DECISION DOCUMENT

Former Mugler Shoring Inc.
Brownfield Cleanup Program
Bronx, Bronx County
Site No. C203052
October 2016

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

DECLARATION STATEMENT - DECISION DOCUMENT

Former Mugler Shoring Inc.
Brownfield Cleanup Program
Bronx, Bronx County
Site No. C203052
October 2016

Statement of Purpose and Basis

This document presents the remedy for the Former Mugler Shoring Inc. 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 Mugler Shoring Inc. 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

• removal of any underground storage tanks (USTs), underground piping or other structures associated with a source of contamination; and

• NAPL (non-aqueous phase liquid) impacted soil, if encountered;

Approximately 150 cubic yards of (petroleum hotspot) contaminated soil will be removed from the site. On-site soil which does not exceed the above excavation criteria may be used below the cover system described in Paragraph 3 to backfill the excavation to the extent that a sufficient volume of on-site soil is available.

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. The site will be re-graded to accommodate installation of a cover system as described in Paragraph 3.

3. Cover System

A site cover will be required to allow for restricted residential use of the site. The cover will consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where the soil cover is required 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 as set forth in 6 NYCRR Part 375-6.7(d).

4. Institutional Control

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

• require the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);

• allow the use and development of the controlled property for restricted residential use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;

• restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or NYCDOH; and

• require compliance with the Department approved Site Management Plan.

5. 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 4 above.

Engineering Controls: the cover system discussed in Paragraph 3 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 in any future buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;

- 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 for vapor intrusion for any future 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.

October 28, 2016

Date

Robert Cozzy, Director
Remedial Bureau B

DECISION DOCUMENT

Former Mugler Shoring Inc.
Bronx, Bronx County
Site No. C203052
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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:

New York Public Library - Mott Haven Branch
321 East 140th Street
Bronx, NY 10454
Phone: 718-665-4878

Bronx Community Board 1
Attn: Cedric Loftin
3024 Third Avenue
Bronx, NY 10455
Phone: 718 585 7117

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 Bronx and is comprised of a single irregularly shaped tax parcel covering approximately 1.4 acres. The lot is bordered to the northwest and northeast by commercial properties, to the southeast by the Third Avenue Bridge and to the southwest by the Harlem River.

Site Features: The main site feature includes a vacant 19,450 square foot one-story commercial building (no basement) constructed in 1931; asphalt, concrete and cobblestone-paved exterior driving/storage areas; an approximate 10,500 square foot private parking lot and sparsely-vegetated areas.

Current Zoning and Land Use: The site is zoned as M1-3/R8 residential/ commercial (a Special Mixed Use District) and is currently inactive. The parcels adjacent to the northwest and northeast are currently used for commercial and industrial purposes.

Past Use of the Site: The subject property was historically used for manufacturing purposes since at least 1891: J.L. Mott Iron Works (1891-1922), Hydraulic Steel Company (1922-1935), General Builders Supply Corporation (1935-1968), Brill Equipment Company (1949-1956), US Gear Manufacturing Company (1965-1971), Ohio Gasket Manufacturing Corporation (1971), and Mugler Inc. (since 1965). The site has been vacant since October of 2014.

A Phase II Environmental Assessment Investigation was performed in 2014 which indicated the presence of petroleum related contamination in soil and groundwater.

Site Geology and Hydrogeology: Subsurface soils at the site consist of fill materials and silty-sand to a depth of approximately 5 feet below grade. A silty clay was present below this layer to a depth of 15 feet closer to the River. Further inland a medium to coarse sand was encountered beneath the fill to a depth of approximately 15 feet. Groundwater depth ranges from five to seven feet below grade and flows to the southwest towards the Harlem River.

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
- soil vapor
- sub-slab vapor

6.1.1: Standards, Criteria, and Guidance (SCGs)

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

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

6.1.2: RI Results

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

arsenic
lead
heptane
indeno(1,2,3-CD)pyrene
benzo(a)anthracene
benzo(a)pyrene
hexane
methyl-tert-butyl ether (MTBE)
methyl 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.

Nature and Extent of Contamination: Soil and groundwater samples 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 upon the subsurface investigations conducted to date, the contaminants of concern for the site include petroleum related VOCs, SVOCs and metals.

