DECISION DOCUMENT

Williamsbridge Gardens
Brownfield Cleanup Program
Bronx, Bronx County
Site No. C203113
October 2019

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

DECLARATION STATEMENT - DECISION DOCUMENT

Williamsbridge Gardens
Brownfield Cleanup Program
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Site No. C203113
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Statement of Purpose and Basis

This document presents the remedy for the Williamsbridge Gardens 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 Williamsbridge Gardens 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;
- 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

Excavation and off-site disposal of all on-site soils which exceed unrestricted SCOs, as defined by 6 NYCRR Part 375-6.8. Approximately 7,500 cubic yards of contaminated soil will be removed from the site.

3. Backfill

Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to complete the backfilling of the excavation and establish the designed grades at the site.

4. Local Institutional Controls

If no environmental easement or Site Management Plan is needed to achieve soil or groundwater remedial action objectives, then the following local use restriction will be relied upon to prevent ingestion of groundwater: Article 141 of the NYCDOH code, which prohibits potable use of groundwater without prior approval.

Contingent Track 1

The intent of the remedy is to achieve Track 1 unrestricted use; therefore, no environmental easement or site management plan is anticipated.

In the event that Track 1 unrestricted use is not achieved, the following contingent remedial elements will be required and the remedy will achieve a Track 2 restricted residential cleanup.

5. Institutional Control

Imposition of an institutional control in the form of an 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.

6. Site Management Plan

A Site Management Plan is required, 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 discussed 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;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

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.

October 16, 2019

Date

Gerard Burke, Director
Remedial Bureau B

DECISION DOCUMENT

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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, the redevelopment or reuse of which may be complicated by the presence or potential presence of a contaminant.

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:

Wakefield Library
4100 Lowerre Place
Bronx, NY 10466
Phone: (718) 652-4663

Bronx Community Board 12
4101 White Plain Road
Bronx, NY 10466
Phone: (718) 944-3300

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:
East 211th and 212th Street Site is located in an urban area in the Willamsbridge neighborhood of the Bronx. The property is bounded by East 212th Street to the north, East 211th Street to the south, commercial and residential properties and Holland Avenue to the east, and commercial properties and White Plains Road to the west.

Site Features:
The 0.8 acre site consists of two tax lots (block 4657, lots 42 and 71). Lot 42 is a portion of the former Lot 42 minus the approximately 50 feet by 100 feet area fronting East 212nd Street. Lot 71 consists of former Lots 67, 69, 71, 72, and a portion of Lot 42. The site is currently vacant and paved.

Current Zoning and Land Use:
The site is currently vacant and paved. The site is zoned R7A (residential) and is surrounded by similarly zoned properties.

Past Use of the Site:
Former Lot 42 (East 211th Street) has been undeveloped since at least 1897. Former Lots 67, 69, and 71 were first developed in approximately 1918 as residential apartment buildings. The buildings on former Lots 67 and 69 remained in place until approximately 1978, when there were demolished. The building on former Lot 71 was demolished at some point between 1950 and 1976. Former Lot 72 was first developed in approximately 1918 with an auto repair shop. Between 1918 and 1935, it was redeveloped as a contractor storage garage/warehouse, and residential dwelling. These buildings were demolished in approximately 2004. Former Lots 42, 67, 69, and 71 have been used for carnival ride/equipment storage and maintenance from approximately 1981 to the 2019. Former Lot 72 has been vacant from approximately 2004 to the present.

Past site uses include residential (approx. 1918 to 1978), auto repair (approx. 1918) and contractor storage building (approx. 1935 to 2004). The historic use of the property and presence of historic urban fill observed through the property is the likely cause of the contaminants observed in soil at the site.

Site Geology and Hydrogeology:
The stratigraphy of the site, from the surface down, consists primarily of silty and clayey sand with some gravel that extended from grade to the bedrock surface. Evidence of historic urban fill material, such as brick fragments, was observed at depths up to eight feet below grade at several locations across the site. Bedrock was encountered at depths ranging from five to 12 feet below grade across the site. Groundwater was encountered above the bedrock surface at around 10 feet below grade.

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, alternatives (or an alternative) that restrict(s) 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) were/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

The Applicant(s) under the Brownfield Cleanup Agreement is a/are Volunteer(s). The Applicant(s) does/do not have an obligation to address off-site contamination. However, the Department has determined that this site does not pose a significant threat to public health or the environment; 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 contaminant(s) of concern identified at this site is/are:

benzo(a)anthracene	indeno(1,2,3-CD)pyrene
benzo(a)pyrene	lead
benzo(b)fluoranthene	mercury
chrysene	chromium

The contaminant(s) of concern exceed the applicable SCGs for:

- 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.

