DECISION DOCUMENT

268 West Street
Brownfield Cleanup Program
New York, New York County
Site No. C231089
February 2015

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

DECLARATION STATEMENT - DECISION DOCUMENT

268 West Street
Brownfield Cleanup Program
New York, New York County
Site No. C231089
February 2015

Statement of Purpose and Basis

This document presents the remedy for the 268 West Street 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 268 West Street 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
Site excavation will include removal of all underground storage tanks (USTs) and petroleum-

contaminated soils. In addition, all on-site soils which exceed the lower of residential use soil cleanup objectives (RSCOs) or protection of groundwater SCOs (PGWSCOs), as defined by 6 NYCRR Part 375-6.8, will be excavated and transported off-site for disposal. Approximately 19,000 cubic yards of soil will be removed from the site to the following depths:

- 18 feet below ground surface (bgs) in the southern portion of the site, except for a 3-foot-wide strip bordering the perimeter of Lots 18 and 20 due to building restrictions (limitations on underpinning for an adjacent building);
- 4 feet bgs for the 3-foot-wide strip bordering Lots 18 and 20 (soils in this strip below 4 feet bgs meet RSCOs); and
- 25 feet bgs in the northern portion of the site.

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

The extensive site excavation described above will address the minor SVOC exceedances of groundwater standards, as well as the soil vapor detections noted in shallow site soils such that no further remedial actions, beyond excavation, will be necessary to achieve a Track 2 residential use cleanup.

3. The intent of the remedy is to achieve Track 2 residential use, therefore, no environmental easement or site management plan is anticipated. No groundwater use restriction is needed because the area is served by public water and Article 141 of the New York City Department of Health code prohibits potable use of groundwater without prior approval.

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.

February 3, 2015

Date

Robert Cozzy, Director
Remedial Bureau B

DECISION DOCUMENT

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New York, New York County
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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 repository:

New York Public Library - Jefferson Market Library
425 Avenue of the Americas
New York, NY 10011-8454
Phone: (212) 243-4334

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 268 West Street site is located in an urban area on the west side of Manhattan with a mix of residential and commercial properties. The property was prevously owned by several property owners and identified by the addresses: 33-41 Desbrosses Street, 264-271 West Street, 62-74 Vestry Street, and portions of 440 and 432 Washington Street. It has since been purchased by one owner who now has one property identified as 268 West Street (Block 223, Lot 3 and also tentative Lots 1013 and 1015). The tentative lots are a nine foot strip of the western portion of existing Block 223, Lot 13 and Lot 15. The neighborhood is known as the Tribeca neighborhood of Manhattan.

Site Features: The site consists of approximately 0.53 acres. The five vacant buildings on the site consist of a mixture single story buildings, two story buildings and a five story building. The site is in a very flat area.

Current Zoning/Use: The current zone designation for the site is C6-3A – commercial with a residential overlay. The area immediately surrounding the site is residential with some small commercial establishments.

Past Use of the Site: Historic uses of the site include an automotive repair facility, a copper works, a wagon painting operation, a truck sales and service facility, a paper stock facility, parking garages, manufacturing (unspecified), warehouses, a packaging facility, and office and storage space. The automotive repair facility reportedly had hydraulic lift systems and underground storage tanks, and the motor freight station had gasoline tanks. The site was developed with several multi-level commercial and manufacturing buildings as early as 1894. Automotive repair facilities were identified at the site as early as 1950.

Although the exact time is not available, the shoreline was moved westward in the 1800s using imported fill material. According to previous reports, the fill imported to the subject property is of unknown origin and may contain hazardous materials.

