DECISION DOCUMENT

Webster Avenue Residences
Brownfield Cleanup Program
Bronx, Bronx County
Site No. C203075
February 2015

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

DECLARATION STATEMENT - DECISION DOCUMENT

Webster Avenue Residences
Brownfield Cleanup Program
Bronx, Bronx County
Site No. C203075
February 2015

Statement of Purpose and Basis

This document presents the remedy for the Webster Avenue Residences 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 Webster Avenue Residences 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

The on-site building(s) will be demolished and materials which cannot be beneficially reused on site will be taken off-site for proper disposal in order to implement the remedy.

Excavation and off-site disposal of soil exceeding restricted residential soil cleanup objectives (SCOs) to a depth of two feet across the entire site. Approximately 4,100 cubic yards of soil will be removed from the site.

On-site soil which does not exceed restricted residential SCOs may be used in the cover system described in Paragraph 3.

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

During the Remedial Investigation a geophysical survey at the site discovered two distinct anomalies (potential underground storage tanks [USTs]). The excavation in these two areas will be advanced to determine if there are USTs present; if encountered the USTs and associated contaminated soils (deeper than 2 feet) will be removed in compliance with applicable local, State and Federal regulations.

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, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for restricted residential use. The soil cover will be placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

4. Vapor Mitigation

Any future on-site buildings will be required to have a sub-slab depressurization system, or a similar engineered system, to prevent the migration of vapors into the building from soil.

If any on-site buildings have a basement extending to the depth of the water table, a vapor barrier system will be installed beneath the building slab and on the exterior of the foundation sidewalls below grade.

5. Institutional Control

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 NYCDOH; and
- requires compliance with the Department approved Site Management Plan.

6. 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 5 above.

Engineering Controls: The soil cover discussed in Paragraph 3 and the sub-slab depressurization and vapor barrier systems discussed in Paragraph 4 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;
- 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 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 protected of public health and the environment.

February 24, 2015

Date

Robert Cozzy, Director
Remedial Bureau B

DECISION DOCUMENT

Webster Avenue Residences
Bronx, Bronx County
Site No. C203075
February 2015

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 repository:

Tremont Branch - New York Public Library
Attn: Sandra C. Pugh
1866 Washington Avenue
Bronx, NY 10457
Phone: 718-299-5177

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 1.341 acre site is located in an urban area at 1972-1976 Webster Avenue and 4269 Park Avenue in the Tremont section in Bronx. The site is bounded by 1984 Webster Avenue, a warehouse, to the north, East 178th Street and beyond by commercial and residential properties to the south, Park Avenue and beyond by MTA Metro North railway lines to the east, and Webster Avenue and beyond by commercial and residential properties to the west.

Site Features: The site is currently improved with an unoccupied one-story/partial two-story steel framed masonry block structure. There are currently six tax lots (lots 1, 6, 7, 8, 48, and 75) that comprise the site.

Current Zoning and Land Use: The site is currently vacant but is zoned C4-5X (Residential/Commercial).
Past Use of the Site: From 1901 through 1915, a number of residences, retail stores, patent office, paint shop, wagon house and stable were located on-site. The site was the location of a service station and parts department, Studebaker Corporation of America, Park Avenue Auto Body Company Inc. and G Auto Bodies from at least 1927 to at least 1940. Lots 6, 7, 8 and 75 were improved with two-story structures until 1981, when they were demolished.

Site Geology and Hydrogeology: Subsurface soil at the site consists of historic fill, which is primarily comprised of brick, concrete, wood and other debris in a brown silty-sand matrix. The historic fill layer extends to a depth of 5 to 8 feet below grade. Native soil consisting of brown sand is present below the historic fill layer. Bedrock is reportedly 50 - 55 feet below grade.

Groundwater exists at a depth of approximately 15 to 19 feet below grade. Surface topography in the general area of the site possesses moderate relief with general slope to the south-southeast. Based on proximity of the East River to the south and the Bronx River to the east, it is anticipated that groundwater flow is to the south or southeast.

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

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:

1,1,1-TRICHLOROETHANE	LEAD
TETRACHLOROETHYLENE (PCE)	TRICHLOROETHENE (TCE)
BENZ(A)ANTHRACENE	CHROMIUM
BENZO(A)PYRENE	

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.

Soil and groundwater were analyzed for VOCs, SVOCs, metals and PCB/pesticides. Based upon investigations conducted to date, the primary contaminants of concern for the site include benzo(a)anthracene, benzo(a)pyrene, lead, 1,1,1 - trichloroethane (TCA), trichloroethene (TCE) and tetrachloroethene (PCE).

