

DECISION DOCUMENT

CE - Zerega Ave. Station
State Superfund Project
Bronx, Bronx County
Site No. 203110
November 2018



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

DECLARATION STATEMENT - DECISION DOCUMENT

CE - Zerega Ave. Station
State Superfund Project
Bronx, Bronx County
Site No. 203110
November 2018

Statement of Purpose and Basis

This document presents the remedy for the CE - Zerega Ave. Station site, a Class 2 inactive hazardous waste disposal 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, and is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300), as amended.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the CE - Zerega Ave. Station 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. 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 and off-site treatment/disposal of MGP contaminated soil from the 500,000 cubic foot gas holder and the on-site substation. The excavation would remove:

- grossly contaminated soil, as defined in 6 NYCRR Part 375-1.2(u);

- non-aqueous phase liquids;

- soil containing total SVOCs exceeding 500 ppm; and

- soils that create a nuisance condition, as defined in Commissioner Policy CP-51 Section G.

Excavation of impacts would be completed to a depth of approximately 12 feet. The initial estimate is for the removal of approximately 1,200 cubic yards of MGP contaminated soil from the gas holder and substation areas. This estimate will be further refined during a remedial design program to more fully delineate the extent of contamination to be removed.

On-site soil which does not exceed the above excavation criteria or the protection of groundwater SCOs for any constituent may be used anywhere beneath the cover system, including below the water table, to backfill the excavation or re-grade the site. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to establish the designed grades at the site.

3. Cover System

A site cover will be required to allow for commercial/industrial use of the site in areas where the upper one foot of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where a soil cover is to be used it will be a minimum of one foot 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 for the use of the site as set forth in 6 NYCRR Part 375-6.7(d). Substitution of other materials and components may be allowed where such components already exist or are a component of the tangible property to be placed as part of site redevelopment. Such components may include, but are not necessarily limited to: pavement, concrete, paved surface parking areas, sidewalks, building foundations and building slabs.

4. 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 and industrial 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 NYCDOH; and
- require compliance with the Department approved Site Management Plan.

5. 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 site 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 occupied buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 3 above will be placed in any areas where the upper one foot of exposed surface soil exceed the applicable soil cleanup objectives (SCOs);
- 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. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

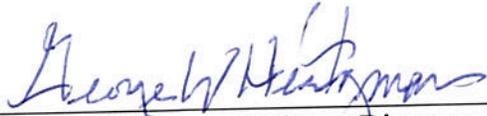
- monitoring of groundwater to assess the performance and effectiveness of the remedy;
- a schedule of monitoring and frequency of submittals to the Department;
- monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed 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.

November 26, 2018

Date



George Heitzman, Assistant Director
Division of Environmental Remediation

DECISION DOCUMENT

CE - Zerega Ave. Station
Bronx, Bronx County
Site No. 203110
October 2018

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.

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:

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 approximately 1.8 acres in size, located in an urban area in the Unionport section of the Bronx, New York. The site is bordered by Watson Avenue to the

north, Zerega Avenue to the east, Blackrock Avenue to the south, and private property to the west. The Unionport MGP site is located just east of the site.

Site Features: The site is made up of two adjacent parcels:

- 1) A school bus parking lot and active maintenance facility that includes a large two-story service garage and fueling station. The facility is covered with asphalt pavement and concrete.
- 2) An electrical substation that is owned and operated by Con Edison. The fenced-in substation is covered with gravel, grass, and vegetation. Both parcels are securely fenced.

Current Zoning and Land Use: The site is zoned for commercial use. The surrounding parcels are currently used for commercial and light industrial purposes. The nearest residential building is a senior citizens apartment building located approximately 100 yards to the west.

Past Use of the Site: Historic MGP operations were conducted by Con Edison at the adjacent Unionport Works site between 1905 and 1927. The Zerega site was used principally for above-ground storage of fuel for the MGP and storage of gas produced at the Unionport site.

Geology and Hydrogeology: The site is underlain by fill material ranging in thickness from 3 to 23 feet, which lies directly on bedrock. The water table is approximately 10 feet below the ground surface. Groundwater flows eastward, toward Westchester Creek.

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 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

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers.

The PRPs for the site, documented to date, include:

Consolidated Edison Co of NY, Inc.

Acute Realty, Inc.

