DECISION DOCUMENT

1-5 Holland Avenue
Brownfield Cleanup Program
White Plains, Westchester County
Site No. C360115
November 2014

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

DECLARATION STATEMENT - DECISION DOCUMENT

1-5 Holland Avenue
Brownfield Cleanup Program
White Plains, Westchester County
Site No. C360115
November 2014

Statement of Purpose and Basis

This document presents the remedy for the 1-5 Holland Avenue 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 1-5 Holland Avenue 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. Green Remediation: Green remediation principles and techniques will be implemented to the extent feasible in the 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 gas 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.

2. Cover System: A site cover currently exists and will be maintained to allow commercial use of the site. Any site redevelopment will maintain a site cover, which may consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper one foot of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where a soil cover is required it will be a minimum one foot of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for commercial use. The soil cover will be placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

3. Institutional Controls: Imposition of an institutional control in the form of an environmental easement for the controlled property that:

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

4. 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 4 above.

Engineering Controls: The vapor intrusion (VI) mitigation system installed to address the potential for VI into on-site structures and a portion of the adjacent off-site parcel, and the site cover system implemented as part of an Interim Remedial Measure.

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 and any new buildings developed at the adjacent and off-site parcel that currently has a mitigation system operating, 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;
- a provision for further investigation to refine the nature and extent of contamination in the footprint of the on-site building should the building be demolished or redeveloped in such way that provides access to previously inaccessible areas; Any necessary remediation will be completed prior to, or in association with, redevelopment;

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

- monitoring of groundwater for site-related contamination and performance indicators to assess the effectiveness of the interim remedial measure (IRM) with provisions to develop and implement additional injections if necessary or to evaluate alternative remedies should the injections be ineffective or unsatisfactory to the Department. The evaluation of periodic

monitoring will be performed as part of the periodic review;

- long-term monitoring of groundwater to assess the performance and effectiveness of natural attenuation with provisions to evaluate and implement contingency remedial action should the natural attenuation not be effective. Groundwater will be monitored for site-related contamination and continue until tetrachloroethylene and its degradation products achieve either ambient water quality standards or asymptotic levels acceptable to the Department;
- monitoring for vapor intrusion for any new buildings developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above;
- continued monitoring of sub-slab vapor and indoor air at an off-site building as discussed in Section 6.3;
- a schedule of monitoring and frequency of submittals to the Department;

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 systems. The plan includes, but is not limited to:

- procedures for operating and maintaining the system(s); and
- compliance inspection of the systems 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.

November 19, 2014
Date

George Heitzman, Director
Remedial Bureau C

DECISION DOCUMENT

1-5 Holland Avenue
White Plains, Westchester County
Site No. C360115
November 2014

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 repositories:

White Plains Public Library
Attn: Ms. Kathy Degyansky
100 Martine Avenue
White Plains, NY 10601
Phone: 914-422-1400

NYSDEC Region 3 Office
21 South Putt Corners
New Paltz, NY 12561
Phone: 845-256-3000

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 1-5 Holland Avenue, White Plains, Westchester County. It is bordered to the west by the Metro-North Railroad, and to the south by the White Plains Rural Cemetery. The site is located west of NYS Route 22 and about 1 mile north of the intersection of I-287 and NYS Route 22.

Site Features: The site consists of a former manufacturing facility and its surrounding asphalt parking area which is currently utilized as a self-storage facility. The single building consists of four interconnected sections, often times referred to as “Buildings 1-4”. The approximately 0.65 acre property is fully developed with a building and parking lots and little or no green space. Current and intended use of the site is commercial.

Current Zoning and Land Use: The site, as well as properties immediately to the north and east, are zoned as “L1,” light industrial. The cemetery to the south and the municipal park beyond the Metro-North Railroad to the west are zoned residential one family. Other nearby properties are zoned with a combination of residential multi-family, residential one and two family, and neighborhood business.

Past Use of the Site: The property was first developed as an automobile repair and painting facility in the 1930s. Various storage and manufacturing businesses operated at the site since, including a swimming pool manufacturer and showroom in the 1950s and an electronics and metal parts machining company in the 1960s. Feintool New York, Inc., conducted manufacturing of metal parts for several industrial uses at the property from 1971 to 2008. Solvent degreasing was part of these manufacturing processes. Most recently, the site housed an auto detailer business in an isolated section of the building, referred to as “Building 3,” from 2011 until 2013.

Site Geology and Hydrogeology: Based on information to date, the site is underlain by 0.5 feet to 5 feet of sandy fill, followed by a sand from 15 to 17 feet below ground surface (bgs), underlain by glacial till. Bedrock is present between 20 and 24 feet bgs. The groundwater table is approximately 12 to 18 bgs in the overburden, flowing to the west/northwest toward the Bronx River.

