DECISION DOCUMENT

737 4th Avenue Site
Brownfield Cleanup Program
Brooklyn, Kings County
Site No. C224332
March 2023

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

DECLARATION STATEMENT - DECISION DOCUMENT

737 4th Avenue Site
Brownfield Cleanup Program
Brooklyn, Kings County
Site No. C224332
March 2023

Statement of Purpose and Basis

This document presents the remedy for the 737 4th Avenue Site 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 737 4th Avenue Site 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; and
- 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 restricted residential soil cleanup objectives, as defined by 6 NYCRR Part 375-6.8 in the upper 15 feet. If a Track 2 restricted residential cleanup is achieved, a Cover System will not be a required element of the remedy. Collection and analysis of confirmation and documentation samples at the remedial excavation depths will be used to verify that SCOs for the site have been achieved. If confirmation/documentation sampling indicates that SCOs were not achieved at the stated remedial depth, the Applicant must notify the Department, the sample results and, in consultation with the Department, determine if further remedial excavation is necessary. Further excavation for development will proceed after confirmation samples demonstrate that SCOs for the site have been achieved.

Approximately 2,550 cubic yards of contaminated soil will be removed from the Site. To ensure proper handling and disposal of excavated material, waste characterization sampling will be completed for all identified contaminated site material. Waste characterization sampling will be performed exclusively for the purposes of off-site disposal in a manner suitable to receiving facilities and in conformance with applicable federal, state and local laws, rules, and regulations and facility-specific permits.

3. **Backfill**

Clean fill meeting the requirements of 6 NYCRR 375-6.7(d) will be brought in, as necessary, to complete backfilling of the excavation and establish design grades at the Site.

4. **In-Situ Chemical Oxidation**

In-situ chemical oxidation (ISCO) will be implemented to treat contaminants in groundwater and soil below the water table. A chemical oxidant will be injected into the subsurface to destroy contaminants in an approximately 1,100 square-foot area in the southeastern and southwestern portions of the site where petroleum-related compounds were elevated in groundwater and soil via injection wells. The method and depth of injection will be determined during the remedial design.

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 in Paragraph 5 above.

This plan includes, but may not be limited to:

- o an Excavation Plan which details 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;
- o provisions for the management and inspection of the identified engineering controls;
- o a provision for evaluation of the potential for soil vapor intrusion for any occupied buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- o maintaining site access controls and Department notification; and
- o the steps necessary for the period 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:

- o monitoring of groundwater to assess the performance and effectiveness of the remedy;
- o a schedule of monitoring and frequency of submittals to the Department; and
- o monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

Declaration

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

March 7, 2023

Date

Jane H. O'Connell
Regional Remediation Engineer
Region 2

DECISION DOCUMENT

737 4th Avenue Site
Brooklyn, Kings County
Site No. C224332
March 2023

SECTION 1: SUMMARY AND PURPOSE

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

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

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

SECTION 2: CITIZEN PARTICIPATION

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

DECInfo Locator - Web Application
https://gisservices.dec.ny.gov/gis/dil/index.html?rs=C224332

Brooklyn public Library-Sunset Library Branch
4201 4th Avenue
Brooklyn, NY 11232
Phone: (718) 435-3648

Brooklyn Community Board 7
4201 4th Avenue
Brooklyn, NY 11232
Phone: (718) 854-0003

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 0.46-acre site is located in an urban, commercial and residential area in Brooklyn. The site is bounded by 24th Street and mixed-use residential and commercial properties to the north; industrial and manufacturing properties to the east; 25th Street, commercial and office buildings, and industrial and manufacturing properties to the south; and 4th Avenue, mixed-use residential and commercial properties, industrial and manufacturing properties, and a multi-family residential building to the west.

Site Features:

The site is currently vacant. The site was previously occupied by a Dunkin Donuts restaurant and associated parking lot; and two adjoining single-story commercial retail buildings. Building demolition has been completed with the building slabs and asphalt parking lot remaining.

Current Zoning and Land Use:

The site is currently zoned R8a residential with a C2-4 commercial overlay and is surrounded by similarly zoned properties along with residentially zoned properties to the east and a school to the west. The R subway line is located west of the site beneath 4th Avenue.

Past Use of the Site:

The eastern portion of the site was first developed between 1906 and 1924 and was used as a gasoline and auto repair service station up until at least 1997. The gas station was demolished in 2000, and the lot was improved with a Dunkin Donuts and an asphalt paved parking lot from 2003 to present.

