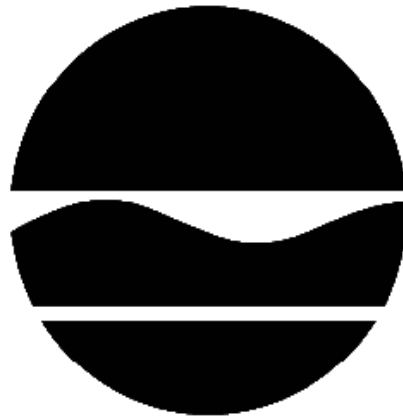


DECISION DOCUMENT

South Shore Outdoor
Brownfield Cleanup Program
Bay Shore, Suffolk County
Site No. C152228
September 2016



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

DECLARATION STATEMENT - DECISION DOCUMENT

South Shore Outdoor
Brownfield Cleanup Program
Bay Shore, Suffolk County
Site No. C152228
September 2016

Statement of Purpose and Basis

This document presents the remedy for the South Shore Outdoor 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 South Shore Outdoor 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

As part of the new construction, the entire building and slab 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 soils/leaching pool sediment at LP-1, and LP-19, and storm water drywells SW-4, SW-5, SW-6, and SW-10. Excavation of residual sediment left in the leaching pits and other soils encountered that exceed commercial SCOs as defined by 6 NYCRR Part 375-6.8 in the upper 15 feet, including beneath the building slab that will be removed and transported off-site for disposal.

Approximately 250 cubic yards of soil/fill will be removed from the site. Excavated materials will require handling and preparation prior to off-site transportation and disposal at a permitted landfill.

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

3. Cover System

A soil cover will be required to allow for commercial use of the site, in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where the soil cover is required it will be a minimum of two feet of soil placed over a demarcation layer, with the upper six inches of soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d). In areas where the new building is placed, the soil cover would not be required.

4. Monitored Natural Attenuation

Groundwater contamination will be addressed through a monitored natural attenuation (MNA) program. Groundwater will be monitored for site related contamination and also for MNA indicators which will provide an understanding of the (biological activity) breaking down the contamination. It is anticipated that contamination will decrease upon removal of the source material, identified in Element 2. A report evaluating the status of the attenuation will be provided at 5 years, and active remediation will be proposed if it appears that natural processes alone will not address the groundwater contamination. The contingency remedial action will depend on the information collected, but it is currently anticipated that bioremediation or chemical oxidation would be the expected contingency remedial action.

5. Institutional Control

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

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

1.8(h)(3);

- allow the use and development of the controlled property for commercial use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or Suffolk County DOH; and
- require compliance with the Department approved Site Management Plan.

6. Site Management Plan

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

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.

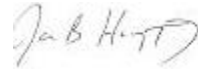
Engineering Controls: The soil cover discussed in Paragraph 3.

This plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
 - descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;
 - a provision for evaluation of the potential for soil vapor intrusion for any new buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
 - provisions for the management and inspection of the identified engineering controls;
 - maintaining site access controls and Department notification; and
 - the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.
- b. Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
 - monitoring of groundwater to assess the performance and effectiveness of the remedy;
 - a schedule of monitoring and frequency of submittals to the Department;
 - monitoring for vapor intrusion for any occupied existing or future buildings developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

Declaration

The remedy conforms with promulgated standards and criteria that are directly applicable, or that are relevant and appropriate and takes into consideration Department guidance, as appropriate. The remedy is protective of public health and the environment.



September 12, 2016

Date

James B. Harrington, P.E. Director
Remedial Bureau A

DECISION DOCUMENT

South Shore Outdoor
Bay Shore, Suffolk County
Site No. C152228
September 2016

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:

Brentwood Public Library
34 2nd Avenue
Brentwood, NY 11717
Phone: (631)273-7883

Receive Site Citizen Participation Information By Email

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs.

Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at <http://www.dec.ny.gov/chemical/61092.html>

SECTION 3: SITE DESCRIPTION AND HISTORY

Location: The site is located at the corner of Fifth Avenue and Candlewood Road in the Town of Bay Shore, Suffolk County. The site is 1.89 acres in size. The property lot is listed as Section 182, Block 1, Lot 37.

