DECISION DOCUMENT

South Main Petroleum Site Assemblage
Brownfield Cleanup Program
Port Chester, Westchester County
Site No. C360237
May 2025

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

DECLARATION STATEMENT - DECISION DOCUMENT

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Statement of Purpose and Basis

This document presents the remedy for the South Main Petroleum Site Assemblage 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 (NYSDEC) for the South Main Petroleum Site Assemblage site and the public's input to the proposed remedy presented by NYSDEC.

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;
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development; and

- Additionally, to incorporate green remediation principles and techniques to the extent feasible in the future development at this site, any future on-site buildings shall be constructed, at a minimum, to meet the 2020 Energy Conservation Construction Code of New York (or most recent edition) to improve energy efficiency as an element of construction.

As part of the remedial design program, to evaluate the remedy with respect to green and sustainable remediation principles, an environmental footprint analysis will be completed. The environmental footprint analysis will be completed using an accepted environmental footprint analysis calculator such as SEFA (Spreadsheets for Environmental Footprint Analysis, USEPA), SiteWise™ (available in the Sustainable Remediation Forum [SURF] library) or similar NYSDEC accepted tool. Water consumption, greenhouse gas emissions, renewable and non-renewable energy use, waste reduction and material use will be estimated, and goals for the project related to these green and sustainable remediation metrics, as well as for minimizing community impacts, protecting habitats and natural and cultural resources, and promoting environmental justice, will be incorporated into the remedial design program, as appropriate. The project design specifications will include detailed requirements to achieve the green and sustainable remediation goals. Further, progress with respect to green and sustainable remediation metrics will be tracked during implementation of the remedial action and reported in the Final Engineering Report (FER), including a comparison to the goals established during the remedial design program.

Additionally, the remedial design program will include a climate change vulnerability assessment, to evaluate the impact of climate change on the project site and the proposed remedy. Potential vulnerabilities associated with extreme weather events (e.g., hurricanes, lightning, heat stress and drought), flooding, and sea level rise will be identified, and the remedial design program will incorporate measures to minimize the impact of climate change on potential identified vulnerabilities.

2. Excavation

The existing 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 all on-site soils which exceed unrestricted use soil cleanup objectives (UUSCOs), as defined by 6 NYCRR Part 375-6.8 If a Track 1 cleanup is achieved, a Cover System will not be a required element of the remedy. Collection and analysis of confirmation samples is not required as the remedy includes excavation into bedrock across the entirety of the site.

Approximately 5,700 cubic yards of contaminated soil will be removed to bedrock for off-site disposal. An additional 10 feet (9,900 cubic yards) of bedrock will be removed across the site to further remove contamination identified in shallow bedrock fractures. Should the excavation not be completed to the depth of bedrock, collection and analysis

of confirmation and documentation samples at the remedial excavation depth will be used to verify that SCOs for the site have been achieved. Further excavation for development will proceed after reaching remedial excavation depths.

To ensure proper handling and disposal of excavated material, waste characterization sampling will be completed for all identified contaminated site material. Waste characterization sampling will be performed exclusively for the purposes of off-site disposal in a manner suitable to receiving facilities and in conformance with applicable federal, state, and local laws, rules, and regulations and facility-specific permits.

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

3. Backfill

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

4. Groundwater

Groundwater contamination in shallow bedrock will be addressed through the excavation of 10 feet of bedrock. Groundwater contamination will be monitored for 5 years to ensure levels are within the cleanup standards in order to achieve a Track 1 remedy. Monitoring wells will be installed after redevelopment.

5. 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.

6. Local Institutional Controls

If no environmental easement or Site Management Plan is needed to achieve soil, groundwater, or soil vapor intrusion remedial action objectives, then the following local use restriction will be relied upon to prevent ingestion of groundwater: Chapter 873 Article VII of the Laws of Westchester County, which prohibits potable use of groundwater without prior approval.

<u>Conditional Track 1</u>

The intent of the remedy is to achieve a 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, then a Site Management Plan (SMP) and Environmental Easement will be required to address the SVI evaluation and implement 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 achievement of soil, groundwater and/or soil vapor remedial objectives, the following contingent remedial elements will be required, and the remedy will achieve a Track 2 restricted residential cleanup.

7. Engineering and Institutional Controls

Imposition of an institutional control in the form of an environmental easement and a Site Management Plan, as described below, will be required. The remedy will achieve a Track 2 restricted residential cleanup at a minimum.

