

# DECISION DOCUMENT

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Kingsbrook Estates  
Brownfield Cleanup Program  
Brooklyn, Kings County  
Site No. C224448  
June 2026



**Department of  
Environmental  
Conservation**

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

# DECLARATION STATEMENT - DECISION DOCUMENT

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Brooklyn, Kings County  
Site No. C224448  
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## **Statement of Purpose and Basis**

This document presents the remedy for the Kingsbrook Estates 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 (NYSDEC) for the Kingsbrook Estates site and the public's input to the proposed remedy presented by NYSDEC.

## **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 shall be constructed, at a minimum, to meet the 2020 Energy Conservation Construction Code of New York (or most recent edition) to improve energy efficiency as an element of construction.

As part of the remedial design program, to evaluate the remedy with respect to green and sustainable remediation principles, an environmental footprint analysis will be completed. The environmental footprint analysis will be completed using an accepted environmental footprint analysis calculator such as SEFA (Spreadsheets for Environmental Footprint Analysis, USEPA), SiteWise™ (available in the Sustainable Remediation Forum [SURF] library) or similar Department accepted tool. Water consumption, greenhouse gas emissions, renewable and nonrenewable energy use, waste reduction and material use will be estimated, and goals for the project related to these green and sustainable remediation metrics, as well as for minimizing community impacts, protecting habitats and natural and cultural resources, and promoting environmental justice, will be incorporated into the remedial design program, as appropriate. The project design specifications will include detailed requirements to achieve the green and sustainable remediation goals. Further, progress with respect to green and sustainable remediation metrics will be tracked during implementation of the remedial action and reported in the Final Engineering Report (FER), including a comparison to the goals established during the remedial design program.

Additionally, the remedial design program will include a climate change vulnerability assessment, to evaluate the impact of climate change on the project site and the proposed remedy. Potential vulnerabilities associated with extreme weather events (e.g., hurricanes, lightning, heat stress and drought), flooding, and sea level rise will be identified, and the remedial design program will incorporate measures to minimize the impact of climate change on potential identified vulnerabilities.

## **2. Excavation**

The existing on-site buildings will be demolished and materials which cannot 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:

- grossly contaminated soil, as defined in 6 NYCRR Part 375-1.2(u);
- 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
- any underground storage tanks (USTs), fuel dispensers, underground piping or other structures associated with a source of contamination.

### Track 2 Area

Excavation and off-site disposal of all on-site soils which exceed restricted-residential SCOs, 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 in this area of the site.

#### Track 4 Area

All soil in the upper two feet which exceed the restricted residential SCOs will be excavated and transported off-site for disposal.

Approximately 21,750 cubic yards of material will be removed from the site. 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 sampling indicates that SCOs were not achieved at the stated remedial depth, the Applicant must notify NYSDEC, submit the sample results, and in consultation with NYSDEC, 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.

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. Cover System**

A site cover will be required in the Track 4 area where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs), to allow for future restricted-residential use of the site. 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.

### **4. Backfill**

On-site soil which does not exceed the above excavation criteria for any constituent may be used to backfill the excavation or re-grade the site. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to replace excavated soil and establish the designed grades at the site.

### **5. Vapor Mitigation**

Any on-site buildings will be required to have a Sub-Slab Depressurization System, or other acceptable measures, to mitigate the migration of vapors into the building from the subsurface.

## 6. Institutional Controls

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 NYSDEC 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 NYCDOHMH; and
- require compliance with NYSDEC approved Site Management Plan.

## 7. Site Management Plan (SMP)

An SMP 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 Remedy Element 6 above.
  - Engineering Controls: The cover system for the Track 4 area discussed in Remedy Element 3, Groundwater Monitoring discussed in Remedy Element 7b, and the sub-slab depressurization system discussed in Remedy Element 5.

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 use restrictions;
  - provisions for the management and inspection of the identified engineering controls;
  - maintaining site access controls and NYSDEC 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 of groundwater and indoor air, to assess the performance and effectiveness of the remedy; and
    - a schedule of monitoring and frequency of submittals to NYSDEC.

- 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. The plan includes, but is not limited to:
- procedures for operating and maintaining the system;
  - compliance inspection of the system to ensure proper O&M as well as providing the data for any necessary reporting;
  - monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above; and
  - providing the NYSDEC access to the site and O&M records.

