

DECISION DOCUMENT

767 East 133rd Street
Brownfield Cleanup Program
Bronx, Bronx County
Site No. C203123
June 2021



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

DECLARATION STATEMENT - DECISION DOCUMENT

767 East 133rd Street
Brownfield Cleanup Program
Bronx, Bronx County
Site No. C203123
June 2021

Statement of Purpose and Basis

This document presents the remedy for the 767 East 133rd 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 767 East 133rd 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;
- 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 in order to implement the remedy.

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

- soil exceeding the 6 NYCRR Part 371 hazardous criteria for lead;
- soils which exceed the protection of groundwater soil cleanup objectives (PGWSCOs), as defined by 6 NYCRR Part 375-6.8 for those contaminants found in site groundwater above standards; and
- soil containing total SVOCs exceeding 500 ppm.

All soils in the upper two feet which exceed the restricted residential SCOs, as defined by 6 NYCRR Part 375-6.8, will be excavated and transported off-site for disposal. An additional 2 feet of soil will be excavated to accommodate the vapor mitigation system discussed in Paragraph 5, below.

Historical records and previous geophysical surveys did not identify evidence of USTs at the site. However, as a contingency, any underground storage tanks (USTs), fuel dispensers, underground piping or other structures identified during site remediation will be excavated and removed.

Approximately 3100 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 replace the excavated soil and establish the designed grades at the site.

4. In-Situ Groundwater Treatment

In-situ groundwater treatment will be implemented to treat VOCs in groundwater. Details regarding the selection of a treatment method, the number of injection wells, and the type and frequency of applications or injections will be provided in a Remedial Design Report after completing the Remedial Design Investigation.

5. Hydraulic Barrier

A hydraulic barrier (e.g., secant pile wall) will be installed along the northern and western site boundaries to prevent further migration of contaminated groundwater onto the site from potential off-site upgradient and adjoining sources, and to mitigate further migration of CVOC-impacted groundwater from potential on-site sources onto the off-site.

6. 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.

7. Vapor Mitigation System

Any on-site buildings will be required to have a sub-slab depressurization system, or other acceptable measures, to mitigate the migration of contaminated vapors into the building from contaminants in soil and/or groundwater.

A perimeter system will be installed to prevent contaminated soil vapor from migrating off-site.

8. 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.

9. 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 in paragraph 9 above.
 - Engineering Controls: The hydraulic barrier discussed in paragraph 5, the site cover system discussed in paragraph 6 above and the vapor mitigation systems as discussed in paragraph 7 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 that should a building foundation or building slab be removed in the future, a cover system consistent with that described 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.
- monitoring of soil vapor to assess the performance and effectiveness of the remedy; and
- a schedule of monitoring and frequency of submittals to the Department.

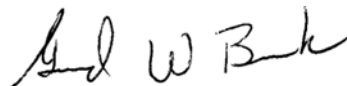
c) an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, inspection, and reporting of any mechanical or physical components of the active vapor mitigation system(s). The plan includes, but is not limited to:

- procedures for operating and maintaining the system(s); and
- compliance inspection of the system(s) to ensure proper O&M as well as providing the data for any necessary reporting.

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.

June 22, 2021



Date

Gerard Burke, Director
Remedial Bureau B

DECISION DOCUMENT

767 East 133rd Street
Bronx, Bronx County
Site No. C203123
June 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, 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:

DECInfo Locator - Web Application
<https://gisservices.dec.ny.gov/gis/dil/index.html?rs=C203123>

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

Bronx Community Board 1
Attn: George Rodriguez

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 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 site is approximately 21,000 square feet (0.48 acres) in area and is located at 767 East 133rd Street (alternative address 111 Willow Avenue) in the Port Morris neighborhood of the Bronx, NY and is identified as Block 2562, Lot 49 (formerly Lots 49, 56, 58 and 60) on the Bronx Borough tax map.

Site Features: The site is located in an urban area that is generally covered with roads, sidewalks and buildings. The site is comprised of a vacant one-story warehouse building, a vacant three-story building with a cellar, and an asphalt-paved parking lot used for storage of construction materials.

Current Zoning and Land Use: The site is zoned M1-4/R7D manufacturing district with a paired residential district. The adjoining parcels and surrounding area are used for industrial/manufacturing and residential purposes.

Past Use of the Site: Past operations at the site included a piano string manufacturer (circa 1927 to 1976), an automotive parts and equipment company (circa 1976) a marble contracting company (circa 1927 to 2008), and residential uses since about 1931.

Site Geology and Hydrogeology: The general stratigraphy beneath the concrete and asphalt surface cover at the site includes historic fill material followed by estuarine river deposits. Fill material was observed from immediately below the existing grade to depths between 8 and 13 feet below sidewalk grade (bsg). The fill layer consists of fine to medium sand with varying amounts of gravel, brick, coal ash, slag, plastic, concrete, and asphalt; underlain by native silts and fine sands.