7a. Institutional Control

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

- 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, commercial, or industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH (Chapter 873, Article VII of the Laws of Westchester County); and,
- require compliance with the Department approved Site Management Plan.

7b. Site Management Plan

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

i. 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 Remedy Element 7a above.

Engineering Controls: Groundwater monitoring wells described in Remedy Element #4 and any additional engineering controls that may be required (e.g., sub-slab depressurization system or groundwater treatment).

This plan includes, but may not be limited to:

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

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

- monitoring of groundwater and soil vapor 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.

iii. an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, optimization, monitoring, inspection, and reporting of any mechanical or physical components of the active vapor mitigation system(s) or groundwater monitoring network. The plan includes, but is not limited to:

- procedures for operating and maintaining the system(s); and
- compliance inspection of the system(s) to ensure proper O&M as well as providing the data for any necessary reporting.

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.

May 6, 2025
Date

Sarah Saucier
Sarah Saucier, Director
Remedial Bureau C

DECISION DOCUMENT

South Main Petroleum Site Assemblage
Port Chester, Westchester County
Site No. C360237
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SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (NYSDEC), 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, where a contaminant is present at levels exceeding the soil cleanup objectives or other health-based or environmental standards, criteria, or guidance, based on the reasonably anticipated use of the property.

NYSDEC 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

NYSDEC 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 NYSDEC 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:

DECInfo Locator - Web Application
https://gisservices.dec.ny.gov/gis/dil/index.html?rs=C360237

Port Chester - Rye Brook Public Library
Attn: Robin Lettieri
1 Haseco Avenue
Port Chester, NY 10573
Phone: (914) 939-6710

Receive Site Citizen Participation Information by Email

Please note that NYSDEC'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 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

Site Location: The 0.62-acre site is located in Port Chester, New York. The site is comprised of 5 lots: 2 S. Main Street, 14 S. Main Street, 16 S. Main Street, 15 E. Broadway and 106 Westchester Avenue. The surrounding area is occupied by residential, commercial, and mixed-use buildings in an urban downtown area setting. The site is bound by Westchester Avenue and a two-story mixed-use commercial and residential building to the north of the site. South Main Street and several commercial buildings are located east of the site. Vacant land, which previously comprised of commercial and residential buildings that have been demolished, is present to the south of the site. The New Haven line of the Metro North Railroad and the Port Chester Train Station are also located just west of the site.

Site Features: The site is occupied by six, three-story buildings and three two-story buildings. Many of these properties are in significant disrepair and all are currently vacant. A small, unused parking lot is also located on site. The Byram River is located approximately 500 feet east of the site.

Current Zoning and Land Use: The site is currently located in the CD-6 Urban Core District which allows for various commercial and residential uses. The surrounding properties include restaurants, a parking lot, stores, a railroad station, and a mortgage lender. The closest residential area is approximately 0.06 miles south of the site.

Past Use of the Site: The site had a long history of use as commercial and residential buildings, many of which were heated with heating oil stored in tanks. Some of tanks appear to have leaked. The commercial uses have included, but were not limited to, a construction supply building, a laundry facility, and the Singer Sewing Machine facility and offices.

Site Geology and Hydrogeology: According to the 2012 United States Geological Survey (USGS) Glenville Quadrangle 7.5-minute Series Topographic Maps, the site is about 15 to 35 feet (ft) above mean sea level. Areas to the west and southwest are at higher elevations and areas to the east and northeast are at lower elevations. The site is in a relatively hilly area. The site is underlain by gneiss of the Harrison Gneiss formation. Bedrock is estimated to be about 2 to 23 ft below existing grade at the site. Fill was previously encountered immediately beneath the existing surface cover to about 8.5 ft below ground surface (bgs). The fill is composed of medium-grain brown sand with varying amounts of silt and gravel and is underlain by sand to approximately 13 ft bgs. The sand is gray, medium grain, and includes trace amounts of silt and fine gravel. The sand is underlain by weathered gray gneiss bedrock. Bedrock outcrops were observed on the western sidewalls of the cellar of 2 S. Main Street and 4 S. Main Street. Groundwater was encountered at the site at depths ranging from approximately 1.2 to 10 ft-bgs and flows east towards the Byram River.

A site location map is attached as Figure 1. A site plan is attached as Figure 2.