### **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 3, 2026

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Date



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Scott Deyette, Director  
Remedial Bureau B

# DECISION DOCUMENT

Kingsbrook Estates  
Brooklyn, Kings County  
Site No. C224448  
June 2026

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## **SECTION 1: SUMMARY AND PURPOSE**

The New York State Department of Environmental Conservation (NYSDEC), 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.

NYSDEC 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**

NYSDEC 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 NYSDEC 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=C224448>

Brooklyn Community Board 9  
890 Nostrand Avenue  
Brooklyn, NY 11225  
Phone: 718-778-9279

Brooklyn Public Library Crown Heights Branch  
560 New York Avenue  
Brooklyn, NY 11213  
Phone: 718-773-1180

### **Receive Site Citizen Participation Information By Email**

Please note that NYSDEC'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 2.13-acre site is located at 585 Schenectady Avenue in an urban, mixed-use area of Brooklyn, NY, and comprises the northern portion of the Kingsbrook Jewish Medical Center (KJMC) campus. It is identified on the Brooklyn Borough Tax Map as the northern portions of Block 4602, Lots 1 and 5. The site is bound by Rutland Road followed by a multi-story residential building to the north; East 49th Street followed by a 12-story residential and commercial building under construction to the east; medical operations and nursing home as part of the KJMC to the south; and Schenectady Avenue followed by multi-story residential and commercial buildings to the west.

Site Features: The site is currently occupied by several KJMC buildings detailed below:

- Leviton Building: A four-story building, including a cellar, located on the western part of the site
- Masin Building: A six-story building, including a cellar, located on the northeastern part of the site
- Blumberg Building: A six-story building, including a cellar, located on the eastern part of the site
- Lefrak Building: A four-story building, including a partial cellar located on the eastern part of the site
- Power Plant: A one-story building, including a cellar located on the southeastern part of the site (only a portion of the power plant is located within the proposed BCP site boundary).

The site buildings are vacant with the exception of medical offices in the Leviton building, information technology operations in the Blumberg building, and power generation and receiving department operations and medical supply storage in the power plant. The areas outside of the site buildings include landscaped areas and a courtyard.

Current Zoning and Land Use: The site is located in an R6 residential zoning district which allows medium-density apartment building use. Land use within a half-mile of the site includes single- and multi-story buildings occupied by institutional, light industrial, residential, and commercial uses. There are several schools and daycares located within a half-mile of the site.

Past Use of the Site: The site was primarily vacant and unimproved prior to 1924 and was first developed with the current KJMC buildings in 1927, starting with construction of the LeFrak building. Between 1933 and 1951, the Blumberg and Leviton buildings, the Power plant and a central courtyard area were constructed. In 1957, the Masin building was constructed in the northeastern part of the site. Coal-fired power-generation occurred in the power plant located in the southeastern corner of the site.

The KJMC (which includes the site and adjoining properties to the south) is listed in the Resource Conservation and Recovery Act (RCRA) database under EPA ID NYD986954188 as a Non-Generator/No Longer Regulated (NonGen/NLR) (1995, 2006) and a Small Quantity Generator (SQG) (1991, 2003, 2007) for the generation of ignitable waste (D001), corrosive waste (D002), reactive waste (D003), mercury (D009), silver (D011), and spent halogenated solvents (F001, F002, F003, F004, and F005). Hazardous waste identified in this listing may have historically been generated at or stored on the site.

Possible sources of contamination associated with historical site uses include hazardous waste generation, petroleum bulk storage, storage and combustion of coal and handling of coal combustion byproducts, and/or the placement of non-native fill across the site.

Site Geology and Hydrogeology: The site is relatively flat with overall topography of the site and immediate surrounding area generally sloping south towards Jamaica Bay, located approximately 3 miles from the site. The site is underlain by an approximately 4- to 25-foot-thick layer of non-native fill. In areas beneath existing building cellars, the non-native fill is about 3 to 10 feet thick, which corresponds to about 18 to 25 feet below exterior grade surface (ft bgs). Non-native fill at the site generally consists of varied-colored, fine- to medium-grained sand with varying amounts of fine gravel, brick, concrete, asphalt, glass, coal, coal ash, and ceramic. The non-native fill layer is underlain by native sand with varying amounts of silt, fine gravel, and clay. A silt and/or clay layer of varying thickness was encountered in multiple soil borings on the eastern part of the site between about 6 to 24 feet bgs. Bedrock has not been observed during previous environmental investigations and is expected to be present greater than 300 feet bgs.