Soil and groundwater were analyzed for emerging contaminants (ECs), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), and pesticides. Soil vapor samples were analyzed for VOCs. Based on investigations performed at the site to date, the primary contaminants of concern for the site are SVOCs and metals.

Soil - SVOCs and metals exceeding Unrestricted Use Soil Cleanup Objectives (UUSCOs) were detected in soils throughout the site. SVOCs were found to exceed UUSCOs down to 9 feet below ground surface (ft bgs) and metals exceeding UUSCOs were found down to bedrock. For SVOCs, the maximum concentration of benzo(a)anthracene was 1.5 parts per million (ppm) as compared to the UUSCO of 1 ppm, of benzo(a)pyrene was 1.4 ppm (UUSCO is 1 ppm), of benzo(b)fluoranthene was 1.8 ppm (UUSCO is 1 ppm), of chrysene was 1.7 ppm (UUSCO is 1 ppm), and of indeno(1,2,3-cd)pyrene of 1 ppm (UUSCO is 0.5 ppm). For metals, the maximum concentration of lead was 1,770 ppm (UUSCO is 63 ppm), of chromium was 668 ppm (UUSCO is 30 ppm), of mercury was 1.1 ppm (UUSCO is 0.18 ppm). Emerging contaminants (ECs) were also detected in soil samples collected from the shallow intervals up to 5 ft bgs. For example, the maximum concentrations of PFOA and PFOS are 178 parts per trillion (ppt) and 918 ppt, respectively. No VOCs, PCBs or pesticides were detected at concentrations exceeding the UUSCOs. Data does not indicate any off-site impacts in soil related to this site.

Groundwater - Concentrations of naturally occurring metals were detected in groundwater at concentrations exceeding the ambient water quality standards (AWQS). The maximum concentration of iron was 1,190 parts per billion (ppb) (AWQS is 300 ppb), of manganese was 498 ppb (AWQS is 300 ppb), and of sodium was 32,100 ppb (AWQS is 20,000 ppb). ECs were also detected in groundwater samples. The maximum concentrations of PFOA and PFOS are 38.6 parts per trillion (ppt) and 71 ppt, respectively. No VOCs, SVOCs, PCBs or pesticides were detected at concentrations exceeding the applicable AWQS. Data does not indicate any off-site impacts in groundwater related to this site.

Soil Vapor - Slight detections of VOCs were found in soil vapor samples. The maximum concentration of 1,3-butadiene was 50.4 micrograms per cubic meter (ug/m3) and of chloroform 4.34 ug/m3. Data does 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*.

People are not drinking the contaminated groundwater because the area is served by a public water supply that is not affected by site-related contamination. Access to the site is restricted by a fence. However, people who enter the site may come into contact with soil and groundwater contamination if they dig below the ground surface. Volatile organic compounds in the groundwater and/or soil may move into the soil vapor (air spaces within the soil), which in turn may move into overlying 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. Environmental sampling indicates soil vapor intrusion is not a concern for on or 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.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil.

RAOs for Environmental Protection

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

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 Track 1: Unrestricted use remedy.

The selected remedy is referred to as the Soil Excavation 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;
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- 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;
- 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

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3. Backfill

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4. Local Institutional Controls

If no environmental easement or Site Management Plan is needed to achieve soil or groundwater remedial action objectives, then the following local use restriction will be relied upon to prevent ingestion of groundwater: Article 141 of the NYCDOH code, which prohibits potable use of groundwater without prior approval.

Contingent Track 1

The intent of the remedy is to achieve Track 1 unrestricted use; therefore, no environmental

easement or site management plan is anticipated.

In the event that Track 1 unrestricted use is not achieved, the following contingent remedial elements will be required and the remedy will achieve a Track 2 restricted residential cleanup.

5. Institutional Control

Imposition of an institutional control in the form of an 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.

6. Site Management Plan

A Site Management Plan is required, which includes the following:

b. 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 discussed above.

