DECISION DOCUMENT

Former Refron Inc. Gas Reclamation Site
Brownfield Cleanup Program
Long Island City, Queens County
Site No. C241285
May 2026

NEW YORK STATE | Department of Environmental Conservation

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

DECLARATION STATEMENT - DECISION DOCUMENT

Former Refron Inc. Gas Reclamation Site
Brownfield Cleanup Program
Long Island City, Queens County
Site No. C241285
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Statement of Purpose and Basis

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

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (NYSDEC) for the Former Refron Inc. Gas Reclamation Site and the public's input to the proposed remedy presented by NYSDEC.

Description of Selected Remedy

The elements of the selected remedy are as follows:

1. **Remedial Design**

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

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gases and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals;
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development; and
- Additionally, to incorporate green remediation principles and techniques, any future on-site buildings which are part of the remedy should be constructed, to the extent feasible,

to meet the 2020 Energy Conservation Construction Code of New York (or most recent edition) in order to improve energy efficiency as an element of construction.

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

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

2. Excavation

The existing on-site buildings will be demolished and materials which cannot be beneficially reused on site will be taken off-site for proper disposal in order to implement the remedy.

Excavation and off-site disposal of all on-site soils which exceed restricted-residential SCOs, as defined by 6 NYCRR Part 375-6.8 in the upper 15 feet. If a Track 2 restricted residential cleanup is achieved, a Cover System will not be a required element of the remedy. Collection and analysis of confirmation and documentation samples at the remedial excavation depths will be used to verify that SCOs for the site have been achieved. If confirmation/documentation sampling indicates that SCOs were not achieved at the stated remedial depth, the Applicant must notify DEC, submit the sample results and, in consultation with DEC, determine if further remedial excavation is necessary. Further excavation for development will proceed after confirmation samples demonstrate that SCOs for the site have been achieved.

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

3. Backfill

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

4. Vapor Mitigation Systems

Any on-site buildings will be required to have a sub-slab depressurization system, or other acceptable measures, to mitigate the migration of vapors into the building from the subsurface.

5. Institutional Control

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

- require the remedial party or site owner to complete and submit to the NYSDEC a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allow the use and development of the controlled property for restricted residential use, commercial use 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 NYCDOHMH; and
- require compliance with the NYSDEC 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 Remedy Element 5 above.
   - Engineering Controls: The vapor mitigation system discussed in Remedy Element 4 above.

   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, groundwater, surface water use restrictions;
   - provisions for the management and inspection of the identified engineering controls;
   - maintaining site access controls and NYSDEC 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 soil vapor to assess the performance and effectiveness of the remedy; and
- a schedule of monitoring and frequency of submittals to the NYSDEC.

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. The plan includes, but is not limited to:
   - procedures for operating and maintaining the system; and
   - compliance inspection of the system 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 NYSDEC guidance, as appropriate. The remedy is protective of public health and the environment.

5/4/2026
Date

Jane H. O'Connell, P.G.
Regional Remediation Engineer

DECISION DOCUMENT

Former Refron Inc. Gas Reclamation Site
Long Island City, Queens County
Site No. C241285
May 2026

SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (NYSDEC), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal of contaminants at the site has resulted in threats to public health and the environment that would be addressed by the remedy. The disposal or release of contaminants at this site, as more fully described in this document, has contaminated various environmental media. Contaminants include hazardous waste and/or petroleum.

The New York State Brownfield Cleanup Program (BCP) is a voluntary program. The goal of the BCP is to enhance private-sector cleanups of brownfields and to reduce development pressure on "greenfields." A brownfield site is real property, where a contaminant is present at levels exceeding the soil cleanup objectives or other health-based or environmental standards, criteria or guidance, based on the reasonably anticipated use of the property.