Groundwater is present at approximately 23 feet bgs (el. 9.63± to 9.75±). The overall direction of groundwater flow at the site is to the north.

A site location map is attached as Figure 1 and a site layout is attached as Figure 2.

#### **SECTION 4: LAND USE AND PHYSICAL SETTING**

NYSDEC 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, an alternative that restricts 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) 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, NYSDEC 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
- 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. NYSDEC 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:

anthracene	phenanthrene
benzo(a)anthracene	pyrene
benzo(a)pyrene	arsenic
benzo(b)fluoranthene	barium
benzo(g,h,i)perylene	copper
benzo(k)fluoranthene	lead
chrysene	mercury
dibenz[a,h]anthracene	bis(2-ethylhexyl)phthalate
dibenzofuran	tetrachloroethane
fluoranthene	trichloroethene
indeno(1,2,3-cd)pyrene	carbon tetrachloride

The contaminants 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. The primary contaminants of concern include SVOCs and metals in soil, SVOCs and PFAS, and VOCs in soil vapor.

#### Soil:

Exceedances of the restricted residential use soil cleanup objectives (RRSCOs) and/or the protection of groundwater soil cleanup objectives (PGSCOs) were identified sitewide to depths up to 27 ft bgs in the central portion of the site where an SVOC source area was identified. Black staining, odors, and elevated PID readings were observed in the source area. SVOCs detected at concentrations exceeding their respective RRSCOs include anthracene up to 238 parts per million (ppm) (RRSCO of 100 ppm), benzo(a)anthracene up to 308 ppm (RRSCO of 1.4 ppm, PGSCO of 1 ppm), benzo(a)pyrene up to 276 ppm (RRSCO of 1 ppm, PGSCO of 22 ppm), benzo(b)fluoranthene up to 240 ppm (RRSCO of 1.4 ppm, PGSCO of 2.1 ppm), benzo(g,h,i)perylene up to 167 ppm (RRSCO of 4.9 ppm), benzo(k)fluoranthene up to 234 ppm (RRSCO of 4.9 ppm, PGSCO of 2 ppm), chrysene up to 275 ppm (RRSCO of 4.9 ppm, PGSCO of 1 ppm), dibenz(a,h)anthracene up to 50.8 ppm (RRSCO of 0.33 ppm), dibenzofuran up to 73.5 ppm (RRSCO of 18 ppm), fluoranthene up to 906 ppm (RRSCO of 100 ppm), indeno(1,2,3-cd)pyrene up to 159 ppm (RRSCO of 1.4 ppm, PGSCO of 6.6 ppm), phenanthrene up to 814 ppm (RRSCO of 4.9 ppm), and pyrene up to 711 ppm (RRSCO of 100 ppm).

Metals detected at concentrations exceeding RRSCOs include arsenic up to 207 ppm (RRSCO of 16 ppm), barium up to 1,280 ppm (RRSCO of 410 ppm), copper up to 288 ppm (RRSCO of 280 ppm), lead up to 6,570 ppm (RRSCO of 400 ppm), and mercury up to 1.08 ppm (RRSCO of 0.30 ppm).

No VOCs, pesticides, PCBs, or PFAS were detected above their respective RRSCOs or guidance values. Data does not indicate any off-site impacts in soil related to this site.

#### Groundwater:

Exceedances of the Ambient Water Quality Standards and Guidance Values (AWQSGVs) for SVOCs include benzo(a)anthracene up to 0.309 parts per billion (ppb) (AWQSGV of 0.002 ppb), benzo(a)pyrene up to 0.32 ppb (AWQSGV of non-detect [ND]), benzo(b)fluoranthene up to 0.217 ppb (AWQSGV of 0.002 ppb), benzo(k)fluoranthene up to 0.251 ppb (AWQSGV of 0.002 ppb), chrysene up to 0.263 ppb (AWQSGV of 0.002 ppb), and indeno(1,2,3-cd)pyrene up to 0.194 ppb (AWQSGV of 0.002 ppb).

The only metals detected at concentrations exceeding their respective Ambient Water Quality Standards and Guidance Values (AWQSGVs) were naturally occurring minerals such as iron, manganese, selenium, and sodium and are not considered site related contaminants of concern.

PFAS detected at concentrations exceeding their respective AWQSGVs include perfluorooctanesulfonic acid (PFOS) up to 43 parts per trillion (ppt) (AWQGV of 2.7 ppt) and perfluorooctanoic acid (PFOA) up to 113 ppt (AWQSGV of 6.7 ppt).

