped and non-covered areas in September 2019. The clean fill was sampled in accordance with the frequency included in Table 5.4(e)10 of DER-10 prior to import to the Site. Import samples were collected in laboratory supplied glassware and relinquished under standard chain-of-custody protocol. Import samples were submitted for laboratory analysis of VOCs by EPA Method 8260, SVOCs by EPA Method 8270, pesticides by EPA Method 8081, PCBs by EPA Method 8082, TAL metals by EPA Method 6000/7000, 1,4-Dioxane by EPA Method modified 8260C Selective Ion Monitoring (SIM), and the standard 21 compound list for PFOA and PFOS compounds by EPA modified Method 537. The laboratory analytical results indicated that there were no exceedances of UUSCOs or RRSCO's. PFOA and PFOS compounds were not detected above reporting limits in the soil samples. A summary of import soil sample analytical results is provided in Tables 8a through 8f of the FER.

3.4 Completion of Remediation Activities

Remedial activities at the Site were concluded in December 2019. The Site was remediated to a dual Track 2 cleanup/Track 4 cleanup in accordance with the April 2018 NYSDEC-approved RAWP, as documented in the December 2019 FER. A Track 2 cleanup (meeting RRSCO's) was achieved on the western portion of the Site and a Track 4 cleanup was achieved on the eastern portion of the Site. As a condition of completing a Track 4 cleanup, long-term Site management requires the implementation of an SMP with ICs/ECs on the Track 4 portion of the Site.

4.0 SITE MANAGEMENT REQUIREMENTS

4.1 Introduction

For additional details related to the nature and extent of contamination and the remedial cleanup, please refer to the appropriate sections of the FER and/or SMP. The Site management requirements set forth under the latest approved SMP for evaluating the performance and effectiveness of the remedy are summarized in Table T3 (referenced from the approved SMP) with an indication of the activities completed this reporting period.

Table T3
Monitoring/Inspection Requirement Summary

Monitoring Program	Frequency	Location	Matrix	Analysis	Completed this Period?
Site Cover System	Annually. First inspection no more than 18 months after COC, then at least annually thereafter	First floor, crawl space, and courtyard of the Track 4 portion of the Site	Cover System Integrity	Visual Inspection of Conditions	Yes

4.2 Cover System Requirements

Exposure to residual contaminated soil remaining at the Site within the Track 4 cleanup area is prevented by an engineered site cover system. There are no cover system requirements for the Track 2 portion of the Site. The engineered site cover system is composed of the concrete floor slab on the eastern portion of the building and two feet of clean fill in the rear courtyard. The location and details of the site cover system as maintained over the course of this reporting period are shown on Figure 3. The site cover system continues to remain intact 24 hours a day, 7 days a week, for 365 days a year. Disturbance of the site cover system or EC components is prohibited by the Environmental Easement. In the unlikely event of an unanticipated accidental or required disturbance of the site cover system, the response procedure is outlined in Section 4.3.1 of the SMP.

Monitoring of the site cover system occurred during the annual inspection performed prior to the end of this reporting period. The site cover system will continue to be maintained as long as the Environmental Easement is in effect to ensure the protection of human health at the Site. Results of the site cover system inspection are summarized in Section 6.0 of this PRR.

4.3 Monitoring Requirements

4.3.1 Site-wide Inspection Requirements

Site-wide inspections are required to be performed on a regular schedule at a minimum of no more than 18 months after issuance of the COC, then at least once a year thereafter. A site-wide inspection was performed on October 2, 2020. During this inspection, a Site-wide Inspection Form was completed, as reported in Section 3.0 of this PRR and attached in Appendix A.

4.4 Monitoring Reporting Requirements

The Site management reporting requirements for evaluating the performance and effectiveness of the remedy at the Site, the site cover system, and all affected Site media are summarized in Table T4 (referenced from the SMP) with an indication of what was completed during this reporting period.

Table T4
Monitoring/Inspection Report Summary

Reporting Task	Reporting Frequency	Completed this Period?
Inspection Report	With the Periodic Review Report	Yes
Periodic Review Report	Annually beginning 18 months after issuance of COC until termination of Environmental Easement	Yes

5.0 POST-REMEDIAL CONSTRUCTION ACTIVITIES

Post-remedial construction activities occurred at the Site between December 2019 and September 2020. The activities included the removal of temporary scaffolding and improvements to portions of the composite cover system in the rear landscaped courtyard. Procedures outlined in the EWP and SMP were strictly adhered to for the work detailed in the SMP.

