DECISION DOCUMENT

198 East 135th Street
Brownfield Cleanup Program
Bronx, Bronx County
Site No. C203084
June 2017

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

DECLARATION STATEMENT - DECISION DOCUMENT

198 East 135th Street
Brownfield Cleanup Program
Bronx, Bronx County
Site No. C203084
June 2017

Statement of Purpose and Basis

This document presents the remedy for the 198 East 135th Street 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 198 East 135th Street 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.

2. Excavation

Excavation and off-site disposal of all former building foundations, as well as on-site soils, and historic fill which exceed unrestricted SCOs, as defined by 6 NYCRR Part 375-6.8. Approximately 20,163 cubic yards of material will be removed from the site to achieve the following depths:

- 16 feet below ground surface (bgs) in the northwest corner
- 8 feet bgs in the north east corner
- 12 feet bgs in a middle portion of the site
- 10 feet bgs in the southern part of the site

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

3. Soil Vapor Intrusion Evaluation

As part of the Track 1 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, if identified.

The intent of the remedy is to achieve a Track 1 unrestricted use, therefore, no Environmental Easement (EE) or Site Management Plan (SMP) is anticipated. If the soil vapor intrusion (SVI) evaluation has not been completed prior to completion of the Final Engineering Report, then an SMP and EE will be required to address the SVI evaluation and implement actions as needed; if a mitigation system or monitoring plan is needed, a Track 1 cleanup can only be achieved if the mitigation system or other action can be shut down within 5 years of the date of the Certificate of Completion (COC).

If no EE or SMP is needed to achieve soil, groundwater, or soil vapor RAOs, 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.

In the event that Track 1 unrestricted use is not achieved, including achievement of groundwater and soil vapor remedial objectives, the following contingent remedial elements will be required and the remedy will achieve a Track 2 restricted residential cleanup:

4. Institutional Controls

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

- requires 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);
- allows the use and development of the controlled property for restricted residential, commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;

- restricts 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
- requires compliance with the Department approved Site Management Plan.

5. Site Management Plan

A Site Management Plan, which would include 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 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/or groundwater and/or surface water use restrictions;
- a provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- 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:

- a schedule of monitoring and frequency of submittals to the Department; and
- monitoring for vapor intrusion for any new buildings developed 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.

6/30/2017

Date

Gerard Burke, Director
Remedial Bureau B

DECISION DOCUMENT

198 East 135th Street
Bronx, Bronx County
Site No. C203084
May 2017

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:

New York Public Library - Mott Haven Branch
321 East 140th Street
Bronx, NY 10454
Phone: 718-665-4878

Bronx Community Board 1
3024 Third Avenue
Bronx, NY 10455
Phone: 718-585-7117

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, Voluntary 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 1.12-acre site is located in an urban area of the Bronx, NY. The property is located approximately 250 feet northwest of the intersection of East 135th Street and 3rd Avenue.

Site Features:
The property is a flat, vacant lot (no buildings) with broken pavement and some exposed surface soils. The Harlem River is located approximately 500 feet to the southwest.

Current Zoning and Land Use:
The site is currently vacant, and is zoned as a M1-3/R8 district for mixed-use high-density residential, commercial, and light manufacturing uses. The surrounding land use is primarily commercial, including warehouses to the northwest, and commercial office space to the southeast.

Past Use of the Site:
Prior site uses include a railroad freight yard, coal yard, warehousing, and various industrial uses (some of which included oil storage). Most recently it was used for vehicle storage (parking). Historic fill is also present at the site. Soil remediation of Volatile Organic Compounds (VOCs), Semi-VOCs (SVOCs), and metals occurred in 1999 (Spill #0001384) under the Petroleum Spills Program and resulted in removal of an abandoned underground storage tank.

Site Geology and Hydrogeology:
The stratigraphy of the site, from the surface to approximately 16 feet below grade, is classified as fill consisting of a mixture of gravel, sand, rocks and apparent construction debris. The water table at the site ranges from approximately 9 feet to 12 feet below grade. Groundwater flow is towards the north northwest, in the direction of the Harlem 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, alternatives (or an alternative) that restrict(s) the use of the site to 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
benzo(a)pyrene
benzo(b)fluoranthene
benzo[k]fluoranthene
chrysene
indeno(1,2,3-CD)pyrene
dibenz[a,h]anthracene
arsenic
barium
cadmium
lead
mercury
copper
zinc
nickel
selenium
silver
DDD
DDE
DDT
dieldrin
polychlorinated biphenyls (PCBs)
tetrachloroethene (PCE)

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 has been analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, pesticides, and poly-chlorinated biphenyls (PCBs). Soil vapor has been analyzed for VOCs.