No VOCs, pesticides, or PCBs were detected above their respective AWQSGV in groundwater samples.

Data indicates the potential for off-site impacts in groundwater related to this site.

#### Soil Vapor:

Various chlorinated VOCs were detected in sub-slab and co-located indoor air soil vapor samples exceeding the minimum thresholds for which monitoring or mitigation is recommended based on the NYSDOH Decision Matrices including tetrachloroethene (PCE) up to 1,100 micrograms per cubic meter (ug/m<sup>3</sup>) in the sub-slab sample and a value under the reporting limit in the co-located indoor air sample, trichloroethene (TCE) up to 63 ug/m<sup>3</sup> in the sub-slab sample and a value under the reporting limit in the co-located indoor air sample, and carbon tetrachloride up to 22 ug/m<sup>3</sup> in the sub-slab sample and a value of 0.334 ug/m<sup>3</sup> in the co-located indoor air sample. Other chlorinated VOCs detected in sub-slab soil vapor samples include chloroform up to 1,830 ug/m<sup>3</sup>. Petroleum-related VOCs were also detected in sub-slab soil vapor, most notably m,p-xylene up to 43 ug/m<sup>3</sup>. Other VOCs detected in standard soil gas samples include n-heptane up to 96 ug/m<sup>3</sup>, n-hexane up to 110 ug/m<sup>3</sup>, propylene up to 610 ug/m<sup>3</sup>, and toluene up to 35 ug/m<sup>3</sup>.

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*.

Information submitted with the BCP application regarding the conditions at the site are currently under review and will be revised as additional information becomes available.

### **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.

### **RAOs for Environmental Protection**

- Remove the source of ground 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 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 and Track 4: Restricted-residential use with generic soil cleanup objectives remedy.

The selected remedy is referred to as the Excavation, Cover System, and Vapor Mitigation remedy.

The elements of the selected remedy, as shown in Figure 3, 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 shall be constructed, at a minimum, to meet the 2020 Energy Conservation Construction Code of New York (or most recent edition) to improve energy efficiency as an element of construction.

As part of the remedial design program, to evaluate the remedy with respect to green and sustainable remediation principles, an environmental footprint analysis will be completed. The environmental footprint analysis will be completed using an accepted environmental footprint analysis calculator such as SEFA (Spreadsheets for Environmental Footprint Analysis, USEPA), SiteWise™ (available in the Sustainable Remediation Forum [SURF] library) or similar Department accepted tool. Water consumption, greenhouse gas emissions, renewable and nonrenewable energy use, waste reduction and material use will be estimated, and goals for the project related to these green and sustainable remediation metrics, as well as for minimizing community impacts, protecting habitats and natural and cultural resources, and promoting environmental justice, will be incorporated into the remedial design program, as appropriate. The project design specifications will include detailed requirements to achieve the green and sustainable remediation goals. Further, progress with respect to green and sustainable remediation metrics will be tracked during implementation of the remedial action and reported in the Final Engineering Report (FER), including a comparison to the goals established during the remedial design program.

Additionally, the remedial design program will include a climate change vulnerability assessment, to evaluate the impact of climate change on the project site and the proposed remedy. Potential vulnerabilities associated with extreme weather events (e.g., hurricanes, lightning, heat stress and drought), flooding, and sea level rise will be identified, and the remedial design program will incorporate measures to minimize the impact of climate change on potential identified vulnerabilities.

## **2. Excavation**

The existing on-site buildings will be demolished and materials which cannot 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:

- grossly contaminated soil, as defined in 6 NYCRR Part 375-1.2(u);
- 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
- any underground storage tanks (USTs), fuel dispensers, underground piping or other structures associated with a source of contamination.

#### Track 2 Area

Excavation and off-site disposal of all on-site soils which exceed restricted-residential SCOs, 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 in this area of the site.

#### Track 4 Area

All soil in the upper two feet which exceed the restricted residential SCOs will be excavated and transported off-site for disposal.

Approximately 21,750 cubic yards of material will be removed from the site. 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 sampling indicates that SCOs were not achieved at the stated remedial depth, the Applicant must notify NYSDEC, submit the sample results, and in consultation with NYSDEC, 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.

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. Cover System**

A site cover will be required in the Track 4 area where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs), to allow for future restricted-residential use of the site. 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.

### **4. Backfill**

On-site soil which does not exceed the above excavation criteria for any constituent may be used to backfill the excavation or re-grade the site. Clean fill meeting the requirements of 6 NYCRR

Part 375-6.7(d) will be brought in to replace excavated soil and establish the designed grades at the site.

