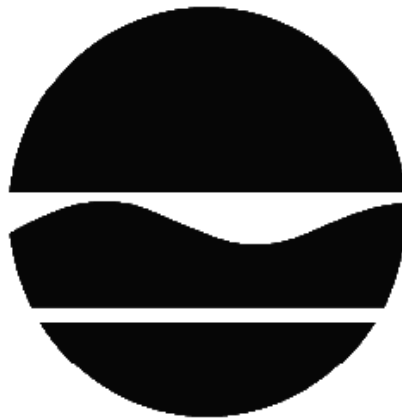


# DECISION DOCUMENT

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107-02 Queens Boulevard  
Brownfield Cleanup Program  
Queens, Queens County  
Site No. C241196  
June 2018



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

# DECLARATION STATEMENT - DECISION DOCUMENT

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107-02 Queens Boulevard  
Brownfield Cleanup Program  
Queens, Queens County  
Site No. C241196  
June 2018

## **Statement of Purpose and Basis**

This document presents the remedy for the 107-02 Queens Boulevard 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 107-02 Queens Boulevard 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**

The existing on-site building(s) 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 all on-site soils which exceed unrestricted use soil cleanup objectives (UUSCOs), as defined by 6 NYCRR Part 375-6.8. If a Track 1 cleanup is achieved, a Cover System will not be a required element of the remedy. Excavation and removal of any underground storage tanks (USTs), fuel dispensers, underground piping or other structures associated with a source of contamination.

Approximately 15,074 cubic yards of contaminated soil will be removed from the site.

## **3. Backfill**

Confirmation samples will be collected and analyzed to demonstrate achievement of unrestricted use soil cleanup objectives. Clean fill meeting the requirements of the 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. The estimated quantity of soil to be imported into the site for backfill and cover soil is 226 cubic yards. No soil/fill is expected to be reused/relocated on site.

## **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.

## **5. 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 potable use of groundwater without prior approval.

## **6. Contingent Track 1 Elements**

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

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

## **7. 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 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, commercial and industrial uses 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.

### **8. 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 controls remain in place and effective:
  - Institutional Controls: The Environmental Easement discussed in Paragraph A above.

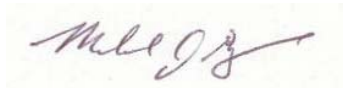
This plan includes, but may not be limited to:

- 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 provision for implementing actions recommended to address exposures related to soil vapor intrusion; and
  - the steps necessary for the periodic reviews and certification of the institutional controls.
- b. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
    - Monitoring for vapor intrusion for any buildings developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

### **Declaration**

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

June 28, 2018  
Date



Gerard Burke, Director  
Remedial Bureau B

# DECISION DOCUMENT

107-02 Queens Boulevard  
Queens, Queens County  
Site No. C241196  
June 2018

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## **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 Public Library - Forest Hills Branch  
108-19 71 Avenue  
Forest Hills, NY 11375  
Phone: (718) 268-7934

Queens Community Board Office 6  
104-01 Metropolitan Avenue  
Forest Hills, NY 11375  
Phone: (718) 263-9250

NYSDEC - Region 2  
Attn: Division of Environmental Remediation  
47-40 21st Street  
Long Island City, NY 11101  
Phone: (718) 482-4078

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

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at <http://www.dec.ny.gov/chemical/61092.html>

### **SECTION 3: SITE DESCRIPTION AND HISTORY**

#### Location:

The site is located an urban area in the Forest Hills section of Queens, and is denoted on New York City Tax Map as Block 3238, Lot 44. It is bordered on the north by Queens Boulevard and MacDonald Park, on the south by a 7-story residential building and synagogue, on the east by a 5-story warehouse/commercial building, and on the west by 70th Avenue and a US Post Office.

#### Site Features:

The site is developed with a vacant, one-story multi-tenant commercial building with a rear open parking area in the southern portion. The site is generally rectangular in shape, and is approximately 17,090 square feet (0.39-acres) in size.

#### Current Zoning and Land Use:

The site is zoned C4-5X for mixed residential and commercial uses. The surrounding area is comprised of a mix of commercial and residential uses.

#### Past Use of the Site:

Historic uses of the site included stables located in the northwestern portion in 1902 and dwellings in the western portion in 1914. In 1945, the on-site 1-story commercial building was constructed in the northern portion with the rear southern portion designated as an open parking area. The site became vacant between January and March 2018. Previously, a dry cleaner had been located in one of the tenant spaces at the Site between 1983 until early 2018.