NYSDEC has issued this document in accordance with the requirements of New York State Environmental Conservation Law and 6 NYCRR Part 375. This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: CITIZEN PARTICIPATION

NYSDEC seeks input from the community on all remedies. A public comment period was held during which the public was encouraged to submit comments on the proposed remedy. All comments on the remedy received during the comment period were considered by NYSDEC in selecting a remedy for the site. Site-related reports and documents were made available for review by the public at the following document repositories:

DECInfo Locator - Web Application
https://gisservices.dec.ny.gov/gis/dil/index.html?rs=C241285

Long Island City Library
37-44 21 Street
Long Island City, NY 11101
Phone: (718) 752-3700

Queens Community Board 1
45-02 Ditmars Boulevard, LL Suite 1025
Astoria, NY 11105
Phone: (718) 626-1021

Receive Site Citizen Participation Information By Email

Please note that NYSDEC's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at http://www.dec.ny.gov/chemical/61092.html

SECTION 3: SITE DESCRIPTION AND HISTORY

Site Location:

The site is located in Long Island City, Queens, NY 11101 and consists of 3 tax parcels:
-Block 381, Lot 5, 33-18 33rd Street
-Block 381, Lot 16, 32-20 38th Avenue
-Block 381, Lot 12, 32-10 38th Avenue

The site is bounded to the north by 38th Avenue followed by residential and commercial buildings; to the south by a 10-story mixed use building and a public facility and institution property utilized by MTA; to the east by 33rd Street; and to the west by 32nd Street followed by buildings used for manufacturing and mixed use.

Site Features:
The site was occupied by three buildings, two of which have since been demolished. The former building on Lot 16 was a two-story brick building constructed in 1947, and the former building on Lot 5 was a three-story stucco and brick warehouse building constructed in 1949. The building on Lot 12 is a 2 story residential building that is vacant. The site is currently occupied by a parking lot and the foundation of the two former buildings.

Current Zoning and Land Use:
The site is currently located in the M1-3/R7X and M1-2/R6A Zones. The site is currently vacant but was most recently used for warehouse space. The surrounding properties are home to a mix of residential, commercial, and industrial uses. The closest residential areas directly border the site to the north and west.

Past Use of the Site:
Lot 16 was undeveloped until 1947 when a fireproof structure was built, and a chemical laboratory began operations that lasted until 1970. Between 1977 and 1986, the building was

used for manufacturing, including by NY Chain Manufacturing Co. and American LaFrance. From 1986 until 2021, the site was used by Refron Inc. for reclamation of refrigerant gases, as well as testing and storage of refrigerants.

Lot 5 was home to a few dwellings, a contractor's yard, and a shed from 1888 until 1949, as well as some auto shops during this time frame. By 1947, a fireproof structure was built, and a pipe cutter began using the building. From 1970 until 1980, the site was occupied by a plumbing supply warehouse and a contractor's staging area. From 1985 until 2021, the site was used by Refron Inc. for reclamation and storage of refrigerant gases, with office space on the second floor. AirGas Refrigerants Inc. and ASPEN Refrigerants also operated on the site during this time frame. A spill was reported on Lot x in March 2019, resulting from an equipment failure that spilled approximately 20 gallons of diesel fuel on the asphalt. The spill was cleaned up, and NYSDEC closed the case the same month.

Lot 12 has been used for residential dwellings since 1898.

Site Geology and Hydrogeology:
According to the United States Geological Survey (USGS) Topographic Quadrangle the site sits 28 feet above mean sea level. The topographic gradient of the site slopes towards the east southeast. The soil on the site is classified as urban land. The stratigraphy of the site, from the surface down, consists of a historic urban fill layer extending to approximately 5 feet below the majority of site and consisting primarily of brown and dark brown fine to medium sand with varying amounts of gravel, concrete, asphalt, glass, and silt, and native soils from 5 to 15 feet consisting of primarily brown sand/silt mixtures, with traces of gravel and weathered rock.

Groundwater is located between 14.5 and 18 feet below ground surface (ft bgs) at the site and flows west towards the East River, which is located approximately 0.94 miles from the site. Bedrock is present approximately 95 ft bgs.

A site location map is attached as Figure 1 and a site layout is attached as Figure 2.

SECTION 4: LAND USE AND PHYSICAL SETTING

NYSDEC may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, an alternative that restricts the use of the site to restricted-residential use (which allows for commercial use and 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 Applicants under the Brownfield Cleanup Agreement are Volunteers. The Applicants do not

have an obligation to address off-site contamination. However, NYSDEC has determined that this site does pose a significant threat to public health or the environment.