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

One or more of the Applicants under the Brownfield Cleanup Agreement is a Participant. The Participant(s) has/have an obligation to address on-site and off-site contamination. 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:

- air
- groundwater
- surface water
- soil

- 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:

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

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

- groundwater
- surface water
- soil
- soil vapor intrusion
- 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.

The following IRM(s) has/have been completed at this site based on conditions observed during the RI.

In-Situ Chemical Oxidation

To treat tetrachloroethylene (PCE)-impacted groundwater in the suspected source areas and to prevent further migration of PCE contamination in overburden and shallow bedrock groundwater, in situ chemical oxidation (ISCO) was performed in June of 2013. Base activated sodium persulfate was injected into ten well clusters in an approximately 1,100 square foot area inside the building, and two vertical intervals 10-20 feet below ground surface (overburden) and 20-48 feet below ground surface (shallow bedrock). Results from the July 2014 sampling indicated that concentrations of PCE in overburden and shallow bedrock wells within the injection area are 14 percent and 66 percent lower respectively when compared to levels immediately before the injections. A second round of ISCO injections occurred in September 2014.

Vapor Mitigation System

To mitigate the potential for soil vapor intrusion at the adjacent off-site 7-11 Holland Avenue property, a horizontal extraction system was installed beneath the floor level of the site building (1-5 Holland Avenue) and the slab of 7-11 Holland Avenue. This system was connected to 1-5 Holland Avenue's already existing vapor intrusion mitigation system, and now draws soil vapors from this point to a roof top exhaust on 1-5 Holland Avenue. The entire vapor mitigation system is depicted in Figure 3. At the time of installation, the depressurization under the western portion of the slab now induced by the suction point was found to be suitable to effectively remove soil vapor.

Surface Soil Excavation

Almost 90% of the site is covered by asphalt or building. Exposed surface soils which did not meet Part 375-6.8 soil cleanup objectives for commercial use were removed to a depth of 1 foot and disposed off-site at an approved facility. Excavated soils were backfilled with gravel meeting DER-10 5.4 requirements for imported material.

6.3: Summary of Environmental Assessment

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

Based upon investigations conducted to date, the primary contaminants of concern at the site are tetrachloroethylene (PCE) and its breakdown products, metals, and semi-volatile organic compounds (SVOCs). These contaminants are present in soil, groundwater, and PCE is noted in soil vapor.

Soil: Subsurface soil analytical results from the suspected source area beneath the building slab and in the location of former floor drains did not indicate the presence of PCE above soil cleanup objectives (SCOs). However, field screening tools in combination with groundwater analytical results suggest that a source of PCE is present. SVOCs in the form of polycyclic aromatic hydrocarbons (PAHs), which are common urban contaminants and by products of fuels and combustion, were detected at levels exceeding SCOs in the small patches of surface soils at the site. Arsenic and mercury in the shallow subsurface exceed SCOs in three and two soil boring locations respectively, at maximum concentrations of 98 parts per million (ppm) arsenic and 10.5 ppm mercury. These levels are believed to be associated with the urban fill at the site. There is no indication that site-related soil impacts extend off-site.

Groundwater: Groundwater impacts exist within overburden (15 -25' bgs) and shallow bedrock groundwater (45-55' bgs) at the site. Results of groundwater sampling to date indicate the presence of PCE in groundwater on-site and along the hydraulically downgradient western edge of the property above the NYS Class GA groundwater standard of 5 parts per billion (ppb). The source area wells had the highest concentrations of PCE at 1,020 ppb and 6,140 ppb, respectively. Off-site downgradient wells had lesser PCE impacts in groundwater, from 26 ppb in overburden wells to as much as 250 ppb in shallow bedrock wells.

Soil vapor and indoor air: Prior to installation of a soil vapor mitigation systems, soil vapor intrusion was occurring in the on-site building. PCE concentrations were found as high as 43 ug/m3 in the indoor air, which exceeded the NYSDOH indoor air guideline for PCE of 30 ug/m3. The building owner voluntarily installed a soil vapor mitigation system in April 2009 before entering the Brownfield Cleanup Program which continues to operate. Soil vapor intrusion sampling indicated that the sub-slab concentrations beneath the western portion of the adjacent property were elevated. In July 2013, a horizontal suction point was successfully extended from the southwest corner of the on-site building to under the slab of the adjacent building which increased the radius of influence of the sub-slab depressurization system (SSDS). An off-site building across Holland Avenue to the north of the site is currently undergoing annual monitoring of sub-slab soil vapor and indoor air due to the presence of site-related PCE and degradation products in the sub-slab soil vapor.