5.1 Composite Cover System

Portions of the composite cover system were modified between December 2019 and September 2020. The following is a summary of the modifications by composite cover type:

Rear Courtyard

The site cover system within the rear courtyard had significant improvements installed during this reporting period. As part of remedial construction activities, 251.43 tons of clean fill were imported to the Track 4 portion of the Site to establish the minimum two-foot clean fill buffer above a demarcation barrier in all landscaped and non-covered areas. At the time of issuance of the COC in December 2019, temporary scaffolding was installed above the demarcation barrier in the rear courtyard to support construction of the new building. In February 2020, following issuance of the COC in December 2019, the temporary scaffolding was removed and the existing two-foot layer of clean fill was graded in areas of the removed temporary scaffolding above the previously installed demarcation barrier. Additional hardscaping and landscaping finishes were installed above the minimum two-foot clean fill and demarcation barrier in the rear courtyard (Track 4 portion) of the Site, including:

- Porous Pavement: 1.5"-thick Flexi-Pave® porous pavement underlain by approximately 4" of ¾" virgin, quarry stone and filter fabric;
- Porous Safety Surface: 2.25"-thick Flexi-Pave® safety surfacing underlain by approximately 4" of ¾" virgin, quarry stone and filter fabric;
- Permeable Pavers: Approximately 3"-thick Hanover® Permeable Pavers underlain by approximately 1" of ¼" virgin, quarry stone, approximately ¾" of ¾" virgin, quarry stone, and approximately 1.5" of 1.5" virgin, quarry stone;
- Impervious Concrete Paving: Approximately 5"-thick concrete pavement underlain by approximately 6" of ¾" virgin, quarry stone;
- Planting Beds: Approximately 6" of topsoil; and
- Concrete Retaining Wall: A concrete retaining wall installed on the eastern border of the Site outside of the building footprint to stabilize the rear backyard of the east-adjacent property. The concrete retaining wall consists of a minimum of 10' thick concrete wall underlain by 6" of virgin, quarry stone.

The demarcation barrier installed beneath the two-foot clean fill buffer and underlying remaining soil was not disturbed during the additional rear courtyard construction activities performed in 2020 following approval of the SMP and FER and issuance of the COC in 2019. The additional site cover system components installed in the rear courtyard of the Site are included in the revised Site Cover System Plan provided as Figure 3.

The integrity of the Site composite cover system has been maintained at all times. The EWP summarizes the required procedures to be implemented in the event the composite cover system is breached, penetrated, or temporarily removed and any underlying remaining contamination is disturbed. Procedures for the inspection of this system are provided in the Monitoring and

Sampling Plan included in Section 4.0 of the SMP. Any work conducted pursuant to the EWP must also be conducted in accordance with the procedures defined in the HASP and CAMP prepared for the Site.

6.0 REMEDY PERFORMANCE EVALUATION AND MAINTENANCE

The SMP describes the measures for evaluating the performance and effectiveness of the ICs/ECs. The annual Site-wide inspection was conducted in accordance with the SMP.

6.1 Site-wide Inspection

On October 2, 2020, AKRF performed the annual site-wide inspection of the cover system, which consisted of observing the first floor, crawl space, and landscaped courtyard for holes, significant cracking, and/or signs of damage. During the inspection, the site cover was found to be intact, with no signs of significant cracking or damage, as documented on the Site-wide Inspection Form provided in Appendix A. No soil disturbance or significant breaches to the cover system occurred at the Site during this certification period. No corrective actions were recommended following the completion of this inspection. A photographic log for the Site is included as Appendix B.

7.0 CONCLUSIONS AND RECOMMENDATIONS

The purpose of this PRR is to document the Site management activities and findings associated with the ICs and ECs, and to certify that these controls are being implemented in accordance with the NYSDEC-approved SMP inaugural 18-month periodic review reporting period from December 18, 2019 to April 18, 2021. This PRR also documents work conducted from December 18, 2019 to April 18, 2021, including the replacement of certain elements of the composite cover system in accordance with the Site-specific SMP, Excavation Work Plan (EWP), Community Air Monitoring Plan (CAMP), and Health and Safety Plan (HASP). The IC/EC Certification Form is provided in Appendix C.