The Department will seek to identify any parties (other than the Volunteers) known or suspected to be responsible for contamination at or emanating from the site, referred to as Potentially Responsible Parties (PRPs). The Department will bring an enforcement action against the PRPs. If an enforcement action cannot be brought or does not result in the initiation of a remedial program by any PRPs, the Department will evaluate the off-site contamination for action under the State Superfund. The PRPs are subject to legal actions by the State for recovery of all response costs the State incurs or has incurred.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A remedial investigation (RI) serves as the mechanism for collecting data to:

- characterize site conditions;
- determine the nature of the contamination; and
- assess risk to human health and the environment.

The RI is intended to identify the nature (or type) of contamination which may be present at a site and the extent of that contamination in the environment on the site or leaving the site. The RI reports on data gathered to determine if the soil, groundwater, soil vapor, indoor air, surface water or sediments may have been contaminated. Monitoring wells are installed to assess groundwater and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface water bodies or wetlands, the water and sediment may be sampled as well. Based on the presence of contaminants in soil and groundwater, soil vapor will also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available for review in the site document repository, and the results are summarized in section 6.3.

The analytical data collected on this site includes data for:

- groundwater
- soil
- soil vapor
- indoor air

6.1.1: Standards, Criteria, and Guidance (SCGs)

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

To determine whether the contaminants identified in various media are present at levels of

concern, the data from the RI were compared to media-specific SCGs. NYSDEC has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. For a full listing of all SCGs see: http://www.dec.ny.gov/regulations/61794.html

6.1.2: RI Results

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

lead
trichloroethene (TCE)
tetrachloroethene (PCE)
benzo(a)anthracene
arsenic
toluene
trichloromonofluoromethane
cis-1,2-dichloroethene
carbon tetrachloride
benzo(a)pyrene
benzo(k)fluoranthene
benzo(b)fluoranthene
chromium

The contaminants of concern exceed the applicable SCGs for:

- groundwater
- soil
- soil vapor intrusion

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, polychlorinated biphenyls (PCBs), per- and polyfluoroalkyl substances (PFAS), 1,4-dioxane, pesticides, and herbicides. Soil vapor and

indoor air samples were analyzed for VOCs. Based upon investigations conducted to date, the primary contaminants of concern for the site are SVOCs and metals in soil, and chlorinated VOCs in soil vapor and indoor air.

Soil - Sample results were compared against the restricted residential soil cleanup objectives (RRSCO). The highest concentrations of SVOCs were detected in shallow non-native material in the southwestern portion of the site at 0 to 2 ft bgs, including maximum concentrations of benzo(a)anthracene at 31.4 part per million, or ppm (RRSCO of 1.4 ppm); benzo(a)pyrene at a maximum concentration of 29 ppm (RRSCO of 1 ppm); benzo(b)fluoranthene at a maximum concentration of 27.6 ppm (RRSCO of 1.4 ppm); and benzo(k)fluoranthene at a maximum concentration of 26 ppm (RRSCO is 4.9 ppm). The highest concentration of metals were identified in non-native material between 0 and 12 feet bgs along the eastern and the southwestern portions of the site, including lead at a maximum concentration of 3,720 ppm (RRSCO of 400 ppm) and arsenic at a maximum concentration of 25.7 ppm (RRSCO of 16 ppm). Pesticides, VOCs, PCBs and PFAS were not detected in soil above RRSCOs or restricted residential guidance values.

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

Groundwater - VOCs were detected exceeding the NYSDEC Ambient Water Quality Standards and Guidance Value (AWQSGVs) in monitoring wells on the southern portion of the site including maximum concentrations of tetrachloroethene (PCE) at 54 parts per billion, or ppb, (AWQSGV of 5 ppb); toluene at 15 ppb (AWQSGV of 5 ppb); trichloroethene (TCE) at 79 ppb (AWQSGV is 5 ppb); and trichloromonofluoromethane at 76 ppb (AWQSGV is 5 ppb). Dissolved metals in groundwater included maximum concentrations of chromium at 63.1 ppb (AWQSGV is 50 ppb) and selenium at 10.5 ppb (AWQSGV is 10 ppb). One pesticide, dieldrin, was detected in the eastern portion of the site at a maximum concentration of 0.149 ppb (AWQSGV is 0.004 ppb). For PFAS, perfluorooctanoic acid (PFOA) at a maximum concentration of 170 parts per trillion, or ppt (AWQSGV is 6.7 ppt) and perfluorosufonic acid (PFOS) at a maximum concentration of 10.7 ppt (AWQSGV of 2.7 ppt). SVOCs, and PCBs were not detected above the AWQSGVs in any groundwater samples.

