

DECISION DOCUMENT

Former Universal Scrap Metal Processors Corp.
Brownfield Cleanup Program
Brooklyn, Kings County
Site No. C224210
December 2017



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

DECLARATION STATEMENT - DECISION DOCUMENT

Former Universal Scrap Metal Processors Corp.
Brownfield Cleanup Program
Brooklyn, Kings County
Site No. C224210
December 2017

Statement of Purpose and Basis

This document presents the remedy for the Former Universal Scrap Metal Processors Corp. 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 Former Universal Scrap Metal Processors Corp. 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.

2. Excavation

Excavation and off-site disposal of contaminant source areas, including:

- grossly contaminated soil, as defined in 6 NYCRR Part 375-1.2(u);
- soil with visual waste material or non-aqueous phase liquid (NAPL), if any;
- all on-site soils which exceed unrestricted use soil cleanup objectives (UUSCOs), as defined by 6 NYCRR Part 375-6.8;
- soils that create a nuisance condition, as defined in Commissioner Policy CP-51 Section G; and
- any underground storage tanks (USTs), fuel dispensers, underground piping or other structures encountered during the excavation.

Approximately 5,000 cubic yards of historic fill and 2,000 cubic yards of petroleum contaminated soil will be removed from the site. While not required for the purposes of remediation, an additional approximately 8,000 cubic yards of clean native soil will also be removed to achieve development depths and design grades at the site. This translates to excavation to approximately 25 feet, below ground surface (bgs) in the petroleum contaminated area and 15 feet bgs across the remainder of the site.

Dewatering will be required to reach excavation depths below the water table. Water pumped from the base of the excavation will be treated and discharged to the NYC sanitary sewer under a Department of Environmental Protection permit.

Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to complete the backfilling of the excavation and establish the designed grades at the site.

3. Groundwater Treatment

Post-excavation groundwater sampling results will determine whether treatment of on-site groundwater is needed. If necessary, a groundwater treatment amendment will be used to destroy remaining petroleum-related compounds and prevent migration of remaining contaminated groundwater off-site (if any).

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, if identified.

Conditional Track 1:

The intent of the remedy is to achieve 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 and/or it's determined that post-excavation groundwater treatment is necessary, then a Site Management Plan (SMP) and Environmental Easement (EE) will be required to address the SVI evaluation and/or implement

other 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 the 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.

5. Local Institutional Controls

If no EE or SMP is needed to achieve soil, groundwater, 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. Institutional Controls

Imposition of an institutional control in the form of an environmental easement for the controlled property that:

- requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8(h)(3);
- allows the use and development of the controlled property for restricted residential, commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and
- requires compliance with the Department approved Site Management Plan.

7. Site Management Plan

A Site Management Plan, which would include 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:

Engineering Controls: The Groundwater Treatment discussed in Paragraph 3 above.

Institutional Controls: The Environmental Easement discussed in Paragraphs 5 and 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;

- descriptions of the provisions of the environmental easement including any land use, and/or groundwater use restrictions;
- a provision for evaluation of the potential for soil vapor intrusion for any buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion, if identified;
- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

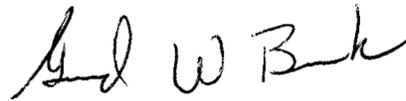
b. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

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

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.

12/06/2017



Date

Gerard Burke, Director
Remedial Bureau B

DECISION DOCUMENT

Former Universal Scrap Metal Processors Corp.
Brooklyn, Kings County
Site No. C224210
December 2017

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:

Brooklyn Public Library- Bushwick Branch
340 Bushwick Avenue
Brooklyn, NY 11206
Phone: 718-602-1348

Brooklyn Community Board 4
1420 Bushwick Ave
Rm 370
Brooklyn, NY 11237
Phone: 718-628-8400

Brooklyn Community Board 1
435 Graham Avenue
Brooklyn, NY 11211
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 Former Universal Scrap Metal Processors Corp. site is located in an urban area in the East Williamsburg neighborhood of Brooklyn, Kings County. The irregularly-shaped site has approximately 109 feet of street frontage on Flushing Avenue and 203 feet of street frontage on Stewart Avenue.