Site Features: The area is pitched slightly to the east. The entire lot is comprised of a single building, asphalt parking lots, and a small landscaped area. Approximately 75% of the lot is covered by the main building. The building is currently occupied by the present owners/operators, South Shore Outdoor, a screen-printer, embroiderer, and retailer wholesaler of apparel and team uniforms, which began operations at the Site in 2006.

Current Zoning/Use(s): The existing zoning district is Industrial 1. The Town of Islip is currently considering a proposed zoning district change to Business 1. The site is currently used for commercial use. The intended use of the site will be for Commercial. The land directly to the west, south and east is commercial or industrial. To the north and to the southeast of 5th Avenue is residential and commercial.

Historic Use: The site consisted of undeveloped forested land until 1966 when the lot was cleared for development. The site building was constructed sometime before 1969 and was a manufacturer of printed circuit boards. A window manufacturer and installer occupied the site sometime in the mid-1980's.

A Site Characterization (SC) was finalized in 2007. The SC identified a drywell as a potential source of contaminated soil and groundwater. Sampling indicated elevated levels of volatile organic compounds (VOCs). A VOC groundwater plume was identified emanating from the drywells in a southeast direction. Sampling indicates that hazardous materials were disposed in the drywells although the circumstance of this disposal is unknown.

Site Geology and Hydrogeology: The site is underlain by the Upper Glacial Aquifer, an unconsolidated mixture of sand and gravel. The estimated average hydraulic conductivity of the Upper Glacial Aquifer is 270 ft/day horizontally and 27 ft/day vertically. The Upper Glacial Aquifer has an average thickness of approximately 100 feet in the vicinity of the site. Depth to groundwater is approximately 35 feet. Groundwater flows to the south-southeast.

A site location map and a site boundary map are attached as Figure 1 and Figure 2

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 commercial use (which allows for 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 under the Brownfield Cleanup Agreement is a Volunteer. The Volunteer does not have an obligation to address off-site contamination. The Department has determined that this site poses a significant threat to human health and the environment and contamination may be migrating off-site; accordingly, enforcement actions are necessary. The Department will seek to identify any parties (other than the Volunteer) known or suspected to be responsible for contamination at or emanating from the site, referred to as Potentially Responsible Parties (PRPs). The Department will bring an enforcement action against the PRPs. If an enforcement action cannot be brought, or does not result in the initiation of a remedial program by any PRPs, the Department will evaluate the off-site contamination for action under the State Superfund. The PRPs are subject to legal actions by the State for recovery of all response costs the State incurs or has incurred.

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
- indoor air
- sub-slab vapor

6.1.1: Standards, Criteria, and Guidance (SCGs)

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

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

6.1.2: RI Results

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

1,1,1-trichloroethane	trichloroethene (TCE)
1,1-dichloroethane	1,1,2-trichlorethylene
chloroethane	

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

- groundwater
- soil
- indoor air

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.

The primary contaminants of concern at the site are: 1,1-dichloroethane, 1,1,1-trichloroethane, chloroethane and trichloroethene (TCE). These contaminants have been identified in a drywell (DW-11) at levels that exceed protection of groundwater soil cleanup objectives (SCO's). The maximum concentration was identified in the vicinity of drywell (DW-11) located in the parking lot Southeast of the building. It contained 1,1,1-trichloroethane at 89,000 parts per million (ppm), which exceeded the SCO of 0.68 ppm. The 2007 Preliminary Site Investigation identified a groundwater plume down gradient from this drywell.

Nature and Extent of Contamination:

During the 2015 site investigation, soil and groundwater samples were collected and analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), pesticides, and herbicides. Soil vapor samples were analyzed for VOCs. There were detections of the non-VOC parameters; however, the primary contaminants of concern are 1,1,1-trichloroethane, 1,1,2-trichloroethylene, 1,1-dichloroethane and chloroethane.