Site Geology and Hydrogeology: The site is typical of an urban area. The Remedial Investigation Report found that historic fill extended across the site to a depth of approximately 6 to 12 feet below ground surface (bgs). The site is 6 feet above sea level. Beneath the fill layer, is brown and gray sand with some interbedded layers of sandy silt followed by organic silt and clay with trace shell and wood fragments. Groundwater flow has been found to be toward the northeast and may be influenced by pumping action from beneath nearby buildings or underground utilities. The depth to groundwater is approximately 7 feet below ground surface. The Hudson River is located about 300 feet west 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, alternatives (or an alternative) that restrict(s) the use of the site to residential use (which allows for restricted-residential use, 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:

BENZ(A)ANTHRACENE	TETRACHLOROETHYLENE (PCE)
BENZO(A)PYRENE	BENZO[K]FLUORANTHENE
Chrysene	DIBENZ[A,H]ANTHRACENE
ARSENIC	indeno(1,2,3-cd)pyrene
COPPER	BENZO(B)FLUORANTHENE
LEAD	TRICHLOROETHENE (TCE)
MERCURY	cis-1,2-Dichloroethene

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.

Based upon investigations conducted to date, the primary contaminants of concern include metals, volatile organic compounds (VOCs) and semi-VOCs (SVOCs). No PCBs were detected on site. Historic fill was found at depths ranging from 6 to 12 feet below ground surface (bgs) throughout the site, and two underground petroleum storage tanks (USTs) were also found on-site. The SVOCs and metals noted in site soils and groundwater are likely related to historic fill.

Soil – PCE was found in shallow soils, typically in the top 2 feet below ground surface (bgs), primarily in the southern portion of the site. PCE was detected in several locations above the unrestricted use soil cleanup objective (UUSCO) of 1.3 parts per million (ppm) with one detection of 47 ppm above the residential and restricted residential use SCO (RSCOs/RRSCO) of 5.5 ppm and 19 ppm, respectively .

On-site soil samples exceeded UUSCOs for 13 SVOCs; some also exceeded the RSCOs and RRSCOs. Seven of the more significant findings were: benzo(a)anthracene (up to 140 ppm vs. RSCO/RRSCO of 1 ppm), benzo(a)pyrene (up to 140 ppm vs. RSCO/RRSCO of 1 ppm), benzo(b)fluoranthene (up to 160 ppm vs. RSCO/RRSCO of 1 ppm), benzo(k)fluoranthene (up to 48 ppm vs. RSCO/RRSCO of 1 and 3.9 ppm, respectively), chrysene (up to 140 ppm vs. RSCO/RRSCO of 1 and 3.9 ppm, respectively), dibenzo(a,h)anthracene (up to 0.20 ppm vs RSCO/RRSCO of 0.33 ppm), and indeno(1,2,3-c,d)pyrene (up to 84 ppm vs. RSCO/RRSCO of 0.5 ppm).

On-site soil samples exceeded UUSCOs for six metals, with four of the six exceeding the RSCO and/or RRSCO as follows: arsenic (up to 60 ppm vs. RSCO/RRSCO of 16 ppm), copper (up to 1000 ppm vs. RSCO/RRSCO of 270 ppm), lead (up to 880 ppm vs. RSCO/RRSCO of 400 ppm) and mercury (up to 5.4 ppm vs. RSCO/RRSCO of 0.81 ppm).

Site-related soil contamination is not expect to extend off-site base on the available data.

Groundwater - Groundwater samples were collected from seven monitoring wells. Groundwater samples showed no detectable levels of VOCs, pesticides or PCBs. Five SVOCs were detected above the groundwater standard of 0.002 parts per billion (ppb) for each compound as follows:: benzo(a)anthracene at 0.11 ppb, benzo(a)pyrene at 0.16 ppb, benzo(b)fluoranthene at 0.18 ppb, benzo(k)fluoranthene at 0.08 ppb, and chrysene (0.13 ppb – standard 0.002 ppb). These compounds were detected in one well located in the vicinity of the elevated SVOCs in soils. No site-related metals were detected over groundwater standards. The marginally contaminated groundwater is not migrating off-site.

Soil Vapor – PCE was detected in soil vapor in shallow soils (top 2 feet bgs), with concentrations up to 2,690 micrograms per cubic meter (ug/m3).

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*.

Since the site is fenced and covered by asphalt or concrete, people are not expected to come into contact with site-related soil or groundwater contamination unless they dig below the surface. 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 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 site is currently vacant so soil vapor intrusion is not a current concern. Sampling indicates that soil vapor intrusion is not a concern for off-site properties.

