

# DECISION DOCUMENT

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Former Designs for Leisure  
Brownfield Cleanup Program  
Mount Kisco, Westchester County  
Site No. C360163  
December 2020



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

# **DECLARATION STATEMENT - DECISION DOCUMENT**

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Former Designs for Leisure  
Brownfield Cleanup Program  
Mount Kisco, Westchester County  
Site No. C360163  
December 2020

## **Statement of Purpose and Basis**

This document presents the remedy for the Former Designs for Leisure site, a brownfield cleanup site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the Former Designs for Leisure 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;
    - 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 will include, at a minimum, a 20-mil vapor barrier/waterproofing membrane on the foundation to improve energy efficiency as an element of construction.

2. Excavation - An area of characteristic hazardous lead-impacted soils will be excavated down to approximately 8 feet below grade for off-site disposal. Approximately 100 cubic yards of soil will be removed from the site for remedial purposes. Any underground storage tanks (USTs), fuel dispensers, underground piping or other structures associated with a source of contamination will be removed and properly disposed of off-site.
3. Backfill - 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.
4. Vapor Mitigation- A sub-slab depressurization system or other acceptable measures will be provided to mitigate the migration of vapors into the building from groundwater.

#### 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, commercial cleanup at a minimum and will include an environmental easement, and site management plan as described below.

5. Institutional Control - Imposition of an institutional control in the form of an environmental easement for the controlled property which will:
  - a. 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);
  - b. 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;
  - c. 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; and
  - d. require compliance with the Department approved Site Management Plan.
6. Site Management Plan - A Site Management Plan is required, which includes the following:
  - a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

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

Engineering Controls: The vapor mitigation system discussed in Paragraph 4.

This plan includes, but may not be limited to:

- i. an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- ii. a provision for further investigation and remediation should large scale redevelopment occur, if any of the existing structures are demolished, or if the subsurface is otherwise made accessible.

The nature and extent of contamination in areas where access was previously limited or unavailable will be immediately and thoroughly investigated and remediated as necessary

iii. descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;

iv. a provision for evaluation of the potential for soil vapor intrusion for any modifications to occupied buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;

v. provisions for the management and inspection of the identified engineering controls;

vi. maintaining site access controls and Department notification; and

vii. the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

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

i. monitoring of groundwater, soil vapor, and indoor air quality to assess the performance and effectiveness of the remedy;

ii. a schedule of monitoring and frequency of submittals to the Department;

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

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

i. procedures for operating and maintaining the system(s); and

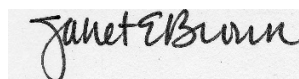
ii. compliance inspection of the system(s) to ensure proper O&M as well as providing the data for any necessary reporting.

### **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.

12/21/2020

Date



Janet Brown, Director  
Remedial Bureau C

# DECISION DOCUMENT

Former Designs for Leisure  
Mount Kisco, Westchester County  
Site No. C360163  
December 2020

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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:

DECInfo Locator - Web Application/On-Line Repository:  
<https://www.dec.ny.gov/data/DecDocs/C360163/>

Mount Kisco Public Library  
Attn: Kathryn Feeley  
100 Main Street  
Mount Kisco, NY 10549  
Phone: 914-666-0935

*\*Repositories may be temporarily unavailable/have reduced hours due to COVID-19 precautions.*

## **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 and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at <http://www.dec.ny.gov/chemical/61092.html>

### **SECTION 3: SITE DESCRIPTION AND HISTORY**

**Location:** The 1.73 acre site is located in the Village of Mt. Kisco, New York, in Westchester County, and is identified as Block 1, Lot 2 on the Westchester Tax Map. The site is bounded on the west by Kensico Drive; on the east by Branch Brook, beyond which is the MTA-North railroad; on the north by Westchester EMS and TAL Healthcare; and by Suburban Propane to the south. A short distance to the north is the Sawmill Parkway with an entrance to the parkway approximately a block away to the northwest.

**Site Features:** The site is flat and includes an unoccupied slab-on-grade one-story building, with landscaped and paved areas. Branch Brook runs along the eastern site boundary. A few trees are situated along the eastern boundary.

**Current Zoning and Land Use:** The site and the surrounding area are currently zoned as Manufacturing/Industrial. The nearest residential area is a medium-density multi-family district located slightly over 1,000 feet to the northwest on the other side of the Sawmill Parkway. The site is currently vacant.