#### Site Geology and Hydrology:

The site is generally level and is at an elevation of approximately 58 feet above sea level. The geology of Queens County consists of unconsolidated glacial deposits. Site specific geology includes a layer of urban fill approximately 8 feet thick overlying the native glacial deposits. Groundwater beneath the site was encountered at approximately 39 feet below grade.

Groundwater in the immediate vicinity of the site flows toward the northeast.

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, an alternative which allows for unrestricted use of the site was evaluated.

A comparison of the results of the Remedial Investigation (RI) against unrestricted use standards, criteria and guidance values (SCGs) for the site contaminants is available in the RI Report.

#### **SECTION 5: ENFORCEMENT STATUS**

The Applicants under the Brownfield Cleanup Agreement are Volunteers. The Volunteers do not have an obligation to address off-site contamination. The Department and the NYSDOH have determined that this site poses a significant threat to human health and the environment.

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

#### **SECTION 6: SITE CONTAMINATION**

##### **6.1: Summary of the Remedial Investigation**

A remedial investigation (RI) serves as the mechanism for collecting data to:

- characterize site conditions;
- determine the nature of the contamination; and
- assess risk to human health and the environment.

The RI is intended to identify the nature (or type) of contamination which may be present at a site and the extent of that contamination in the environment on the site, or leaving the site. The RI reports on data gathered to determine if the soil, groundwater, soil vapor, indoor air, surface water or sediments may have been contaminated. Monitoring wells are installed to assess groundwater and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface water bodies or wetlands, the water and sediment may be sampled as well. Based on the presence of contaminants in soil and groundwater, soil vapor will also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available for



review in the site document repository and the results are summarized in section 6.3.

The analytical data collected on this site includes data for:

- groundwater
- soil
- soil vapor
- 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:

tetrachloroethene (PCE)	DDD
trichloroethene (TCE)	DDE
vinyl chloride	DDT

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.

Soil and groundwater were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), and pesticides. Soil vapor samples were analyzed for VOCs. Based on the investigation conducted to date, the primary contaminants of concern for the site include the chlorinated volatile organic compounds (CVOCs).

Soil - The results of the remedial investigation indicate tetrachloroethene (PCE) and vinyl chloride were detected in a soil sample in the rear parking area in the immediate southern vicinity of the drycleaners at concentrations exceeding their respective Track 1 Unrestricted Use soil cleanup objectives (UUSCOs) but below their Restricted Residential Use soil cleanup objectives (RRSCOs). PCE was also detected at a concentration exceeding its respective Track 1 UUSCO but below its respective RRSCO in a dry sediment sample collected from the sewer pit located in the southwestern corner of the basement of the drycleaners. PCE, vinyl chloride and trichloroethene (TCE) were detected in the 10 to 12-foot soil sample collected from the southwest-adjacent portion of the drycleaners at respective concentrations of 6.3 parts per million (ppm), 0.025 ppm and 0.0094 ppm, with PCE and vinyl chloride concentrations exceeding their UUSCOs of 1.3 ppm and 0.02 ppm, respectively. The UUSCOs for these compounds are also the Protection of Groundwater SCOs. PCE was also detected in the dry pit sediment located in the southwestern portion of the basement of the drycleaners at a concentration of 2.8 ppm. Pesticide concentrations in excess of UUSCOs were detected in two shallow samples and a deep soil sample beneath on the northern and eastern portions of the basement of the building. In soil, 4,4'-DDD was detected at a maximum concentration of 0.0776 ppm, 4,4'-DDE at a maximum concentration of 0.140 ppm and 4,4'-DDT at a maximum concentration of 1.970 ppm. The UUSCO for these three pesticides is 0.0033 ppm by comparison. No semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs) or herbicides were detected in any soil samples. Metals were detected in all soil samples at concentrations below their respective UUSCOs. Data does not indicate any off-site impacts in soil related to this site.

Groundwater - PCE was detected in one on-site groundwater sample and one off-site groundwater sample at concentrations above their respective ambient water quality standards (AWQS). PCE was detected slightly above the AWQS on an off-site groundwater at 5.8 parts per billion (ppb). Maximum PCE concentration in groundwater was detected at 8.3 ppb on the southwestern upgradient portion of the site. No vinyl chloride was detected in any groundwater samples. Perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) were detected in the groundwater samples at a maximum concentration of 47 parts per trillion (ppt) and 24 ppt,

respectively. Only the non-site related metal sodium was detected in groundwater at a concentration exceeding the AWQS. No SVOCs PCBs, pesticides or herbicides were detected at concentrations exceeding the AWQS. Data does not indicate any off-site impacts in groundwater related to this site.