The western portion of the site was developed by 1888 and used for residential purposes. From 1906 to 1949, the lot was used as a shop and junk yard. In 1949, the junk yard was replaced with a metals manufacturing building and in 1976 the use changed to an auto repair shop and used car sales lot. In 2012, the used car sales lot was replaced with a 3-unit retail shop which included restaurants and a cell phone shop.

Site Geology and Hydrogeology:

The stratigraphy of the site, from the surface down, consists primarily of historical urban fill, including broken concrete and bricks, from grade ranging down to 2 to 10 feet below ground surface (bgs). The fill was underlain by native soils which primarily consisted of medium to fine-grained sands to at least 25 feet bgs. Groundwater was encountered at approximately 22 feet bgs. Regional groundwater flows towards the northwest. However, groundwater flow beneath the site may be influenced by localized dewatering near the subway tunnel beneath 4th Avenue. Bedrock was not encountered. The nearest surface water body is the Gowanus Bay, located approximately 0.25 miles west of the site.

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 under the Brownfield Cleanup Agreement is a Volunteer. The Applicant does 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
- 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 contaminants of concern identified at this site are:

1,2,4-trimethylbenzene
1,3,5-trimethylbenzene
n-propylbenzene
naphthalene
ethylbenzene
xylene (mixed)
arsenic
copper
lead
mercury
benzo(a)anthracene
benzo(a)pyrene
benzo(b)fluoranthene
chrysene
indeno(1,2,3-cd)pyrene
polychlorinated biphenyls (PCB)

The contaminants of concern exceed the applicable SCGs for:

- groundwater
- soil

6.2: Interim Remedial Measures

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

The following IRM is being implemented at this site based on conditions observed during the RI.

IRM-Product Recovery and Barrier Wall

The elements of the ongoing IRM include:

1. Installation and operation of six petroleum product recovery wells (6-inch diameter) to a depth of 28 feet below ground surface in the central and southern portions of the site to remove potentially mobile petroleum product from the subsurface. Petroleum product will be collected periodically from each well; however, if wells are determined by the Department to accumulate large quantities of petroleum product over extended time periods, they can be converted to automated collection.

2. Installation of a barrier wall along the southeastern property boundary to prevent off-site contamination from migrating onto the site.

IRM activities began in October 2022 and are ongoing. These activities will be documented in the Final Engineering Report (FER).

6.3: Summary of Environmental Assessment

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

Nature and Extent of Contamination:

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

Soil
Several petroleum-related VOCs were detected in soil at concentrations above their respective protection of groundwater sol cleanup objective (PGWSCO), where applicable, but below restricted-residential soil cleanup objectives (RRSCO)up to a depth of 19 feet bgs including: 1,2-4-trimethylbenzene up to 13 parts per million, or ppm (PGWSCO is 3.6 ppm); 1,3,5-trimethylbenzene up to 11 ppm (PGWSCO is 8.4 ppm); n-propylbenzene up to 6.6 ppm (PGWSCO is 3.9 ppm); and total xylenes up to 15 ppm (PGWSCO is 1.6 ppm).

Several SVOCs were detected at concentrations above their respective RRSCOs and/or PGWSCOs up to a depth of 11 feet bgs including: benzo(a)anthracene up to 3.1 ppm (RRSCO and PGWSCO is 1.0 ppm); benzo(b)fluoranthene up to 3.5 ppm (RRSCO and PGWSCO is 1.0 ppm); chrysene up to 2.8 ppm (RRSCO is 3.9 ppm and PGWSCO is 1.0 ppm); and indeno(1,2,3-cd)pyrene up to 1.9 ppm (RRSCO is 0.5 ppm and PGWSCO is 8.2 ppm) and benzo(a)pyrene up to 2.9 ppm (RRSCO is 1.0 ppm).

Metals were detected at concentrations above RRSCOs up to a depth of 11 feet bgs including: arsenic up to 23.5 ppm (RRSCO is 16 ppm); copper up to 274 ppm (RRSCO is 270 ppm); lead up to 1,940 ppm (RRSCO is 400 ppm); and mercury up to 1.8 ppm (RRSCO is 0.81 ppm).

Total PCBs were detected in one sample at a concentration of 1.79 ppm, above the RRSCO of 1 ppm. 1,4-Dioxane was not detected in any of the samples collected and PFAS were not detected above their respective restricted residential or protection of groundwater guidance values.

