DECISION DOCUMENT

Lambert Houses Parcel 5
Brownfield Cleanup Program
Bronx, Bronx County
Site No. C203136
September 2021

Prepared by
Division of Environmental Remediation
New York State Department of Environmental Conservation

DECLARATION STATEMENT - DECISION DOCUMENT

Lambert Houses Parcel 5
Brownfield Cleanup Program
Bronx, Bronx County
Site No. C203136
September 2021

Statement of Purpose and Basis

This document presents the remedy for the Lambert Houses Parcel 5 site, a brownfield cleanup site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the Lambert Houses Parcel 5 site and the public's input to the proposed remedy presented by the Department.

Description of Selected Remedy

The elements of the selected remedy are as follows:

1. Remedial Design

A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows:

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gases and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development;

Additionally, to incorporate green remediation principles and techniques to the extent feasible in the future development at this site, any future on-site buildings will include, at a minimum, a 20-

mil vapor barrier/waterproofing membrane on the foundation to improve energy efficiency as an element of construction.

2. Excavation

The existing on-site buildings will be demolished and materials which can't be beneficially reused on-site will be taken off-site for proper disposal to implement the remedy.

Excavation and off-site disposal of contaminant source areas, including:

- grossly contaminated soil, as defined in 6 NYCRR Part 375-1.2(u); and
- soils that create a nuisance condition, as defined in Commissioner Policy CP-51 Section G.

In the Track 1 area: Excavation and off-site disposal of all on-site soils which exceed unrestricted, SCOs, as defined by 6 NYCRR Part 375-6.8. If a Track 1 cleanup is achieved, a Cover System will not be a required element of the remedy for the Track 1 area of the site.

In the Track 4 area: Excavation and off-site disposal of all soils which exceed the restricted residential SCOs, as defined by 6 NYCRR Part 375-6.8, from the upper two feet of the Track 4 portion of the site.

Approximately 12,000 cubic yards (yd^3) of contaminated soil will be removed from the site. As necessary, any underground storage tanks (USTs), fuel dispensers, underground piping or other structures associated with a source of contamination will be excavated and remove from the site.

3. Backfill

On-site soil which does not exceed the above excavation criteria may be used below the cover system described in remedy element 4 to backfill the excavation to the extent that a sufficient volume of on-site soil is available and establish the designed grades at the site. On-site soil which does not exceed the above excavation criteria or the protection of groundwater SCOs for any constituent may be used anywhere beneath the cover system, including below the water table, to backfill the excavation or re-grade the site.

Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) may be brought in as necessary to complete the backfilling of the excavation and establish the designed grades at the site. The site will be re-graded to accommodate installation of a cover system as described in remedy element 4.

4. Cover System

A site cover will be required in the Track 4 area 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.

5. Vapor Intrusion Evaluation

As part of the remedy, a soil vapor intrusion evaluation will be completed. The evaluation will include a provision for implementing actions recommended to address exposures related to soil vapor intrusion.

6. Institutional Control

Imposition of an institutional control in the form of an Environmental Easement for the portions of the site that do not achieve a Track 1 unrestricted use cleanup 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 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.

7. Site Management Plan

A Site Management Plan is required for all portions of the site that do not achieve a Track 1 unrestricted use cleanup which includes the following:

a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

   - Institutional Controls: The Environmental Easement for the Track 4 area of the site discussed in Paragraph 4 above.
   - Engineering Controls: The cover system for the Track 4 area of the site discussed in Paragraph 3 above.

This plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;
- a provision for evaluation of the potential for soil vapor intrusion for any occupied buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 4 above will be placed in any areas where the upper two feet of exposed surface soil exceed the applicable soil cleanup objectives (SCOs);

- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

b. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
   - monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

Declaration

The remedy conforms with promulgated standards and criteria that are directly applicable, or that are relevant and appropriate and takes into consideration Department guidance, as appropriate. The remedy is protective of public health and the environment.