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

Soil Vapor and Indoor Air - Elevated levels of chlorinated VOCs were detected in soil vapor throughout the site with the highest concentrations located in the north, central and western portion of the site. 1,1,1-trichloroethane was detected at a maximum concentration of 21,000 micrograms per cubic meters (ug/m^3) in soil vapor. PCE was detected at a maximum concentration of 44,000 ug/m^3 in soil vapor. TCE was detected at a maximum concentration of 130,000 ug/m^3 in soil vapor. Cis-1,2-Dichloroethene was detected at a maximum concentration of 190 ug/m^3 in soil vapor. Carbon tetrachloride was detected at a maximum concentration of 28 ug/m^3 in soil vapor. PCE was detected in indoor air on Lot 12 with a maximum concentration of 3 ug/m^3.

Data indicates the potential for off-site impacts in soil vapor related to the site.

6.4: Summary of Human Exposure Pathways

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

Direct contact with contaminants in the soil is unlikely because the majority of the site is covered with building foundations and pavement. 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 soil vapor (air spaces within the soil) may move into 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. Soil vapor intrusion does not represent a concern on this site in its current condition, as there are no occupied on-site structures. However, the potential exists for inhalation of site contaminants due to soil vapor intrusion for any future on-site development. Environmental sampling indicates the potential exists for inhalation of site contaminants in indoor air due to soil vapor intrusion 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.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.

Soil Vapor

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

SECTION 7: ELEMENTS OF THE SELECTED REMEDY

The alternatives developed for the site and the evaluation of the remedial criteria are presented in the Alternative Analysis. The remedy is selected pursuant to the remedy selection criteria set forth in DER-10, Technical Guidance for Site Investigation and Remediation and 6 NYCRR Part 375.

The selected remedy is a Track 2: Restricted Residential use with generic soil cleanup objectives remedy.

The selected remedy is referred to as the Excavation and Sub-Slab Depressurization System (SSDS) remedy.

The elements of the selected remedy, as shown in Figure 3 and 4, 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;
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- Additionally, to incorporate green remediation principles and techniques, any future on-site buildings which are part of the remedy should be constructed, to the extent feasible, to meet the 2020 Energy Conservation Construction Code of New York (or most recent edition) in order to improve energy efficiency as an element of construction.

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project design specifications will include detailed requirements to achieve the green and sustainable remediation goals. Further, progress with respect to green and sustainable remediation metrics will be tracked during implementation of the remedial action and reported in the Final Engineering Report (FER), including a comparison to the goals established during the remedial design program.

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

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Any on-site buildings will be required to have a sub-slab depressurization system, or other acceptable measures, to mitigate the migration of vapors into the building from the subsurface.

5. Institutional Control

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

- require the remedial party or site owner to complete and submit to the NYSDEC a

periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);

- allow the use and development of the controlled property for restricted residential use, commercial use and industrial use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
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a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:
   - Institutional Controls: The Environmental Easement discussed in Remedy Element 5 above.
   - Engineering Controls: The vapor mitigation system discussed in Remedy Element 4 above.

   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, groundwater, surface water use restrictions;
   - provisions for the management and inspection of the identified engineering controls;
   - maintaining site access controls and NYSDEC 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 soil vapor to assess the performance and effectiveness of the remedy; and
   - a schedule of monitoring and frequency of submittals to the NYSDEC.