Soil: A total of 138 soil samples have been collected from the former industrial leaching pools, current stormwater drywells, current stormwater overflow drywells, former stormwater drywell and former industrial process area and analyzed for VOCs. Sample depths ranged from 5 to 40 ft below ground surface (bgs). The soil samples were analyzed for VOCs, SVOCs, pesticides/herbicides/PCBs, and the TAL metals including hexavalent chromium and cyanide. 1,1,1-trichloroethane concentrations ranged from below the laboratory reporting limit in 73 samples to a maximum concentration of 350 ppm, above protection of groundwater SCOs but below commercial-use SCOs. Trichloroethylene concentrations ranged from below the laboratory reporting limit in 73 samples to a maximum concentration of 39 ppm also above protection of groundwater SCOs, but below commercial-use SCOs. Two SVOC soil sample results (SW-4 and SW-6) were above commercial-use SCOs for benzo(a)pyrene (1.4 ppm and 2 ppm). For metals in soils, copper concentrations were detected in 10 soil samples above commercial use SCO (CSCO) ranging from 300 ppm to 19,000 ppm, cyanide was detected in 1 sample above the CSCO (47 ppm), lead was detected in 3 samples above the CSCO (1,300 ppm, 2,000 ppm, 4,200), barium was detected 1 sample above the CSCO (520 ppm), and cadmium 1 sample above CSCO (21 ppm). Pesticide/herbicide/PCB analytical results were below the CSCOs but above protection of groundwater SCOs.

Soil vapor, Sub-slab vapor, and Indoor air: Soil vapor sample results indicated higher VOC results in the vicinity of stormwater drywell SW-5, the industrial process area, and LP-19. Eight Sub-slab vapor were collected and analyzed for VOCs, were detected in the vicinity of the industrial process area, the highest sub-slab detection was found at SS-2 (1,1,1-trichloroethane detected at 280,000

micrograms per cubic meter). Indoor air samples were below applicable NYSDOH air guidelines, with the exception of TCE which was detected in one sample at 3.2 micrograms per cubic meter, above the air guideline of 2 micrograms per cubic meter. Off-site soil vapor was not studied as part of this investigation.

Groundwater: Groundwater samples were analyzed for VOCs, SVOCs, pesticides/herbicides/PCBs, and the TAL-metals including hexavalent chromium and cyanide. Groundwater samples were collected from the seven monitoring wells during 2015. VOC analytical results ranged from below the laboratory reporting in five samples up to a maximum concentration of total VOCs of 1,850 ug/L (ppb) in MW-5S well, consisting of 1,1,1-trichloroethane (1,600 ppb) and 1,1-dichloroethane (250 ppb). SVOC analytical results were below the laboratory reporting limit of 2 ppb. The pesticide/herbicide/PCB analytical results were below the laboratory report limit of 0.25 ppb. The metal/cyanide analytical results indicated copper, iron, manganese, nickel, sodium, and thallium concentrations above water quality standards.

Since the applicant is a Volunteer in the Brownfield Cleanup Program, the remedy is only required to address on-site contamination, although the remedial actions will reduce the potential for future off-site migration. Based on the determination that this site represents a significant threat, an environmental investigation for the off-site areas will be required to define the nature and extent of potential site-related contamination and to assess any associated exposures.

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*.

Access to the site is unrestricted. People may come into contact with contaminated soil or groundwater if they dig below the ground surface or site cover (e.g., building foundations, pavement). People are not drinking the contaminated groundwater because the area is served by a public water supply that is not affected by this site. Volatile organic compounds in the groundwater 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. Sampling identified impacts in indoor air quality in the current on-site building and represents a health concern. Evaluation of the potential for soil vapor intrusion to impact indoor air is recommended for any future on-site redevelopment and occupancy. Insufficient information exists to determine if soil vapor intrusion is 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.

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 with Cover System and Natural Attenuation 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;
- 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

As part of the new construction, the entire building and slab 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 soils/leaching pool sediment at LP-1, and LP-19, and storm water drywells SW-4, SW-5, SW-6, and SW-10. Excavation of residual sediment left in the leaching pits and other soils encountered that exceed commercial SCOs as defined by 6 NYCRR Part 375-6.8 in the upper 15 feet, including beneath the building slab that will be removed and transported off-site for disposal.

Approximately 250 cubic yards of soil/fill will be removed from the site. Excavated materials will require handling and preparation prior to off-site transportation and disposal at a permitted landfill.