Soil: Site soils are primarily impacted with poly-cyclic aromatic hydrocarbons (PAHs) and metals associated with historic fill that is generally present within the top 16 feet. PAHs were found exceeding the unrestricted use soil cleanup objectives (UUSCOs), including benzo(a)anthracene up to 18.4 parts per million (ppm) (UUSCO is 1 ppm), benzo(a)pyrene up to 15.4 ppm (UUSCO is 1 ppm), benzo(b)fluoranthene up to 10.8 ppm (UUSCO is 1 ppm), benzo(k)fluoranthene up to 12.9 ppm (UUSCO is 0.8), chrysene up to 19.5 ppm (UUSCO is 1 ppm), dibenz(a,h)anthracene up to 6.52 ppm (UUSCO is 0.33 ppm), and indeno(1,2,3-cd)pyrene up to 11.4 ppm (UUSCO is 0.5 ppm). Metals were found exceeding UUSCOs, including arsenic up to 18.8 ppm (UUSCO is 13), lead up to 618 ppm (UUSCO is 63 ppm), barium up to 1,020 ppm (UUSCO is 350 ppm), cadmium up to 2.61 ppm (UUSCO is 2.5 ppm), copper up to 395 ppm (UUSCO is 50 ppm), mercury up to 5.5 ppm (UUSCO is 0.18 ppm), nickel up to 44.3 ppm (UUSCO is 30 ppm), selenium up to 12.7 ppm (UUSCO is 3.9 ppm), silver up to 4.59 ppm (UUSCO is 2 ppm), and zinc up to 20,600 ppm (UUSCO is 109 ppm). No VOCs were detected exceeding UUSCOs. Pesticides 4,4-DDD, 4,4'DDE, and 4,4'DDT were detected at concentrations ranging from 0.0038 to 0.213 ppm (UUSCO is 0.0033 ppm). Dieldrin was detected at two locations at 0.0148 and 0.00631 ppm (UUSCO is 0.005 ppm). PCBs were detected at concentrations ranging from 0.118 to 0.72 ppm (UUSCO is 0.1 ppm). Data does not indicate any off-site impacts to soil related to this site.

Groundwater: The RI sampling indicated a single SVOC, bis(2-ethylhexyl)phthalate, detected at 14.6 ppm (standard is 5 ppm), which is likely due to lab contamination. Manganese, magnesium and sodium were detected above standards, but are likely naturally-occurring and/or related to road salt applications. Data does not indicate any off-site impacts to groundwater related to this site.

Soil Vapor: Chlorinated VOCs were detected in soil gas samples, including tetrachloroethene at concentrations up to 130 micrograms per cubic meter (ug/m^3), trichlorofluoromethane up to 36 ug/m^3, and dichlorodifluoromethane up to 31 ug/m^3. Along with some minor detections of petroleum-related VOCs, tetrahydrofuran was detected at concentrations up to 69 ug/m^3. Data does not indicate any off-site impacts to 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.*

The site is completely fenced which restricts public access. However, persons entering the site could contact contaminants in the soil by walking, digging or otherwise disturbing the soil. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply from a different source not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into the overlying buildings and affect 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. Because the site is vacant, inhalation of site contaminants due to soil vapor intrusion does not represent a current concern. However, the potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site development. Sampling indicates soil vapor intrusion is not 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:

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 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 conditional 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;
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- 16 feet below ground surface (bgs) in the northwest corner
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3. Soil Vapor Intrusion Evaluation

As part of the Track 1 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, if identified.

The intent of the remedy is to achieve a Track 1 unrestricted use, therefore, no Environmental Easement (EE) or Site Management Plan (SMP) is anticipated. If the soil vapor intrusion (SVI) evaluation has not been completed prior to completion of the Final Engineering Report, then an SMP and EE will be required to address the SVI evaluation and implement actions as needed; if a mitigation system or monitoring plan is needed, a Track 1 cleanup can only be achieved if the mitigation system or other action can be shut down within 5 years of the date of the Certificate of Completion (COC).

If no EE or SMP is needed to achieve soil, groundwater, or soil vapor RAOs, 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.

In the event that Track 1 unrestricted use is not achieved, including achievement of groundwater and soil vapor remedial objectives, the following contingent remedial elements will be required and the remedy will achieve a Track 2 restricted residential cleanup:

4. Institutional Controls

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

- requires 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);
- allows the use and development of the controlled property for restricted residential, commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
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- requires compliance with the Department approved Site Management Plan.