ConEdison

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

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 hazardous

waste 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:

- Coal Tar
- Polycyclic Aromatic Hydrocarbons (PAHs), total
- Benzene, toluene, ethylbenzene and xylenes (BTEX)

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 and groundwater were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals and polychlorinated biphenyls (PCBs). Based upon investigations conducted to date, the primary contaminants of concern include MGP coal tar and the related VOCs benzene, toluene, ethylbenzene and xylene (BTEX) and polyaromatic hydrocarbons (PAHs).

Soil - MGP contamination is generally limited to the eastern part of the site in areas where former MGP-related structures were located. Impacts include stained soil, sheens and blebs (droplets) of non-aqueous phase liquid (NAPL). The depth of observed contamination varied and ranged from approximately seven to twelve feet deep. The thicknesses of impacts ranged from several inches to approximately two feet. The most significant contamination appears to have migrated off-site under Zerega Avenue, where contamination was observed at a thickness of nearly ten feet at one location.

Soil concentrations of SVOCs and cyanide exceed the soil cleanup objectives (SCOs) for protection of groundwater, commercial and industrial use. Soil concentrations of BTEX also exceed the SCOs for protection of groundwater.

Groundwater - BTEX and SVOC impacts have been observed exceeding groundwater quality standards near the site. Groundwater impacts were not detected in the upgradient wells or in the well located in the center of the site. However, groundwater impacts were observed towards the eastern part of the site. Total BTEX compounds were measured at 148 parts per billion (ppb) in MW-4. This well is downgradient of the source and is located just off-site to the east. The ambient groundwater quality standards for benzene, toluene, ethyl benzene and individual xylenes are 1 ppb, 5 ppb, 5 ppb and 5 ppb, respectively. Naphthalene was also detected in this well at 40 ppb, compared to its groundwater standard of 10 ppb.

6.4: Summary of Human Exposure Pathways

People may contact contaminated soils if they dig below the site cover. People are not drinking the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. Volatile organic compounds in the groundwater and 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. The process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. The potential exists for inhalation of site contaminants due to soil vapor intrusion for any occupied on-site buildings or future on-site development. Environmental sampling indicates soil vapor intrusion is not a concern for off-site buildings.

6.5: Summary of the Remediation Objectives

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

The remedial action objectives for this site are:

Groundwater

RAOs for Public Health Protection

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

RAOs for Environmental Protection

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- 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.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.
- Prevent impacts to biota from ingestion/direct contact with soil causing toxicity or impacts from bioaccumulation through the terrestrial food chain.

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.

The selected remedy is referred to as the Soil Excavation with Engineering and Institutional Controls remedy.

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

1. 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;

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- Require compliance with the Department approved Site Management Plan.