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.

RAOs for Environmental Protection

- Remove the source of ground or surface water contamination.

Soil

RAOs for Public Health Protection

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

RAOs for Environmental Protection

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

Soil Vapor

RAOs for Public Health Protection

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

SECTION 7: ELEMENTS OF THE SELECTED REMEDY

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

The selected remedy is a Track 2: Restricted use with generic soil cleanup objectives 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;
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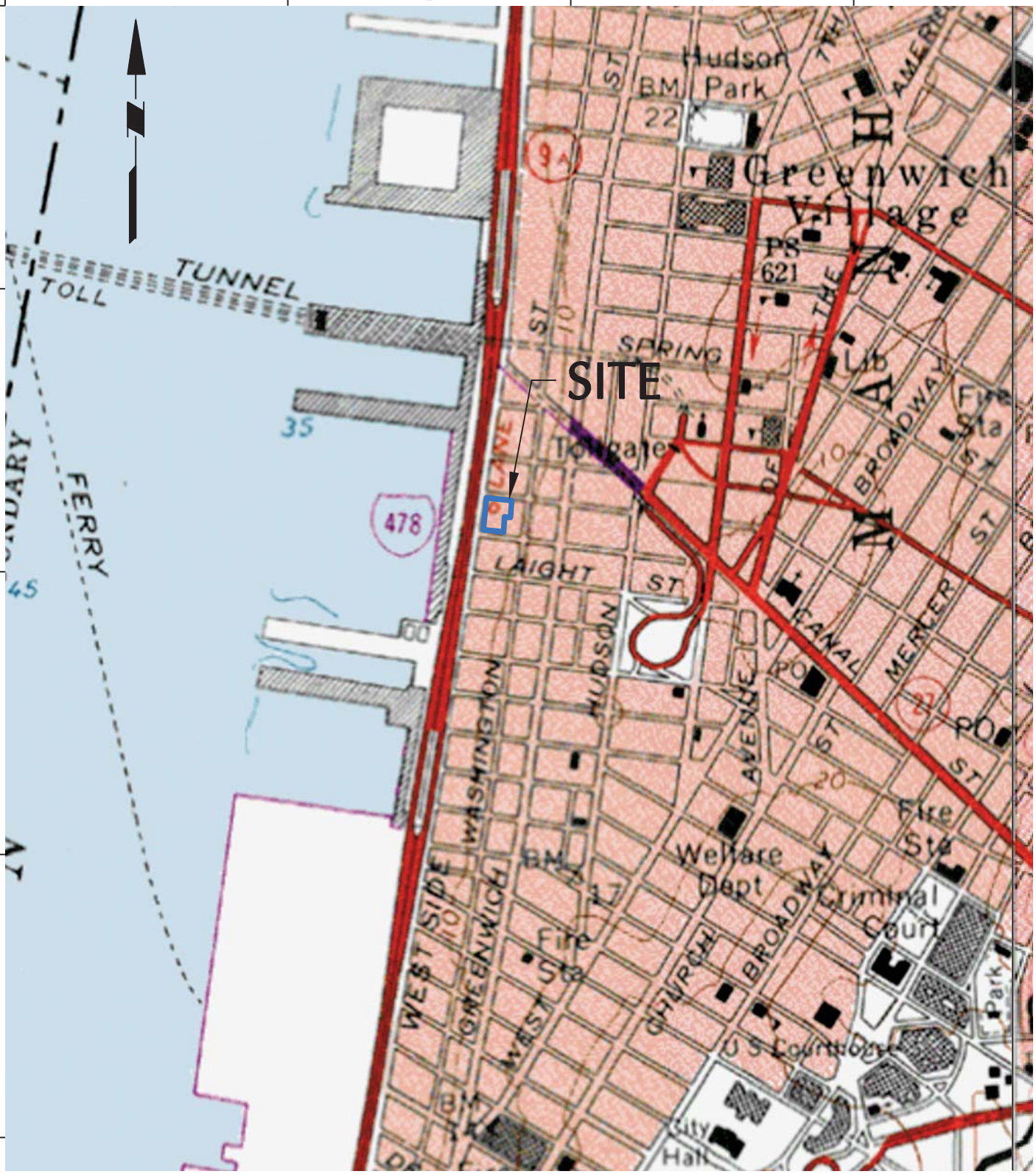
- 18 feet below ground surface (bgs) in the southern portion of the site, except for a 3-foot-wide strip bordering the perimeter of Lots 18 and 20 due to building restrictions (limitations on underpinning for an adjacent building);