Special Resources: The site is located in a commercial area of the City of White Plains. Surface water drainage flows to the Bronx River about 500 yards to the west, with Metro North rail lines in between. PCE contamination of surface water downstream of the site was found in the river at a concentration of 7 parts per billion (ppb), however, upstream samples also contained PCE contamination in similar concentrations to that found adjacent to and downstream of the site. Therefore, the impact of the site on the Bronx River is considered minimal.

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 contaminated water because the area is served by a public water system that obtains water from a source not affected by this contamination. Since the site is covered by asphalt or concrete, people will not come into contact with site-related soil and groundwater contamination unless they dig below the surface. 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 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. An active sub-slab depressurization system (system that ventilates/removes the air beneath the building) has been installed in the on-site building, with an extension to include the adjacent off-site building to the east. The potential for soil vapor intrusion to impact indoor air in the off-site building to the north of the site is being addressed through a monitoring program.

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 4: Restricted use with site-specific soil cleanup objectives remedy.

The selected remedy is referred to as the Natural Attenuation and Site Monitoring remedy.

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

1. Green Remediation: Green remediation principals principles and techniques will be implemented to the extent feasible in the 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 gas 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.

2. Cover System: A site cover currently exists and will be maintained to allow commercial use of the site. Any site redevelopment will maintain a site cover, which may consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper one foot of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where a soil cover is required it will be a minimum one foot of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for commercial use. The soil cover will be placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

3. Institutional Control: Imposition of an institutional control in the form of an environmental easement for the controlled property that:

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

4. 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 4 above.

Engineering Controls: The vapor intrusion (VI) mitigation system installed to address the potential for VI into on-site structures and a portion of the adjacent off-site parcel, and the site cover system implemented as part of an Interim Remedial Measure.

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 and any new buildings developed at the adjacent and off-site parcel that currently has a mitigation system operating, 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;
• a provision for further investigation to refine the nature and extent of contamination in the footprint of the on-site building should the building be demolished or redeveloped in such way that provides access to previously inaccessible areas; Any necessary remediation will be completed prior to, or in association with, redevelopment;

b. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
• monitoring of groundwater for site-related contamination and performance indicators to assess the effectiveness of the interim remedial measure (IRM) with provisions to develop and implement additional injections if necessary or to evaluate alternative remedies should the injections be ineffective or unsatisfactory to the Department. The evaluation of periodic monitoring will be performed as part of the periodic review;

• long-term monitoring of groundwater to assess the performance and effectiveness of the natural attenuation with provisions to evaluate and implement contingency remedial action should the natural attenuation not be effective; groundwater will be monitored for site-related contamination and continue until tetrachloroethylene and its degradation products achieve either ambient water quality standards or asymptotic levels acceptable to the Department;
• monitoring for vapor intrusion for any new buildings developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above;
• continued monitoring of sub-slab vapor and indoor air at an off-site building as discussed in Section 6.3;
• a schedule of monitoring and frequency of submittals to the Department;

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 systems. The plan includes, but is not limited to:
• procedures for operating and maintaining the system(s); and
• compliance inspection of the systems to ensure proper O&M as well as providing the data for any necessary reporting.