Soil - Benzo(a)anthracene (1.27 ppm), benzo(a)pyrene (1.2 ppm), and lead (726 ppm) are found in shallow (2' bgs) and intermediate (14’ bgs) soils exceeding restricted residential soil cleanup

objectives (SCOs). The soil concentrations of TCA, TCE and PCE, do not exceed restricted residential or protection of groundwater SCOs.

Groundwater - There are minimal impacts to groundwater with two exceedances of groundwater standards for chromium (212 ppb) and bis (2-ethylhexyl) phthalate (351 ppb). The chromium exceedance is relatively low and is likely due to turbidity. The bis (2-ethylhexyl) phthalate exceedance is localized in one monitoring well in the center of the site and is not migrating off-site.

Soil Vapor - Elevated TCE (407 µg/m³), 1,1,1-TCA (1,310 µg/m³), and PCE (732 µg/m³) soil vapor results were found in the center of the site, but no other significant levels were found. Indoor air samples were not collected.

Based on the available data, it is not anticipated that contamination has migrated off-site in any environmental media.

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 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 buildings on site are vacant, therefore, the inhalation of site-related contaminants due to soil vapor intrusion does not represent a current concern. However it is recommended based on the presence of elevated contaminants in soil vapor that measures to address soil vapor intrusion are implemented prior to redevelopment or re-occupancy of site buildings. Environmental sampling indicates soil vapor intrusion is not a 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.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil.

RAOs for Environmental Protection

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

Soil Vapor

RAOs for Public Health Protection

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

SECTION 7: ELEMENTS OF THE SELECTED REMEDY

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

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

The selected remedy is referred to as the Soil Excavation with 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;

- 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

The on-site building(s) will be demolished and materials which cannot be beneficially reused on site will be taken off-site for proper disposal in order to implement the remedy.

Excavation and off-site disposal of soil exceeding restricted residential soil cleanup objectives (SCOs) to a depth of two feet across the entire site. Approximately 4,100 cubic yards of soil will be removed from the site.

On-site soil which does not exceed restricted residential SCOs may be used to backfill the excavation or as part of the cover system described in Paragraph 3.

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

During the Remedial Investigation a geophysical survey at the site discovered two distinct anomalies (potential underground storage tanks [USTs]). The excavation in these two areas will be advanced to determine if there are USTs present; if encountered the USTs and associated contaminated soils (deeper than 2 feet) will be removed in compliance with applicable local, State and Federal regulations.

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, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for restricted residential use. The soil cover will be placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

4. Vapor Mitigation

Any future on-site buildings will be required to have a sub-slab depressurization system, or a similar engineered system, to prevent the migration of vapors into the building from soil.

If any on-site buildings have a basement extending to the depth of the water table, a vapor barrier system will be installed beneath the building slab and on the exterior of the foundation sidewalls below grade.

5. Institutional Control

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 NYCDOH; and
- requires compliance with the Department approved Site Management Plan.

6. Site Management Plan

A Site Management Plan is required, which includes the following:

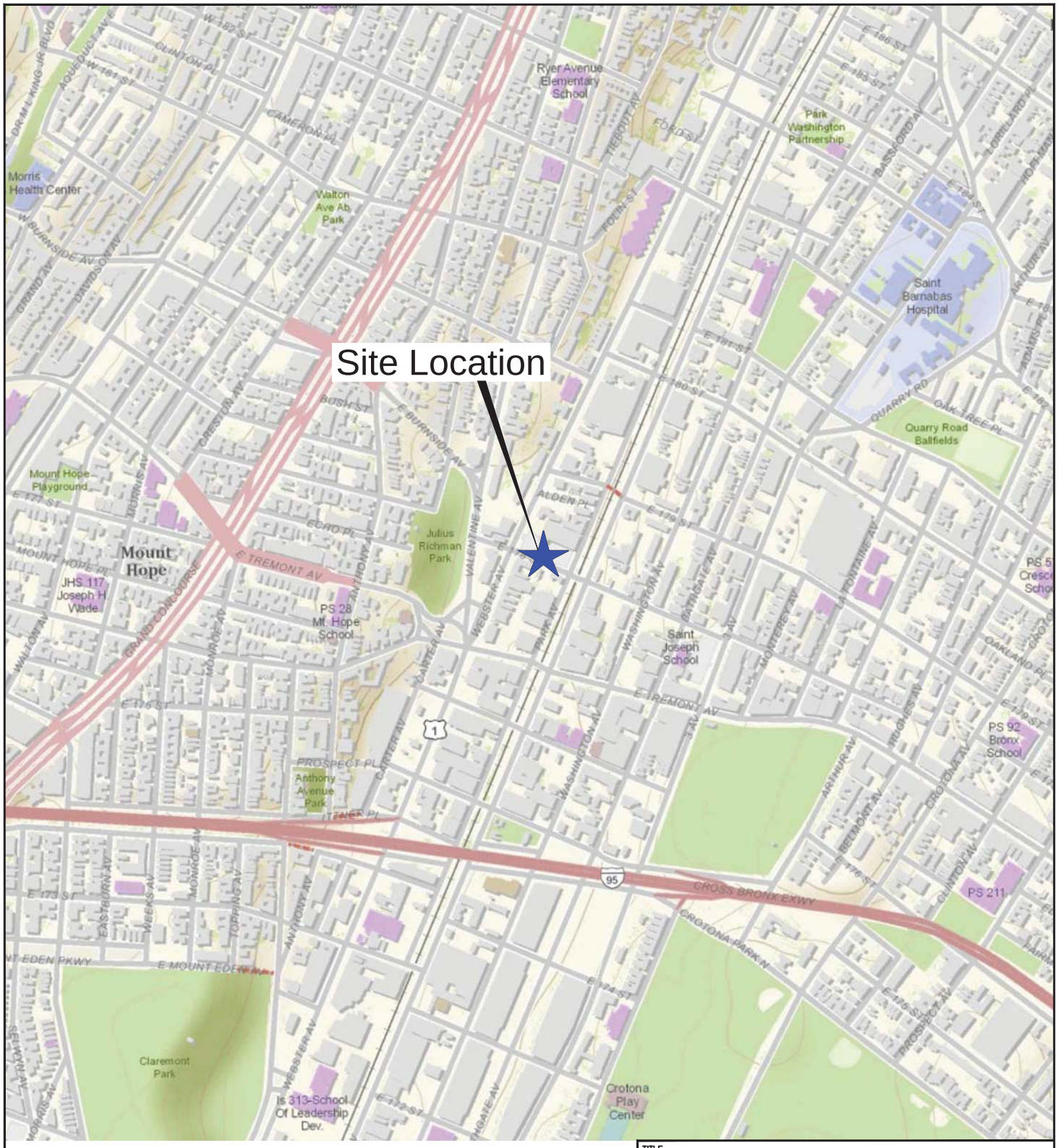
a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: The Environmental Easement discussed in Paragraph 5 above.

Engineering Controls: The soil cover discussed in Paragraph 3 and the sub-slab depressurization and vapor barrier systems discussed in Paragraph 4 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;
- 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 engineering controls.



Notes: Base Map - ESRI ArcMap Topo

N

0 800 1600

GRAPHIC SCALE IN FEET

TITLE

Area Map
Webster Ave. Residences
Bronx, NY

PREPARED FOR

ERM

DRAWN BY	SCALE	DATE	JOB NO.
EMF	AS SHOWN	08/18/14	0261877

FIGURE

1A

N

Legend

Site Boundary

0 50 100

GRAPHIC SCALE IN FEET

TITLE

Site Boundary Map
Webster Ave. Residences
Bronx, NY 10457

PREPARED FOR

DRAWN BY	SCALE	DATE	JOB NO.
EMF	GRAPHIC	08/18/14	0261877

FIGURE 1B

N

Legend

- Site Boundary
- Footprint of Building to be constructed with SSDS
- Footprint of Building to be constructed with vapor barrier because the foundation is below the water table
- Building to be demolished
- Extent of Excavation

Note: The remediation plans will include excavating approximately 2 feet across the entire site.

0 50 100

GRAPHIC SCALE IN FEET

TITLE

Proposed Soil Excavation,
Backfill Areas and Mitigation Locations
1960-1982 Webster Avenue
Bronx, NY 10457

PREPARED FOR

Mountco Construction & Development Corporation

Environmental Resources Management

FIGURE 2

DRAWN BY	SCALE	DATE	JOB NO.
EMF	GRAPHIC	01/28/15	0261877

R:\Scout\Projects\Mountco - Webster Ave, Bronx NY\CAD\2014 RAWP (DEC) REVISED\2014-012 - Mountco - Proposed Extent of Excavation & Vapor Barrier.dwg (01/28/2015 - 11:44am Melville)