SECTION 4: LAND USE AND PHYSICAL SETTING

NYSDEC 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 which allows for unrestricted use of the site was evaluated.

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

SECTION 5: ENFORCEMENT STATUS

The Applicant under the Brownfield Cleanup Agreement is a Volunteer. The Applicant does not have an obligation to address off-site contamination. However, NYSDEC 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. NYSDEC 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 contaminants of concern identified at this site are:

lead
arsenic
barium
chromium
mercury
perfluorooctane sulfonic acid
perfluorooctanoic acid
acetone

benzo(a)anthracene
benzo(a)pyrene
benzo(b)fluoranthene
benzo(k)fluoranthene
chrysene
dibenz[a,h]anthracene
indeno(1,2,3-cd)pyrene
acenaphthene
biphenyl
fluorene
phenanthrene
isopropylbenzene
n-propylbenzene
sec-butylbenzene

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 were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), per- and polyfluoroalkyl substances (PFAS), and pesticides. Based upon investigations conducted to date, the primary contaminants of concern for the site include SVOCs and metals that appear to be associated with historic fill and/or, in the case of the SVOCs, possibly former heating oil use. Petroleum-related VOCs were noted in on-site soil vapor.

Soil - SVOCs were detected across the site to depths of 9 feet. Chrysene was detected at 8.25 parts per million (ppm) exceeding the UUSCO (Unrestricted Use Soil Cleanup Objective) of 1 ppm. Benzo(a)anthracene and benzo(k)fluorine were detected at 7.32 and 6.25 ppm, respectively, exceeding the UUSCO of 1 ppm. Two VOCs, Acetone and Methyl Ethyl Ketone, were identified at 0.064 and 0.26 ppm respectively, exceeding the UUSCOs of 0.05 and 0.12 ppm. No other VOCs were detected in soil. Several metals

exceedances were detected including arsenic (maximum detection of 53.3 ppm, exceeding UUSCO of 13 ppm), barium (maximum detection of 2,670 ppm, exceeding UUSCO of 350 ppm), chromium (maximum detection of 121 ppm, exceeding UUSCO of 30 ppm), mercury (maximum detection of 51.1 ppm, exceeding UUSCO of 0.18 ppm), and lead (maximum detection of 10,300 ppm, exceeding UUSCO of 63 ppm). Metals were found at varying depths to 13 feet and extending to the bedrock interface at several locations. Perfluorooctanesulfonic acid (PFOS) was measured in soil concentrations up to 30 parts per billion (ppb), exceeding the guidance value for unrestricted use of 0.88 ppb. Perfluorooctanoic acid (PFOA) was not detected in any soil samples. Pesticides were detected in five soil samples above UUSCOs. 4,4-DDD was detected at 0.00486 ppm, exceeding the UUSCO of 0.0033 ppm. 4,4-DDE was detected at 0.0218 ppm, exceeding the UUSCO of 0.0033 ppm. 4,4-DDT was detected at 0.0354 ppm, exceeding the UUSCO of 0.0033 ppm. PCBs were not detected in soil above UUSCOs.

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

Groundwater - VOCs and SVOCs are present in groundwater across the site. Chloroform and acetone were identified exceeding groundwater standards with maximum concentrations of 32.6 and 50.1 ppb, exceeding the guidance values of 7 and 50 ppb respectively. Chloroform is a byproduct of potable water chlorination often seen in groundwater in areas served by public water lines due to line leakage and is not site related. 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene were detected at a maximum of 30.2 and 5.5 ppb, exceeding the guidance value of 5 ppb. N-butylbenzene, n-propylbenzene, and sec-butylbenzene were reported at concentrations up to 11.5, 19.9, and 12.5 ppb respectively, exceeding the guidance value of 5 ppb. SVOCs, biphenyl and phenanthrene, were found exceeding standards with maximum concentrations of 2,400 and 316 ppb, exceeding the guidance values of 5 and 50 ppb respectively. Acenaphthene and fluorene were detected with maximums of 116 and 63.2 ppb, exceeding the guidance value of 20 and 50 ppb, respectively. For PFAS, PFOA and PFOS were reported at concentrations of up to 54 and 55.5 parts per trillion (ppt), respectively, compared to the groundwater guidance value of 6.7 ppt for PFOA and 2.7 ppt for PFOS. 1,4 Dioxane was not detected in any groundwater samples above the screening level of 1 part per billion (ppb). Metals detected in groundwater included iron, manganese, sodium, and selenium. These metals are naturally occurring and are not considered contaminants of concern. PCBs and pesticides were not detected in site groundwater.