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

3. Cover System

A soil cover will be required to allow for commercial use of the site, in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where the soil cover is required it will be a minimum of two feet of soil placed over a demarcation layer, with the upper six inches of soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d). In areas where the new building is placed, the soil cover would not be required.

4. Monitored Natural Attenuation

Groundwater contamination will be addressed through a monitored natural attenuation (MNA) program. Groundwater will be monitored for site related contamination and also for MNA indicators which will provide an understanding of the (biological activity) breaking down the contamination. It is anticipated that contamination will decrease upon removal of the source material, identified in Element 2. A report evaluating the status of the attenuation will be provided at 5 years, and active remediation will be proposed if it appears that natural processes alone will not address the groundwater contamination. The contingency remedial action will depend on the information collected, but it is currently anticipated that bioremediation or chemical oxidation would be the expected contingency remedial action.

5. Institutional Control

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

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

6. Site Management Plan

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

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

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

Engineering Controls: The soil cover discussed in Paragraph 3.

This plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;

- a provision for evaluation of the potential for soil vapor intrusion for any new buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
 - provisions for the management and inspection of the identified engineering controls;
 - maintaining site access controls and Department notification; and
 - the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.
- b. Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
- monitoring of groundwater to assess the performance and effectiveness of the remedy;
 - a schedule of monitoring and frequency of submittals to the Department;
 - monitoring for vapor intrusion for any occupied existing or future buildings developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

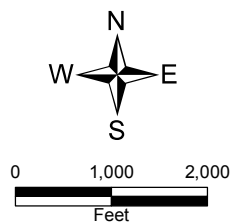
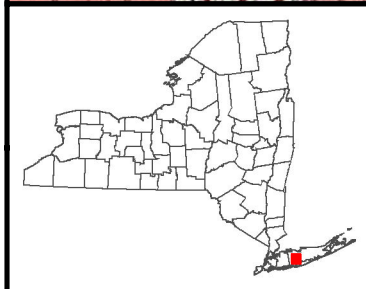
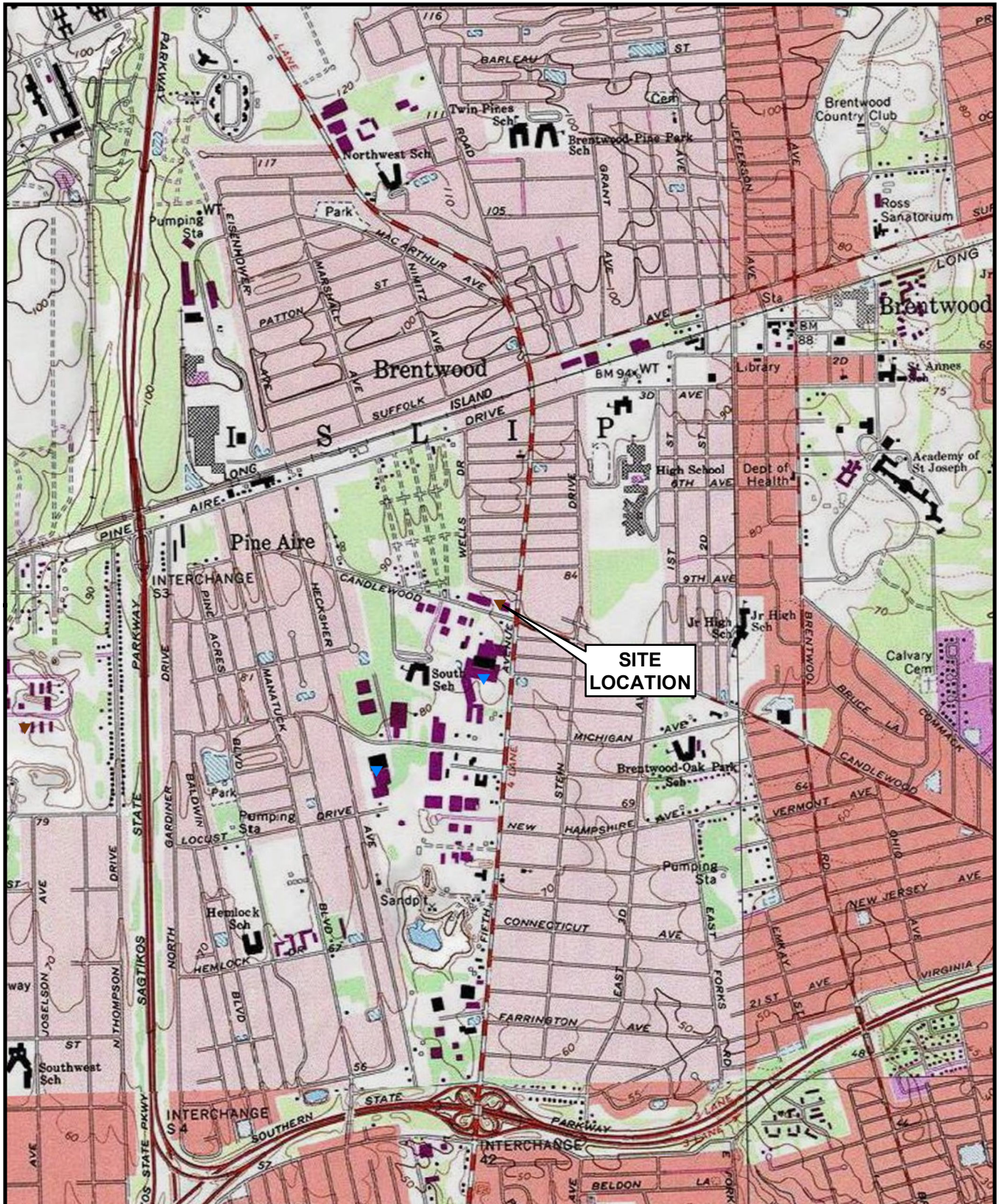