Soil vapor, sub-slab vapor, and indoor air - Chlorinated solvent VOCs were identified at elevated concentrations in on-site indoor air, soil vapor, and sub-slab soil vapor. The maximum concentration of PCE and TCE were detected in sub-slab samples at 9,000 micrograms per cubic meter (ug/m<sup>3</sup>), and 240 ug/m<sup>3</sup>, respectively. PCE was detected in indoor air at a maximum concentration of 472 ug/m<sup>3</sup>, above the NYSDOH air guideline for PCE of 30 ug/m<sup>3</sup>. TCE was detected in indoor air at a maximum concentration of 85 ug/m<sup>3</sup>, above the NYSDOH air guideline for TCE of 2 ug/m<sup>3</sup>. Vinyl chloride was not detected in soil vapor, sub-slab vapor, or indoor air samples. The distribution and abundance of PCE and TCE in soil vapor samples is consistent with the presence of these compounds in soil and in groundwater. Elevated concentrations are also present in soil vapor at the site boundary, indicating a potential for off-site migration of site-related VOCs.

#### **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*.

Direct contact with contaminants in the soil is unlikely because the site is covered with buildings and pavement. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by 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 overlying buildings and affect the indoor air quality. This process which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. Because the site is vacant, the inhalation of site-related contaminants due to soil vapor intrusion does not represent a current concern. The potential exists for the inhalation of site-related contaminants due to soil vapor intrusion for any future on-site redevelopment and occupancy. Additional investigation is needed to evaluate the potential for soil vapor intrusion off-site.

#### **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**

- 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 Soil Excavation and Vapor Evaluation 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; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.
- Additionally, to incorporate green remediation principles and techniques to the extent feasible in the future development at this site, any future on-site buildings will include, at a minimum, a 20-mil vapor barrier/waterproofing membrane on the foundation to improve energy efficiency as an element of construction.

## **2. Excavation**

The existing on-site building(s) 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 all on-site soils which exceed unrestricted use soil cleanup objectives (UUSCOs), as defined by 6 NYCRR Part 375-6.8. If a Track 1 cleanup is achieved, a Cover System will not be a required element of the remedy. Excavation and removal of any underground storage tanks (USTs), fuel dispensers, underground piping or other structures associated with a source of contamination.

Approximately 15,074 cubic yards of contaminated soil will be removed from the site.

## **3. Backfill**

Confirmation samples will be collected and analyzed to demonstrate achievement of unrestricted use soil cleanup objectives. Clean fill meeting the requirements of the 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. The estimated quantity of soil to be imported into the site for backfill and cover soil is 226 cubic yards. No soil/fill is expected to be reused/relocated on site.

## **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.

## **5. 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 potable use of groundwater without prior approval.

## **6. Contingent Track 1 Elements**

The intent of the remedy is to achieve a Track 1 unrestricted use, therefore, no environmental easement or site management plan is anticipated. If the soil vapor intrusion (SVI) evaluation is not completed prior to completion of the Final Engineering Report, then a Site Management Plan (SMP) and Environmental Easement (EE) will be required to address the SVI evaluation and

implement actions as needed; if a mitigation or monitoring action is needed, a Track 1 cleanup can only be achieved if the mitigation system or other required action is no longer needed within 5 years of the date of the Certificate of Completion.

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

## **7. 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 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, commercial and industrial uses 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.