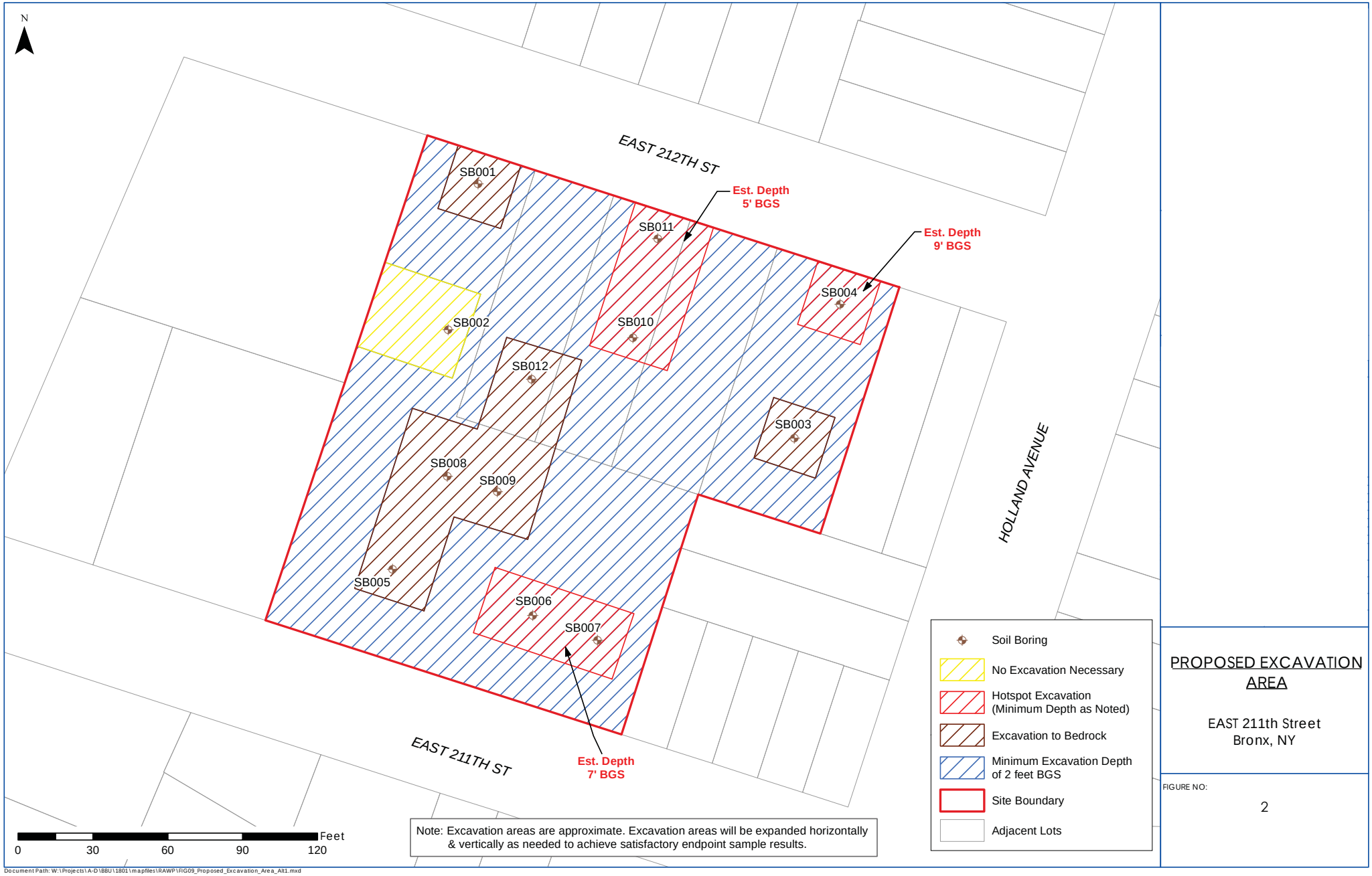
   This plan includes, but may not be limited to:
   - an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
   - descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;
   - maintaining site access controls and Department notification; and
   - the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

SITE PLAN

EAST 211th Street
Bronx, NY

FIGURE NO:
1

Document Path: W:\Projects\A-D\BBU\1801\mapfiles\BBU1801_FIG02_SitePlan.mxd



Note: Excavation areas are approximate. Excavation areas will be expanded horizontally & vertically as needed to achieve satisfactory endpoint sample results.

Document Path: W:\Projects\A-D\BBU\1801\mapfiles\RAWP\FIG09_Proposed_Excavation_Area_Alt1.mxd

PROPOSED EXCAVATION AREA

EAST 211th Street
Bronx, NY

FIGURE NO:
2