5. Site Management Plan

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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 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/or groundwater and/or surface water use restrictions;
- a provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- 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:

- a schedule of monitoring and frequency of submittals to the Department; and

• monitoring for vapor intrusion for any new buildings developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

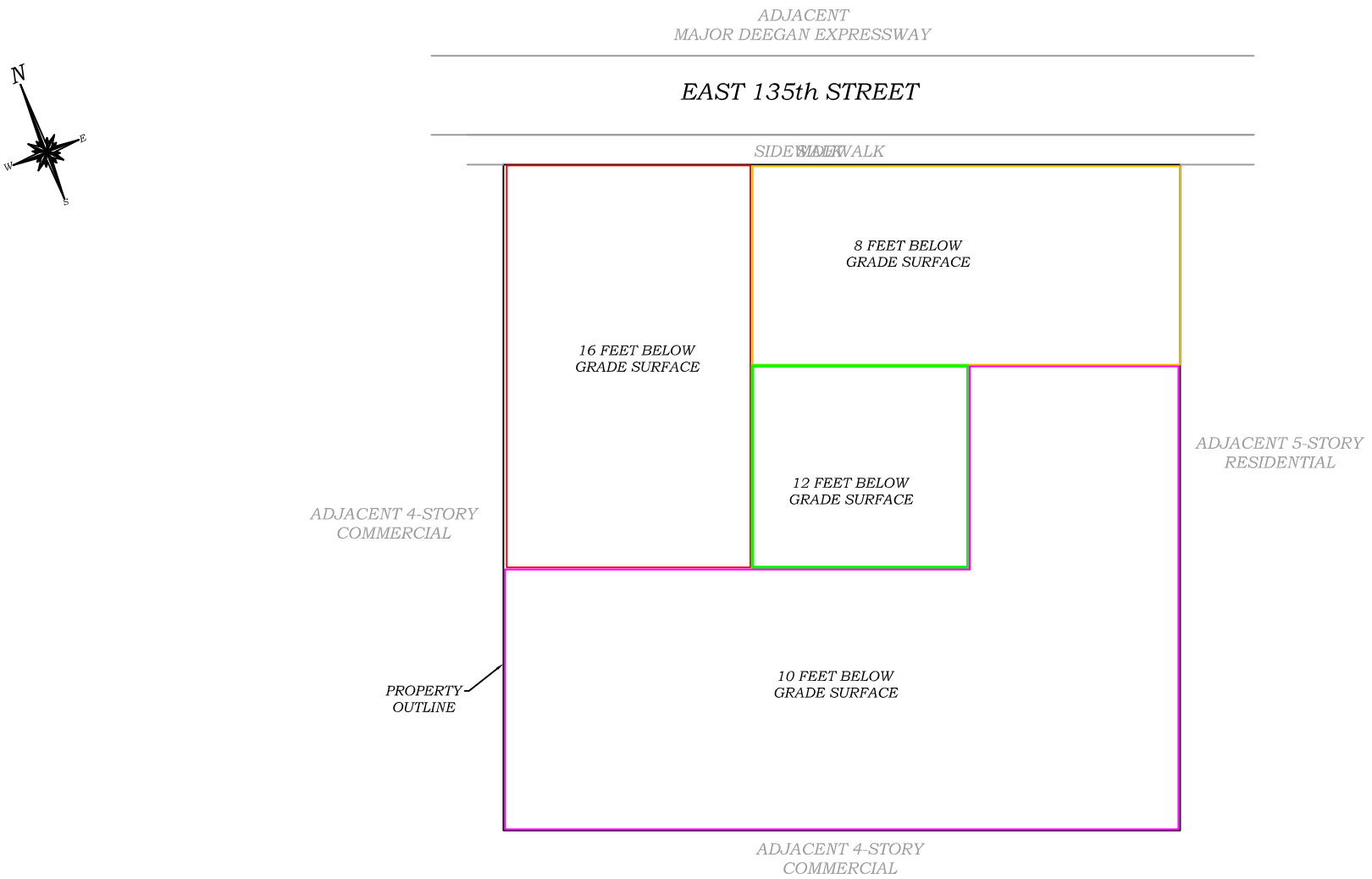
Figure 1: Site Location Map

198 East 135th Street
BCP Site No. C203084

N

0 115 230 460 Feet

NEW YORK STATE OF OPPORTUNITY
Department of Environmental Conservation



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198 East 135th Street
Bronx, NY.
HTE Job # 150213

Drawn By:	C.Q.
Reviewed By:	P.M.
Approved By:	M.R.
Date:	04/10/17
Scale:	AS NOTED

TITLE:

FIGURE 2: MAP OF REMEDIAL EXCAVATION ACHIEVING TRACK 1 SCOs