_____ _____

Date

Gerard Burke, Director
Remedial Bureau B

DECISION DOCUMENT

Lambert Houses Parcel 5
Bronx, Bronx County
Site No. C203136
September 2021

SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal of contaminants at the site has resulted in threats to public health and the environment that would be addressed by the remedy. The disposal or release of contaminants at this site, as more fully described in this document, has contaminated various environmental media. Contaminants include hazardous waste and/or petroleum.

The New York State Brownfield Cleanup Program (BCP) is a voluntary program. The goal of the BCP is to enhance private-sector cleanups of brownfields and to reduce development pressure on "greenfields." A brownfield site is real property, where a contaminant is present at levels exceeding the soil cleanup objectives or other health-based or environmental standards, criteria or guidance, based on the reasonably anticipated use of the property.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and 6 NYCRR Part 375. This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all remedies. A public comment period was held, during which the public was encouraged to submit comment on the proposed remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made available for review by the public at the following document repositories:

West Farms Library, NYPL
2085 Honeywell Avenue
Bronx, NY 10406
Phone: 718-486-6006

Bronx Community Board District 6
1932 Arthur Avenue, Room 403-A
Bronx, NY 10457
Phone: 718-389-0009

DECInfo Locator - Web Application
https://gisservices.dec.ny.gov/gis/dil/index.html?rs=C203136

Receive Site Citizen Participation Information by Email

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at http://www.dec.ny.gov/chemical/61092.html

SECTION 3: SITE DESCRIPTION AND HISTORY

Location: The 1.76-acre site is located at 1048 and 1075 East 180th Street, and 2094 Boston Road in the West Farms neighborhood of the Bronx. The site is bounded by: East 180th Street to the north, followed by River Park and the Bronx Zoo; the Bronx River to the east, followed by River Garden, and commercial and industrial properties; residential buildings and East 179th Street to the south, followed by elevated Metropolitan Transit Authority (MTA) subway tracks; and Boston Road to the west followed by residential apartment buildings.

Site Features: The site currently is developed with a vacant 1- to 6-story slab-on-grade residential building with parking garage, landscaped areas, and concrete-paved walkways.

Current Zoning and Land Use: The site is currently zoned R8/R7-1 for residential uses.

Past Uses of the Site: The site was developed prior to 1896 with manufacturing and commercial use buildings, including a dye works and a mat factory. By 1901, the dye works expanded their facility to include a benzine (petroleum distillate) house. By 1915, the site was developed with a metal door and sash company. Other uses included a motor vehicle repair shop with gasoline storage, furniture repair and refinishing shop, and buildings with boiler rooms. From circa 1977 to present, the site has been developed with the Lambert Houses apartment complex and a parking garage. The apartments and parking garage were recently vacated.

Site Geology and Hydrogeology: The surface topography slopes downward to the northeast. The site overburden consists of historic fill comprising sand, gravel, and silt with varying amounts of concrete, brick, and asphalt from surface grade to between 3 to 18 feet below ground surface (bgs). The fill is underlain by sand and silt with gravel or weathered bedrock observed at variable depths ranging from 2 to 18 feet bgs in the western portion of the site, and at approximately 3 to 15 feet bgs in the southern and eastern portions of the site. Bedrock was not encountered in the central portion of the site and is more than 24 feet bgs. Groundwater is approximately 13 to 19 feet bgs and flows in an easterly direction toward the adjacent Bronx River.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, an alternative that restricts the use of the site to restricted-residential use (which allows for commercial use and industrial use) as described in Part 375-1.8(g) was evaluated in addition to an alternative which would allow for unrestricted use of the site.

A comparison of the results of the Remedial Investigation (RI) to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is available in the RI Report.

SECTION 5: ENFORCEMENT STATUS

One or more of the Applicants under the Brownfield Cleanup Agreement is a Participant. The Participant has an obligation to address on-site and off-site contamination. Accordingly, no enforcement actions are necessary.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A remedial investigation (RI) serves as the mechanism for collecting data to:

- characterize site conditions;
- determine the nature of the contamination; and
- assess risk to human health and the environment.