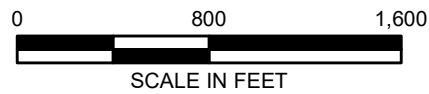
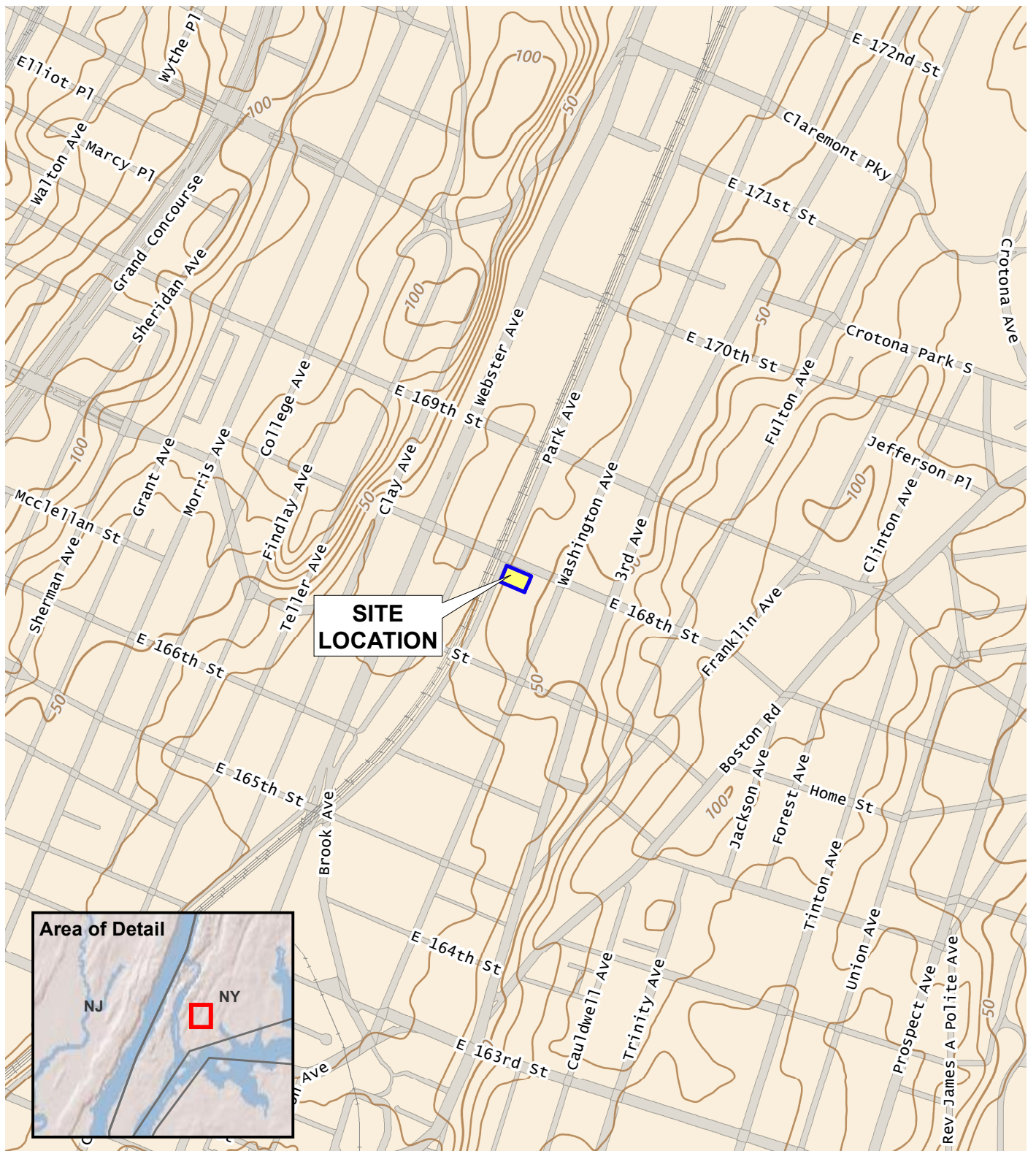
Based on the inspections and data summarized in this report, the following conclusions were developed:

- The IC/EC Certification Form for the Site was completed based on results from Site monitoring and inspections described in this report. The monitoring and inspection findings indicate that all ICs/ECs at the Site remain in place and effective.
- The engineered composite cover system remains in good condition.

In summary, the remedy remains effective and protective of human health and the environment and remains in compliance with the requirements set forth in the SMP. Periodic inspections, including an annual Site-wide, composite cover system inspection of the Track 4 cleanup portion of the Site will continue to be performed in accordance with the SMP.