FIGURE 1

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LEGEND

SITE BORDER

BCP NO. C360115
1-5 HOLLAND AVENUE
WHITE PLAINS, NEW YORK

SITE LOCATION MAP

N

0 65 130 260
Feet

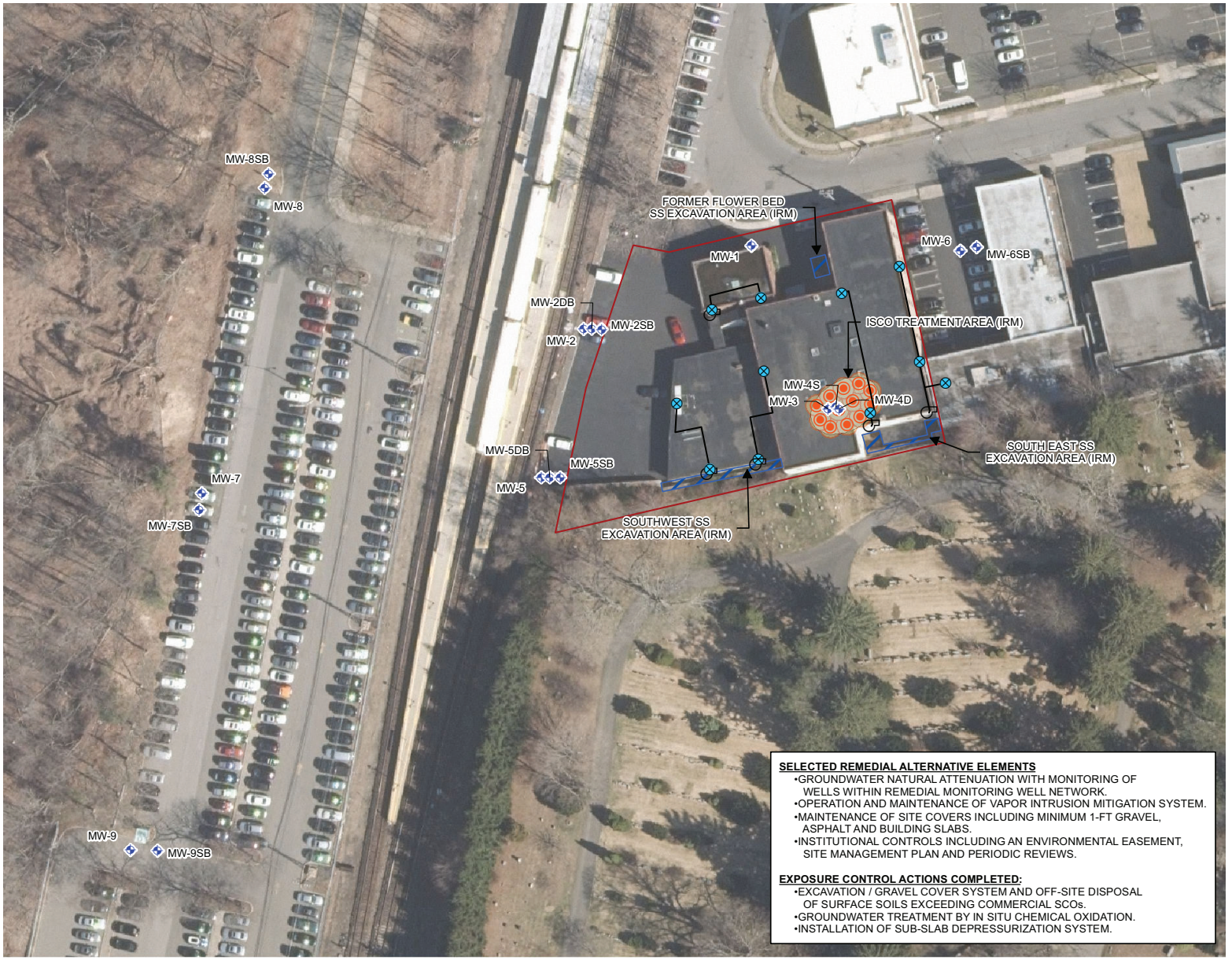
APRIL 2013
14206.47376

O'BRIEN & GERE

I:\Fenbol-Ny, 14206\STDS\GIS\White-Plains\MXD\Selected_Remedial.mxd

PLOTDATE: 10/07/14 2:28:13 PM stantosa

FIGURE 2



This document was developed in color. Reproduction in B/W may not represent the data as intended.

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LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- MONITORING WELL *(ALL DEPICTED GW MONITORING WELLS ARE WIHTIN THE REMEDIAL MONITORING NETWORK.)*
- EXCAVATION / GRAVEL COVER
- INJECTION WELL CLUSTER LOCATION