Bedrock was encountered during the geotechnical investigation at depths between 30 and 45 feet bsg; however, in some locations, borings were advanced to 85 feet bsg and bedrock was not encountered. According to the USGS, bedrock underlying the property is Manhattan Schist, which is a grey sillimanite-muscovite-tourmaline schist. Groundwater depths range from 9.03 to 9.34 feet bsg. Groundwater flows to the south.

A site location map is attached as Figure 1.

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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 under the Brownfield Cleanup Agreement is a Volunteer. The Applicant does not have an obligation to address off-site contamination. However, the Department in consultation with NYSDOH, has determined that this site poses a significant threat to public health or the environment; accordingly, an enforcement action is necessary.

The Department will seek to identify any parties (other than the Volunteer(s)) known or suspected to be responsible for contamination at or emanating from the site, referred to as Potentially Responsible Parties (PRPs). The Department will bring an enforcement action against the PRPs. If an enforcement action cannot be brought, or does not result in the initiation of a remedial program by any PRPs, the Department will evaluate the off-site contamination for action under the State Superfund. The PRPs are subject to legal actions by the State for recovery of all response costs the State incurs or has incurred.

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	lead
benzo(a)pyrene	tetrachloroethene (PCE)
benzo(b)fluoranthene	trichloroethene (TCE)
mercury	1,1,1-trichloroethane (TCA)
barium	

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

- groundwater
- soil
- soil vapor intrusion

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), per- and polyfluoroalkyl substances (PFAS), and pesticides. Soil vapor was analyzed for VOCs. Based upon investigations conducted to date, the primary contaminants of concern for the site include SVOCs and metals in soil, and VOCs in groundwater and soil vapor.

Soil - No VOCs were found at concentrations exceeding the restricted residential soil cleanup objectives (RRSCOs) or protection of groundwater SCOs. Several SVOCs were detected above their RRSCOs, including benzo(a)anthracene at a maximum concentration of 100 parts per million, or ppm (RRSCO is 1 ppm), benzo(a)pyrene at a maximum concentration of 100 ppm (RRSCO is 1 ppm), and benzo(b)fluoranthene at a maximum concentration of 130 ppm (RRSCO is 1 ppm). Metals found include mercury at a maximum concentration of 5.2 ppm (RRSCO is 0.81 ppm), barium at a maximum concentration of 1,000 ppm (RRSCO is 400 ppm), and lead at a maximum concentration of 1,140 ppm (RRSCO is 400 ppm). Soil data is presented in Figure 2. Data does not indicate any off-site impacts in soil related to this site.

Groundwater - Several VOCs were found at concentrations exceeding their respective Ambient Water Quality Standards (AWQS) including 1,1,1-trichloroethane (TCA) at a maximum concentration of 130 parts per billion, or ppb (AWQS is 5 ppb), tetrachloroethene (PCE) at a maximum concentration of 3,700 ppb (AWQS is 5 ppb), and trichloroethene (TCE) at a maximum concentration of 500 ppb (AWQS is 5 ppb). Supplemental groundwater wells were installed to identify a possible off-site, upgradient source of the VOCs; however, the results of that sampling did not identify any impacts in groundwater at the upgradient edge of the site. For the PFAS compounds perfluorooctanoic acid (PFOA) was detected at 35.6 ppt (parts per trillion) at the northeastern (upgradient) portion of the site and 37.9 ppt at the southwestern (downgradient) corner of the site. Perfluorooctane sulfonic acid (PFOS) was detected at 20.6 ppt at the northeastern portion of the site and 33.5 ppt in the southwestern corner of the site. Groundwater data is presented in Figure 3, and groundwater flow direction is presented on Figure 5. Data indicates there is potential for off-site migration of contaminants in groundwater.

Soil Vapor - PCE was found at a maximum concentration of 4,430 micrograms per cubic meter (ug/m3) and TCE at 326 ug/m3 in the vicinity of the elevated groundwater concentrations. The

soil vapor samples collected closest to the property boundary with the adjacent residential structure had a concentration of PCE at 1,630 ug/m³ and TCE at 176 ug/m³. Soil vapor data is presented in Figure 4. Data indicates there is potential for off-site migration of contaminants in soil vapor.

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*.

Since the site is fenced and covered by asphalt or concrete, people will not come into contact with site related soil and groundwater contamination unless they dig below the surface. People are not drinking the contaminated groundwater because the area is served by a public water supply that is 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. Because the site is vacant, the inhalation of site related contaminants due to soil vapor intrusion does not represent a current concern, however soil vapor intrusion may be a concern for future building occupancy onsite. Environmental sampling indicates the potential exists for indoor air impacts in offsite buildings via the soil vapor intrusion pathway.

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 or surface water contamination.

