

DECISION DOCUMENT

37-11 30th Street
Brownfield Cleanup Program
Long Island City, Queens County
Site No. C241211
August 2019



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

DECLARATION STATEMENT - DECISION DOCUMENT

37-11 30th Street
Brownfield Cleanup Program
Long Island City, Queens County
Site No. C241211
August 2019

Statement of Purpose and Basis

This document presents the remedy for the 37-11 30th 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 37-11 30th 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.
- 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

Materials from the recent building demolition which cannot be beneficially reused on site will be taken off-site for proper disposal in order to implement the remedy. The remedy includes excavation and off-site disposal of contaminant source areas, including:

- grossly contaminated soil, as defined in 6 NYCRR Part 375-1.2(u);
- non-aqueous phase liquids;
- soil with visual waste material or non-aqueous phase liquid; and
- 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.

Excavation and off-site disposal of all on-site soils which exceed unrestricted SCOs, as defined by 6 NYCRR Part 375-6.8.

Soil removal and disposal will extend from surface grade to about 15 feet below sidewalk grade across the 26,978 square foot site footprint. The estimated volume of material requiring removal and off-site disposal is about 15,000 cubic yards, including about 120 cubic yards of RCRA hazardous chromium, which is located in the northeast part of the 3-story vacant warehouse building and covers a roughly 18-foot by 15-foot and 8 ft deep region.

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.

3. Groundwater Treatment - In-Situ Chemical Reduction

In-situ chemical reduction (ISCR) will be implemented to treat hexavalent chromium in groundwater. Electron Donor Microemulsion and/or Zero Valent Iron (ZVI) or similar material will be injected into the subsurface to reduce the soluble and mobile hexavalent chromium to the less toxic and less mobile trivalent chromium, which forms minimally soluble precipitates. Hexavalent chromium will be removed from groundwater through precipitated solid phase chromium hydroxide. ISCR will be applied in an approximately 2,700 square foot area located central-east portion of the site near RI boring SB04/MW04 via temporary injection points.

4. 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.

Local Institutional Controls

If no Environmental Easement (EE) or Site Management Plan (SMP) is needed to achieve soil or soil vapor 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 groundwater use.

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 minimum Track 2 restricted-residential use cleanup.

Contingent Remedial Elements:

5. Institutional Control

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 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 NYCDOHMH; and
- requires compliance with the Department approved Site Management Plan.

6. Site Management Plan

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

- an Institutional Control Plan that identifies all use restrictions for the site and details the steps and media-specific requirements necessary to ensure the following institutional controls remain in place and are effective:
 - Institutional Controls: The Environmental Easement discussed in paragraph 5 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 buildings developed on the site, including a provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional controls.

The operation of the components of the remedy will continue until the remedial objectives have been achieved, or until the Department determines that continued operation is technically impracticable or not feasible.

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.

August 28, 2019



Date

Gerard Burke, Director
Remedial Bureau B

DECISION DOCUMENT

37-11 30th Street
Long Island City, Queens County
Site No. C241211
August 2019

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:

Queens Library at Long Island City
37-44 21st Street
Queens, NY 11101
Phone: 718-752-3700

Queens Community Board 1
45-02 Ditmars Boulevard
Queens, NY 11106
Phone: 718-626-1021

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 located in an urban area at 37-11 30th Street and 30-14 37th Avenue in the Long Island City neighborhood of Queens and is identified on the Queens Borough Tax Map as Block 372, Lot 21 and part of Lot 8. The 26,978-square-foot (0.61-acre) site is situated on the northwest corner of the block bound by 37th Avenue to the north, 31st Street to the east, 38th Avenue to the south, and 30th Street to the west. The elevated N and Q subway tracks run north-south above 31st Street, which are about 100 feet east of the site.