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

Groundwater
Prior to the IRM, petroleum product was encountered in three monitoring wells ranging in thickness from 0.25" to 2.5". Post-IRM conditions will be documented in the FER. Ten groundwater samples were collected on-site. Petroleum-related VOCs were detected in groundwater primarily in the southeastern portion of the site at concentrations above their respective Class GA Ambient Water Quality Standards (AWQS) including: benzene up to 34 parts per billion, or ppb, ethylbenzene up to 27 ppb, 1,2,4-trimethylbenzene up to 37 ppb, naphthalene up to 78 ppb, and xylenes up to 14 ppb, all of which have a standard of 5 ppb.

SVOCs detected above standard include: benzo(a)anthracene up to 0.32 ppb; benzo(b)fluoranthene up to 2.9 ppb; benzo(k)fluoranthene up to 0.79 ppb; chrysene up to 2 ppb; and indeno(1,2,3-cd)pyrene up to 1.6 ppb, all of which have a standard of 0.002 ppb.

Excluding naturally occurring minerals, such as manganese and sodium, no dissolved metals were detected above standards in site groundwater.

For PFAS, perfluorooctanoic acid (PFOA) and PFOS were reported at concentrations of up to 323 parts per trillion (ppt), and 17 ppt, respectively, exceeding the Maximum Contaminant Level (MCL) (drinking water standard) of 10 ppt in groundwater. There are no public water supply wells within a half mile of the site and there is a municipal prohibition on the use of groundwater underlying the site.

Data does not indicate any off-site impacts in groundwater related to the site.

Soil Vapor
Six soil vapor samples and four sub-slab soil vapor samples were collected and analyzed. Several petroleum-related VOCs were detected in sub-slab soil vapor samples in the northeastern portion of the site including toluene up to 13,000 $\mu g/m^3$. Additionally, 2-butanone was detected in soil vapor samples across the site up to 3,100 $\mu g/m^3$.

Data does not indicate any off-site impacts in soil vapor related to the 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.*

Since the site is fenced, people will not come into contact with site related soil and groundwater contamination unless they dig below the surface. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply that obtains water from a different source not affected by this contamination. Volatile organic compounds in soil vapor (air spaces within the soil) may move into buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. Because there is no on-site building, inhalation of site contaminants in indoor air due to soil vapor intrusion does not represent a concern for the site in its current condition. However, the potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site development. In addition, environmental 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:

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.

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 2: Restricted use with generic soil cleanup objectives 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;
- 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; and
- 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 restricted residential soil cleanup objectives, as defined by 6 NYCRR Part 375-6.8 in the upper 15 feet. If a Track 2 restricted residential cleanup is achieved, a Cover System will not be a required element of the remedy. Collection and analysis of confirmation and documentation samples at the remedial excavation depths will be used to verify that SCOs for the site have been achieved. If confirmation/documentation sampling indicates that SCOs were not achieved at the stated remedial depth, the Applicant must notify the Department, submit the sample results and, in consultation with the Department, determine if further remedial excavation is necessary. Further excavation for development will proceed after confirmation samples demonstrate that SCOs for the site have been achieved.

Approximately 2,550 cubic yards of contaminated soil will be removed from the Site. To ensure proper handling and disposal of excavated material, waste characterization sampling will be completed for all identified contaminated site material. Waste characterization sampling will be performed exclusively for the purposes of off-site disposal in a manner suitable to receiving facilities and in conformance with applicable federal, state and local laws, rules, and regulations and facility-specific permits.

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5. **Institutional Control**

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- 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 in Paragraph 5 above.

This plan includes, but may not be limited to:

- o an Excavation Plan which details 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;
- o provisions for the management and inspection of the identified engineering controls;
- o a provision for evaluation of the potential for soil vapor intrusion for any occupied buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- o maintaining site access controls and Department notification; and
- o the steps necessary for the period 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 of groundwater to assess the performance and effectiveness of the remedy;
- a schedule of monitoring and frequency of submittals to the Department; and
- monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