## **5. Vapor Mitigation**

Any on-site buildings will be required to have a Sub-Slab Depressurization System, or other acceptable measures, to mitigate the migration of vapors into the building from the subsurface.

## **6. Institutional Controls**

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 NYSDEC 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 NYCDOHMH; and
- require compliance with NYSDEC approved Site Management Plan.

## **7. Site Management Plan (SMP)**

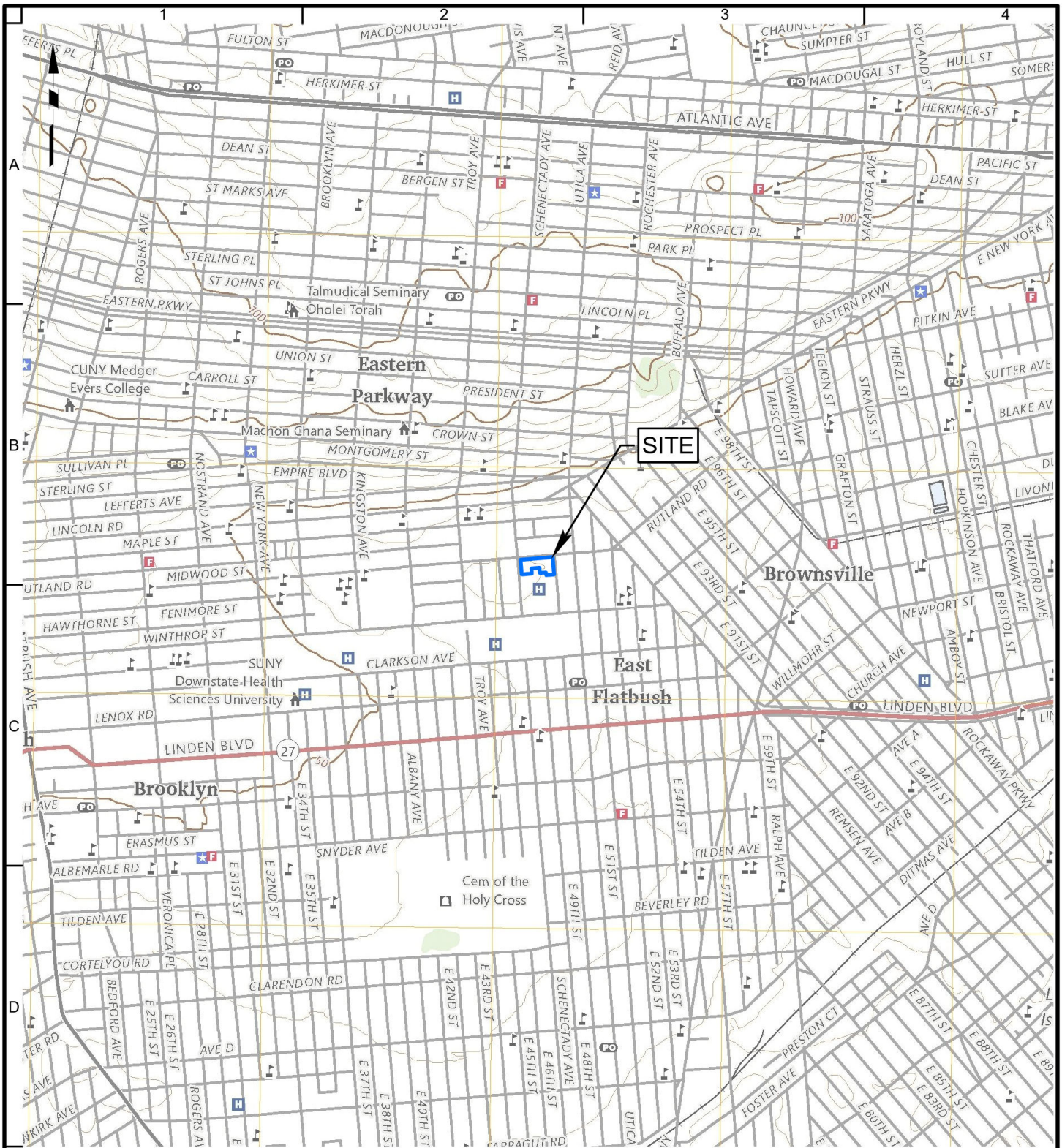
An SMP is required, which includes the following:

- 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 Remedy Element 6 above.
  - Engineering Controls: The cover system for the Track 4 area discussed in Remedy Element 3, Groundwater Monitoring discussed in Remedy Element 7b, and the sub-slab depressurization system discussed in Remedy Element 5.