Site Features:

The site was developed with a two-story residential building on Lot 21 (30-14 37th Avenue) and a one-story and partial three-story warehouse building with multiple partial cellar levels and a stockyard/storage area in the northern portion of Lot 8 (37-11 30th Street). All on-site buildings were recently demolished.

Current Zoning and Land Use:

The site is located within the Long Island City Special Mixed Use Paired District (M1-2/R6A). This paired district promotes development and expansion of the longstanding mix of residential, commercial, industrial, and cultural use throughout the area. M1 districts typically include retail and light industrial uses such as woodworking shops, repair shops, and wholesale service and storage facilities, and R6A districts promote residential development. Zoning is consistent with the proposed mixed-use development. The surrounding area is primarily commercial and industrial, but also includes residential buildings, public facilities, day care centers, and schools.

As a result of the CEQR process, Block 372, Lot 21 was assigned an E-Designation (E-218) on October 7, 2008 by the NYCDCP as part of the Dutch Kills Rezoning (CEQR No. 08DCP021Q). The E-Designation requires coordination with NYC OER to obtain a building permit.

Past Use of the Site:

The site was an undeveloped vacant lot until at least 1915. The existing warehouse building at Lot 8 was constructed around 1920 and historically operated as a plastics manufacturer (The Marbllette Corp. Mfg. of Plastic Materials) from at least 1930 to about 1980. Following 1980, the site operated as a warehouse for audio and lighting equipment. Lot 21 was developed with a two-story residential dwelling as early as 1898. From the 1930s through the 1980s, Marbllette Corp.

manufactured plastics, which primarily included production of synthetic resins. During this time, plastic was typically made using a mixture of synthetic chemicals, solvents, and petroleum products. An abandoned water supply well was observed in the northwest portion of the site during the June/July 2014 Limited Subsurface Investigation by Merritt Environmental Consulting Corp. The water supply well was reportedly abandoned prior to 1980 when the site transitioned from plastics manufacturing to warehousing.

Site Geology and Hydrogeology:

The site consists of a historic fill layer beneath concrete-paved surfaces that is predominately brown, medium-grained sand with varying amounts of gravel, silt, brick, coal, metal, clay, slag, glass, ceramics and concrete to depths ranging from 2 to 8.5 feet below ground surface (bgs). Fill material is underlain by a native brown fine- to coarse-grained sand layer observed to depths of about 32 to 69 feet bgs, with occasional layers of silt. In one deep boring advanced to 70 feet bgs, the sand layer is underlain by an olive clay layer, which was observed to depths of about 59 to 70 feet bgs. In a second deep boring advanced in the northern portion of the site, weathered rock fragments, potentially indicative of weathered bedrock or glacial till, were observed between 69 and 72 feet bgs. Bedrock was not encountered in any of the soil borings.

Depth to groundwater was measured between about 22.76 to 27.77 feet bgs. The groundwater elevation is highest in the northern region of the site and flows south toward Sunnyside Yards and Newtown Creek.

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
- indoor air
- sub-slab 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:

trichloroethene (TCE)
tetrachloroethene (PCE)
chromium
lead

benzo(a)anthracene
benzo(a)pyrene
benzo(b)fluoranthene
chrysene

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 Target Compound List (TCL) volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), Target Analyte List (TAL) metals, polychlorinated biphenyls (PCBs), and pesticides. Groundwater was also analyzed for Per- and Polyfluoroalkyl Substances (PFAS) and 1,4-dioxane. Based upon investigations conducted to date, the primary contaminants of concern include benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, chromium, lead, tetrachloroethene (PCE) and trichloroethene (TCE).

Soil - SVOCs present at the site include benzo(a)anthracene, which is found at a concentration up to 6.1 parts per million, or ppm (as compared to the unrestricted use soil cleanup objective, or UUSCO of 1 ppm), benzo(a)pyrene at a concentration up to 4.5 ppm (UUSCO is 1 ppm), benzo(a)fluoranthene at a concentration up to 6.2 ppm (UUSCO is 1 ppm), and chrysene at a concentration up to 5.2 ppm (UUSCO is 1 ppm). Metals including chromium were detected in the central eastern portion of the site above their hazardous waste threshold in an 18-foot by 15-foot area of shallow fill up to 8 feet. Hexavalent chromium is present at a concentration up to 1,080 ppm, which exceeds the UUSCO of 1 ppm. Lead is found at a concentration up to 8,750 ppm (UUSCO is 63 ppm). Data does not indicate any off-site impacts in soil related to this site.

Groundwater - Total chromium is found at a concentration up to 1,146 parts per billion (ppb) which exceeds the Ambient Water Quality Standard (AWQS) of 50 ppb; hexavalent chromium is found at a concentration up to 654 ppb (groundwater standard is 50 ppb); perfluorooctanoic acid (PFOA) is found at a concentration up to 34.8 parts per trillion (ppt) and perfluorooctanesulfonic acid (PFOS) is found at a concentration up to 11.3 ppt. Data does not indicate any off-site impacts in groundwater related to this site.

Sub-slab, Soil Vapor and Indoor Air - In sub-slab soil vapor, TCE is found at a concentration up to 22.3 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), PCE is found at a concentration up to 12,000 $\mu\text{g}/\text{m}^3$. In indoor air, TCE is found at a concentration up to 0.296 $\mu\text{g}/\text{m}^3$ and PCE is found at a concentration up to 6.66 $\mu\text{g}/\text{m}^3$. In soil vapor, TCE was not detected, PCE is found at a concentration up to 26.9 $\mu\text{g}/\text{m}^3$. 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 expected to come into contact with site-related soil or groundwater contamination unless they dig below the surface. Contaminated groundwater at the site is not used for drinking or other purposes and 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 overlying structures 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. The potential exists for the inhalation of site related contaminants due to soil vapor intrusion for any future on-site redevelopment. Sampling indicates that 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:

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

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.

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 1: Unrestricted use remedy.

The selected remedy is referred to as the Excavation and Groundwater Treatment 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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- 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.

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- grossly contaminated soil, as defined in 6 NYCRR Part 375-1.2(u);
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4. 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.

Local Institutional Controls

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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 minimum Track 2 restricted-residential use cleanup.

Contingent Remedial Elements:

5. Institutional Control

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 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 NYCDOHMH; and
- requires compliance with the Department approved Site Management Plan.

6. Site Management Plan

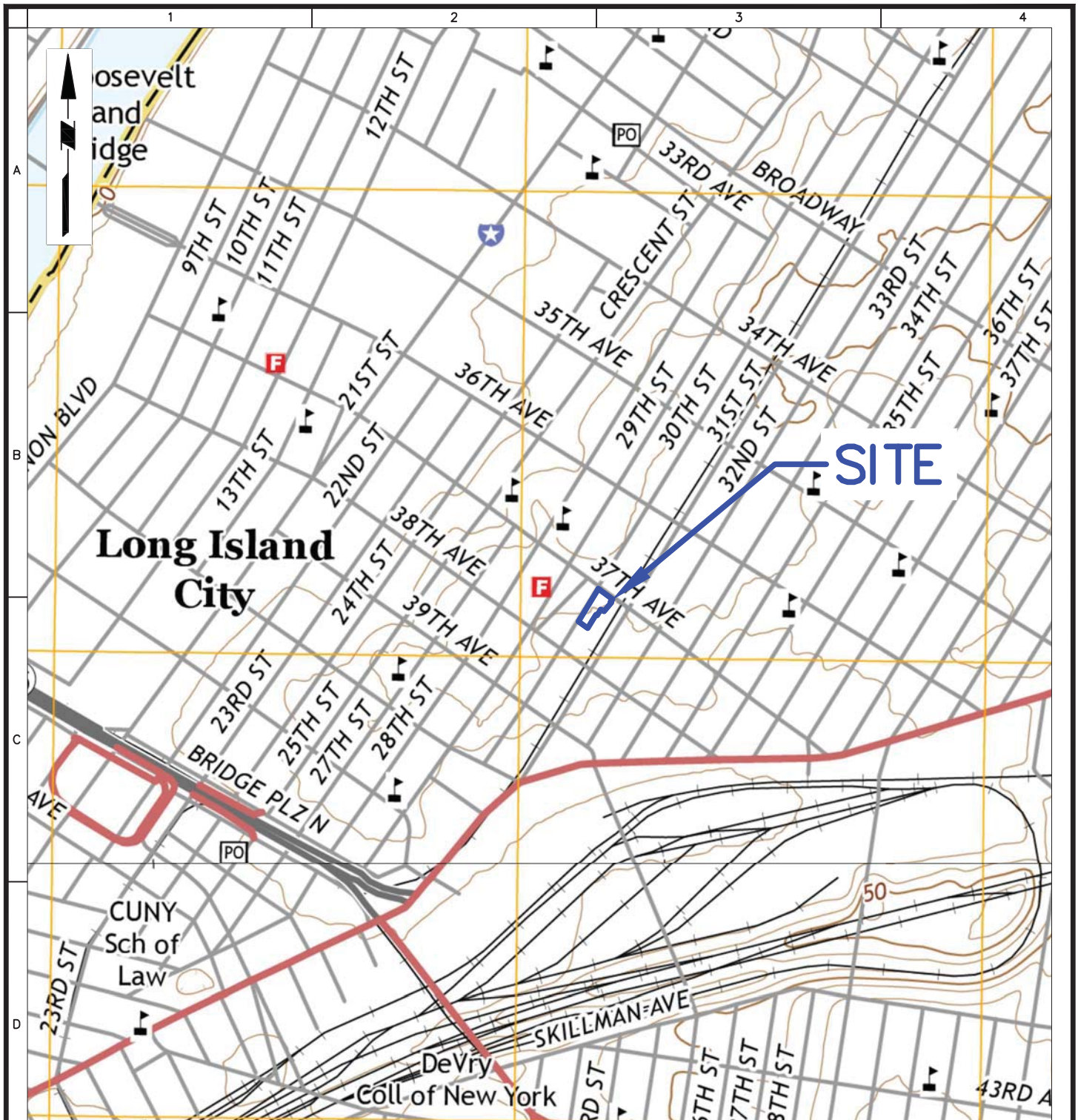
A Site Management Plan is required, which includes the following:

- an Institutional Control Plan that identifies all use restrictions for the site and details the steps and media-specific requirements necessary to ensure the following institutional controls remain in place and are effective:
 - Institutional Controls: The Environmental Easement discussed in paragraph 5 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 buildings developed on the site, including a provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional controls.

The operation of the components of the remedy will continue until the remedial objectives have been achieved, or until the Department determines that continued operation is technically impracticable or not feasible.



NOTE:

BASE MAPS ADAPTED FROM UNITED STATES GEOLOGICAL SURVEY (USGS) 7.5-MINUTE CENTRAL PARK AND BROOKLYN TOPOGRAPHIC QUADRANGLES, DATED 2016.

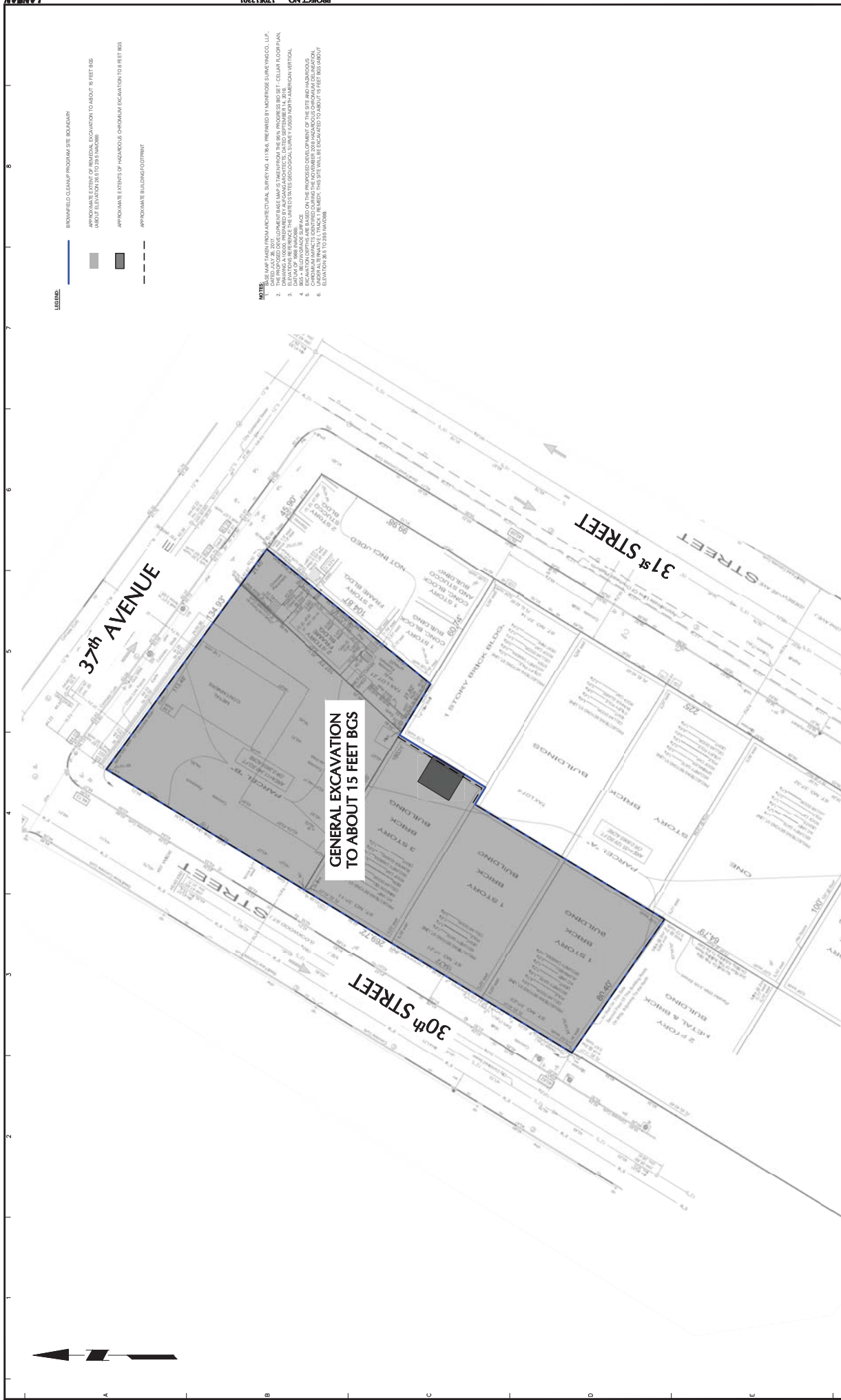


Project
37-11 30TH STREET
BLOCK No. 372, P/O LOT No. 8
AND LOT NO. 21
QUEENS NEW YORK

Figure Title
**SITE LOCATION
MAP**

Project No.
170512301
Date
10/03/2018
Drawn By
NEK
Checked By
ES

Figure No.
1
Sheet 1 of 9



Project	Figure Title	Project No.	Figure No.
37-11 30TH STREET BLOCK NO. 372, P/O LOT NO. 8 AND LOT NO. 21 QUEENS NEW YORK	ALTERNATIVE I - TRACK 1 CLEANUP	170012001 Date 09/06/2019 Drawn By [Signature] Checked By [Signature]	2