Site Features: The property was partially developed with a 1-story 4,500 square foot commercial building which was constructed in 1931, but demolished in 2016. The site is currently vacant, surrounded by a fence and unpaved.

Current Zoning and Land Use: The site is located in a M1-2 zone which allows nearly all industrial type uses. Additional uses are allowed, including office, hotel, and retail. M1 districts are often buffers between M2 or M3 districts and adjacent residential or commercial districts. The scrap metal operation which previously occupied the building and property no longer operates.

Past Use of the Site: The entire property was used as a railroad freight yard from sometime between 1888 and 1907 to sometime between 1951 and 1965. The south end of the site was utilized as a filling station from approximately 1955 until at least 2003. The southern portion of the site and the building were used for auto repair from 1955 until 2007. The northern portion of the property was used as an auto scrap yard from 1981 through 2007. From 2007 through 2014 the property was used as a scrap metal facility. In January 2006, under Spill #0510000, eleven (11) 550-gallon gasoline underground storage tanks (USTs) and 240 tons of petroleum-impacted soil were removed, and a chemical oxidant was applied to treat groundwater.

Site Geology and Hydrogeology: Soil at the site is described as historic fill to a depth of approximately 4 feet below the surface followed by native brown fine sand with silt. The bedrock in this area of Brooklyn is an igneous intrusive classified as the Ravenswood grano-

diorite of middle Ordovician to middle Cambrian age. Bedrock was not encountered during the remedial investigation, but is expected to reside at depths greater than 100 feet below grade. Unconsolidated sediments overlie the bedrock and consist of Pleistocene aged sand, gravel and silty clays, deposited by glacial-fluvial activity. Non-native fill materials consisting of dredge spoils, rubble and/or other materials have historically been used to reinforce and extend shoreline areas and to raise and improve the drainage of low lying areas.

Depth to groundwater at the site is approximately 12 feet below grade and flows to the north/northeast, toward the English Kills Channel. Groundwater flow is also highly variable as it may be influenced by the subway tunnel which runs underground north of the site.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, 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) was evaluated in addition to the selected 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. Because petroleum contaminated groundwater has likely migrated off-site, an off-site investigation will be performed under the open petroleum spill #0510000.

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

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:

benzene	isopropylbenzene
ethylbenzene	methyl ethyl ketone
xylene (mixed)	methyl-tert-butyl ether (MTBE)
toluene	butylbenzene
benzo(a)anthracene	n-propylbenzene
chrysene	cadmium
copper	barium
lead	sec-butylbenzene
mercury	tetrachloroethene (PCE)
zinc	trichloroethene (TCE)
1,2,4-trimethylbenzene	cis-1,2-dichloroethene
1,3,5-trimethylbenzene	trans-1,2-dichloroethene

vinyl chloride

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

- groundwater
- soil

6.2: Interim Remedial Measures

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

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.

Site soils and groundwater have been analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, pesticides and poly chlorinated biphenyls (PCBs). Soil vapor has been analyzed for VOCs.

Soil: Several VOCs have been detected in site soils, primarily petroleum constituents including 1,2,4-trimethylbenzene at concentrations up to 910 parts per million (ppm) (Unrestricted Use Soil Cleanup Objective (UUSCO) is 3.6 ppm), 1,3,5-trimethylbenzene up to 320 ppm (UUSCO is 8.4), benzene up to 1.9 ppm (UUSCO is 0.06 ppm), ethylbenzene up to 190 ppm (UUSCO is 1 ppm), n-propylbenzene up to 140 ppm (UUSCO is 3.9 ppm), n-butylbenzene up to 70 ppm (UUSCO is 12 ppm), sec-butylbenzene up to 23 ppm (UUSCO is 11 ppm), m-p-xylenes up to 720 ppm (UUSCO is 0.26 ppm), o-xylene up to 260 ppm (UUSCO is 0.26 ppm), toluene up to 20 ppm (UUSCO is 0.7 ppm), and naphthalene up to 17 ppm (UUSCO is 12 ppm).