The RI is intended to identify the nature (or type) of contamination which may be present at a site and the extent of that contamination in the environment on the site, or leaving the site. The RI reports on data gathered to determine if the soil, groundwater, soil vapor, indoor air, surface water or sediments may have been contaminated. Monitoring wells are installed to assess groundwater and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface water bodies or wetlands, the water and sediment may be sampled as well. Based on the presence of contaminants in soil and groundwater, soil vapor will also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available for review in the site document repository and the results are summarized in section 6.3.

The analytical data collected on this site includes data for:

- groundwater
- soil
- soil vapor

6.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. For a full listing of all SCGs see: http://www.dec.ny.gov/regulations/61794.html

6.1.2: RI Results

The data have identified contaminants of concern. A "contaminant of concern" is a contaminant that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized below. Additionally, the RI Report contains a full discussion of the data. The contaminants of concern identified at this site are:

benzo(a)anthracene
benzo(a)pyrene
benzo(b)fluoranthene
benzo(k)fluoranthene
chrysene
dibenzo(a,h)anthracene
indeno(1,2,3-cd)pyrene
arsenic
cadmium
copper
lead
mercury
nickel
zinc
tetrachloroethene (PCE)
trichloroethene (TCE)
trans-1,2-dichloroethene
vinyl chloride
4,4'-DDD
4,4'-DDE
4,4'-DDT

The contaminants of concern exceed the applicable SCGs for:

- groundwater
- soil

6.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Decision Document.

There were no IRMs performed at this site during the RI.

6.3: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water. The RI report presents a detailed discussion of any existing and potential impacts from the site to fish and wildlife receptors.

Nature and Extent of Contamination:
Soil and groundwater were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), pesticides, and per- and polyfluoroalkyl substances (PFAS). Soil vapor was analyzed for VOCs. The primary contaminants of concern are VOCs and SVOCs in soil and groundwater, metals in soil and chlorinated VOCs in soil vapor.

Soil - Several semi-volatile organic compounds (SVOCs) were detected throughout the site and up to a depth of 10 feet below ground surface (bgs) at levels exceeding unrestricted use soil cleanup objectives (UUSCOs) and/or restricted residential SCOs (RRSCOs) including: benzo(a)anthracene up to 19 parts per million (ppm) (UUSCO of 1 ppm), benzo(a)pyrene up to 7.2 ppm (UUSCO and RRSCO of 1 ppm), benzo(b)fluorathene up to 19 ppm (UUSCO of 1 ppm), benzo(k)fluoranthene up to 6.7 ppm (UUSCO of 0.8 ppm), chrysene up to 16 ppm (UUSCO of 1 ppm), dibenzo(a,h)anthracene up to 2.5 ppm (UUSCO of 0.33 ppm), and indeno(1,2,3-cd)pyrene up to 4.1 ppm (UUSCO of 0.5 ppm). The detected compounds are all polycyclic aromatic hydrocarbons (PAHs), a type of SVOCs often found in historic fill material which is present throughout most of the site.

The following metals were detected throughout the site and up to a depth of 16 feet bgs at levels exceeding UUSCOs: arsenic up to 80.8 ppm (UUSCO of 13 ppm), cadmium up to 7.15 ppm (UUSCO of 2.5 ppm), copper up to 258 ppm (UUSCO of 50 ppm), lead up to 9,390 (UUSCO of 63 ppm), mercury up to 2.1 ppm (UUSCO of 0.18 ppm), nickel up to 354 ppm (UUSCO of 30 ppm), and zinc up to 1,290 ppm (UUSCO of 109 ppm.