Soil: A total of 34 soil samples were collected from 23 soil borings. VOCs were not reported above 6 NYCRR Part 375.6 restricted residential soil cleanup objectives (RRSCOs) in any of the samples.

Several SVOCs exceeded their RRSCOs including indeno(1,2,3-cd)pyrene (up to a maximum concentration of 0.82 parts per million (ppm) compared to the RRSCO of 0.5 ppm), benzo(a)anthracene (1.6 ppm compared to the RRSCO of 1 ppm) and benzo(a)pyrene (1.3 ppm compared to the RRSCO of 1 ppm). Most of these exceedances were from samples collected from a depth of 0 to 2 feet, however one exceedance was from a sample collected from a depth of 6-8 feet.

Arsenic (up to a maximum concentration of 33.5 ppm compared to the RRSCO of 16 ppm) and lead (2,280 ppm compared to the RRSCO of 400 ppm) exceeded their respective RRSCOs. These metal exceedances were found in one sample collected at a depth of 5 to 7 feet.

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

Groundwater: A total of 12 groundwater samples (one sample from each of 12 groundwater monitoring wells) were analyzed during the RI. Only two VOCs were detected in four of the samples. These are MTBE (up to a maximum concentration of 100 parts per billion (ppb) compared to the ambient water quality standard (AWQS) of 10 ppb) and methyl chloride also known as chloromethane (39 ppb compared to the AWQS of 5 ppb).

SVOCs were detected in only one of the 12 samples. Analytical data for SVOCs indicated detections above the AWQS guidance values for following compounds in that one sample: benz(a)anthracene (up to a maximum concentration of 0.03 ppb compared to the AWQS of 0.002 ppb) and benzo(a)pyrene (0.03 ppb compared to the AWQS of ND).

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

Soil Vapor: Eight soil vapor samples and five sub-slab vapor samples were collected from the site. Heptane and hexane were reported at elevated concentrations in some of the soil vapor samples with the highest concentrations reported in SG5 as 3330 and 6200 µg/m3, respectively. The location of SG5 is close to the location of one of the suspected Underground Storage Tanks (USTs).

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

Special Resources Impacted/Threatened: Due to the proximity of the Site to the Harlem River, a Fish and Wildlife Resource Impact Analysis (FWRIA) was also conducted. Based on the nature and location of the contamination at the site, with limited impact to subsurface soils and groundwater and no evidence of migration / discharge of contaminants to the River, there are no expected adverse impacts to River.

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. 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 groundwater 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. Environmental sampling indicates that site-related contamination does not pose a soil vapor concern for off-site buildings.

6.5: Summary of the Remediation Objectives

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

The remedial action objectives for this site are:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

RAOs for Environmental Protection

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Prevent the discharge of contaminants to surface water.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

Soil Vapor

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

SECTION 7: ELEMENTS OF THE SELECTED REMEDY

The alternatives developed for the site and the evaluation of the remedial criteria are presented in the Alternative Analysis. The remedy is selected pursuant to the remedy selection criteria set forth in DER-10, Technical Guidance for Site Investigation and Remediation and 6 NYCRR Part 375.

The selected remedy is a Track 4: Restricted use with site-specific soil cleanup objectives remedy.

The selected remedy is referred to as the excavation and cover system 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;
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- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. Excavation

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- removal of any underground storage tanks (USTs), underground piping or other structures associated with a source of contamination; and

- NAPL (non-aqueous phase liquid) impacted soil, if encountered;

Approximately 150 cubic yards of (petroleum hotspot) contaminated soil will be removed from the site. On-site soil which does not exceed the above excavation criteria may be used below the cover system described in Paragraph 3 to backfill the excavation to the extent that a sufficient volume of on-site soil is available.

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4. Institutional Control

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

- require the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);

- allow the use and development of the controlled property for restricted residential use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;

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- require compliance with the Department approved Site Management Plan.

5. Site Management Plan

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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 4 above.