FIGURES

© 2021 AKRF W:\Projects\12477 - 3500 PARK AVENUE\Technical\GIS and Graphics\hazmat\12477 Fig 1 site loc map.mxd 9/4/2019 9:33:35 AM mvelieux

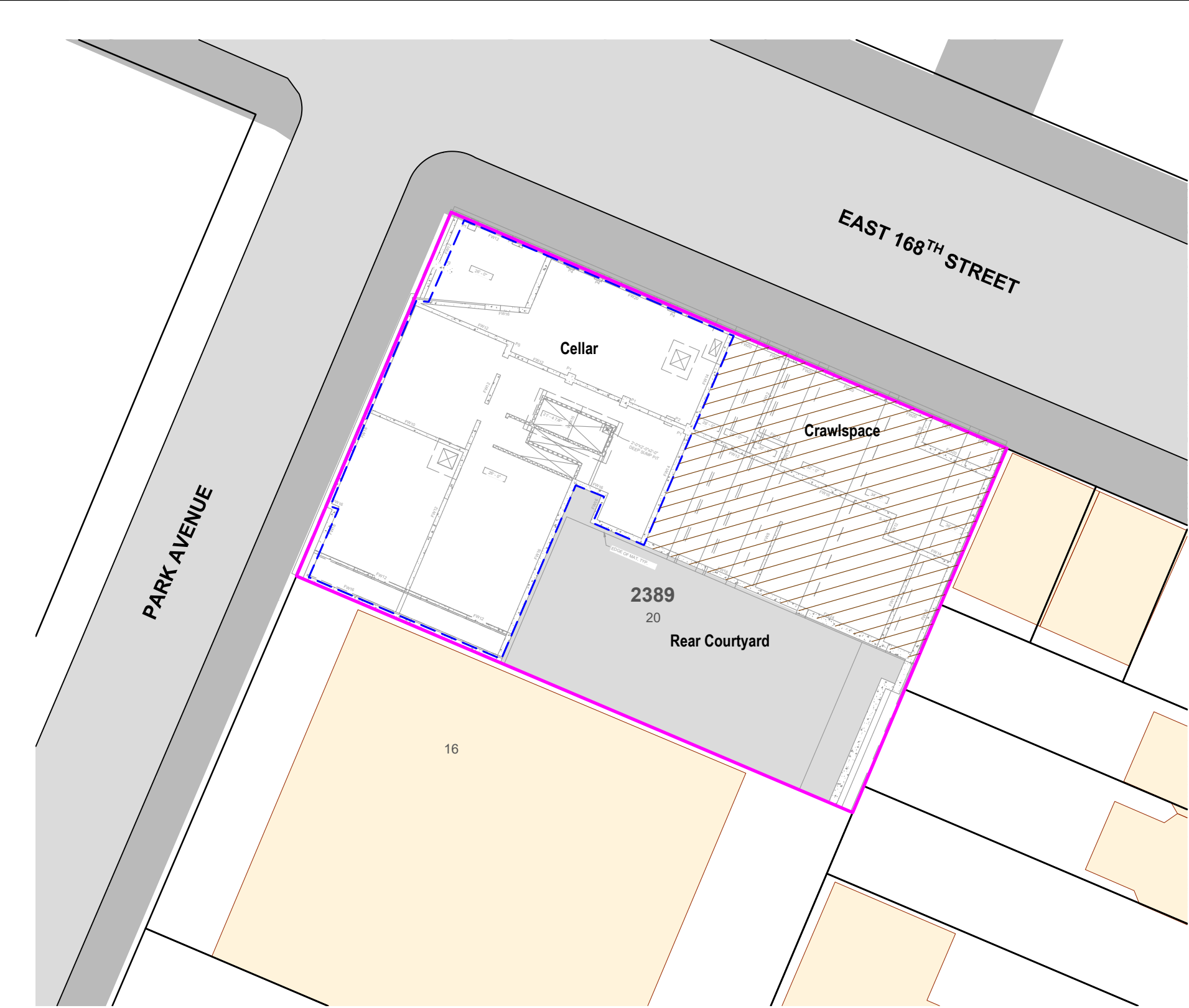


440 Park Avenue South, New York, NY 10016

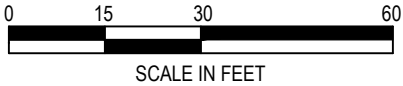
3500 Park Avenue
Bronx, New York

SITE LOCATION

DATE 4/19/2021
PROJECT NO. 12477
FIGURE 1



Map Sources:
1. NYCDOP (NYC Dept. of City Planning) GIS database.
2. Edelman Sultan Knox Wood / Architects, LLP "Cellar Floor/Mat Foundation Plan", Dated March 12, 2018.