Various pesticides were detected throughout the site at levels exceeding UUSCOs, primarily: 4,4'-DDD up to 0.0581 ppm (UUSCO of 0.0033 ppm), 4,4'-DDE up to 0.641 ppm (UUSCO of 0.0033 ppm) and 4,4'-DDT up to 1.37 ppm (UUSCO of 0.0033 ppm). Detections were primarily in the upper ten feet of soil, with one slight UUSCO exceedance of 4,4'-DDT at 18 feet bgs in the northern area of the site.

The PFAS compound, perfluorooctanesulfonic acid (PFOS) was detected in five locations, primarily in the upper two feet, at a maximum concentration of 2.07 parts per billion (ppb) compared to its Unrestricted Use Guidance Value (UUGV) of 0.88 ppb.

VOCs and PCBs were not detected above the UUSCOs in on-site soil.

Data does not indicate any off-site impacts in soil related to this site.

Groundwater - Two chlorinated VOCs, trans-1,2-dichloroethene at 6.1 ppb and vinyl chloride at 9.5 ppb, were detected in one groundwater monitoring well located in the southeastern area of the site. Their respective AWQS are 5 ppb and 2 ppb.

The dissolved metals, iron, manganese and sodium, were detected at levels exceeding AWQS but are considered naturally occurring. Total PCBs were detected in one sample at 0.125 ppb, above the AWQS of 0.09 ppb and the pesticide dieldrin was detected in one sample at 0.006 ppb, slightly above the AWQS of 0.004 ppb. No SVOCs were detected above AWQS during the RI groundwater sampling. SVOCs were detected slightly above AWQS during a previous subsurface investigation but are attributed to the temporary wells not being fully developed and the presence of entrained sediment.

For PFAS, PFOS and perfluorooctanoic acid (PFOA) were detected at concentrations up to 49.9 parts per trillion (ppt) and 87.8 ppt, respectively, exceeding the Maximum Contaminant Level (MCL) (drinking water standard) of 10 ppt each in groundwater. There are no public water supply wells within a half a mile and there is a municipal prohibition for use of groundwater at the site.

The data do not indicate any off-site impacts in groundwater related to this site.

Soil Vapor - Six soil vapor samples were analyzed as part of the RI, with five collected at 10 feet bgs and one collected beneath the existing building slab at 2 feet bgs. Several petroleum-related and chlorinated VOCs were detected throughout the site. Chlorinated VOCs detections included: tetrachloroethene (PCE) up to 200 micrograms per cubic meter ($\mu g/m^3$), trichloroethene (TCE) up to 270 $\mu g/m^3$, and vinyl chloride at 1,200 $\mu g/m^3$. PCE and TCE were detected in all six samples while vinyl chloride was detected in one sample; the maximum concentrations for each were detected at different locations. A subsurface investigation conducted prior to the RI detected significantly higher levels of PCE and TCE at one sampling point located in the central area of the site (3,630 $\mu g/m^3$ and 1,370 $\mu g/m^3$, respectively), but these elevated concentrations were not replicated during the RI.

The data do not indicate any off-site impacts in soil vapor related to this site.

6.4: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure.*

Access to the site is unrestricted. However, contact with contaminated soil or groundwater is unlikely unless they dig below the ground surface. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply that obtains water from a different source not affected by this contamination. Volatile organic compounds in soil vapor (air spaces within the soil) may move into buildings and affect the indoor air quality.

This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. Soil vapor intrusion is not a current concern as the site is currently unoccupied, however, the potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site redevelopment and occupancy. Based on environmental sampling and planned removal of on-site contaminated soil, soil vapor intrusion from site contamination is not expected to be a concern for off-site buildings.

6.5: Summary of the Remediation Objectives

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

The remedial action objectives for this site are:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

RAOs for Environmental Protection

- Remove the source of ground or surface water contamination.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater water contamination.

Soil Vapor

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

SECTION 7: ELEMENTS OF THE SELECTED REMEDY

The alternatives developed for the site and the evaluation of the remedial criteria are presented in the Alternative Analysis. The remedy is selected pursuant to the remedy selection criteria set forth in DER-10, Technical Guidance for Site Investigation and Remediation and 6 NYCRR Part 375.