Engineering Controls: the cover system discussed in Paragraph 3 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 in any future buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;

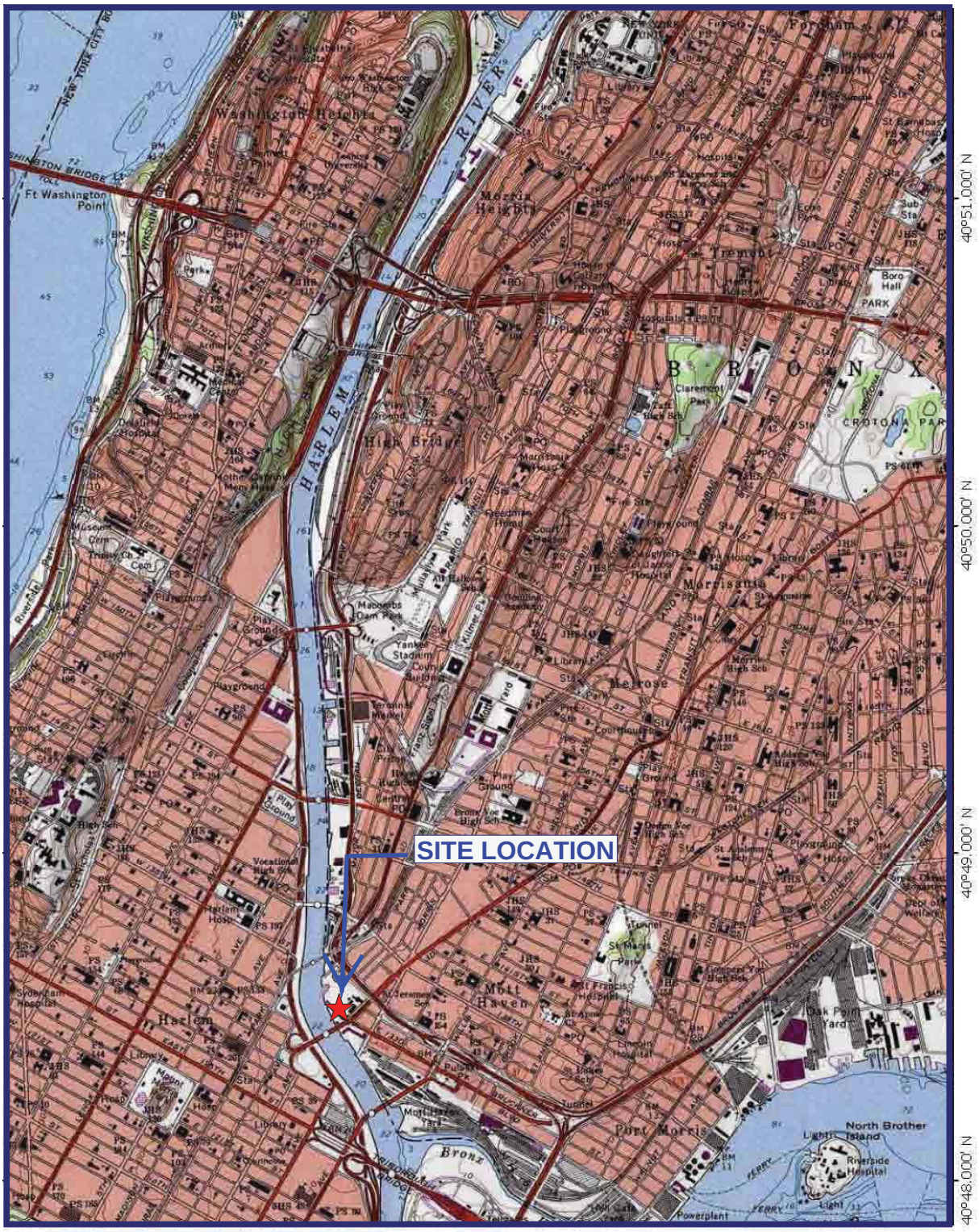
- provisions for the management and inspection of the identified engineering controls;

- 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 for vapor intrusion for any future buildings developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above.