- LEGEND**
- PROJECT SITE LOCATION
 - CELLAR FOOTPRINT
 - CRAWLSPACE
 - REAR COURTYARD
 - LOT BOUNDARY AND TAX LOT NUMBER
 - TAX BLOCK NUMBER
 - OFFSITE BUILDING



3500 Park Avenue
Bronx, New York

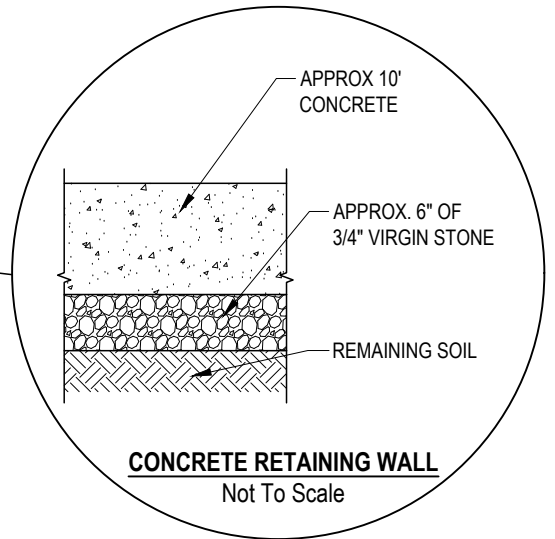
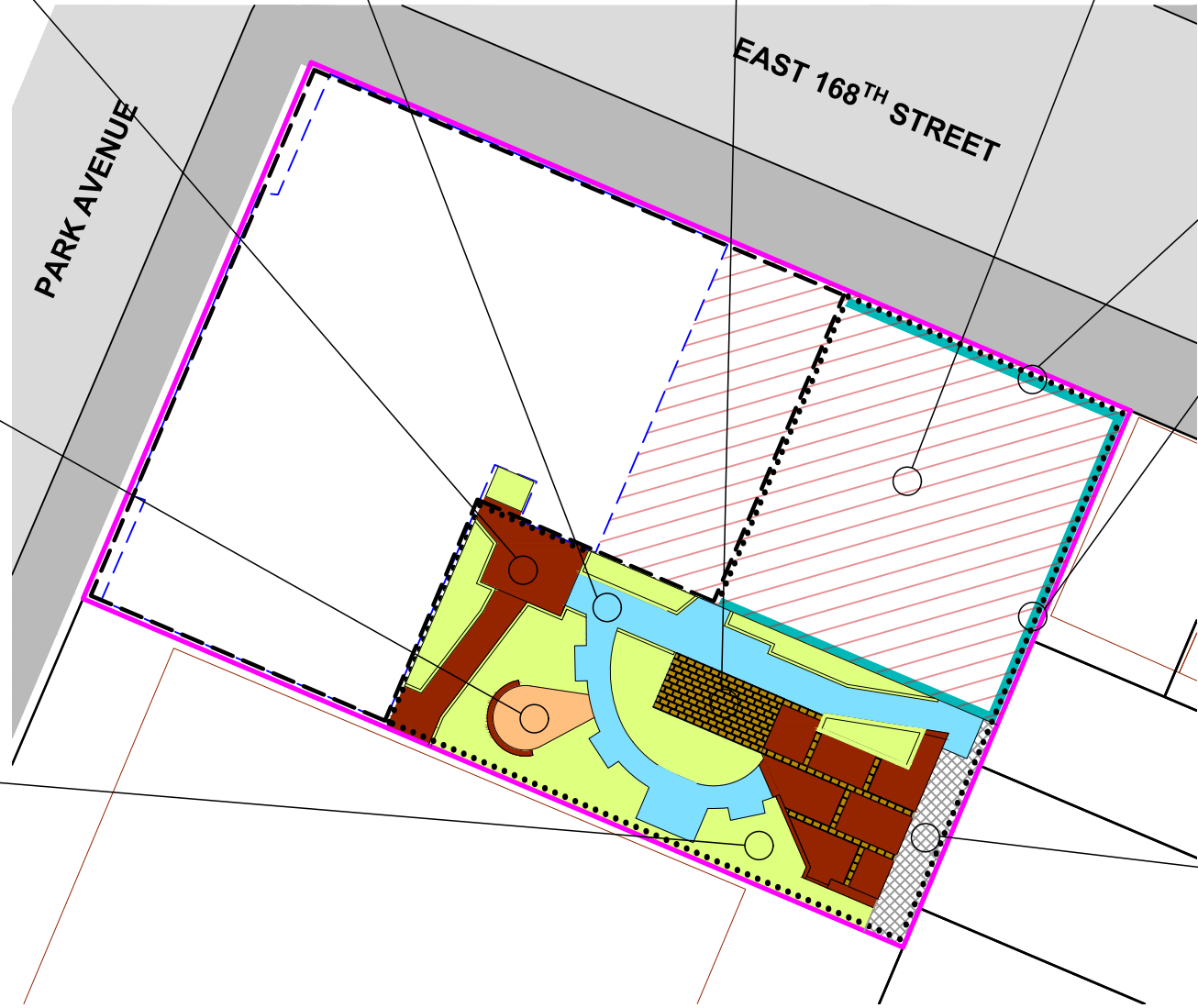