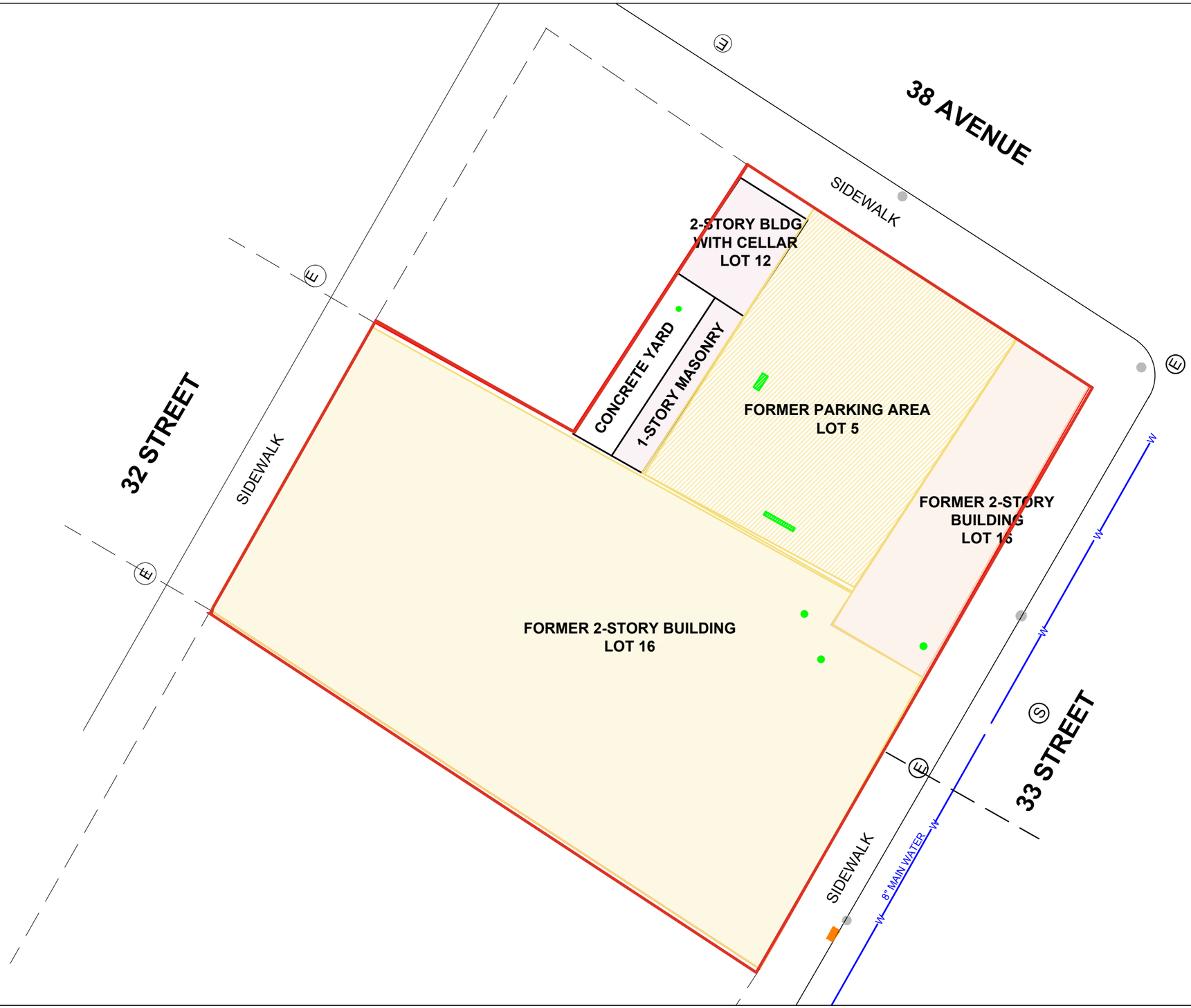
c. an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, inspection, and reporting of any mechanical or physical components of the active vapor mitigation system. The plan includes, but is not limited to:
   - procedures for operating and maintaining the system; and
   -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