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 use restrictions;
- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and NYSDEC 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 of groundwater and soil indoor air, to assess the performance and effectiveness of the remedy; and
  - a schedule of monitoring and frequency of submittals to NYSDEC.
- 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. The plan includes, but is not limited to:
- procedures for operating and maintaining the system;
  - compliance inspection of the system to ensure proper O&M as well as providing the data for any necessary reporting;
  - monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above; and
  - providing the NYSDEC access to the site and O&M records.




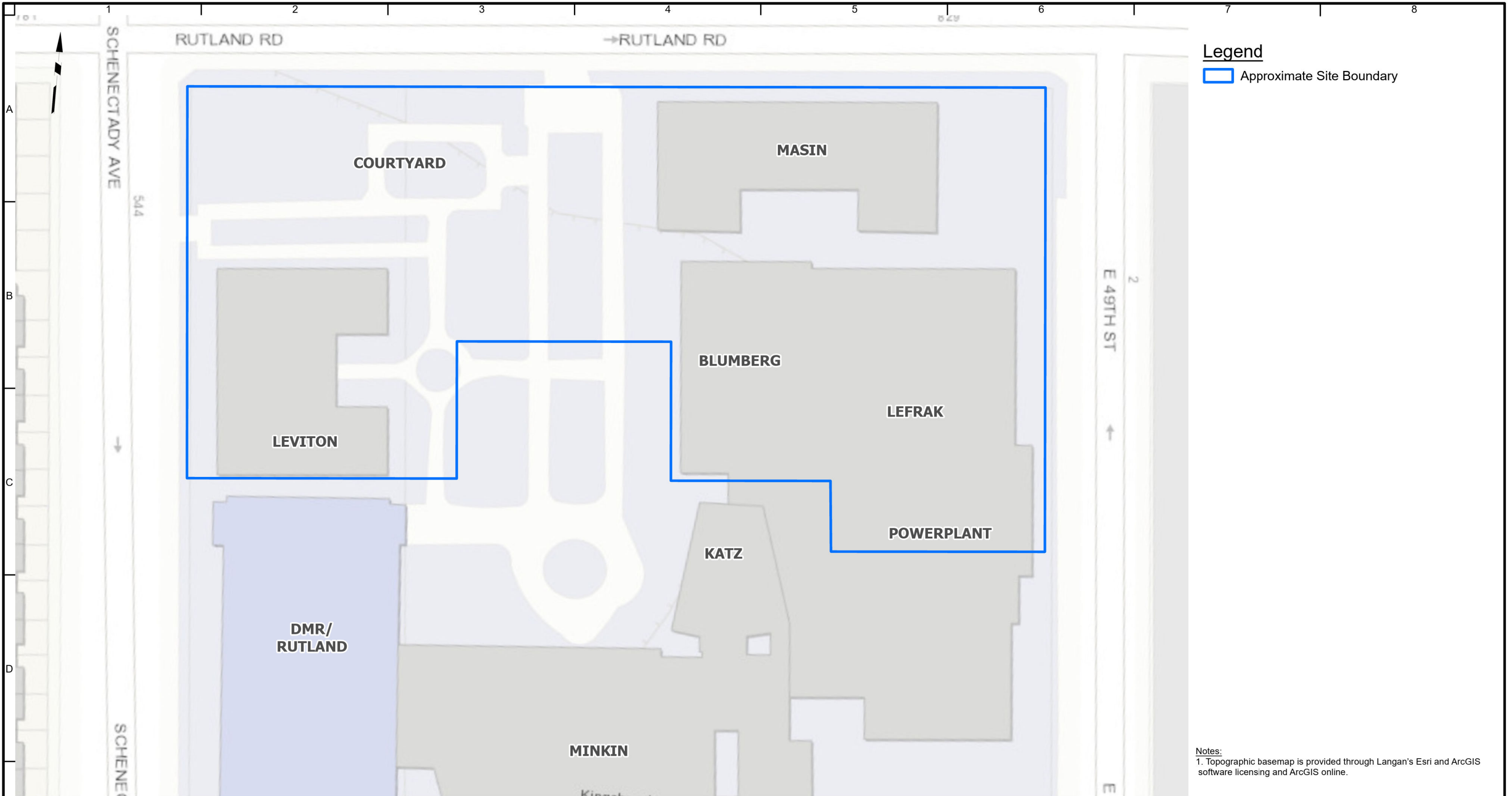
**Legend**

 Approximate Site Boundary



**Notes:**  
 1. Basemap adapted from United States Geological Survey (USGS) 7.5-Minute Series Topographical Maps, Brooklyn, New York, Quadrangle, Dated 2023.