Figure 1
 Site Location Map
 South Shore Outdoor
 Town of Islip, Suffolk County
 Site No. C152228



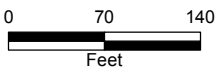
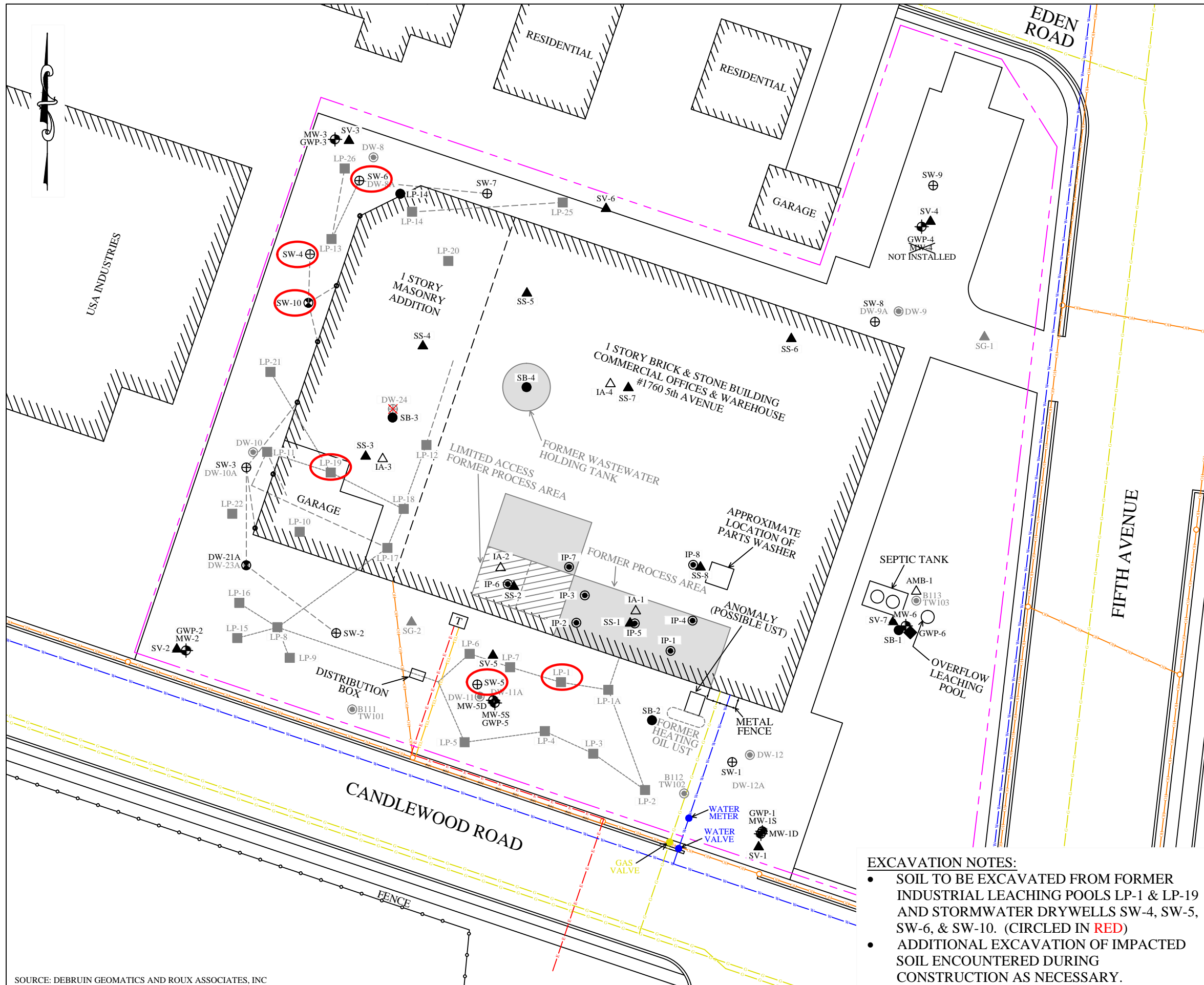