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

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent

- practicable.
- Remove the source of ground or surface 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 Track 4: Restricted use with site-specific soil cleanup objectives remedy.

The selected remedy is referred to as the Excavation, Groundwater Containment/Treatment, Vapor Mitigation and Cover remedy.

The elements of the selected remedy, as shown in Figure 5, 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;
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- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.
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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.

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- require compliance with the Department approved Site Management Plan.

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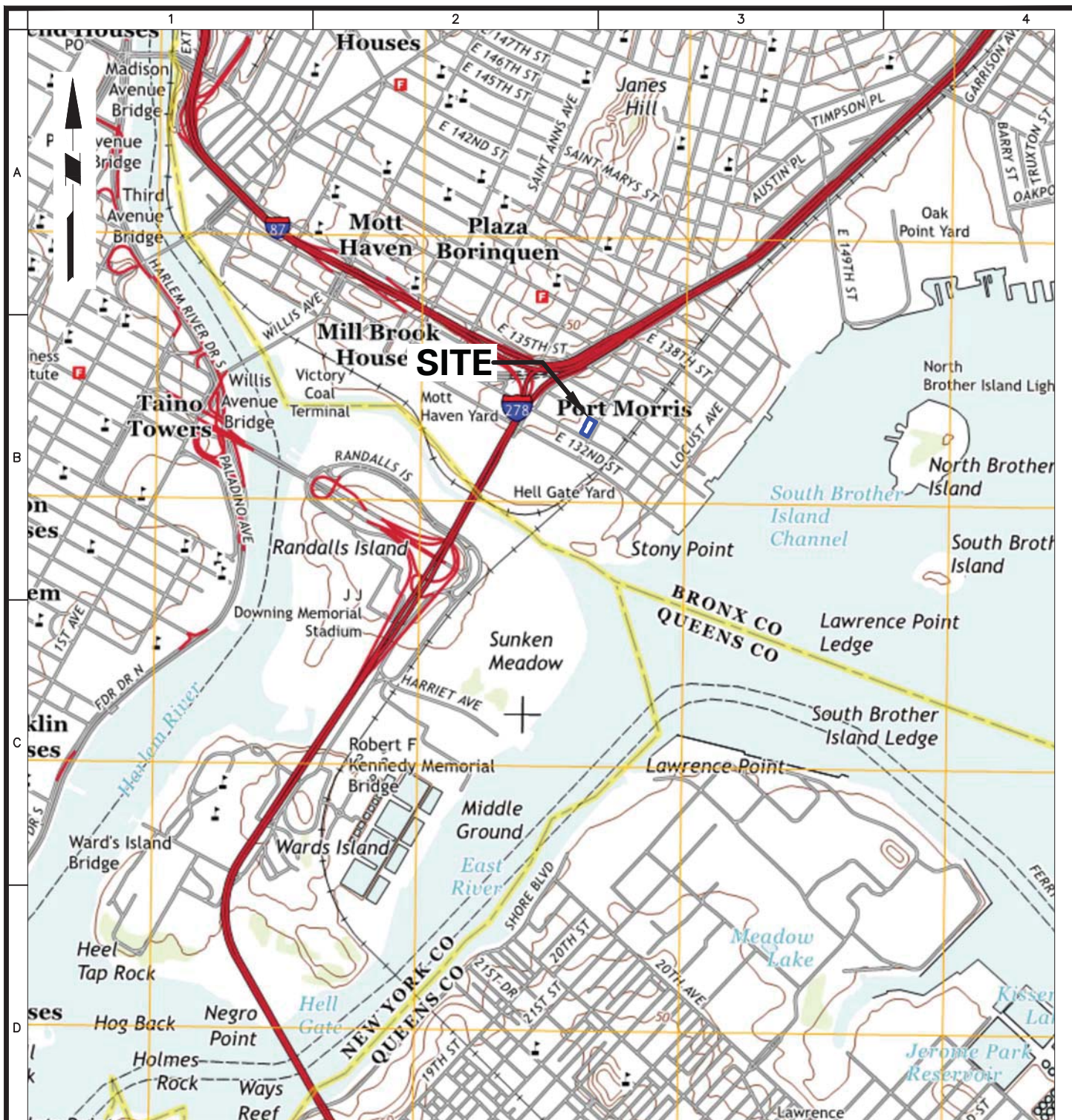
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 - provisions for the management and inspection of the identified engineering controls;
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- f) an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, inspection, and reporting of any mechanical or physical components of the active vapor mitigation system(s). The plan includes, but is not limited to:
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 - compliance inspection of the system(s) to ensure proper O&M as well as providing the data for any necessary reporting.



LEGEND

— SITE BOUNDARY

Project

767 EAST 133RD STREET

BLOCK No. 2562, LOT No. 49

BRONX

NEW YORK

Figure Title

SITE LOCATION MAP

Figure

1