**Past Use of the Site:** The railroad (just off-site to the east, beyond Branch Brook) has been present since as early as 1892. The current building was first constructed in 1976 and used as a veterinary hospital. In 1982 Design for Leisure, a pool table and bar stool manufacturer, took occupancy of the site and remained until 1998. In 1998 Human Relations Media, a commercial and movie production company occupied the site through October 2017.

**Site Geology and Hydrogeology:** In approximately three-quarters of the site, fill materials consisting of sand, gravel, silt, clay, brick concrete, asphalt, timber, rubber, plastic, and glass is consistently present to an approximate depth of 9 feet below ground surface (bgs). The southwestern quarter of the site is generally underlain by medium-dense sand with occasional clayey silt layers. The fill is underlain by a soft to medium-dense silt layer, a clay layer, and a fine-grained sand layer. Bedrock is present at about 24 feet bgs in the southwest corner and about 71 feet bgs in the central eastern portion of the site. The groundwater table varies from 0.05 to 5.52 feet bgs and flows generally from southwest to northeast. A zone of transitional permeability runs along the central north-south axis of the site, composed primarily of silty and clayey fines, which reduce hydraulic conductivity starting at 20 feet bgs.

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 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. A Volunteer in the Brownfield Cleanup Program does not have an obligation to address off-site contamination. 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 for this site.

The Department notes that there is an upgradient source of groundwater contamination originating off-site which is impacting the site. While the site is not contributing to groundwater contamination, the site Track 2 remedy requires mitigation of vapors from the groundwater as set forth in Section 7 below. The Department will seek to identify the location of this upgradient source and then will take appropriate action.

#### **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
- surface water
- soil
- sediment
- 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:

tetrachloroethene (PCE)	trans-1,2-dichloroethene
trichloroethene (TCE)	benzene
1,1-dichloroethane	chloroethane
1,1-dichloroethene	xylene (mixed)
cis-1,2-dichloroethene	methyl ethyl ketone
vinyl chloride	lead

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

- groundwater
- soil



## **6.2: Interim Remedial Measures**

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Decision Document.

There were no IRMs performed at this site during the RI.

## **6.3: Summary of Environmental Assessment**

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water. The RI report presents a detailed discussion of any existing and potential impacts from the site to fish and wildlife receptors.

Soil, groundwater, and sediment were analyzed for volatile organic compounds (VOCs), including 1,4-dioxane, semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs) and pesticides. Groundwater was also analyzed for per- and polyfluoroalkyl substances (PFAS). A sub-slab vapor sample was analyzed for VOCs. Based upon investigations conducted to date, the primary contaminants of concern include lead, chlorinated solvents, and petroleum constituents.

Surficial soil samples - Surface soil samples were collected from zero to two inches below ground surface (bgs). With the exception of lead, no contaminants of concern including SVOCs, PCBs, pesticides, or metals were detected at levels exceeding the applicable soil cleanup objectives (SCOs) in surface soil samples collected at the site. Lead was detected in surficial soil samples above the unrestricted SCO in multiple soil samples at a maximum concentration of 144 parts per million (ppm), but below the commercial SCO of 1,000 ppm. Site-related soil contamination does not appear to be a concern for off-site locations.

Subsurface Soil - Contaminants detected in subsurface soil samples above unrestricted use criteria include trichloroethylene, acetone, 4,4 DDT, lead, and mercury at maximum concentrations of 13; 0.15; 0.00557; 3,690; and 0.251 ppm, respectively. The only contaminants detected above their respective commercial soil cleanup objective (CSCO) were lead at a maximum concentration of 3,690 ppm in soil 4-6 feet below grade compared to a CSCO of 1,000 ppm. The supplemental remedial investigation (SRI) further delineated the extent of lead contamination that exceeded commercial use SCOs, with the maximum concentration exceeding toxicity characteristic leaching procedure (TCLP) levels at up to 64.2 ppm. Benzo(a)pyrene was detected at a maximum level of 3.1 ppm in the SRI, exceeding its CSCO of 1 ppm at one sampling point at 3-4 feet bgs. No other contaminants were detected above commercial use criteria.

TCE was detected at a level exceeding the protection of groundwater SCO of 0.47 ppm, at concentrations up to 13 ppm, near the center of the site. All TCE contamination detected in soil samples was found at least 5 feet below the water table at the southwest corner of the site and averaging 15 feet below the water table.