- 4 feet bgs for the 3-foot-wide strip bordering Lots 18 and 20 (soils in this strip below 4 feet bgs meet RSCOs); and
- 25 feet bgs in the northern portion of the site.

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

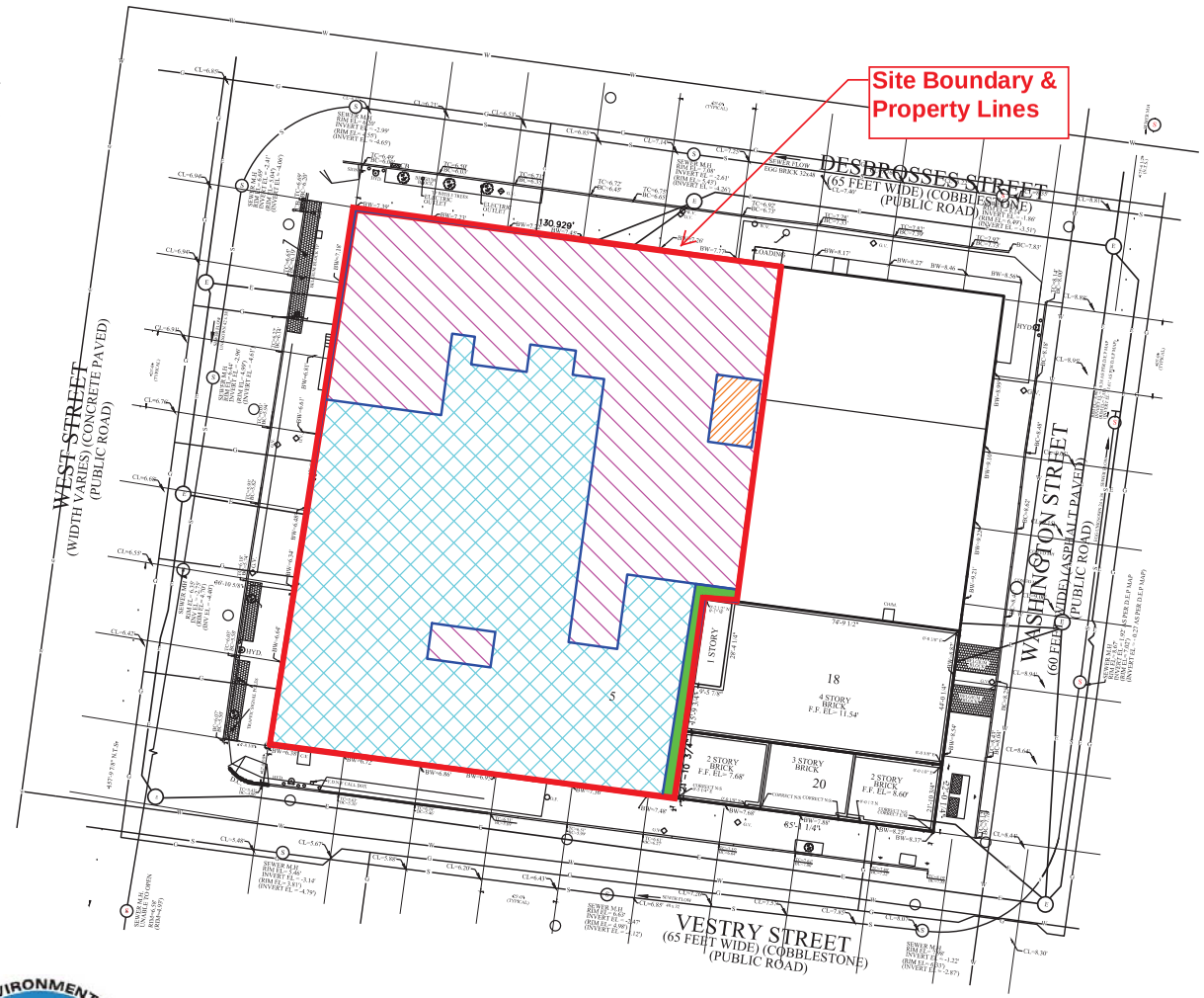
The extensive site excavation described above will address the minor SVOC exceedances of groundwater standards, as well as the soil vapor detections noted in shallow site soils such that no further remedial actions, beyond excavation, will be necessary to achieve a Track 2 residential use cleanup.