The selected remedy is a Multiple Cleanup Track remedy.

The selected remedy is referred to as the Excavation and Partial Site Cover remedy.

The elements of the selected remedy, as shown in Figure 2, are as follows:

1. Remedial Design

A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows:

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gases and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development;

Additionally, to incorporate green remediation principles and techniques to the extent feasible in the future development at this site, any future on-site buildings will include, at a minimum, a 20-mil vapor barrier/waterproofing membrane on the foundation to improve energy efficiency as an element of construction.

2. Excavation

The existing on-site buildings will be demolished and materials which can't be beneficially reused on-site will be taken off-site for proper disposal to implement the remedy.

Excavation and off-site disposal of contaminant source areas, including:

- grossly contaminated soil, as defined in 6 NYCRR Part 375-1.2(u); and
- soils that create a nuisance condition, as defined in Commissioner Policy CP-51 Section G.

In the Track 1 area: Excavation and off-site disposal of all on-site soils which exceed unrestricted SCOs, as defined by 6 NYCRR Part 375-6.8. If a Track 1 cleanup is achieved, a Cover System will not be a required element of the remedy for the Track 1 area of the site.

For the Track 4 area: Excavation and off-site disposal of all soils which exceed the restricted residential SCOs, as defined by 6 NYCRR Part 375-6.8, from the upper two feet of the Track 4 portion of the site.

Approximately 12,000 cubic yards (yd^3) of contaminated soil will be removed from the site. As

necessary, any underground storage tanks (USTs), fuel dispensers, underground piping or other structures associated with a source of contamination will be excavated and removed from the site.

3. Backfill

On-site soil which does not exceed the above excavation criteria may be used below the cover system described in remedy element 4 to backfill the excavation to the extent that a sufficient volume of on-site soil is available and establish the designed grades at the site. On-site soil which does not exceed the above excavation criteria or the protection of groundwater SCOs for any constituent may be used anywhere beneath the cover system, including below the water table, to backfill the excavation or re-grade the site.

Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) may be brought in as necessary to complete the backfilling of the excavation and establish the designed grades at the site. The site will be re-graded to accommodate installation of a cover system as described in remedy element 4.

4. Cover System

A site cover will be required in the Track 4 area 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.

5. Vapor Intrusion Evaluation

As part of the remedy, a soil vapor intrusion evaluation will be completed. The evaluation will include a provision for implementing actions recommended to address exposures related to soil vapor intrusion.

6. Institutional Control

Imposition of an institutional control in the form of an Environmental Easement for the portions of the site that do not achieve a Track 1 unrestricted use cleanup 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 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.