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

Soil Vapor - The following maximum concentration of VOCs were reported in site soil vapor samples: acetone and chloroform were reported at concentrations of up to 2,000 and 1,600 micrograms per cubic meter (ug/m3), respectively, m,p-xylene was reported up to 50 ug/m3, and tetrachloroethene (PCE) was reported up to 42 ug/m3. Since the site is completely unoccupied, no indoor air samples were collected at the site.

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

6.4: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching, or swallowing). This is referred to as *exposure.*

The site is vacant, and access is restricted by a fence. People who enter the site may come into contact with site-related soil and groundwater contamination if they dig below the surface. 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 and/or 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 vacant so inhalation of site contaminants in indoor air via vapor intrusion is not a current concern. However, the potential exists for inhalation of site contaminants due to soil vapor intrusion for any future on-site development. In addition, 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.
- 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 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 Conditional Track 1 remedy:

The selected remedy is referred to as the Excavation and Contingent Site Management remedy.

The elements of the selected remedy, as shown in Figure 3, 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;
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- 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;
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development; and
- Additionally, to incorporate green remediation principles and techniques to the extent feasible in the future development at this site, any future on-site buildings shall be constructed, at a minimum, to meet the 2020 Energy Conservation Construction Code of New York (or most recent edition) to improve energy efficiency as an element of construction.

As part of the remedial design program, to evaluate the remedy with respect to green and sustainable remediation principles, an environmental footprint analysis will be completed. The environmental footprint analysis will be completed using an accepted environmental footprint analysis calculator such as SEFA (Spreadsheets for Environmental Footprint Analysis, USEPA), SiteWise™ (available in the Sustainable Remediation Forum [SURF] library) or similar NYSDEC accepted tool. Water consumption, greenhouse gas emissions, renewable and non-renewable energy use, waste reduction and material use will be estimated, and goals for the project related to these green and sustainable remediation metrics, as well as for minimizing community impacts, protecting habitats and natural and cultural resources, and promoting environmental justice, will be incorporated into the remedial design program, as appropriate. The project design specifications will include detailed requirements to achieve the green and sustainable remediation goals. Further, progress with respect to green and sustainable remediation metrics will be tracked during implementation of the remedial action and reported in the Final Engineering Report (FER), including a comparison to the goals established during the remedial design program.

Additionally, the remedial design program will include a climate change vulnerability assessment, to evaluate the impact of climate change on the project site and the proposed remedy. Potential vulnerabilities associated with extreme weather events (e.g., hurricanes, lightning, heat stress and drought), flooding, and sea level rise will be identified, and the remedial design program will incorporate measures to minimize the impact of climate change on potential identified vulnerabilities.

2. Excavation

The existing 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.

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Approximately 5,700 cubic yards of contaminated soil will be removed to bedrock for off-site disposal. An additional 10 feet (9,900 cubic yards) of bedrock will be removed across the site to further remove contamination identified in shallow bedrock fractures. Should the excavation not be completed to the depth of bedrock, collection and analysis of confirmation and documentation samples at the remedial excavation depth will be used to verify that SCOs for the site have been achieved. Further excavation for development will proceed after reaching remedial excavation depths.

To ensure proper handling and disposal of excavated material, waste characterization sampling will be completed for all identified contaminated site material. Waste characterization sampling will be performed exclusively for the purposes of off-site disposal in a manner suitable to receiving facilities and in conformance with applicable federal, state, and local laws, rules, and regulations and facility-specific permits.

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

3. Backfill

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

4. Groundwater

Groundwater contamination in shallow bedrock will be addressed through the excavation of 10 feet of bedrock. Groundwater contamination will be monitored for 5 years to ensure levels are within the cleanup standards in order to achieve a Track 1 remedy. Monitoring wells will be installed after redevelopment.

5. 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.

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Conditional Track 1

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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.

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- 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, commercial, or industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH (Chapter 873, Article VII of the Laws of Westchester County); and,
- require compliance with the Department approved Site Management Plan.

7b. Site Management Plan

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

i. 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 Remedy Element 7a above.

Engineering Controls: Groundwater monitoring wells described in Remedy Element #4 and any additional engineering controls that may be required (e.g., sub-slab depressurization system or groundwater treatment).