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	KINGSBROOK ESTATES	SITE LOCATION MAP	170655401	1
BROOKLYN NEW YORK			Date 9/8/2025	
			Scale 1"=2,000'	
			Drawn By MG	
			Submission Date	



Notes:  
 1. Topographic basemap is provided through Langan's Esri and ArcGIS software licensing and ArcGIS online.



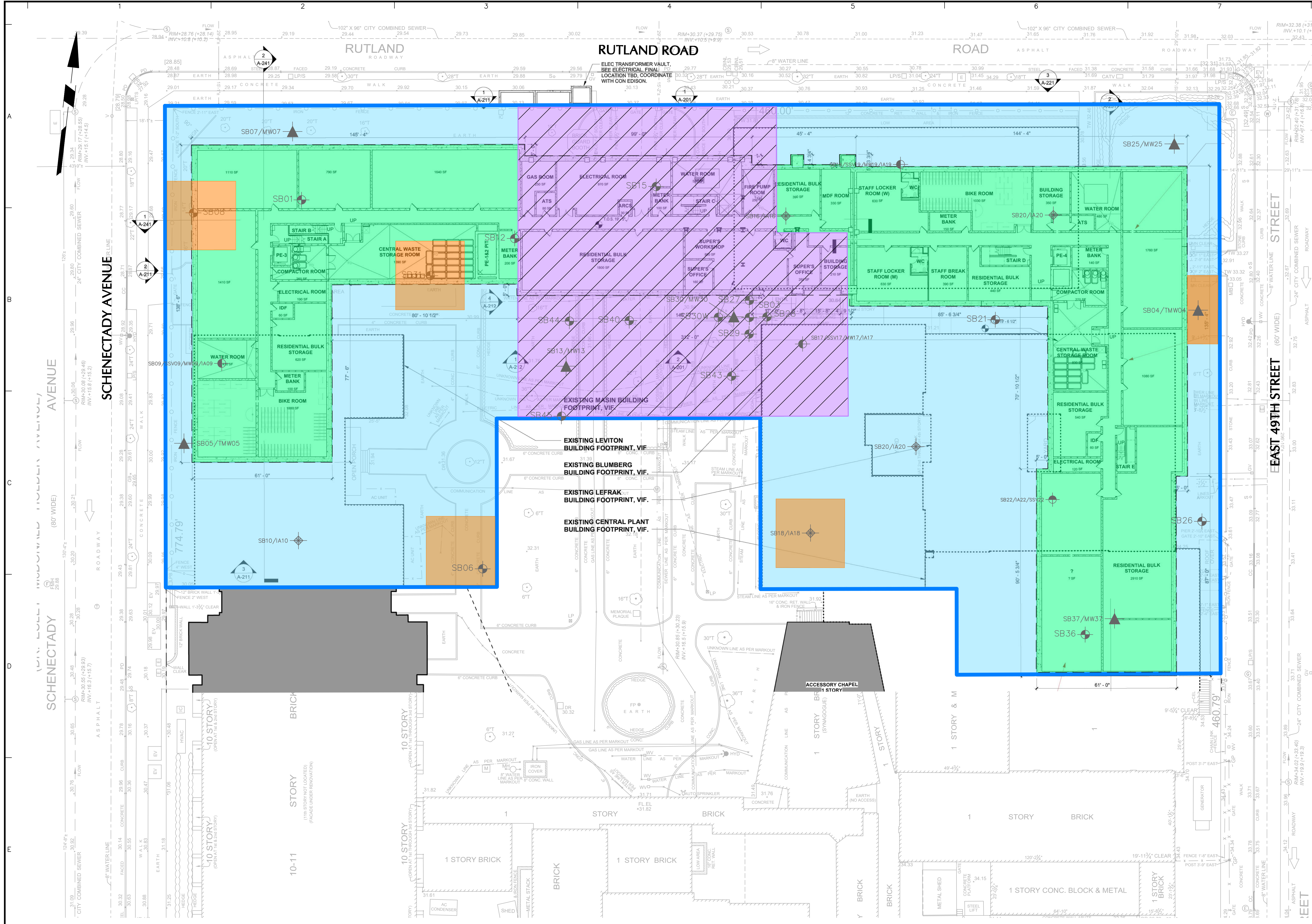
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Project  
**KINGSBROOK ESTATES**  
 BROOKLYN NEW YORK