This saturated soil contamination appears to be due to the highly contaminated groundwater entering the site from an off-site, upgradient source. The Department will perform a separate area-wide investigation to determine the source of this contamination affecting this site.

Groundwater - Tetrachloroethene (PCE) and trichloroethene (TCE) and their breakdown products, such as vinyl chloride (VC), 1,1-dichloroethane, 1,1-dichloroethene, cis-1,2-dichloroethene, and trans-1,2-dichloroethene, were found at concentrations exceeding groundwater standards (typically 5 parts per billion [ppb] and 2 ppb for VC). PCE and TCE were detected at maximum concentrations of 14.2 and 15,800 ppb, respectively. The maximum concentration of TCE was detected in a well near the south-southwest boundary of the site, which is the hydraulically upgradient boundary of the site. The highest concentration of PCE was detected in a well near the center of the site in the zone of transitional permeability. TCE and PCE concentrations in soil samples that exceeded protection of groundwater SCO were first found at least five feet below the water table. The TCE contamination in the groundwater at this site appears to be from an off-site upgradient source, with no apparent contributions from this site. As noted above, the Department will perform a separate area-wide investigation to determine the source of this contamination.

Along the downgradient site boundary, along the northern side of the building, TCE concentrations were detected at two monitoring wells at 2,210 ppb and 2,540 ppb, respectively. Cis-1,2-dichloroethene (cis-1,2-DCE) concentrations at these two wells were at 207 and 228 ppb, respectively. TCE and cis-1,2-DCE are likely to be migrating off-site/down-gradient to the north. As noted above, this contamination is passing under the BCP site from an upgradient off-site source.

The maximum concentrations of vinyl chloride, 1,1-dichloroethane, cis-1,2-DCE, and trans-1,2-DCE, which are breakdown products of TCE, were 45.5 ppb, 23.1 ppb, 27.4 ppb, 1,100 ppb and 10.8 ppb, respectively, near the center of the site; while the maximum concentration for 1,1-DCE was 16.2 ppb near the northern (downgradient) perimeter.

Petroleum constituents were detected in one well located in the center of the site, including benzene at 2.88 ppb, chloroethane at 23.1 ppb, methyl ethyl ketone at 68.1 ppb, and total xylenes at 8.58 ppb. The standards for these compounds are 1 ppb, 5 ppb, 50 ppb, and 5 ppb, respectively. Benzene was detected in a second well near the down gradient site boundary, at concentration of 7.7 ppb (versus a standard of 1 ppb). This suggests that low levels, if any, petroleum contamination may have migrated off-site.

Lead was detected above Class GA standards at 33.3 ppb in one well near the center of the site, compared to the standard of 25 ppb, and is not migrating off-site. No SVOCs, polychlorinated biphenyls (PCBs), or pesticides were detected in site groundwater over Class GA standards.

1,4-dioxane was detected at maximum concentration of 29 ppb in a hydraulically upgradient well near the south-southwest boundary of the site. Samples obtained at two downgradient wells near the northern boundary of the site found maximum concentration of 1.7 and 2.7 ppb of 1,4-dioxane respectively, compared to the maximum contaminant level (MCL) of 1 ppb and may be migrating off-site; however, as with the chlorinated VOCs, this contaminant also appears to

originate from an upgradient/off-site source. PFOA was detected above the MCL of 10 parts per trillion (ppt) in one well near the center of the site at 11 ppt and does not appear to be migrating off-site.

Sub-slab Vapor - TCE was detected at 3.7 microgram/cubic meter (ug/m<sup>3</sup>) at the one sub-slab sampling point in the building. The source of chlorinated solvents appears to be upgradient and off-site, and the site is not contributing to the chlorinated solvent plume found in site groundwater and soil vapor. Additional investigation under a separate site will be required to determine if there are any off-site soil vapor intrusion (SVI) issues resulting from this upgradient groundwater plume that is impacting this site.

Surface Water and Sediment - Surface water and sediment were sampled from the adjacent stream during the supplemental remedial investigation to assess whether the site impacted the adjacent waterway. No contaminants of concern were detected above laboratory reporting limits in surface water samples. The only contaminant detected above Class C Freshwater Sediment Guidance Values (SGV) was lead at 180 and 201 ppm in the mid-stream and downstream samples, respectively. The concentration of lead in the upstream sample was 38.4 ppm. The Class C SGV for lead is 130 ppm.