7. Site Management Plan

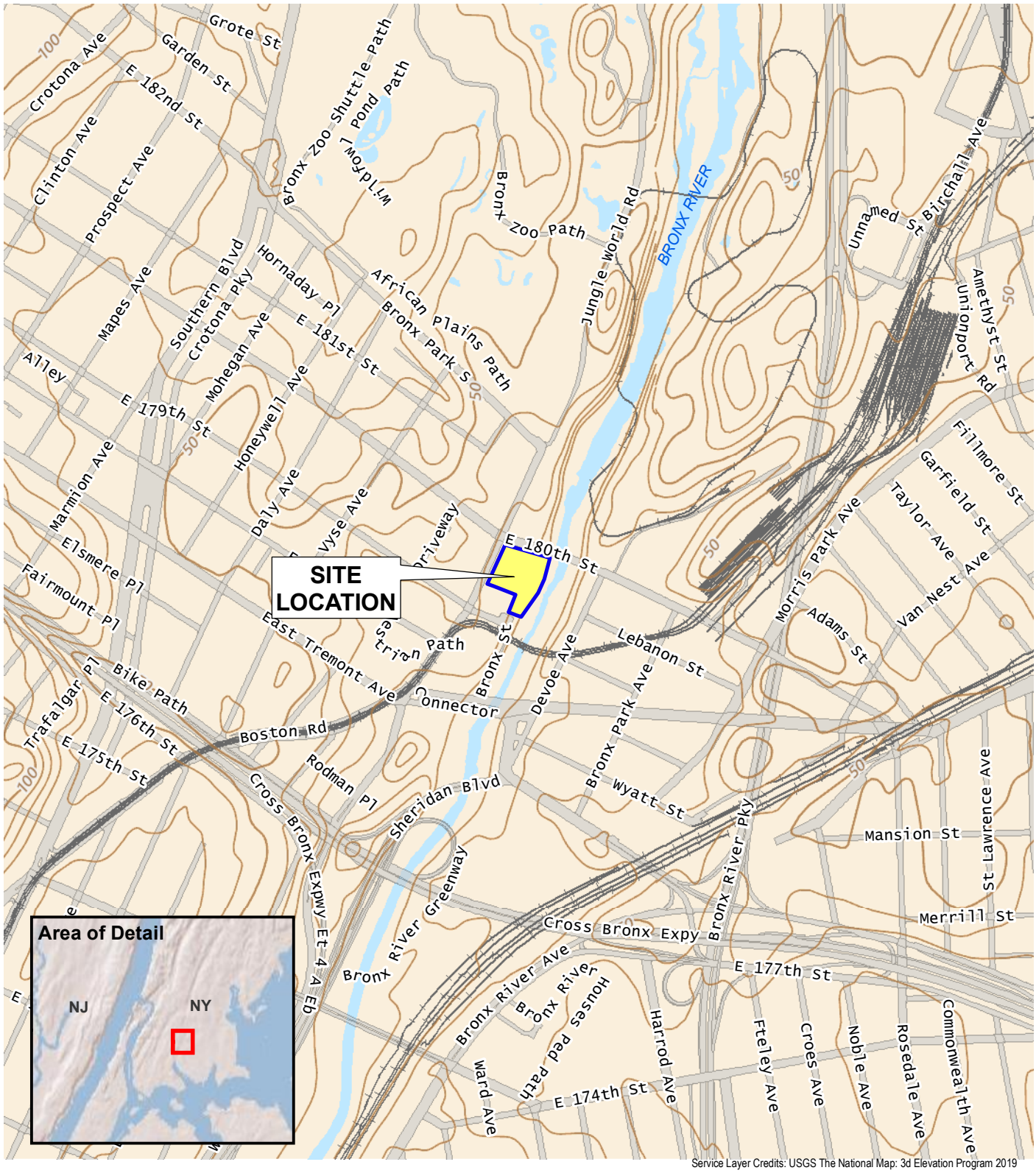
A Site Management Plan is required for all portions of the site that do not achieve a Track 1 unrestricted use cleanup which includes the following:

a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:
   - Institutional Controls: The Environmental Easement for the Track 4 area of the site discussed in Paragraph 6 above.
   - Engineering Controls: The cover system for the Track 4 area of the site discussed in Paragraph 4 above.

This plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;
- a provision for evaluation of the potential for soil vapor intrusion for any occupied buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 4 above will be placed in any areas where the upper two feet of exposed surface soil exceed the applicable soil cleanup objectives (SCOs);
- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

b. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
   - monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.