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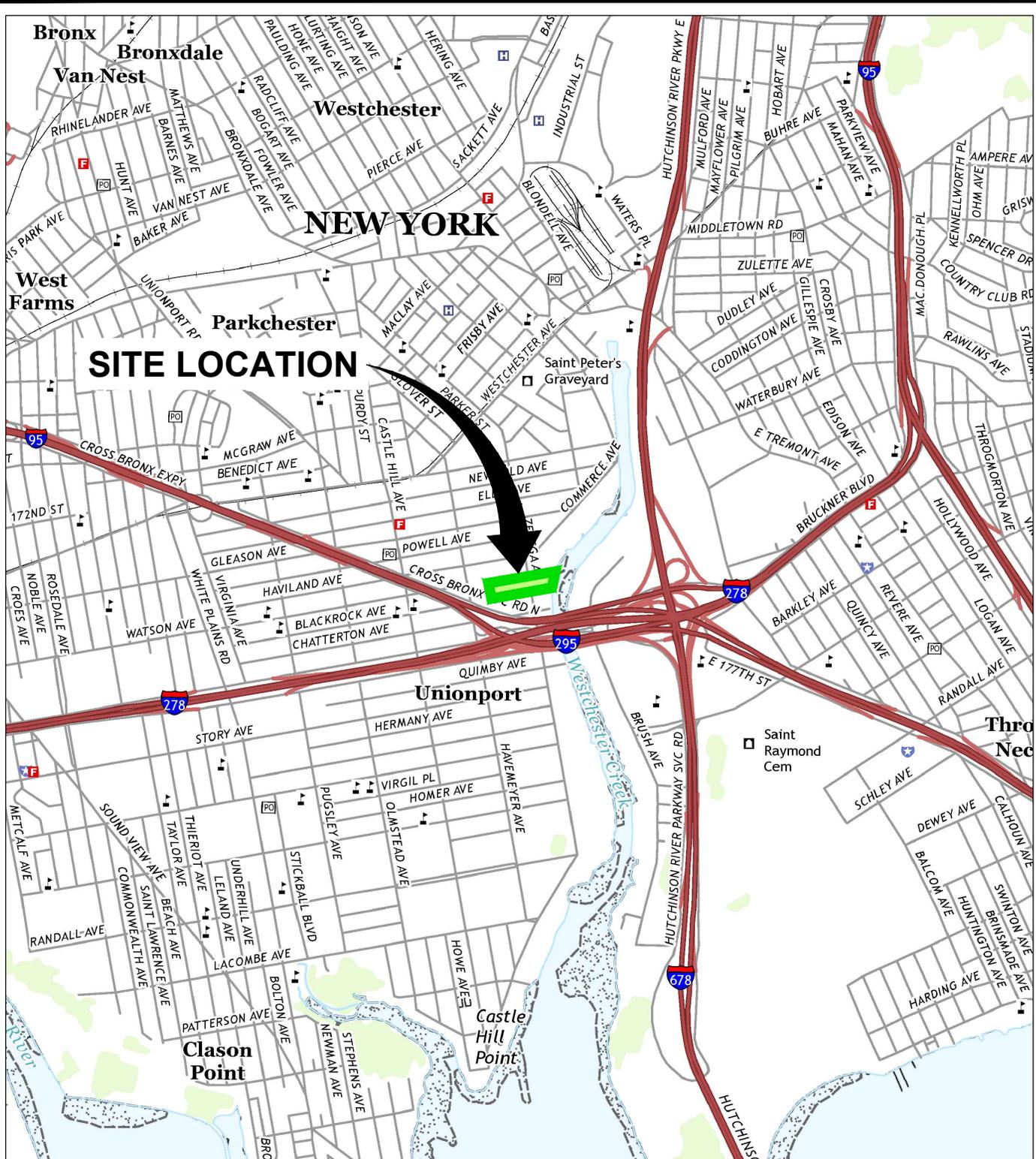
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- a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 3 above will be placed in any areas where the upper one foot of exposed surface soil exceed the applicable soil cleanup objectives (SCOs);
- 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.

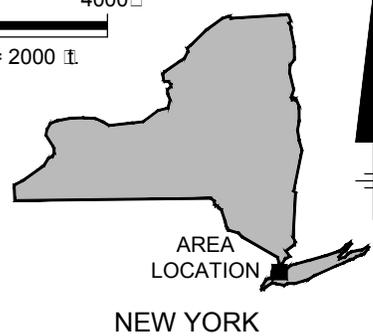
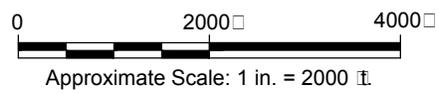
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REFERENCE: BASE MAP USGS 7.5. MIN. TOPO. □ UAD., FLUSHING, NY, 2016.