3. The intent of the remedy is to achieve Track 2 residential use, therefore, no environmental easement or site management plan is anticipated. No groundwater use restriction is needed because the area is served by public water and Article 141 of the New York City Department of Health code prohibits potable use of groundwater without prior approval.



DEPARTMENT OF ENVIRONMENTAL CONSERVATION · NEW YORK STATE ·	Project **268 WEST STREET** **BLOCK No. 223, LOT No. 3;** **TENTATIVE LOT Nos. 1013 & 1015** **MANHATTAN** **NEW YORK** **NEW YORK**	Figure Title **SITE LOCATION MAP**	Project No. 170266802 Date 9/23/2014 Scale NTS Drawn By KC / Checked By – Submission Date October 2014	Figure No. **1** Sheet 1 of 11

Filename: \\langan.com\data\NY\data8\170266802\Cadd Data - 170266802\2D-DesignFiles\Environmental\RAWP\Figure 1 - Site Location Map - pm revised.dwg Date: 12/8/2014 Time: 13:20 User: dcarrus Style Table: Langan.stb Layout: ANSIA-BP



LEGEND:

- EXCAVATION BOUNDARIES (ELEVATION CHANGE NOTED)
- SITE BOUNDARY / PROPERTY LINES
- EXCAVATION DEPTH = 4 FEET (EL 3)
- EXCAVATION DEPTH = 18 FEET (EL -11)
- EXCAVATION DEPTH = 25 FEET (EL -18)
- EXCAVATION DEPTH = 33 FEET (EL -26)

NOTES

1. SURVEY BASE PLAN TAKEN FROM DRAWING CREATED BY FEHRINGER SURVEYING, P.C., TITLED "SURVEY OF PROPERTY SITUATED IN: WEST, VESTRY, WASHINGTON AND DESBROSSES STREETS", SURVEYED DECEMBER 2, 2013, REVISED MARCH 27, 2014.
2. ALL ELEVATIONS SHOWN ON THE BASE PLAN ARE WITH RESPECT TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
3. MONITORING WELL LOCATIONS WERE SURVEYED, SOIL BORING AND TEST PIT LOCATIONS WERE MEASURED OFF OF SURVEYED LOCATIONS.
4. OVER-EXCAVATION WOULD BE COMPLETED AS REQUIRED TO MEET THE OBJECTIVES OF A TRACK 2 CLEANUP.

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SCALE IN FEET

DEPARTMENT OF ENVIRONMENTAL CONSERVATION • NEW YORK STATE •

Project	Figure Title	Project No. 170266802	Figure No.
268 WEST STREET **BLOCK No. 223, LOT No. 3;** **TENTATIVE LOT Nos. 1013 &1015** **MANHATTAN** **NEW YORK** **NEW YORK**	**ALTERNATIVE II - TRACK 2 RU CLEANUP**	Date 9/18/2014 Scale 1" = 40' Drawn By PMM / Checked By – Submission Date October 2014	2

Filename: \\langan.com\data\NY\data8\170266802\Cadd Data - 170266802\2D-DesignFiles\Environmental\RAWP\Figure 5-7 - Alternatives 1,2,3 - Tracks 1,2,4 Cleanup.dwg Date: 12/8/2014 Time: 13:22 User: dcarrus Style Table: Langan.stb Layout: Track 2 RU