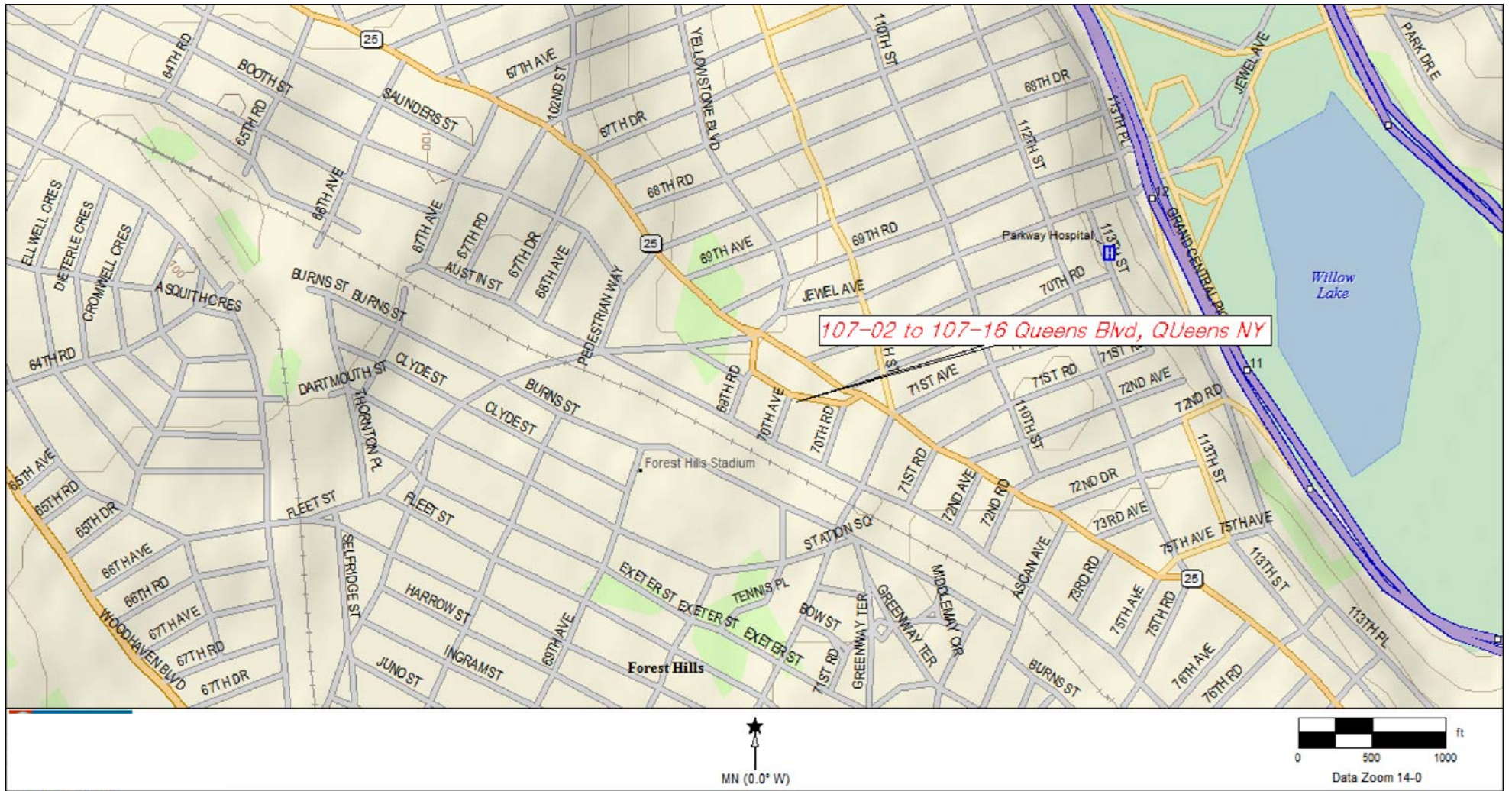
## **8. Site Management Plan**

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 controls remain in place and effective:
  - Institutional Controls: The Environmental Easement discussed in Paragraph A above.

This plan includes, but may not be limited to:

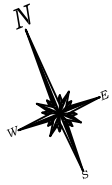
- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
  - descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;
  - a provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion; and
  - the steps necessary for the periodic reviews and certification of the institutional controls.
- b. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
    - Monitoring for vapor intrusion for any buildings developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above.



107-02 to 107-16  
Queens Blvd  
Queens, NY.  
HTE Job # 170317

TITLE:

FIGURE 1: SITE LOCATION MAP



ADJACENT  
PUBLIC PARK

QUEENS BLVD

SUB-BASEMENT  
OUTLINE

SIDEWALK

70th AVENUE

SIDEWALK





ADJACENT 5-STORY  
COMMERCIAL

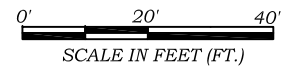
PROPERTY  
OUTLINE

ADJACENT 7-STORY  
RESIDENTIAL/COMMERCIAL

BUILDING/BASEMENT  
OUTLINE

LEGEND:

-  EXCAVATION TO 35' BGS (Elevator Bank Pit)
-  EXCAVATION TO 24' BGS (Elevator Pit)
-  EXCAVATION TO 29' BGS (Sub-basement)
-  EXCAVATION TO 19' BGS (Basement)



107-02 to 107-16  
Queens Blvd  
Queens, NY.  
HTE Job # 170317

TITLE:

FIGURE 2: : MAP OF SITE EXCAVATIONS DEPTH