PREVIOUSLY INSTALLED IRM

- EXHAUST FAN
- SYSTEM SUCTION POINT
- SYSTEM SUCTION PIPING

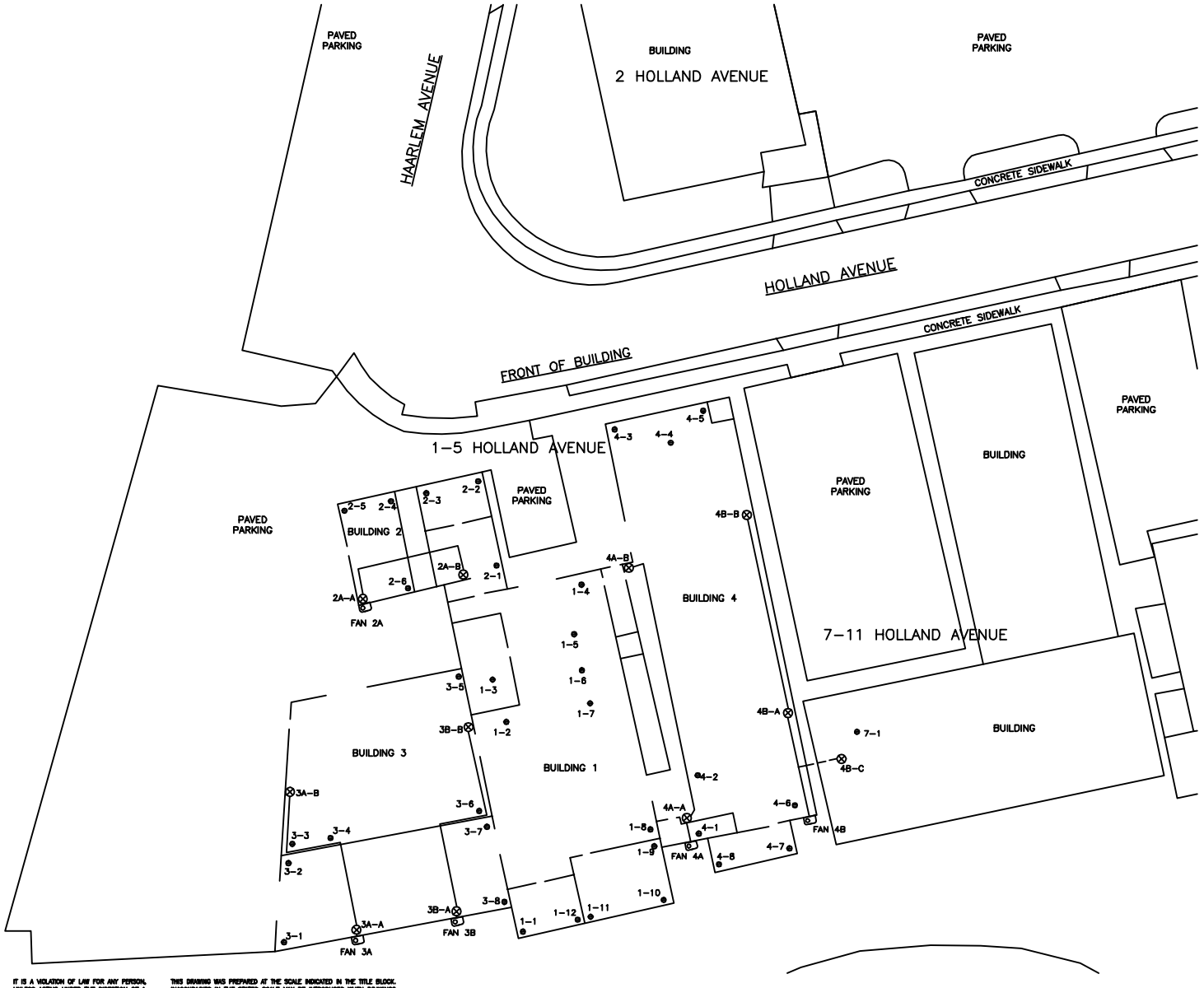
BROWNFIELD CLEANUP
PROGRAM NO. C360115
1-5 HOLLAND AVENUE
WHITE, PLAINS, NY

SELECTED REMEDIAL ALTERNATIVE

0 30 60 120
Feet

OCTOBER 2014
14206.47376

O'BRIEN & GERE



LEGEND

- EXISTING WALL
- SYSTEM SUCTION POINT (SSP)
- COMMUNICATION TEST POINT (CTP)
- EXHAUST PIPE
- EXHAUST FAN
- HORIZONTAL SUB-SLAB SUCTION POINT

FLOOR PLAN

BUILDING AREA – ~14,480 SQ. FT.

GENERAL NOTES:

1. THE BUILDING AND SYSTEM LAYOUTS WERE DERIVED FROM A 2009 SKETCH PROVIDED BY ENVIRO TESTING.
2. THE LOCATION OF WALLS, SYSTEM SUCTION POINTS, SYSTEM PIPING AND COMMUNICATION TEST POINTS ARE APPROXIMATE.
3. POST-MITIGATION TEST RESULTS WERE OBTAINED PRIOR TO POST-MITIGATION INDOOR AIR SAMPLING BY O'BRIEN & GERE IN MARCH 2013.

IN CHARGE OF EMA
DESIGNED BY ____ CHECKED BY ____
DRAWN BY EMA

NO.	DATE	REVISION	INIT.

O'BRIEN & GERE
333 W. WASHINGTON STREET
SYRACUSE, NY 13221

LOCATION OF SSD SYSTEMS

BROWNFIELD SITE MANAGEMENT PLAN
1-5 HOLLAND AVENUE
WHITE PLAINS, NEW YORK

FILE NO. 14206.47376
DATE OCTOBER 2014

FIGURE 3