AKRF
440 Park Avenue South, New York, NY 10016

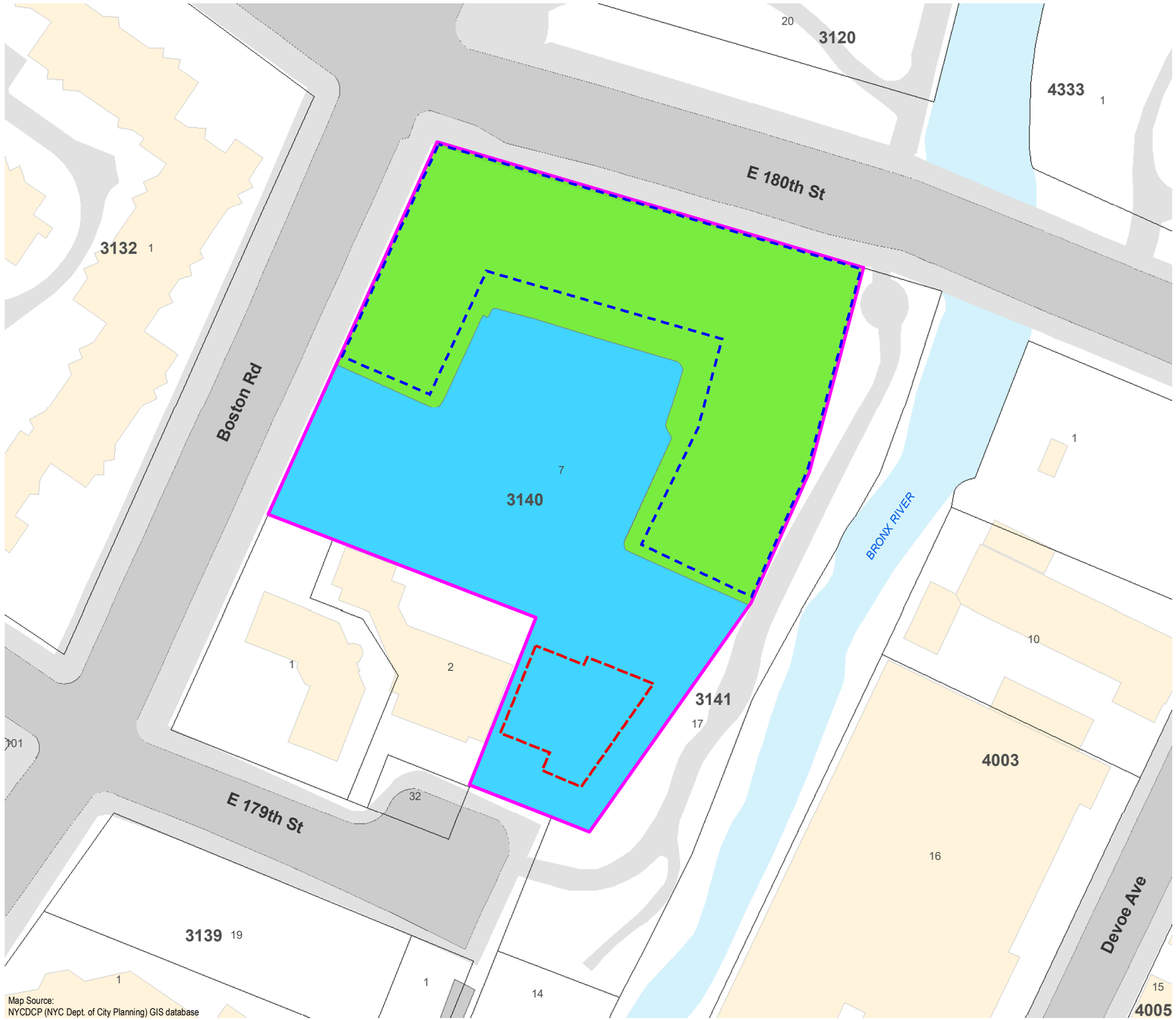
Lambert Houses Parcel 5
Block 3140, Lot 7
Bronx, New York

BCP SITE LOCATION

DATE
12/16/2020

PROJECT NO.
190247

FIGURE
1



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

AKRF
440 Park Avenue South, New York, NY 10016

Lambert Houses Parcel 5
Block 3140, Lot 7
Bronx, New York

PROPOSED REMEDIAL EXCAVATION PLAN

DATE
5/6/2021

PROJECT NO.
190247

FIGURE
2