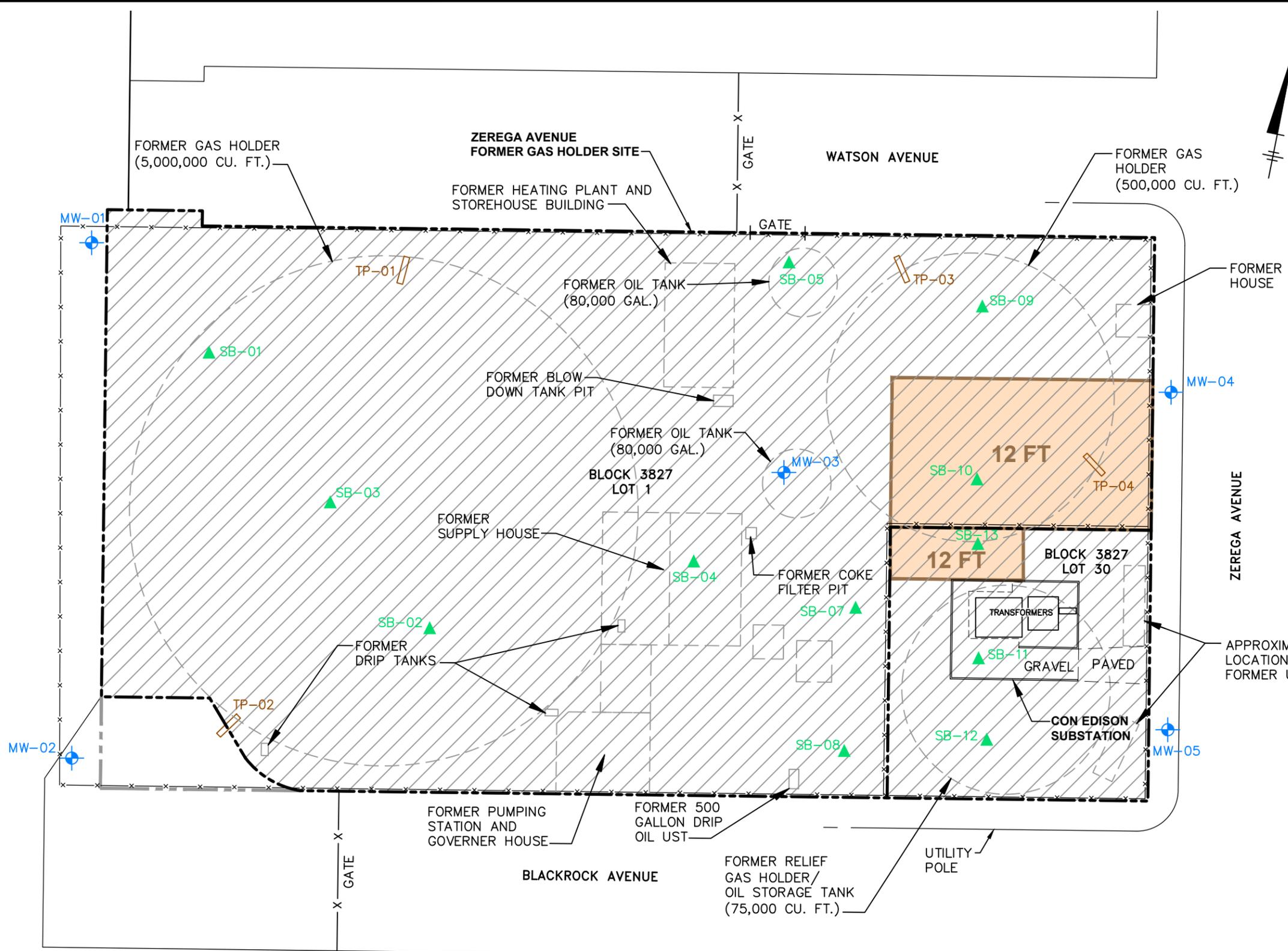
CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
 FORMER ZEREGA AVENUE GAS HOLDER SITE
ALTERNATIVES ANALYSIS REPORT

SITE LOCATION MAP

ARCADIS Design & Consultancy
for natural asset
built assets

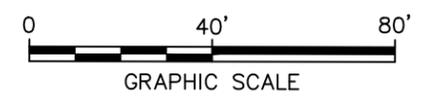
FIGURE **1**

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LEGEND:

- x—x— CHAINLINK FENCE
- — — — — PROPERTY BOUNDARY
- MW-05 MONITORING WELL
- SB-12 SOIL BORING
- TP-02 TEST PIT
- - - - - FORMER MGP STRUCTURES
- LIMITS AND DEPTH OF EXCAVATION AREA
- AREA SUBJECT TO DEED RESTRICTIONS/ENVIRONMENTAL EASEMENT



- NOTES:**
1. BASEMAP PREPARED FROM SURVEY BY MUÑOZ ENGINEERING P.C., 2008. AERIAL PHOTO FROM GOOGLE – IMAGERY, 2008.
 2. ALL HORIZONTAL COORDINATES ARE BASED ON NAD 1983–96, STATE PLANE COORDINATE SYSTEM – NEW YORK EAST ZONE (3101).
 3. ALL ELEVATIONS REFER TO NAVD 1988 VERTICAL DATUM.

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
 FORMER ZEREGA AVENUE GAS HOLDER SITE
ALTERNATIVES ANALYSIS REPORT

**ALTERNATIVE 3
 TARGETED EXCAVATION**

ARCADIS Design & Consultancy
for natural and built assets

FIGURE
14