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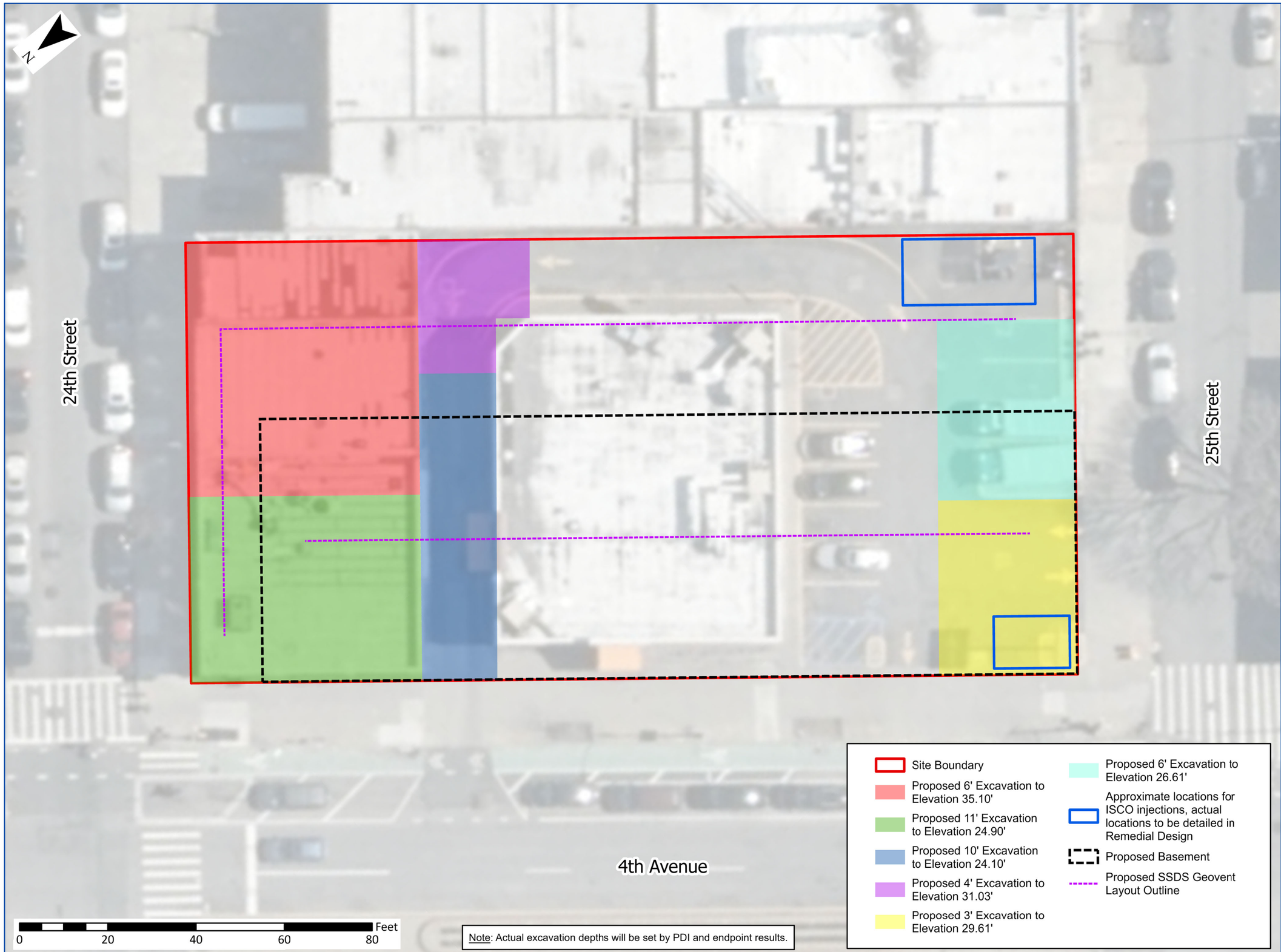
Figure 1

Site Location Map

737 4th Avenue Site
Brooklyn, Kings County
Site No. C224332

NEW YORK STATE OF OPPORTUNITY
Department of Environmental Conservation



PWGC
CLIENT DRIVEN SOLUTIONS
P.W. Grosser Consulting Engineer & Hydrogeologist, PC
630 Johnson Ave., Suite 7
Bohemia, NY 11716
Ph: 631-589-6353 • Fax: 631-589-8705
pwgc.info@pwgrosser.com

DRAWING PREPARED FOR:

REVISION	DATE	INITIAL	COMMENTS

DRAWING INFORMATION:

Project:	TOT2202	Designed by:	JL
Date:	2/2/2023	Drawn by:	AM
Scale:	AS SHOWN	Approved by:	JL

Proposed Remedy

731-747 4th Ave
Brooklyn, NY

FIGURE NO:

2

Document Path: W:\Projects\S-Z\TOT\2202\TOT2202_Proposed Excavation Depths.aprx