DECISION DOCUMENT

147-25 94th Avenue
Brownfield Cleanup Program
Queens, Queens County
Site No. C241206
August 2018

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

DECLARATION STATEMENT - DECISION DOCUMENT

147-25 94th Avenue
Brownfield Cleanup Program
Queens, Queens County
Site No. C241206
August 2018

Statement of Purpose and Basis

This document presents the remedy for the 147-25 94th Avenue 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 147-25 94th Avenue site and the public's input to the proposed remedy presented by the Department.

Description of Selected Remedy

The selected remedy is referred to as the excavation and cover system remedy.

The selected remedy is for Track 1 unrestricted use, with a Track 2 Restricted Residential contingency, and Track 4 Restricted Residential in select areas.

The elements of the selected remedy, as shown in Figures 3 and 4, 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 buildings will be demolished and materials which can't be beneficially reused on site will be taken off-site for proper disposal in order to implement the remedy.

Excavation and removal of any underground storage tanks (USTs), fuel dispensers, underground piping or other structures associated with a source of contamination.

Excavation and off-site disposal of all on-site soils down to approximately 4 feet which exceed unrestricted SCOs throughout the entire site, as defined by 6 NYCRR Part 375-6.8. Near the southeastern corner an additional excavation and off-site disposal of contaminated soil in an approximately 900 sq. foot area (near RI-SB-1) down to 15 feet bgs. Approximately 12,000 cubic yards of contaminated soil will be removed from the site for the purpose of remedy however, quantity of contaminated soil may vary depending on the field screening/testing and disposal manifests.

Collection of end point samples: Once the remedial excavation is complete, the site soil will further be excavated down to 5, 6, 15 and 21 feet below grade in different portion of the site depending on the requirement of new development and end point samples will be collected at the bottom of final excavation depths as per attached figures 3 and 5. Portion of the site cleanup will be Track 1 with a Track 2 contingency, and the remainder of the site will achieve a Track 4 cleanup. A survey map will be required to show/identify the different Tracks.

If endpoint samples do not meet RRSCOs further excavation will be completed until they are met, otherwise a contingent (Track 4) remedy for portions of the Site will be pursued.

3. Appropriate off-site disposal of all material removed from the Site in accordance with all applicable federal, state, and local rules and regulations for handling, transport, and disposal.

4. Vapor Intrusion Evaluation:
As part of the 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:
The following local use restriction will be relied upon to prevent ingestion of groundwater for the site: Article 141 of the NYCDOH code, which prohibits potable use of groundwater without prior approval.

The intent of the remedy is to achieve a Track 1 unrestricted use for a portion of the site, therefore, no environmental easement or site management plan is anticipated for that portion. The following remedial elements will be required for areas that do not achieve a Track 1 unrestricted use cleanup.

6. Cover System:

A site cover will be required to allow for restricted residential use of the site in areas of the site that do not achieve Track 1 or 2 cleanups. Where a soil cover is to be used it will be a minimum of two feet of soil placed over a demarcation layer, with the upper six inches of soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material for the use of the site as set forth in 6 NYCRR Part 375-6.7(d). Substitution of other materials and components may be allowed where such components already exist or are a component of the tangible property to be placed as part of site redevelopment. Such components may include, but are not necessarily limited to: pavement, concrete, paved surface parking areas, sidewalks, building foundations and building slabs.

7. 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 within the Track 1 area of the controlled property for unrestricted, restricted residential, commercial and industrial uses, as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- allow the use and development within the Track 2 and 4 areas 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 and or engineering controls remain in place and effective:

Institutional Controls: The Environmental Easement discussed in Paragraph 7 above.

Engineering Controls: The Site Cover discussed in Paragraph 6, 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; which will include a provision to implement a NYSDOH CAMP (Community Air Monitoring Program) for any future ground intrusive activity including utility work;
- descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

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.