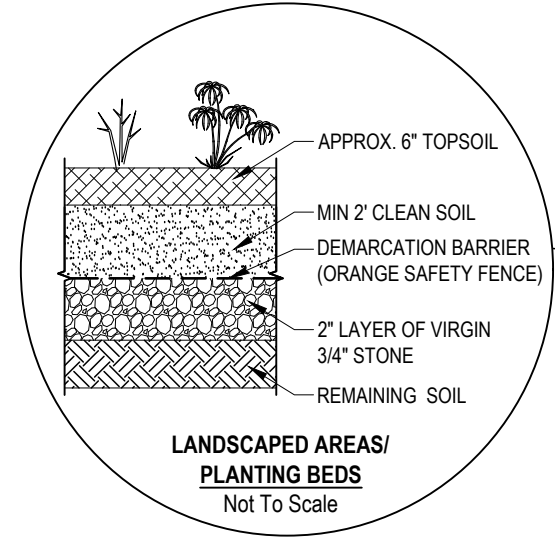
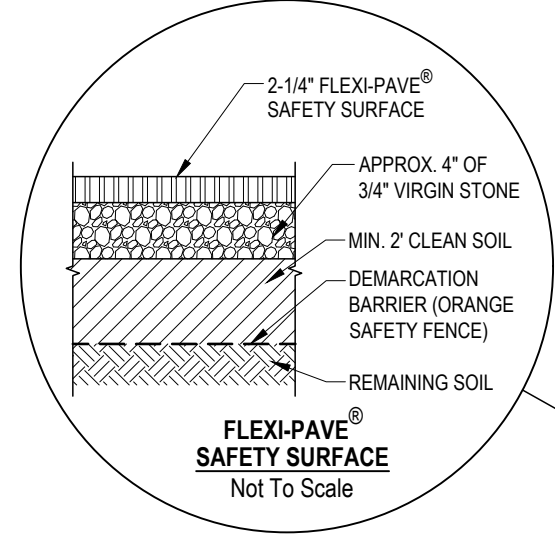
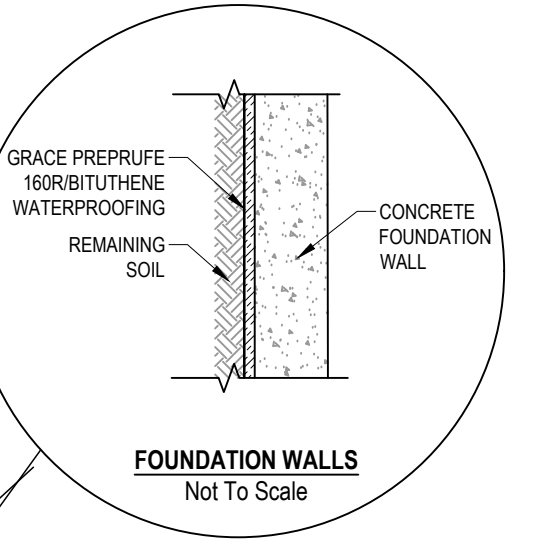
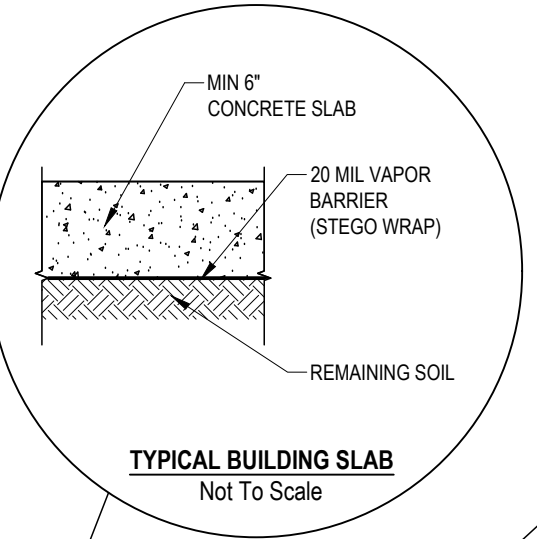
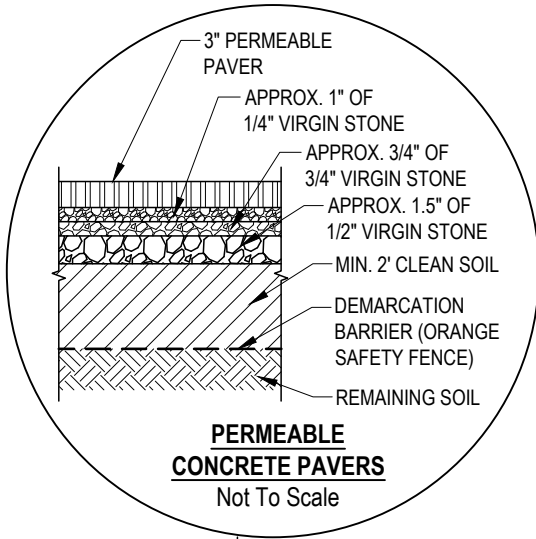
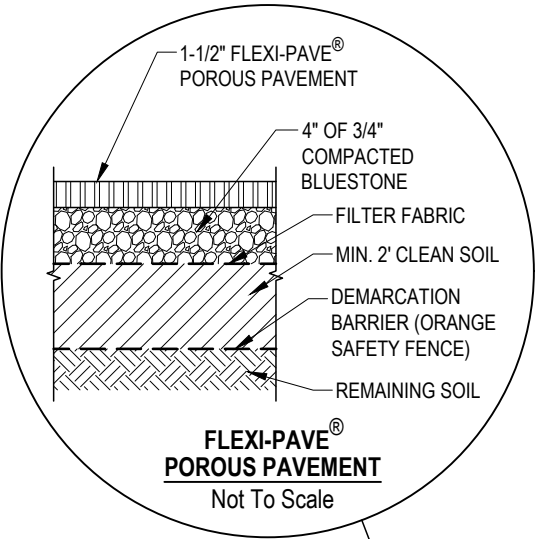
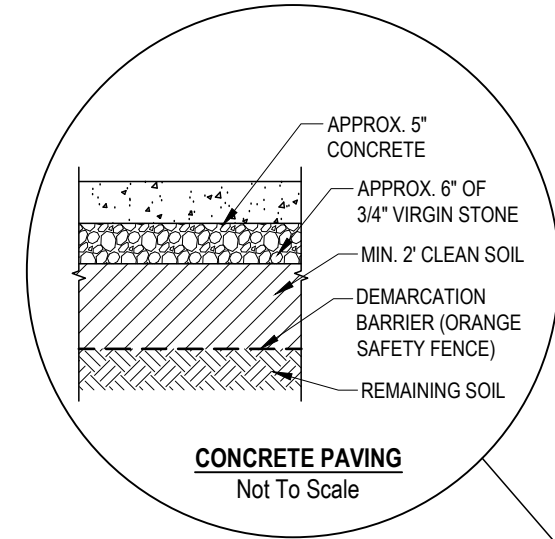
SITE PLAN