vEKtor consultants

BASE MAP: USGS 7.5 MIN. 2019

FIGURE 1: SITE LOCATION
REPORT: RAWP
SITE: 32-20 38TH AVENUE & 38-18 33RD STREET
QUEENS, NY

Figure 1



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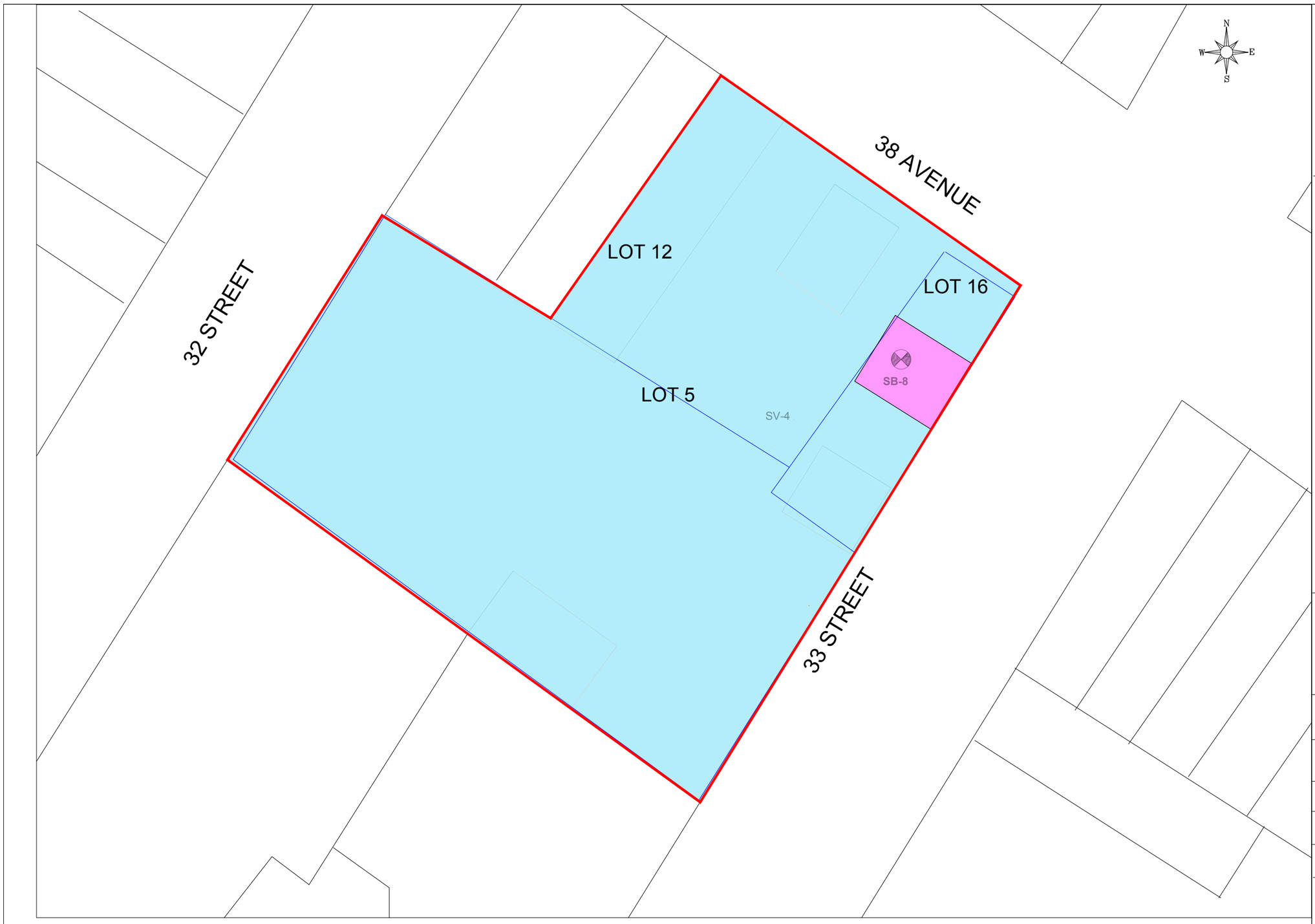
Legend:

- BCP Site Boundary
- Former Building Footprint on Lot 16
- Former Building Footprint on Lot 5
- Paved Parking Footprint on Lot 5
- Building Footprint on Lot 12
- Electrical Manhole
- Sewer Manhole
- Floor Drain
- Metal Cover
- Utility Pole

Scale: 0 25' 50'

Figure No.	2
Figure Name:	SITE PLAN
Report:	RAWP
Date:	3/13/2026
Drawn By:	EK
Site Address:	32-10 38TH AVENUE, 32-20 38TH AVENUE & 38-13 33RD STREET QUEENS, NEW YORK