8/10/18

Date

Gerard Burke, Director
Remedial Bureau B

DECISION DOCUMENT

147-25 94th Avenue
Queens, Queens County
Site No. C241206
August 2018

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 Borough Public Library - Central Library
89-11 Merrick Boulevard
Jamaica, NY 11432
Phone: 718-990-0728

Queens Community Board District 12
90-28 161st Street
Jamaica, NY 11432
Phone: 718-389-0009

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 in an urban area in the Jamaica neighborhood of Queens. The approximately 35,000 square-foot site is bounded to the north by LIRR tracks; to the east by a scaffolding sales and installation facility; to the south by 94th Avenue, followed by a vacant lot and an active construction site; and to the west by commercial uses. The site is located in a developed area consisting of primarily commercial and industrial uses, with residential uses in the greater surrounding area to the north and south.

Site Features: The site includes three vacant interconnected warehouse buildings, a concrete-paved loading dock, and asphalt-paved parking areas. The buildings vary from one- to three-stories and only the westernmost building contains a basement.

Current Zoning and Land Use: The site is zoned C6-4 (primarily commercial with some mixed uses, including Inclusionary Housing) and is currently vacant, with the exception of equipment and materials left by the former site occupant. The surrounding area is developed primarily with commercial and industrial properties with some residential uses to the north and south. A multi-story residential building is under constriction immediately south of the site across 94th Avenue.

Past Use of the Site: The site has been used for commercial and industrial purposes since the 1880s. The site was most recently used for a produce warehouse, meat storage facilities, and a refrigeration sales and service facility since the 1960s. Prior to 1967, the site was occupied by small low-rise dwellings, the Long Island Rail Road Company, food processing company Armour & Co. Beef and Provisions, and a storage yard for the N.Y. Telephone Co.

Site Geology and Hydrogeology: Surface topography at the site is generally level. Historic fill materials (including concrete, sand, silt, gravel, brick, plastic, glass, asphalt, and wood) were observed from just below surface grade to approximately 15 feet below grade underlain by silt, sand, and gravel. Groundwater was encountered at approximately 20 feet below sidewalk grade. Groundwater flows in a southwesterly direction toward Jamaica Bay, approximately 3.7 miles to the south.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, alternatives (or an alternative) that restrict(s) the use of the site to restricted-residential use (which allows for commercial use and industrial use) as described in Part 375-1.8(g) were/was evaluated in addition to an alternative which would allow for unrestricted use of the site.

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

SECTION 5: ENFORCEMENT STATUS

The Applicant(s) under the Brownfield Cleanup Agreement is a/are Volunteer(s). The Applicant(s) does/do not have an obligation to address off-site contamination. However, the Department has determined that this site does not pose a significant threat to public health or the environment; accordingly, no enforcement actions are necessary.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

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

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

The RI is intended to identify the nature (or type) of contamination which may be present at a site and the extent of that contamination in the environment on the site, or leaving the site. The RI reports on data gathered to determine if the soil, groundwater, soil vapor, indoor air, surface water or sediments may have been contaminated. Monitoring wells are installed to assess groundwater and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface water bodies or wetlands, the water and sediment may be sampled as well. Based on the presence of contaminants in soil and groundwater, soil vapor will also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available for review in the site document repository and the results are summarized in section 6.3.

The analytical data collected on this site includes data for:

- groundwater
- soil
- sediment
- soil vapor

6.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. For a full listing of all SCGs see: http://www.dec.ny.gov/regulations/61794.html

6.1.2: RI Results

The data have identified contaminants of concern. A "contaminant of concern" is a contaminant that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized below. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

benzo(a)anthracene	indeno(1,2,3-CD)pyrene
benzo(a)pyrene	
benzo(b)fluoranthene	lead

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

- 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.

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), and pesticides. Sub-slab vapor and indoor air were analyzed for VOCs. Based upon the subsurface investigations conducted to date, the primary contaminants of concern for the site are SVOCs (e.g., Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, and Indeno(1,2,3-cd)pyrene).

Soil: Low levels of Benzo(a)anthracene were detected in three soil samples where the concentrations ranged from 1.12 to 1.53 parts per million (ppm). Benzo(a)pyrene was also detected in three soil samples and the concentrations ranged from 1.08 to 1.47 ppm. Benzo(b)fluoranthene was detected in four soil samples and the concentrations ranged from 1.08 to 2.81 ppm. These contaminants exceeded the unrestricted use as well as restricted residential use SCO of 1 ppm. Indeno(1,2,3-cd)pyrene was detected in four soil samples and the concentrations ranged from 0.512 to 1.04 ppm. This contaminant exceeded the unrestricted use and restricted residential use SCO of 0.5 ppm. Contaminants of concerns were mostly present at shallow depths within 0-2 feet below grade, with exception to one location where detections occurred around 13-15 feet below grade surface. Low concentrations (1.19 to 1.70 ppm) of Chrysene were also detected in three locations which exceeded the unrestricted use SCO of 1 ppm. Lead detected in eleven samples that ranged from 73.9 to 1960 ppm, exceeding the restricted residential use SCO of 400 ppm at three locations, one of which was approximately 13-15 feet below grade. Data does not indicate any off-site impacts in soil related to this site.

Sediment: Three sediment samples were collected from three storm water drywells. Two of these samples contained low concentrations of toluene (2.59 and 2.63 ppm), exceeding the UUSCO of 0.7 ppm; however, these concentrations were well below the RRSCOs of 100 ppm. A sample from another drywell detected low concentrations of copper, nickel and zinc.

Groundwater: No VOCs and or SVOCs were detected at concentrations that exceeded their respective ambient water quality standards (AWQSs). Only naturally occurring compounds such as iron, manganese and sodium were detected in groundwater samples at concentrations exceeding AWQSs. Data does not indicate any off-site impacts in groundwater related to this site.

Soil vapor: Seven soil vapor samples were collected and analyzed during RI. Very low levels of several VOCs including BTEX, ethanol, heptane, and hexane were detected in all samples. PCE was detected in five samples at concentrations from 5.1 to 257 µg/m3. 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.*

Direct contact with contaminants in the soil is unlikely because the majority of 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 a public water supply that obtains water from a different source not affected by this contamination. Volatile organic compounds in the 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. Sampling indicates that soil vapor intrusion is not a concern for off-site structures.

6.5: Summary of the Remediation Objectives

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

The remedial action objectives for this site are:

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.

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 referred to as the excavation and cover system remedy.

The selected remedy is for Track 1 unrestricted use, with a Track 2 Restricted Residential contingency, and Track 4 Restricted Residential in select areas.

The elements of the selected remedy, as shown in Figures 3 and 4, 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 buildings will be demolished and materials which can't be beneficially reused on site will be taken off-site for proper disposal in order to implement the remedy.

Excavation and removal of any underground storage tanks (USTs), fuel dispensers, underground piping or other structures associated with a source of contamination.

Excavation and off-site disposal of all on-site soils down to approximately 4 feet which exceed unrestricted SCOs throughout the entire site, as defined by 6 NYCRR Part 375-6.8. Near the southeastern corner an additional excavation and off-site disposal of contaminated soil in an approximately 900 sq. foot area (near RI-SB-1) down to 15 feet bgs. Approximately 12,000 cubic yards of contaminated soil will be removed from the site for the purpose of remedy however, quantity of contaminated soil may vary depending on the field screening/testing and disposal manifests.

Collection of end point samples: Once the remedial excavation is complete, the site soil will further be excavated down to 5, 6, 15 and 21 feet below grade in different portion of the site depending on the requirement of new development and end point samples will be collected at the bottom of final excavation depths as per attached figures 3 and 5. Portion of the site cleanup will be Track 1 with a Track 2 contingency, and the remainder of the site will achieve a Track 4 cleanup. A survey map will be required to show/identify the different Tracks.

If endpoint samples do not meet RRSCOs further excavation will be completed until they are met, otherwise a contingent (Track 4) remedy for portions of the Site will be pursued.

3. Appropriate off-site disposal of all material removed from the Site in accordance with all applicable federal, state, and local rules and regulations for handling, transport, and disposal.

4. Vapor Intrusion Evaluation:
As part of the 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:
The following local use restriction will be relied upon to prevent ingestion of groundwater for the site: Article 141 of the NYCDOH code, which prohibits potable use of groundwater without prior approval.

The intent of the remedy is to achieve a Track 1 unrestricted use for a portion of the site, therefore, no environmental easement or site management plan is anticipated for that portion. The following remedial elements will be required for areas that do not achieve a Track 1 unrestricted use cleanup.

6. Cover System:
A site cover will be required to allow for restricted residential use of the site in areas of the site that do not achieve Track 1 or 2 cleanups. Where a soil cover is to be used it will be a minimum of two feet of soil placed over a demarcation layer, with the upper six inches of soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material for the use of the site as set forth in 6 NYCRR Part 375-6.7(d). Substitution of other materials and components may be allowed where such components already exist or are a component of the tangible property to be placed as part of site redevelopment. Such components may include, but are not necessarily limited to: pavement, concrete, paved surface parking areas, sidewalks, building foundations and building slabs.

7. 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 within the Track 1 area of the controlled property for unrestricted, restricted residential, commercial and industrial uses, as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- allow the use and development within the Track 2 and 4 areas 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:

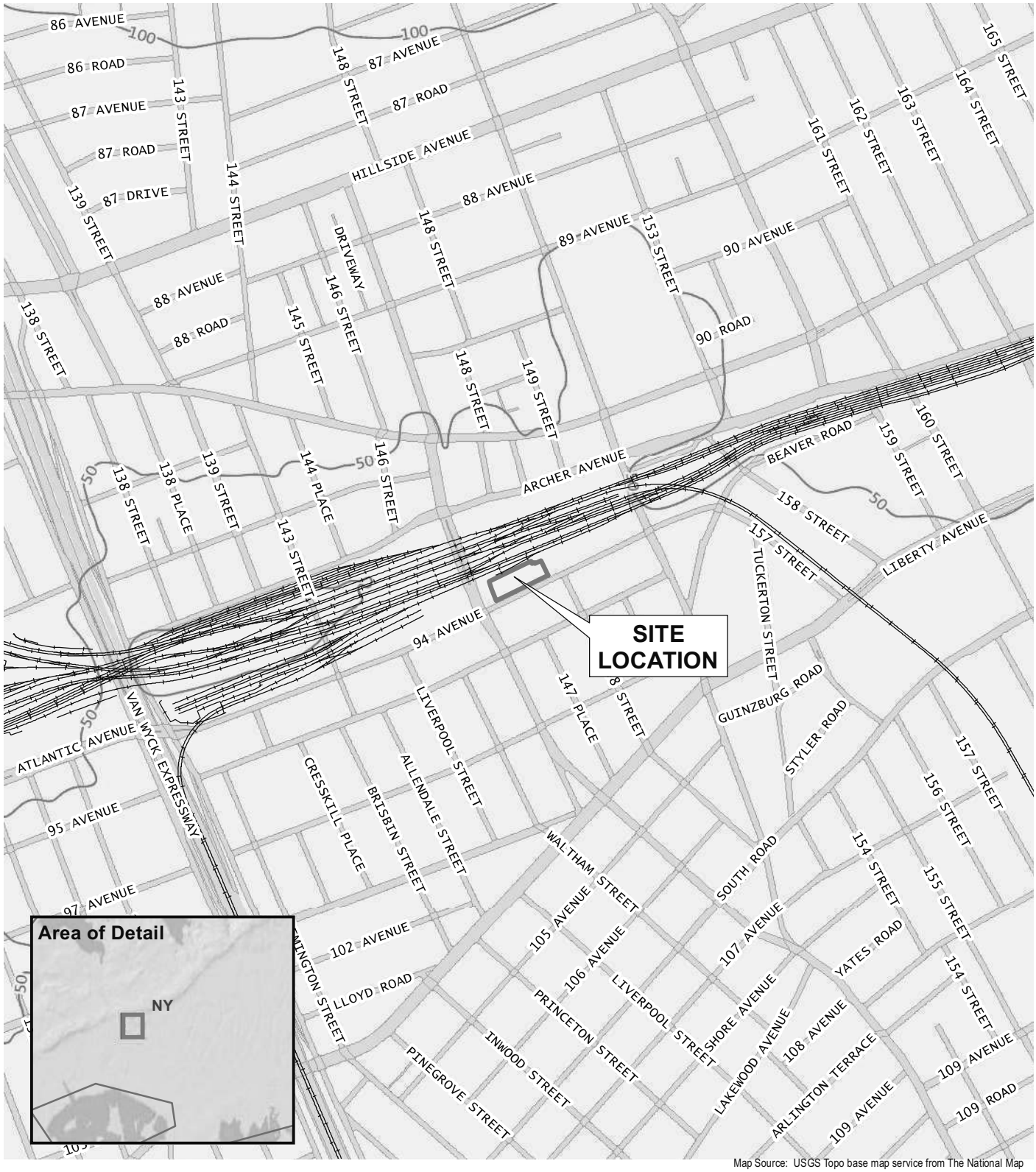
a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and or engineering controls remain in place and effective:

Institutional Controls: The Environmental Easement discussed in Paragraph 7 above.

Engineering Controls: The Site Cover discussed in Paragraph 6, 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; which will include a provision to implement a NYSDOH CAMP (Community Air Monitoring Program) for any future ground intrusive activity including utility work;
- descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.



Map Source: USGS Topo base map service from The National Map

0 800 1,600

SCALE IN FEET

AKRF

440 Park Avenue South, New York, NY 10016

147-25 94th Avenue
Queens, New York

SITE LOCATION

DATE
9/21/2017

PROJECT NO.
170340

FIGURE
1

LEGEND

- PROJECT SITE BOUNDARY
- APPROXIMATE LOCATION OF ABANDONED IN-PLACE 550-GALLON #2 FUEL OIL UNDERGROUND STORAGE TANK
- APPROXIMATE LOCATION OF ABANDONED IN-PLACE 2,000-GALLON #2 FUEL OIL ABOVEGROUND STORAGE TANK
- SOIL BORING/GROUNDWATER MONITORING WELL LOCATION
- SOIL BORING LOCATION
- DRY WELL LOCATION
- SOIL VAPOR SAMPLE LOCATION

0 20 40 80
SCALE IN FEET

Aerial Source:
2016 New York Statewide Digital Orthoimagery.

AKRF
440 Park Avenue South, New York, NY 10016

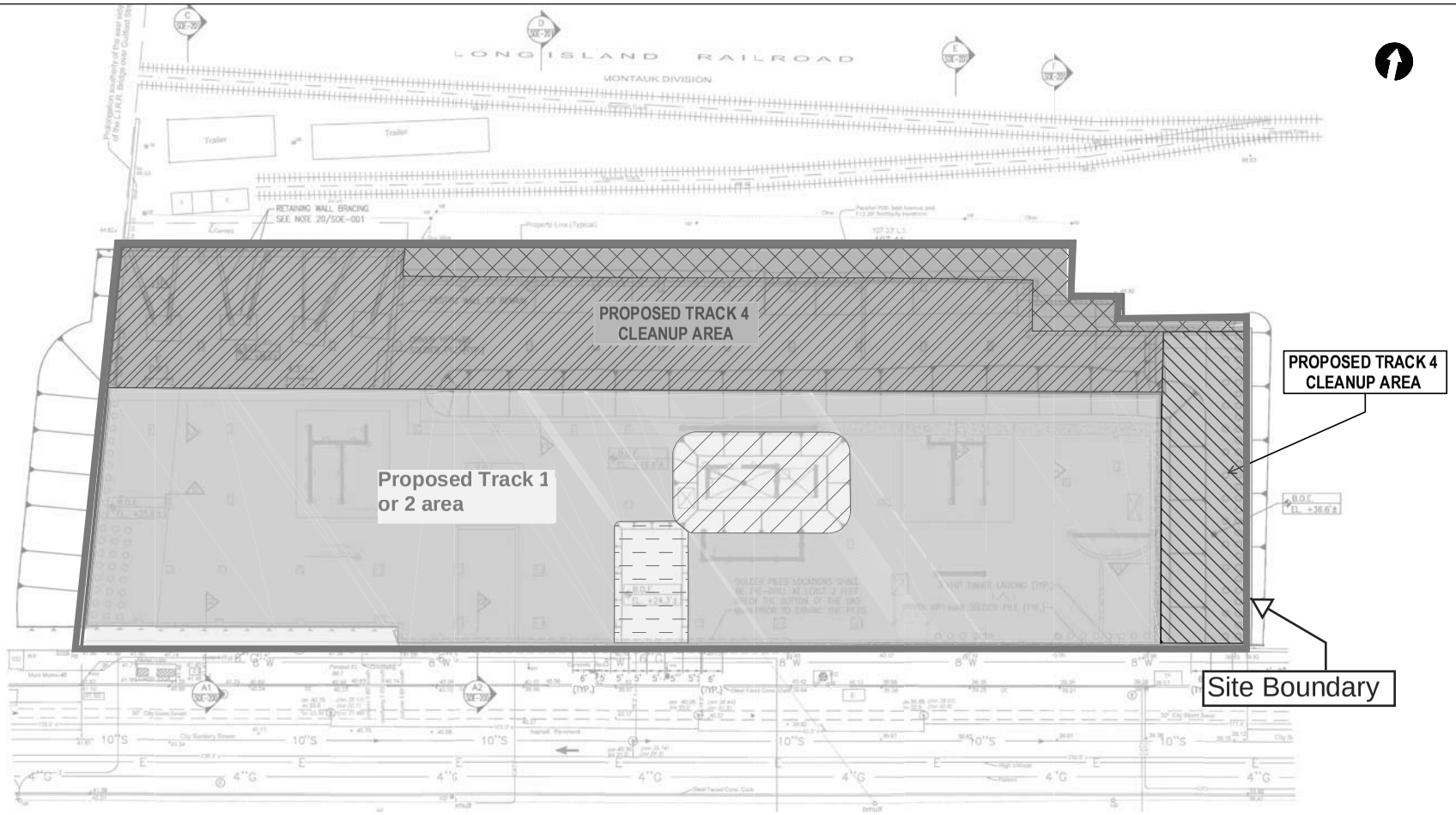
147-25 94th Avenue
Queens, New York

SITE PLAN WITH SAMPLE LOCATIONS

DATE
6/11/2018

PROJECT NO.
170340

FIGURE
2



LEGEND

- Track 1 or 2 Area
- Track 4 Area
- PROJECT SITE BOUNDARY
- PROPOSED EXCAVATION TO 3 FEET BELOW GRADE
- PROPOSED EXCAVATION TO 14 FEET BELOW GRADE
- PROPOSED EXCAVATION TO 16 FEET BELOW GRADE
- PROPOSED EXCAVATION TO 20 FEET BELOW GRADE
- NO EXCAVATION
- MINOR SLOPING AND GRADING AROUND EXISTING RETAINING WALL AND FOOTING

0 15 30 60
SCALE IN FEET

Source:
GF55 Partners "Support of Excavation Plan" Jamaica 2 147-07 94th Avenue, Drawing No: SOE-100.00, 50% Construction Date 05-04-2018.

AKRF
440 Park Avenue South, New York, NY 10016

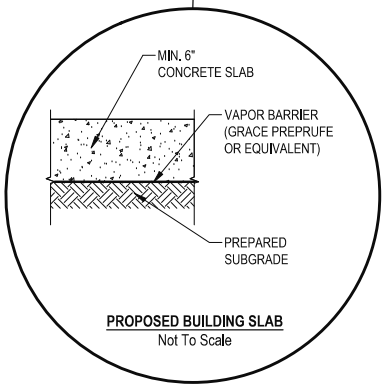
147-25 94th Avenue
Queens, New York

PROPOSED REMEDIAL EXCAVATION PLAN

DATE
6/12/2018

PROJECT NO.
170340

FIGURE
3



PROPOSED BUILDING SLAB
Not To Scale

LEGEND

PROJECT SITE BOUNDARY

PROPOSED COVER SYSTEM

0 15 30 60
SCALE IN FEET

Source:
GF55 Partners "Foundation Thickness Key Plan" Jamaica 2 147-07 94th Avenue, Drawing No: FO-201.00, Dated 02-13-2018 (LIRR Filing).

AKRF
440 Park Avenue South, New York, NY 10016

147-25 94th Avenue
Queens, New York

COMPOSITE COVER SYSTEM PLAN

DATE
6/12/2018

PROJECT NO.
170340

FIGURE
4