This plan includes, but may not be limited to:

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

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

- monitoring of groundwater and soil vapor 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.

iii. an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, optimization, monitoring, inspection, and reporting of any mechanical or physical components of the active vapor mitigation system(s) or groundwater monitoring network. The plan includes, but is not limited to:

- procedures for operating and maintaining the system(s); and
- compliance inspection of the system(s) to ensure proper O&M as well as providing the data for any necessary reporting.

Legend

Approximate Site Boundary

100 0 100

SCALE IN FEET

NOTES:
1. AERIAL IMAGERY PROVIDED THROUGH LANGAN'S SUBSCRIPTION TO NEAR MAP, DATED 06/14/2024.

LANGAN
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Langan Engineering & Environmental Services, Inc.
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
Langan International LLC

Collectively known as Langan

Project
SOUTH MAIN PETROLEUM SITE ASSEMBLAGE
SECTION 142.30, BLOCK No. 2, LOT Nos. 47, 48, 54, 58, and 69
PORT CHESTER
WESTCHESTER NEW YORK

Figure Title
SITE LOCATION MAP

Project No. 170653201	Figure No. 1
Date 2/24/2025	
Scale 1"=100'	
Drawn By MG	
Submission Date	Sheet 1 of 1

LEGEND

- SITE BOUNDARY
- LOT BOUNDARY
- APPROXIMATE EXISTING BUILDING EXTENTS
- APPROXIMATE PROPOSED AT-GRADE BUILDING BOUNDARY

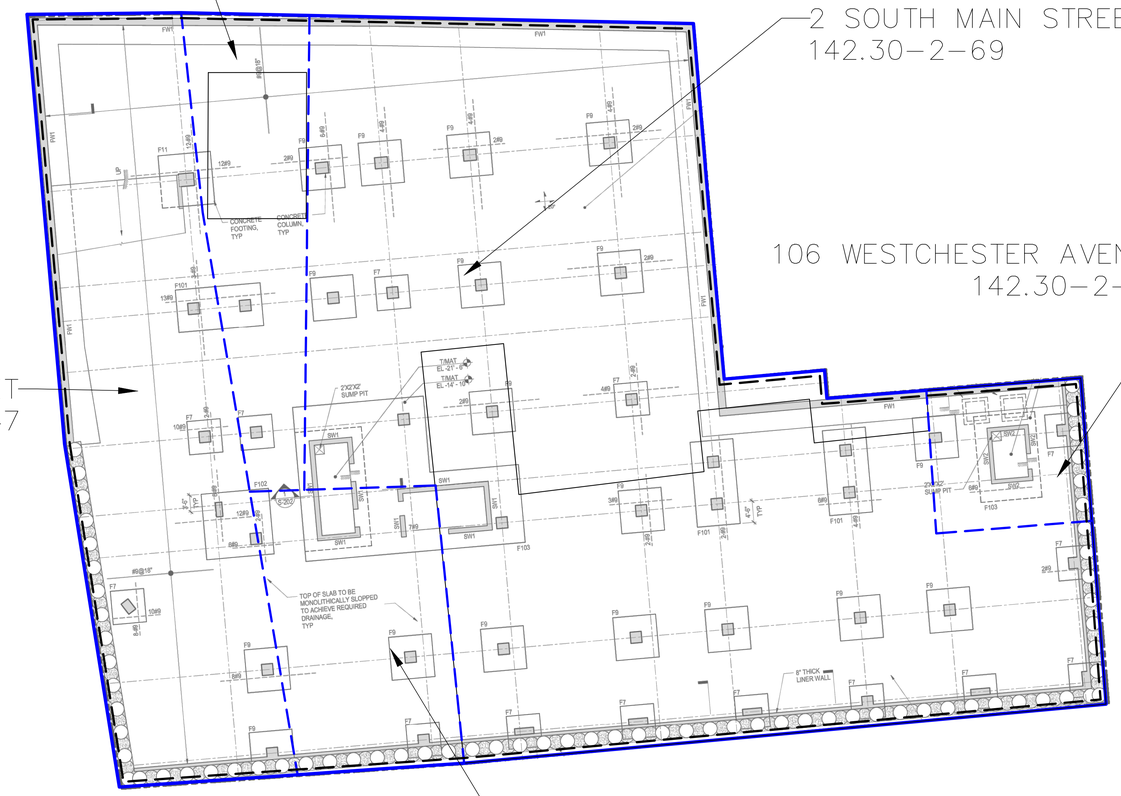
EAST BROADWAY

15 EAST BROADWAY
142.30–2–58

2 SOUTH MAIN STREET
142.30–2–69

106 WESTCHESTER AVENUE
142.30–2–54

16 SOUTH MAIN STREET
142.30–2–47



14 SOUTH MAIN STREET
142.30–2–48

SOUTH MAIN STREET

WESTCHESTER AVENUE

NOTES

1. FOUNDATION PLAN REFERENCED FROM 17 MAY 2024 ISSUE FOR BID STRUCTURAL DRAWINGS PREPARED BY CETRARUDDY ARCHITECTURE.
2. ELEVATIONS SHOWN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) (GEOID 12B) AS DETERMINED BY GLOBAL NAVIGATION SATELLITE SYSTEMS.
3. TAX PARCEL 142.3-2-69 IS COMPRISED OF FORMER TAX LOTS 142.3-2-57 & 68, ALSO KNOWN AS 2, 4, 6, 8, & 10 SOUTH MAIN STREET AND 7 EAST BROADWAY.

15 0 3 6 15
SCALE: 1 INCH = 15 FEET

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WESTCHESTER NEW YORK

Figure Title
SITE PLAN

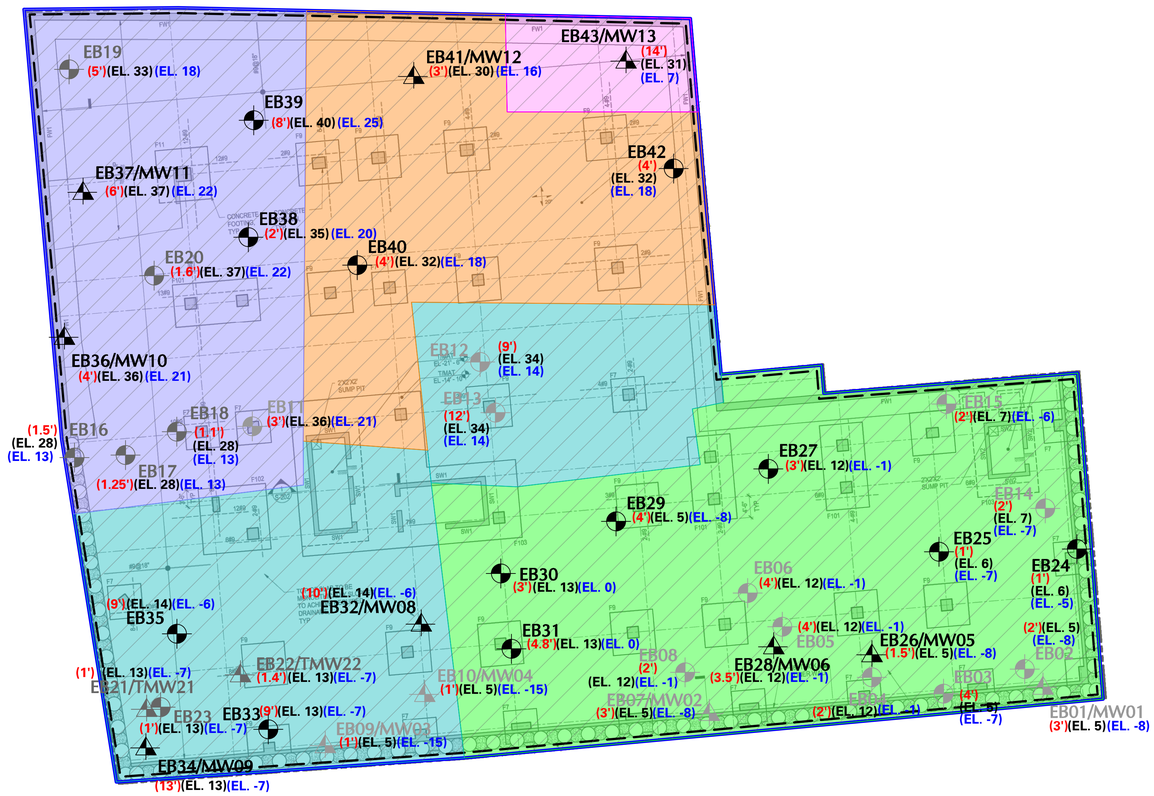
Project No. 170653201
Date 3/17/2025
Drawn By LPG
Checked By JA