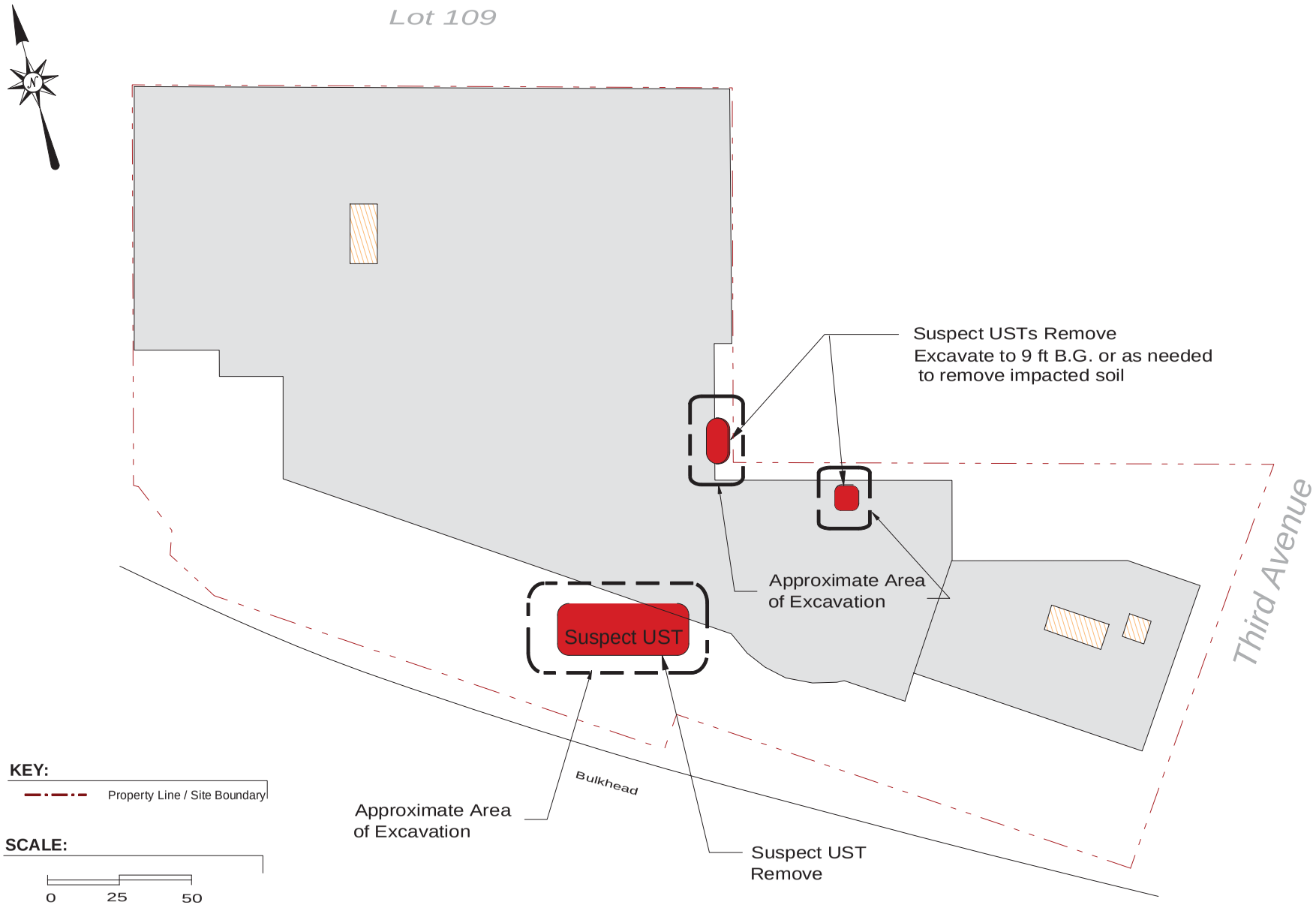
USGS Central Park Quadrangle 1995, Contour Interval = 10 feet

EBC
ENVIRONMENTAL BUSINESS CONSULTANTS
Phone 631.504.6000
Fax 631. 924 .2870

FORMER MUGLER SHORING INC.

2401 THIRD AVENUE, BRONX NY

FIGURE 1 SITE LOCATION MAP



EBC
Environmental Business Consultants
Phone 631.504.6000
Fax 631.924.2870

Figure No. 2

Site Name: Former Mugler Shoring Inc.
Site Address: 2401 Third Avenue, Bronx, NY
Drawing Title: Excavation Plan