DATE
5/12/2021

PROJECT NO.
12477

FIGURE
2

©2021 AKRF, Inc. W:\Projects\12477 - 3500 PARK AVENUE\Technical\12477 - Hazmat\FERCAD\12477 Fig 3 Site System Cover.dwg last save: mveilleux 5/17/2021 4:37 PM



LEGEND

- PROJECT SITE LOCATION
- NEW BUILDING CELLAR FOOTPRINT
- FOUNDATION WALL
- CRAWLSPACE
- EXTENT OF TRACK 2
- EXTENT OF TRACK 4
- COVER MATERIALS
- LANDSCAPED AREA
- CONCRETE RETAINING WALL
- FLEXI-PAVE SAFETY SURFACE
- FLEXI-PAVE PERMEABLE PAVEMENT
- CONCRETE PAVING
- PERMEABLE CONCRETE PAVERS

Map Source:
NYCDP (NYC Dept. of City Planning) GIS database.

3500 Park Avenue
Bronx, New York



440 Park Avenue South, New York, NY 10016

SITE COVER SYSTEM PLAN

DATE	5/17/2021
PROJECT NO.	12477
FIGURE	3

APPENDIX A
SITE-WIDE INSPECTION FORM

**SITE-WIDE INSPECTION FORM
3500 PARK AVENUE APARTMENTS
3500 PARK AVENUE, BRONX, NEW YORK**

Inspector: Tara Simmons / AKRF, Inc.

Date: 10/02/2020

1. Site Use Restrictions

No on-site vegetable gardens?

- No

No groundwater withdrawal for potable/non-potable use?

- No

Restricted residential use maintained?

- Yes

2. Site Cap

Note the date that the annual site cap inspection was performed:

- 10/02/2020

Repairs made as noted during inspection?

- No repairs required at time of inspection

3. Soil Management

Note the date(s) of any soil disturbance activities conducted during the past year:

- No soil disturbance activities were conducted during the PRR reporting period.

Proper soil management procedures implemented (cite appropriate close-out reports)?

- N/A

4. Recordkeeping

Check that the following records/reports are being maintained/completed (note report/log dates as appropriate):

Annual site cap inspection log:

- 10/02/2020

Close-out report(s) for soil disturbance activities (including manifests for soil disposal):

- A revised Site Management Plan (SMP) and Periodic Review Report (PRR) are being prepared in compliance with the reporting/inspection frequency included in the NYSDEC-approved SMP.

5. Comments

- Additional landscaping and hardscaping were installed above the previously constructed clean fill cap which consists of a minimum 2' layer of clean fill and demarcation barrier. No other changes to the Site cap were noted during the Site inspection.

APPENDIX B
PHOTOGRAPHIC LOG



Photograph 1: The completed rear courtyard following installation of additional hardscaping and landscaping components, view facing east.



Photograph 2: The main residential lobby on the ground floor along East 168th Street, view facing north.



Photograph 3: The crawl space access hatch and crawl space slab located within the northeastern portion of the Track 4 area of the Site.



Photograph 4: The kitchen within the residential unit on the ground floor, view facing south.

APPENDIX C

INSTITUTION CONTROL AND ENGINEERING CONTROL (IC-EC) CERTIFICATION FORM



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



Site Details

Box 1

Site No. **C203096**

Site Name 3500 Park Avenue Apartments

Site Address: 3500 Park Ave Zip Code: 10456
City/Town: Bronx
County: Bronx
Site Acreage: 0.348

Reporting Period: December 18, 2019 to April 18, 2021

YES NO

1. Is the information above correct? ☐ ☐

If NO, include handwritten above or on a separate sheet.

2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period? ☐ ☐

3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))? ☐ ☐

4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period? ☐ ☐

If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.

5. Is the site currently undergoing development? ☐ ☐

Box 2

YES NO

6. Is the current site use consistent with the use(s) listed below? ☐ ☐
Restricted-Residential, Commercial, and Industrial

7. Are all ICs in place and functioning as designed? ☐ ☐

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

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

Signature of Owner, Remedial Party or Designated Representative

Date

Box 2A

YES NO

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

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

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

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

SITE NO. C203096**Box 3****Description of Institutional Controls**ParcelOwnerInstitutional Control**2389-20**

3500 Park Apts. HDFC, Inc. and 3500 Park

Ground Water Use Restriction
Soil Management Plan
Monitoring Plan
Site Management Plan
IC/EC Plan

Imposition of an institutional control in the form of environmental easement for the controlled property which will:

- require the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allow the use and development of the controlled property for restricted residential use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or NYCDOH; and
- require compliance with the Department approved Site Management Plan.

Box 4**Description of Engineering Controls**ParcelEngineering Control**2389-20**

Cover System

A site cover will be required to allow for restricted residential use of the site in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where a soil cover is to be used it will be a minimum of two feet of soil placed over a demarcation layer, with the upper six inches of soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material for the use of the site as set forth in 6 NYCRR Part 375-6.7(d). Substitution of other materials and components may be allowed where such components already exist or are a component of the tangible property to be placed as part of site redevelopment. Such components may include, but are not necessarily limited to: pavement, concrete, paved surface parking areas, sidewalks, building foundations and building slabs.

Periodic Review Report (PRR) Certification Statements

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

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

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

YES NO

☐☐

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

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

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

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

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

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

YES NO

☐☐

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

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

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. C203096

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

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

I Carole Gordon at 290 Lenox Avenue, 3rd Floor, New York, NY 10027,
print name print business address

am certifying as 3500 Park Apts. HDFC, Inc. and 3500 Park Apts. L.P. (Owner or Remedial Party)

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



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

5/13/2021

Date

EC CERTIFICATIONS

Box 7

Professional Engineer Signature

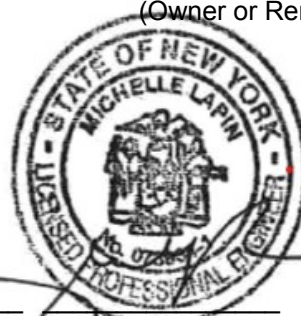
I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I _____ at _____,
print name print business address

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



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



Stamp
(Required for PE)

Date