Given the distance from the one soil sample location that exceeded the commercial use SCO for lead to the stream, it appears the primary source of the lead in the sediment is likely from offsite sources including a stormwater outlet near the northeast/upstream-most corner of the site, manufacturing facilities and parking lots upstream, and the Metro North railway bed adjacent to the eastern bank of the stream.

#### **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*.

People are not drinking the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. Access to the site is unrestricted and people who enter the site can come into contact with contaminated soils or contaminated groundwater if they dig below the ground surface. Volatile organic compounds in contaminated groundwater or contaminated soils 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. Because the site is vacant, the inhalation of site related contaminants due to soil vapor intrusion does not represent a current concern. However, the potential exists for the inhalation of site contaminants due to soil vapor intrusion for any onsite redevelopment. Potential soil vapor intrusion concerns associated with offsite buildings will be evaluated during a separate investigation of the offsite contamination and not part of this BCP investigation.

## **6.5: Summary of the Remediation Objectives**

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

The remedial action objectives for this site are:

### **Groundwater**

#### **RAOs for Public Health Protection**

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

#### **RAOs for Environmental Protection**

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

The elements of the selected remedy, as shown in Figure 2, are as follows:

1. Remedial Design - A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows;

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gases and other emissions;
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- Conserving and efficiently managing resources and materials;
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- 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 will include, at a minimum, a 20-mil vapor barrier/waterproofing membrane on the foundation to improve energy efficiency as an element of construction.

2. Excavation - An area of characteristic hazardous lead-impacted soils will be excavated down to approximately 8 feet below grade for off-site disposal. Approximately 100 cubic yards of soil will be removed from the site for remedial purposes. Any underground storage tanks (USTs), fuel dispensers, underground piping or other structures associated with a source of contamination will be removed and properly disposed of off-site.

3. Backfill - 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.

4. Vapor Mitigation- A sub-slab depressurization system or other acceptable measures will be provided to mitigate the migration of vapors into the building from groundwater.

#### 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, commercial cleanup at a minimum and will include an environmental easement, and site management plan as described below.

5. Institutional Control - Imposition of an institutional control in the form of an environmental easement for the controlled property which will:

- a. 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);
- b. 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;
- c. 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; and
- d. require compliance with the Department approved Site Management Plan.