Figure 2 Site Map

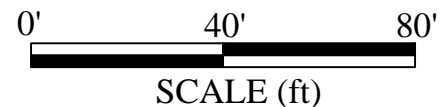
South Shore Outdoor
Bay Shore, NY 11706
Town of Islip, Suffolk County
Site No. C152228





- LEGEND:**
- PROPERTY LINE
 - WATER LINE
 - GAS LINE
 - ELECTRIC LINE
 - TELEPHONE LINE
 - OVERHEAD UTILITY LINE
 - FORMER PIPING ADJOINING POOLS
 - FORMER UNVERIFIED PIPING
 - ROOF DRAIN
 - ⊕ TRANSFORMER
 - ⊕ EXISTING STORM WATER DRY WELL
 - ⊕ EXISTING STORM WATER DRY WELL WITH SOILD COVER
 - ⊗ FORMER STORM WATER DRY WELL
 - FORMER INDUSTRIAL LEACHING POOL
 - ▲ PREVIOUS INVESTIGATION SOIL VAPOR POINT
 - ⊙ PREVIOUS INVESTIGATION SOIL BORING WITH GROUNDWATER SAMPLE
 - ⊕ MONITORING WELL / GROUNDWATER PROFILE BORING
 - SOIL BORING
 - ▲ SOIL VAPOR POINT OR SUB-SLAB VAPOR POINT
 - ◆ GROUNDWATER PROFILE BORING
 - ⊙ HAND BORING
 - △ INDOOR AIR SAMPLE & AMBIENT AIR SAMPLE LOCATIONS

- NOTES:**
- INTERIOR WALLS ARE APPROXIMATE
 - MW-4 WAS NOT INSTALLED



SOUTH SHORE OUTDOOR
1760 5th AVE
BAY SHORE, NY 11706

SOIL EXCAVATION LOCATIONS

- EXCAVATION NOTES:**
- SOIL TO BE EXCAVATED FROM FORMER INDUSTRIAL LEACHING POOLS LP-1 & LP-19 AND STORMWATER DRYWELLS SW-4, SW-5, SW-6, & SW-10. (CIRCLED IN RED)
 - ADDITIONAL EXCAVATION OF IMPACTED SOIL ENCOUNTERED DURING CONSTRUCTION AS NECESSARY.

SOVEREIGN CONSULTING INC. Figure:
359 Northgate Drive, Suite 400
Warrendale, PA 15086
Phone: (724)719-2971 Fax: (724)719-2974
www.sovcon.com

CREATED BY : NRK
DATE: 06/15/2016

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