Figure Title  
**SITE PLAN**

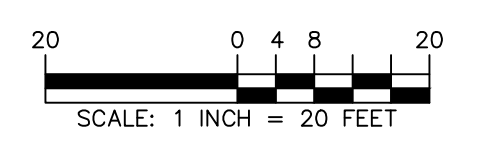
Project No.  
 170655401  
 Date  
 9/8/2025  
 Scale  
 1"=50'  
 Drawn By  
 MG

Figure No.  
**2**



- LEGEND:**
- APPROXIMATE SITE BOUNDARY
  - EXISTING BUILDING BOUNDARY
  - TRACK 4 REMEDIAL EXCAVATION TO A MINIMUM OF 2 FEET BGS
  - TRACK 2 REMEDIAL EXCAVATION UP TO 15 FEET BGS
  - TRACK 2 REMEDIAL EXCAVATION OF SOILS THAT EXCEED PGWSCOS TO APPROXIMATE DEPTHS BETWEEN 20 TO 27 FEET BGS
  - RI/PHASE II ESI SOIL BORING LOCATION WITHIN PROPOSED TRACK 2 AND 4 AREA WHERE SVOCs DETECTED ABOVE PGWSCOS
  - PROPOSED BUILDING/CELLAR FOOTPRINT
  - SB04 RI SOIL BORING LOCATION
  - SB01/AW01 RI SOIL BORING/MONITORING WELL LOCATION
  - SB01/A01/SSV01 RI SOIL BORING/INDOOR AIR LOCATION
  - SB20/A20 RI SOIL BORING/INDOOR AIR/SOIL VAPOR POINT LOCATION
  - SB19/SSV19/AW19/AI19 RI SOIL BORING/SOIL VAPOR POINT/MONITORING WELL/INDOOR AIR LOCATION
  - SB01/AW01 PHASE II ESI SOIL BORING/TEMPORARY MONITORING WELL LOCATION

- NOTES**
1. SITE BOUNDARY, EXISTING BUILDING, PROPOSED BUILDING, AND REMEDIAL EXCAVATION EXTENTS ARE APPROXIMATE.
  2. BACKGROUND ADAPTED FROM SURVEY OF PROPERTY TAX BLOCK 4602 LOTS 1 AND 5 (82594-A), DATED JULY 23, 2021, PREPARED BY BLD LAND SURVEYORS LLP AND OVERALL PLAN - CELLAR (A-011.00), DATED OCTOBER 2, 2025, PREPARED BY DATNER ARCHITECTS D.P.C.
  3. BGS = BELOW GRADE SURFACE
  4. RI = REMEDIAL INVESTIGATION
  5. ESI = ENVIRONMENTAL SITE INVESTIGATION
  6. SVOC = SEMIVOLATILE ORGANIC COMPOUND
  7. PGWSCOS = NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) TITLE 6 OF THE NEW YORK CODES, RULES, AND REGULATIONS (NYCRR) PART 375 PROTECTION OF GROUNDWATER SOIL CLEANUP OBJECTIVE
  8. REMEDIATION EXTENTS AND DEPTHS ARE SUBJECT TO CHANGE BASED ON RESULTS OF THE REMEDIAL DESIGN INVESTIGATION AND CONFIRMATION ENDPOINT SAMPLES. EXCAVATION MINIMUM DEPTHS ARE SHOWN. SOIL SAMPLES REPORTING CONCENTRATIONS OF SVOCs ABOVE THEIR RESPECTIVE PGWSCOS WILL BE REMOVED THROUGHOUT THE SITE.



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Project  
**KINGSBROOK ESTATES**  
 BLOCK No. 4602 LOT Nos. 1 and 5  
 BROOKLYN  
 KINGS COUNTY  
 NEW YORK

Figure Title  
**ALTERNATIVE II:  
 SPLIT TRACK 2/TRACK 4  
 CLEANUP PLAN - SOIL**

Project No.	170655401	Figure No.	<b>3</b>
Date	05/08/2026		
Drawn By	PIJ		
Checked By	PM		

PROJECT NO. 170655401