Chlorinated volatile organic compounds (CVOCs) were detected at two locations, including tetrachloroethene at concentrations up to 22 ppm (UUSCO is 1.3 ppm), cis-1,2-dichloroethene up to 27 ppm (UUSCO is 0.25 ppm), trans-1,2-dichloroethene up to 2.3 ppm (UUSCO is 0.19), and vinyl chloride up to 3 ppm (UUSCO is 0.02 ppm). Several polycyclic aromatic hydrocarbons (PAHs) were also detected in shallow subsurface soils marginally over the standards, including, but not limited to, benzo(a)anthracene at concentrations up to 1.5 ppm (UUSCO is 1 ppm) and chrysene up to 1.6 ppm (UUSCO is 1 ppm). Metals, including mercury were detected at concentrations up to 1.57 ppm (UUSCO is 0.18 ppm), barium up to 446 ppm (UUSCO is 350 ppm), cadmium up to 7.67 ppm (UUSCO is 2.5 ppm), copper up to 266 ppm (UUSCO is 50 ppm), lead up to 754 ppm (UUSCO is 63 ppm), and zinc up to 1,100 ppm (UUSCO is 109 ppm). Contaminated soil (below the water table) appears to extend off-site.

Groundwater: Several petroleum-related VOCs were detected in site groundwater including 1,2,4-trimethylbenzene up to 1,400 parts per billion (ppb) (NYSDEC groundwater quality standard is 5 ppb), 1,3,5-trimethylbenzene up to 400 ppb (standard is 5 ppb), benzene up to 380 ppb (standard is 1 ppb), ethylbenzene up to 940 ppb (standard is 5 ppb), isopropylbenzene up to 79 ppb (standard is 5 ppb), m-p-xylenes up to 3,700 ppb (standard is 5 ppb), methyl ethyl ketone up to 780 ppb (standard is 50 ppb), MTBE up to 66 ppb (standard is 10 ppb), naphthalene up to 250 ppb (standard is 10 ppb), n-butylbenzene up to 20 ppb (standard is 5 ppb), sec-butylbenzene up to 13 ppb (standard is 5 ppb), n-propylbenzene up to 200 ppb (standard is 5 ppb), o-xylene up to 1,500 ppb (standard is 5 ppb), and toluene up to 1,100 ppb (standard is 5 ppb). Minor detections of CVOCs were also found, including tetrachloroethene at concentrations up to 8.1 ppb (standard is 5 ppb), and trichloroethene up to 7.4 ppb (standard is 5 ppb).

Metals (dissolved) were also detected in site groundwater, including lead at concentrations up to 37 ppb (standard is 25 ppb), barium up to 1,160 ppb (standard is 1,000 ppb), cadmium up to 15 ppb (standard is 5 ppb). Manganese, magnesium, iron, and sodium were also found above groundwater standards, but are typically naturally-occurring and/. PCB-1016 was also detected at 0.16 ppb (standard is 0.09 ppb). Contaminated groundwater appears to extend off-site

Soil Vapor: In soil gas, several CVOCs were detected, including tetrachloroethene up to 34.3 micrograms per cubic meter (ug/m^3), trichloroethene up to $11.3 \text{ ug}/\text{m}^3$, cis-1,2-dichloroethene up to $109 \text{ ug}/\text{m}^3$, and vinyl chloride up to $2,530 \text{ ug}/\text{m}^3$. Benzene was detected up to $1,140 \text{ ug}/\text{m}^3$. Contaminated soil vapor may extend off-site.

Although none were encountered during the remedial investigation underground storage tanks (USTs), fuel dispensers, underground piping or other structures associated with a source of contamination may exist.

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*.

The site is completely fenced, which restricts public access. However, persons who enter the site could contact contaminants in the soil by walking on the site, digging or otherwise disturbing the soil. People are not drinking the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. Volatile organic compounds in the groundwater and soil may move into the soil vapor (air spaces within the soil), which in turn 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. The potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site redevelopment and occupancy. Additional evaluation is needed to determine whether actions are needed to address 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

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Remove the source of groundwater 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 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 Conditional Track 1 remedy.

The selected remedy is referred to as the Excavation 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.

2. Excavation

Excavation and off-site disposal of contaminant source areas, including:

- grossly contaminated soil, as defined in 6 NYCRR Part 375-1.2(u);
- soil with visual waste material or non-aqueous phase liquid (NAPL), if any;
- all on-site soils which exceed unrestricted use soil cleanup objectives (UUSCOs), as defined by 6 NYCRR Part 375-6.8;
- soils that create a nuisance condition, as defined in Commissioner Policy CP-51 Section G; and
- any underground storage tanks (USTs), fuel dispensers, underground piping or other structures encountered during the excavation.

Approximately 5,000 cubic yards of historic fill and 2,000 cubic yards of petroleum contaminated soil will be removed from the site. While not required for the purposes of remediation, an additional approximately 8,000 cubic yards of clean native soil will also be removed to achieve development depths and design grades at the site. This translates to excavation to approximately 25 feet, below ground surface (bgs) in the petroleum contaminated area and 15 feet bgs across the remainder of the site.

Dewatering will be required to reach excavation depths below the water table. Water pumped from the base of the excavation will be treated and discharged to the NYC sanitary sewer under a Department of Environmental Protection permit.

Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to complete the backfilling of the excavation and establish the designed grades at the site.

3. Groundwater Treatment

Post-excavation groundwater sampling results will determine whether treatment of on-site groundwater is needed. If necessary, a groundwater treatment amendment will be used to destroy remaining petroleum-related compounds and prevent migration of remaining contaminated groundwater off-site (if any).

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, if identified.

Conditional Track 1:

The intent of the remedy is to achieve 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 and/or it's determined that post-excavation groundwater treatment is necessary, then a Site Management Plan (SMP) and Environmental Easement (EE) will be required to address the SVI evaluation and/or implement other 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 the 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.

5. Local Institutional Controls

If no EE or SMP is needed to achieve soil, groundwater, 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. Institutional Controls

Imposition of an institutional control in the form of an environmental easement for the controlled property that:

- requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8(h)(3);
- allows the use and development of the controlled property for restricted residential,

commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;

- restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and
- requires compliance with the Department approved Site Management Plan.

7. Site Management Plan

A Site Management Plan, which would include 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:

Engineering Controls: The Groundwater Treatment discussed in Paragraph 3 above.

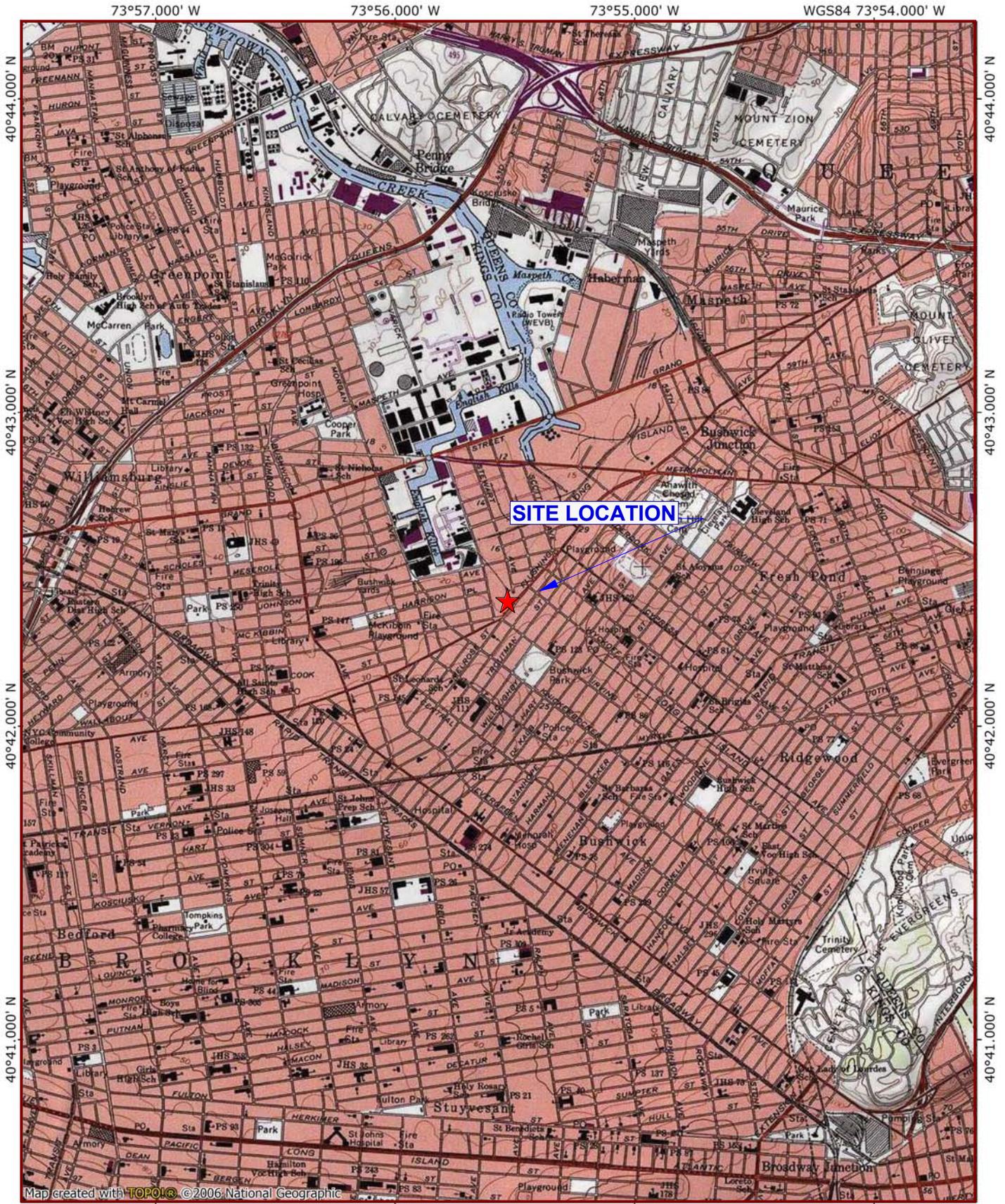
Institutional Controls: The Environmental Easement discussed in Paragraphs 5 and 6 above.

This plan includes, but may not be limited to:

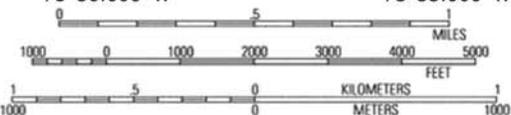
- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- descriptions of the provisions of the environmental easement including any land use, and/or groundwater use restrictions;
- a provision for evaluation of the potential for soil vapor intrusion for any buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion, if identified;
- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and Department 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:

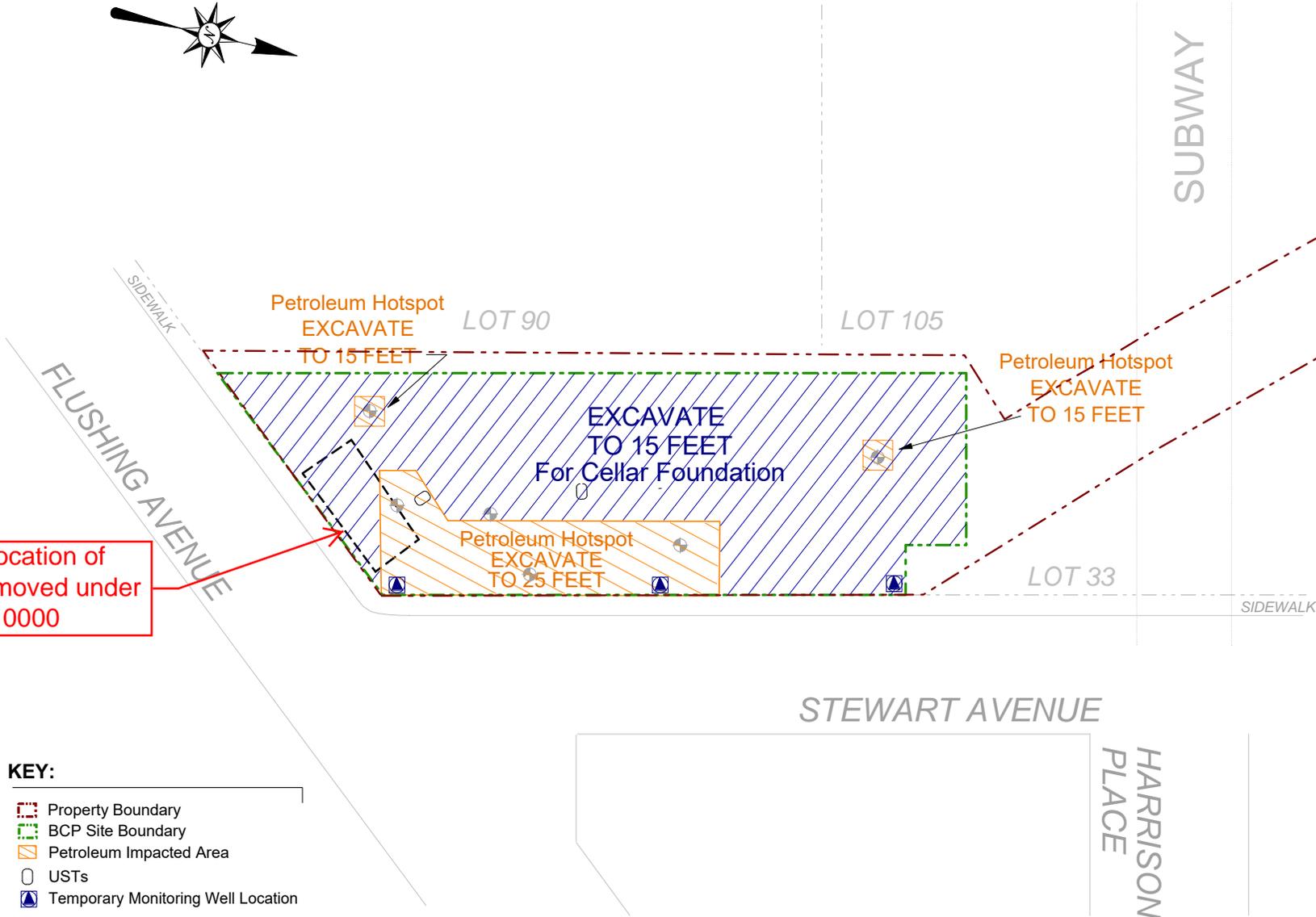
- monitoring of groundwater to assess the performance and effectiveness of the remedy;
- a schedule of monitoring and frequency of submittals to the Department; and
- monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed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



Map created with TOPOIG © 2006 National Geographic



MN * TN
 13°
 12/12/16

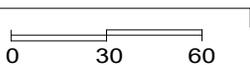


Former Location of USTs; removed under Spill #0510000

KEY:

- Property Boundary
- BCP Site Boundary
- Petroleum Impacted Area
- USTs
- Temporary Monitoring Well Location

SCALE:



Scale: 1 inch = 60 feet