Figure No. 2

Sheet 2 of 3

Filename: \\langan.com\data\NYC\data21\170653201\Project Data\CADD\1\SheetFiles\Environmental\2024 RAWP\RAWP Figures_v1.dwg Date: 3/17/2025 Time: 16:18 User: lgrose Style Table: Langan.stb Layout: Figure 2

LANGAN
PROJECT NO. 170653201



LEGEND

- SITE BOUNDARY
- APPROXIMATE PROPOSED AT-GRADE BUILDING BOUNDARY
- EB02 — 2021 PHASE II ESI SOIL BORING LOCATION
- EB01/MW01 — 2021 PHASE II ESI SOIL BORING/MONITORING WELL LOCATION
- EB02 — 2023 PHASE II ESI SOIL BORING LOCATION
- EB21/TMW21 — 2023 PHASE II ESI SOIL BORING/TEMPORARY MONITORING WELL LOCATION
- EB24 — RI SOIL BORING LOCATION
- EB26/MW05 — RI SOIL BORING/PERMANENT MONITORING WELL LOCATION
- (3') — APPROXIMATE REFUSAL DEPTH DUE TO PRESUMED BEDROCK ENCOUNTERED DURING THE PHASE II ESI (LANGAN) OR THE RI (LANGAN)
- (EL. 21) — APPROXIMATE GRADE SURFACE ELEVATION
- (EL. 32) — APPROXIMATE REMEDIAL EXCAVATION ELEVATION (INCLUDING 10 FEET BEDROCK REMOVAL)
- APPROXIMATE EXTENT OF UP TO 10 FEET OF BEDROCK REMOVAL
- APPROXIMATE EXTENT OF REMEDIAL EXCAVATION TO 3 FEET BGS
- APPROXIMATE EXTENT OF REMEDIAL EXCAVATION TO 4 FEET BGS
- APPROXIMATE EXTENT OF REMEDIAL EXCAVATION TO 5 FEET BGS
- APPROXIMATE EXTENT OF REMEDIAL EXCAVATION TO 10 FEET BGS
- APPROXIMATE EXTENT OF REMEDIAL EXCAVATION TO 14 FEET BGS

NOTES

1. FOUNDATION PLAN REFERENCED FROM 17 MAY 2024 ISSUE FOR BID STRUCTURAL DRAWINGS PREPARED BY CETRARUDDY ARCHITECTURE.
2. RI - REMEDIAL INVESTIGATION
3. BGS - BELOW GRADE SURFACE
4. 2021 PHASE II ESI - JUNE AND SEPTEMBER 2021 PHASE II ENVIRONMENTAL SITE INVESTIGATION (ESI), PERFORMED BY LANGAN
5. 2023 PHASE II ESI - APRIL 2023 PHASE II ESI, PERFORMED BY LANGAN
6. THE 2021 GEOTECHNICAL MONITORING WELL LOCATION WAS INSTALLED DURING THE 2021 GEOTECHNICAL INVESTIGATION, PERFORMED BY LANGAN.
7. PROPOSED EXCAVATION EXTENTS ARE APPROXIMATE
8. RI AND PHASE II ESI MONITORING WELL LOCATIONS WERE SURVEYED USING A MOBILE GLOBAL POSITIONING SYSTEM (GPS) UNIT.
9. SURFACE ELEVATIONS ARE BASED ON SURVEYED LOCATIONS OR EXTRAPOLATED FROM NEARBY SURVEY CONTOUR LINES ON 6 JANUARY 2023 ALTA SURVEY PREPARED BY LANGAN OR NEARBY SURVEYED MONITORING WELL COVERS.

15 0 3 6 15
SCALE: 1 INCH = 15 FEET

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Figure Title
ALTERNATIVE I AND ALTERNATIVE II: TRACK 1 REMEDY

Project No.	Figure No.
170653201	3
Date: 3/17/2025	
Drawn By: LPG	
Checked By: JA	Sheet 3 of 3

Filename: \\langan.com\data\NY\Cdata2\170653201\Project Data\CADD\1\SheetFiles\Environmental\2024 RAWP\RAWP Figures_v1.dwg Date: 3/17/2025 Time: 16:23 User: lgrose Style Table: Langan.stb Layout: Figure 7

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PROJECT NO. 170653201