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

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

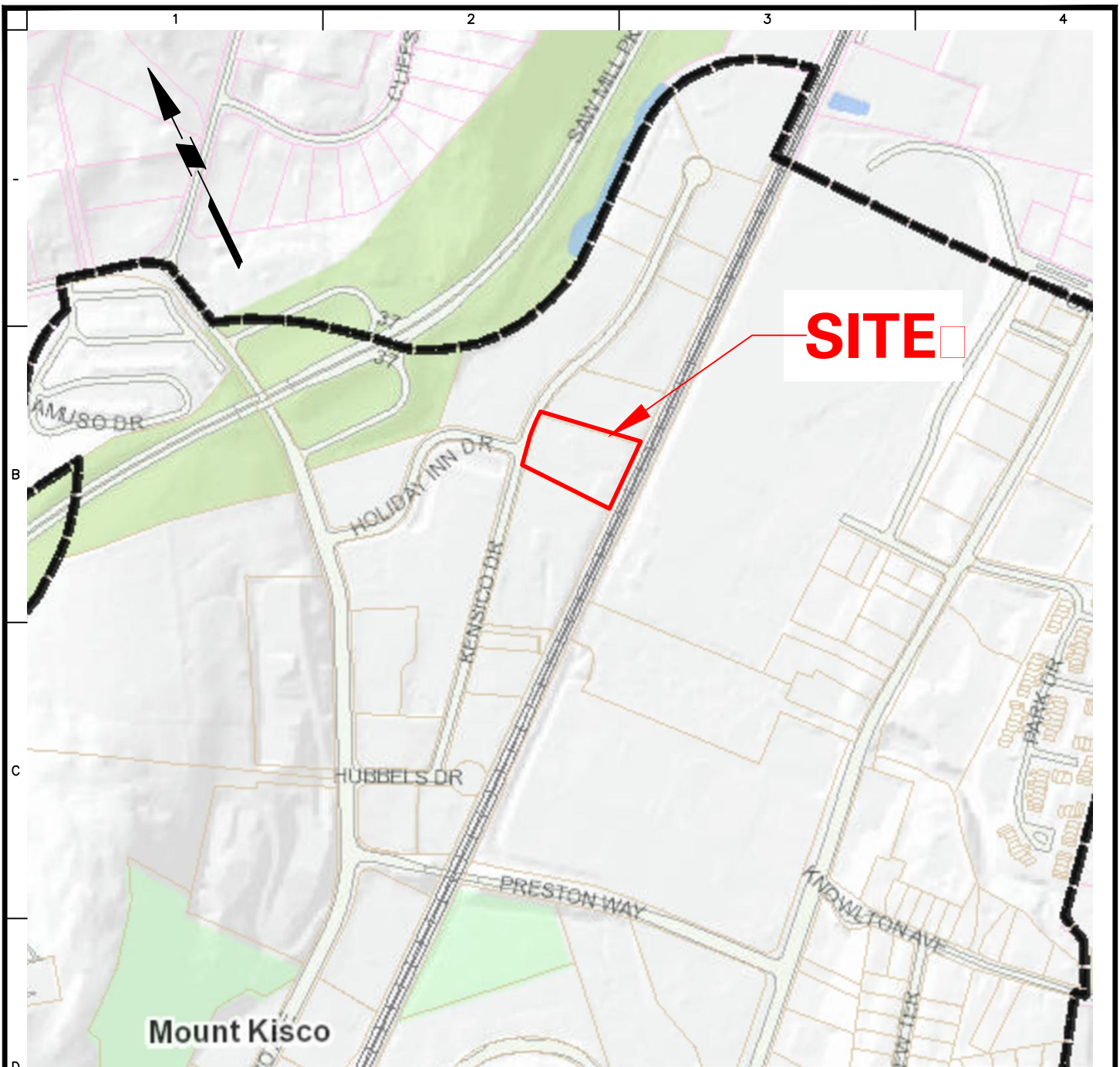
Institutional Controls: The Environmental Easement discussed in Paragraph 5 above.

Engineering Controls: The vapor mitigation system discussed in Paragraph 4.

This plan includes, but may not be limited to:

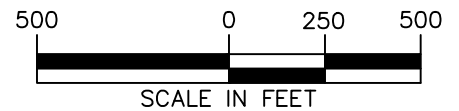
- i. an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- ii. a provision for further investigation and remediation should large scale redevelopment occur, if any of the existing structures are demolished, or if the subsurface is otherwise made accessible. The nature and extent of contamination in areas where access was previously limited or unavailable will be immediately and thoroughly investigated and remediated as necessary
- iii. descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;
- iv. a provision for evaluation of the potential for soil vapor intrusion for any modifications to occupied buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- v. provisions for the management and inspection of the identified engineering controls;
- vi. maintaining site access controls and Department notification; and
- vii. the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.
- b. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
  - i. monitoring of groundwater, soil vapor, and indoor air quality to assess the performance and effectiveness of the remedy;
  - ii. a schedule of monitoring and frequency of submittals to the Department;
  - iii. monitoring for vapor intrusion for any buildings developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

- c. an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, inspection, and reporting of any mechanical or physical components of the active vapor mitigation system(s). The plan includes, but is not limited to:
  - i. procedures for operating and maintaining the system(s); and
  - ii. compliance inspection of the system(s) to ensure proper O&M as well as providing the data for any necessary reporting.



**NOTES:**

1. BASE MAP IS REFERENCED FROM WESTCHESTER COUNTY 2-FOOT TOPOGRAPHIC MAP, ACCESSED FROM WESTCHESTER COUNTY GEOGRAPHIC INFORMATION SYSTEMS ON OCTOBER 23, 2018.



**WARNING:** IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS ITEM IN ANY WAY.

**LANGAN**

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New York, NY 10001

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Project

**41 KENSICO DRIVE**

SECTION 69.50, P-RCEL No. 1-2  
TOWN OF MOUNT KISCO  
WESTCHESTER COUNTY NEW YORK

Figure Title

**SITE LOCATION  
MAP**

Project No.

190046301

Date

10/23/2018

Drawn By

ER-

Checked By

TC

Figure No.

**1**