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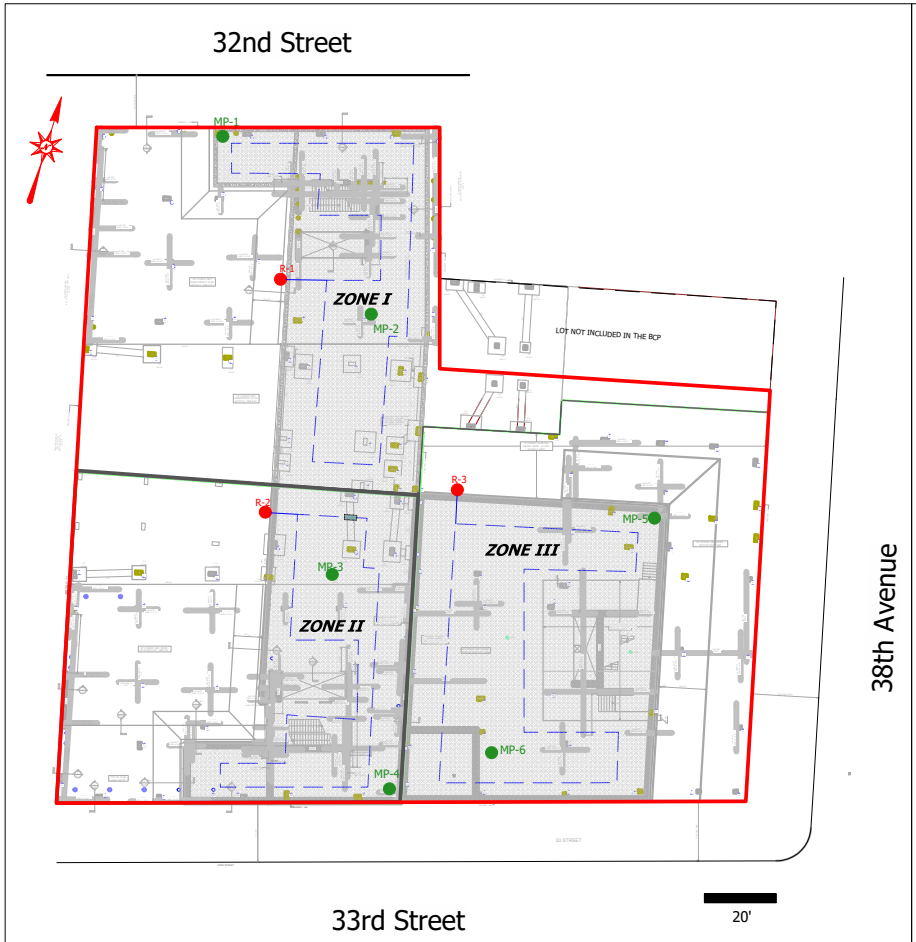
Legend:

- Site Boundary
- Building Boundary
- Sitewide Excavation to ~2 feet min
- Excavation to ~12 feet min

Scale: 0 25' 50'

Figure No.	3
Figure Name:	TRACK 2 EXCAVATION MAP
Report:	RAWP
Date:	4/3/2026
Drawn By:	KB
Site Address:	32-10 38TH AVENUE, 32-20 38TH AVENUE & 38-13 33RD STREET QUEENS, NEW YORK



CELLAR PLAN

FIRST FLOOR PLAN

LEGEND

- Proposed Sleeve
- Monitoring Point
- SSDS Riser Location
- BCP Site Boundary
- 4" Perforated PVC SSDS Pipe (Wrapped with Filter Fabric)
- Cellar Footprint
- 4" Solid PVC Pipe

NOTES:

1. If there is sufficient headspace between the groundwater table and the bottom of the cellar slab, then SSDS piping will be installed as proposed below the cellar slab.
2. The proposed active SSDS for the cellar consists of three (3) loops, one in each building cellar, and six (6) monitoring points.
3. The proposed active SSDS piping for the first floor consists of four (4) loops and eight (8) monitoring points.
4. Cast-iron sleeves may need to be used through grade beams or footings depending on foundation layout.
5. Riser locations to be finalized after MEP and RA coordination.

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PROJECT

38-18 33RD STREET
LONG ISLAND CITY, NY 11101

TITLE:

PROPOSED ACTIVE SSDS LAYOUT
Figure 4

SEAL & SIGNATURE:

DATE: APR 21, 2026
PROJECT No:
DRAWING BY: AK
CHK BY:
DWG No:
CADD FILE No: