DECISION DOCUMENT

HIP Cleaners (Rochdale Village Mall #2)
Brownfield Cleanup Program
Queens, Queens County
Site No. C241166
May 2020

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

DECLARATION STATEMENT - DECISION DOCUMENT

HIP Cleaners (Rochdale Village Mall #2)
Brownfield Cleanup Program
Queens, Queens County
Site No. C241166
May 2020

Statement of Purpose and Basis

This document presents the remedy for the HIP Cleaners (Rochdale Village Mall #2) 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 HIP Cleaners (Rochdale Village Mall #2) site and the public's input to the proposed remedy presented by the Department.

Description of Selected Remedy

The elements of the selected remedy are as follows:

1. Remedial Design

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

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gases and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. Cover System

A site cover currently exists in areas not occupied by buildings and will be maintained to allow for commercial use of the site. Any site redevelopment will maintain the existing site cover. The site cover may include paved surface parking areas, sidewalks or soil where the upper one foot of exposed surface soil meets the applicable soil cleanup objectives (SCOs) for commercial use. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6NYCRR part 375-6.7(d).

3. Soil Vapor Extraction (SVE)

Soil vapor extraction (SVE) will be implemented to remove volatile organic compounds (VOCs) from the subsurface. VOCs will be physically removed from the soil by applying a vacuum to wells that have been installed into the vadose zone (the area below the ground but above the water table). The vacuum draws air through the soil matrix which carries the VOCs from the soil to the SVE well. The air extracted from the SVE wells is then treated as necessary prior to being discharged to the atmosphere. The details of the SVE system will be determined during the remedial design. Prior to start up, the air containing VOCs extracted from the SVE wells will be tested to determine whether treatment is needed prior to it being discharged to the atmosphere.

4. In-Situ Chemical Oxidation

In-situ chemical oxidation (ISCO) will be implemented to treat perchloroethylene and trichloroethylene in groundwater. The oxidant, such as a solid form of potassium permanganate, will be placed into the subsurface via an encapsulated reactant cylinder into the existing on-site groundwater monitoring well to destroy the contaminants in the northern portion of the site near the dry-cleaning equipment and where chlorinated VOCs were elevated in the groundwater. This method would provide controlled oxidant release in saturated soils and groundwater. Details will be determined during the remedial design.

Monitoring for VOCs will be required up-gradient, down-gradient, and within the treatment zone. The reactant cylinder will be removed from the monitoring well two weeks prior to periodic groundwater sampling. The treatment zone will be monitored for dissolved oxygen and oxidation/reduction potential.

5. Vapor Mitigation

The site (on-site space within Rochdale Mall #2) or any new building built within the site footprint will be required to have a sub-slab depressurization system, or other acceptable measures, to mitigate the migration of vapors into the building from soil and/or groundwater. The sub-slab depressurization system installed on the remainder of the Rochdale Village Mall #2 (off-site) as an interim remedial measure will continue to operate continuously. Post mitigation tests including pressure field testing and indoor air sampling will be conducted to verify that the SSDS is effectively reducing potential for exposure associated with soil vapor intrusion.

6. 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 commercial use or 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.

7. 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 above.
   - Engineering Controls: The cover system, soil vapor extraction system, groundwater treatment, and vapor mitigation system discussed 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 and groundwater use restrictions;
- a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 2 above will be placed in any areas where the upper one foot of exposed surface soil exceeds 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 and soil vapor to assess the performance and effectiveness of the remedy; and
   - a schedule of monitoring and frequency of submittals to the Department.

c) an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, optimization, monitoring, inspection, and reporting of any mechanical or physical components of the remedy. The plan includes, but is not limited to:
   - procedures for operating and maintaining the remedy;
   - compliance monitoring of treatment systems to ensure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;
   - maintaining site access controls and Department notification; and
   - providing the Department access to the site and O&M records.

Treatment Remedy Shutdown

The operation of the components of the remedy will continue until the remedial objectives have been achieved, or until the Department determines that continued operation is technically impracticable or not feasible.

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.

May 26, 2020

Date

Gerard Burke, Director
Remedial Bureau B

DECISION DOCUMENT

HIP Cleaners (Rochdale Village Mall #2)
Queens, Queens County
Site No. C241166
May 2020

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:

DECInfo Locator - Web Application
https://gisservices.dec.ny.gov/gis/dil/index.html?rs=C241166

Queens Community Board No. 12
Attn: Yvonne Reddick
90-28 161st Street
Jamaica, NY 11432
Phone: (718) 658-3308

Queens Library - Rochdale Village

Attn: Jasmine Harrison
169-09 137th Ave
Jamaica, NY 11434
Phone: (718) 723-4440

Receive Site Citizen Participation Information By Email

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

SECTION 3: SITE DESCRIPTION AND HISTORY

Location:
HIP Rochdale Cleaners is located in an urban area in the Jamaica section of Queens, NY and is identified as a portion of Lot 2, Block 12495. The address is 169-47 137th Avenue.

Site Features:
The site is a single unit (0.076 acres) in a commercial building (Rochdale Village Mall #2) in Rochdale Village, a 115-acre development. A parking lot is located adjacent to the mall. The closest residential building is about 500 feet to the west and there is a school about 260 feet to the east.

Current Zoning and Land Use:
The site and surrounding mall are zoned C4-2 (commercial) and is occupied by a dry cleaner.

Past Use of the Site:
The site was once part of Jamaica Horse Racing Track. Rochdale Village was developed between 1962-1965. A dry cleaner has operated in this portion of the mall since the mid to late 1960s.

Site Geology and Hydrogeology:
Soil beneath the site consists mostly of sand with some areas of silt and fill. Depth to groundwater varies from 6 to 13 feet below grade. Groundwater flow direction is to the south.

The site location maps are attached as Figures 1 and 2.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, alternatives (or an alternative) that restrict(s) the use of the site to commercial use (which allows for industrial use) as described in Part 375-1.8(g) were/was evaluated in addition to an alternative

which would allow for unrestricted use of the site.

A comparison of the results of the Remedial Investigation (RI) to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is available in the RI Report.

SECTION 5: ENFORCEMENT STATUS

The Applicant under the Brownfield Cleanup Agreement is a Participant. The Applicant has 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:

- groundwater
- soil
- soil vapor
- indoor air
- sub-slab vapor

6.1.1: Standards, Criteria, and Guidance (SCGs)

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

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

6.1.2: RI Results

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

tetrachloroethene (PCE) trichloroethene (TCE)

The contaminant(s) 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.

The following IRM is being completed at this site based on conditions observed during the RI.

Sub-Slab Depressurization System

A sub-slab depressurization system (SSDS) was designed to address the potential for soil vapor intrusion from contamination underlying the site and other stores that comprise the commercial building (off-site). The SSDS was installed across the entire commercial building and is comprised of nine suction pits. The system fans are expected to be installed and the systems start up testing completed in June 2020. Verification testing that will consist of pressure field extension tests and indoor air sampling will be conducted to verify the effectiveness of the SSDS.

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.

Nature and Extent of Contamination:
Soil and groundwater were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs) and pesticides. Groundwater was also analyzed for emerging contaminants per/polyfluorinated alkyl substances (PFAS) and 1,4 dioxane. Based upon investigations conducted to date, the primary contaminant of concern is tetrachloroethene (PCE) and its degradation product, trichloroethene (TCE).

Soil - PCE was detected at a maximum concentration of 79 parts per million (ppm), which exceeds the applicable protection of groundwater soil cleanup objective (SCO) of 1.3 ppm, but below the commercial use SCO of 150 ppm. No SVOCs, metals, PCBs, or pesticides were detected above the commercial use SCOs. Data does not indicate any off-site impacts in soil related to this site.

Groundwater - PCE was the only VOC detected above the Ambient Water Quality Standards (AWQS). PCE was detected at 52 parts per billion (ppb), above the AWQS of 5 ppb, in a sample adjacent to the former dry-cleaning equipment. This location corresponds with the location of the highest PCE concentrations in soil. PCE was detected at off-site locations, with a maximum concentration of 20 ppb. No SVOCs, dissolved metals, pesticides, or PCBs were detected above AWQS.

For PFAS, perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) were reported at concentrations of up to 56.5 and 38.6 parts per trillion (ppt), respectively, exceeding the 10 ppt screening levels for groundwater for each. No individual PFAS exceeded the 100 ppt screening level. The total concentration of PFAS, including PFOA and PFOS, were reported at concentrations of up to 141 ppt, below the 500 ppt screening level for total PFAS in groundwater. 1,4-dioxane was not detected.

Soil Vapor & Indoor Air - Sub-slab soil vapor samples were collected at six locations on-site and off-site within the footprint of Mall #2. Six exterior and off-site soil vapor sample points were installed to confirm and delineate previously identified impacts. PCE was detected in the one on-site sub-slab soil vapor at a concentration of 403,000 micrograms per cubic meter (ug/m3). TCE was detected at concentrations up to 1,240 ug/m3 in sub-slab soil vapor. Off-site sub slab soil vapor samples collected beneath other areas of the Mall #2 building identified PCE at a maximum concentration of 780,000 ug/m3 and TCE at a maximum concentration of 2,790 ug/m3. One indoor air sample was collected in Mall #2 in the commercial unit adjacent to the site which had a PCE concentration of 37 ug/m3 and had a concentration of 0.27 ug/m3 of TCE. Soil vapor samples collected at the exterior of the mall indicated levels of PCE up to 1,340 ug/m3. Additional soil vapor points were installed to evaluate vapor migration toward the nearby residential building and public school, and PCE was detected at a maximum of 4.75 ug/m3. Data indicates that contaminants in soil vapor are limited to the Rochdale Mall #2 building and that actions are not needed at other off-site buildings.

An IRM was approved to install a sub-slab depressurization system (SSDS) beneath the mall building.

6.4: Summary of Human Exposure Pathways

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

Access to the site is unrestricted. Contact with contaminated soil or groundwater is unlikely unless people dig below the ground surface. 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 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. The potential exists on-site and off-site for inhalation exposures to site contamination via the soil vapor intrusion pathway.

6.5: Summary of the Remediation Objectives

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

The remedial action objectives for this site are:

Groundwater

RAOs for Public Health Protection

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

RAOs for Environmental Protection

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Remove the source of ground or surface water contamination.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil.

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 Soil and Groundwater Treatment, Vapor Mitigation and Cover System remedy.

The elements of the selected remedy, as shown in Figures 3-8, are as follows:

1. Remedial Design

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

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gases and other emissions;
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- 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. Cover System

A site cover currently exists in areas not occupied by buildings and will be maintained to allow for commercial use of the site. Any site redevelopment will maintain the existing site cover. The site cover may include paved surface parking areas, sidewalks or soil where the upper one foot of exposed surface soil meets the applicable soil cleanup objectives (SCOs) for commercial use. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6NYCRR part 375-6.7(d).

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Soil vapor extraction (SVE) will be implemented to remove volatile organic compounds (VOCs)

from the subsurface. VOCs will be physically removed from the soil by applying a vacuum to wells that have been installed into the vadose zone (the area below the ground but above the water table). The vacuum draws air through the soil matrix which carries the VOCs from the soil to the SVE well. The air extracted from the SVE wells is then treated as necessary prior to being discharged to the atmosphere. The details of the SVE system will be determined during the remedial design. Prior to start up, the air containing VOCs extracted from the SVE wells will be tested to determine whether treatment is needed prior to it being discharged to the atmosphere.

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Monitoring for VOCs will be required up-gradient, down-gradient, and within the treatment zone. The reactant cylinder will be removed from the monitoring well two weeks prior to periodic groundwater sampling. The treatment zone will be monitored for dissolved oxygen and oxidation/reduction potential.

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The site (on-site space within Rochdale Mall #2) or any new building built within the site footprint will be required to have a sub-slab depressurization system, or other acceptable measures, to mitigate the migration of vapors into the building from soil and/or groundwater. The sub-slab depressurization system installed on the remainder of the Rochdale Village Mall #2 (off-site) as an interim remedial measure will continue to operate continuously. Post mitigation tests including pressure field testing and indoor air sampling will be conducted to verify that the SSDS is effectively reducing potential for exposure associated with soil vapor intrusion.

6. 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 commercial use or 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.

7. Site Management Plan

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

d) 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 above.
- Engineering Controls: The cover system, soil vapor extraction system, groundwater treatment, and vapor mitigation system discussed 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 and groundwater use restrictions;
- a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 2 above will be placed in any areas where the upper one foot of exposed surface soil exceeds 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.

e) a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
   - monitoring of groundwater and soil vapor to assess the performance and effectiveness of the remedy; and
   - a schedule of monitoring and frequency of submittals to the Department.

f) an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, optimization, monitoring, inspection, and reporting of any mechanical or physical components of the remedy. The plan includes, but is not limited to:
   - procedures for operating and maintaining the remedy;
   - compliance monitoring of treatment systems to ensure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;
   - maintaining site access controls and Department notification; and
   - providing the Department access to the site and O&M records.

Treatment Remedy Shutdown

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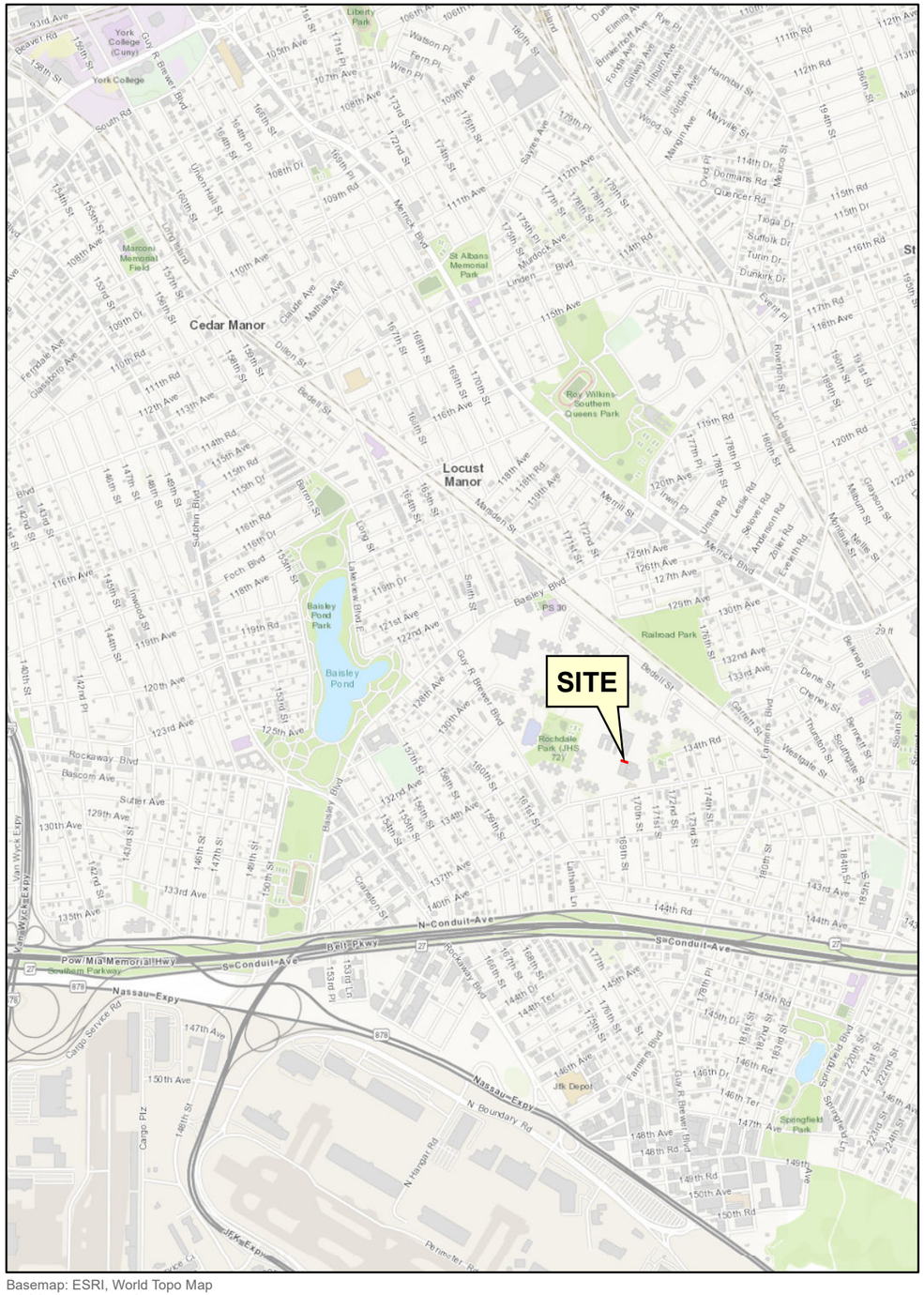
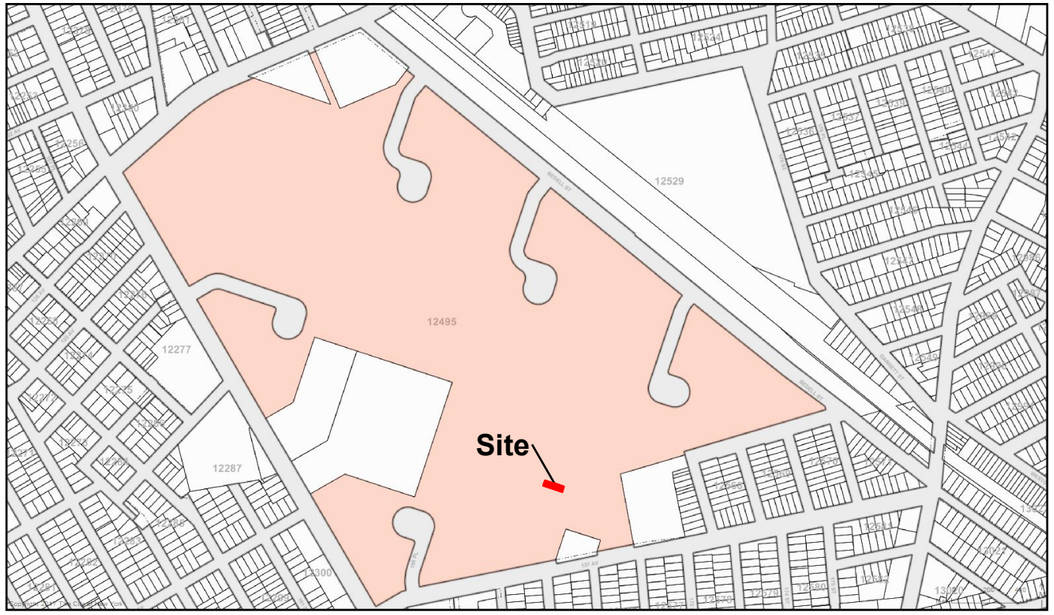


Basemap: ESRI, World Topo Map
USGS Jamaica, NY Quandrangle

Site Location

0 1,000 2,000 4,000 Feet



http://gis.nyc.gov/taxmap/map.htm

Department of Finance Digital Tax Map

0 400 800 1,600 Feet

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
NYC Department of City Planning, Information Technology Division

Department of City Planning MapPLUTO - 2016 v2

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Client

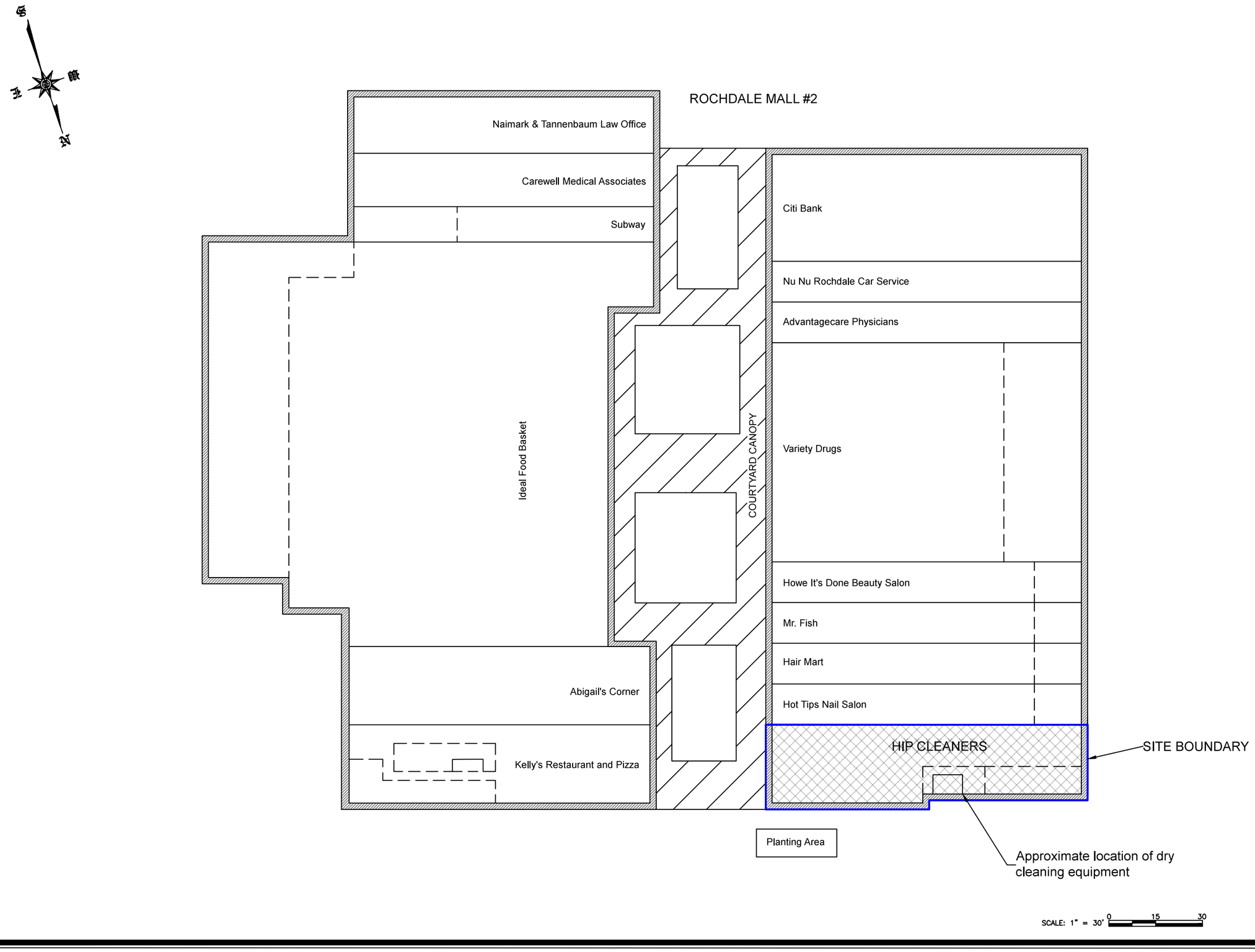
HIP Cleaners
Rochdale Village
169-47 137th Avenue
Jamaica, Queens

Drawing Title

Site Location Map

Drawing No

Figure 1

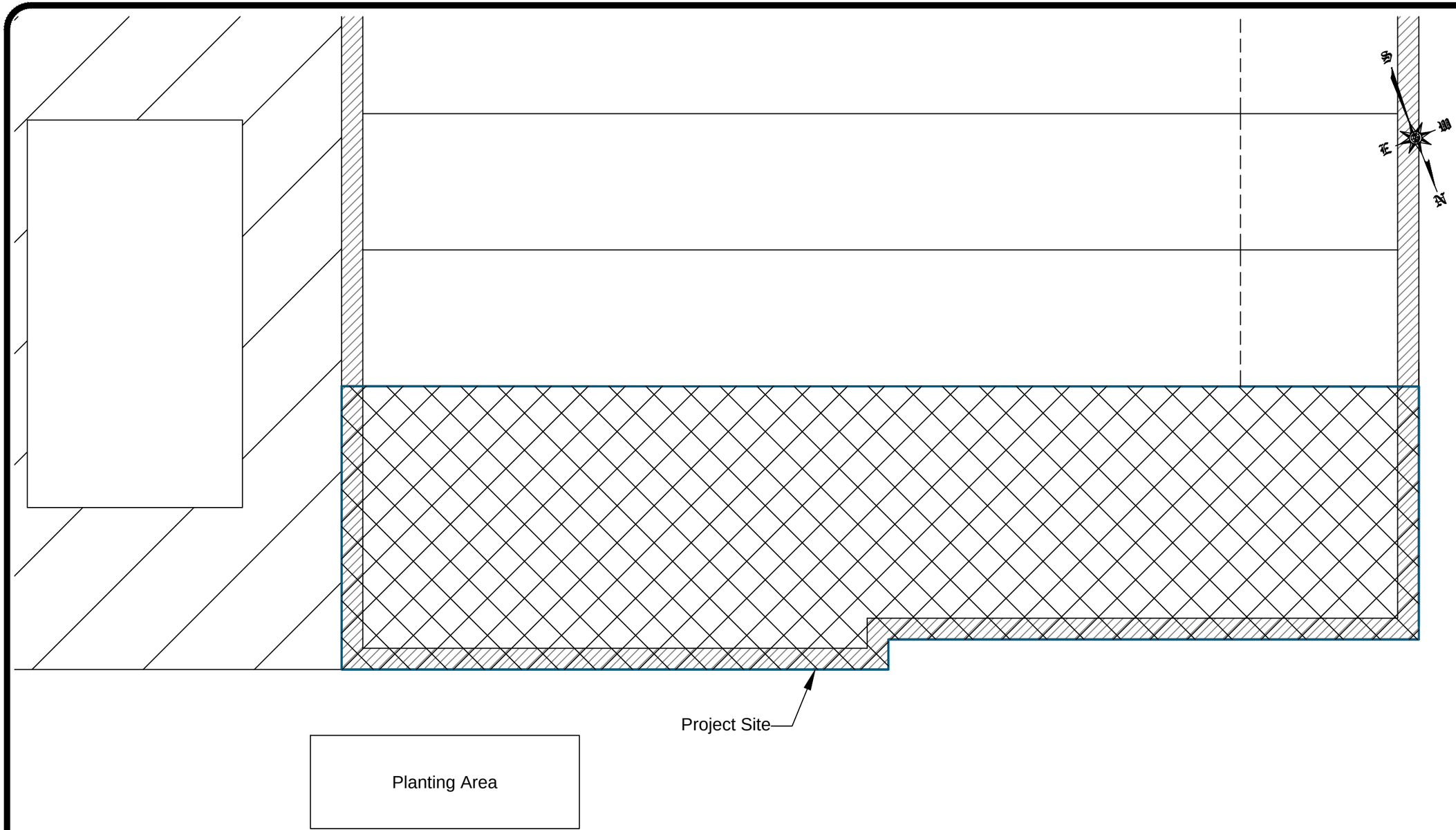


CLIENT

HIP Cleaners
Rochdale Village
BCP # C241166
169-47 137th Avenue
Jamaica, Queens

DRAWING TITLE.
FIGURE 2

DRAWING NO.
SITE LAYOUT

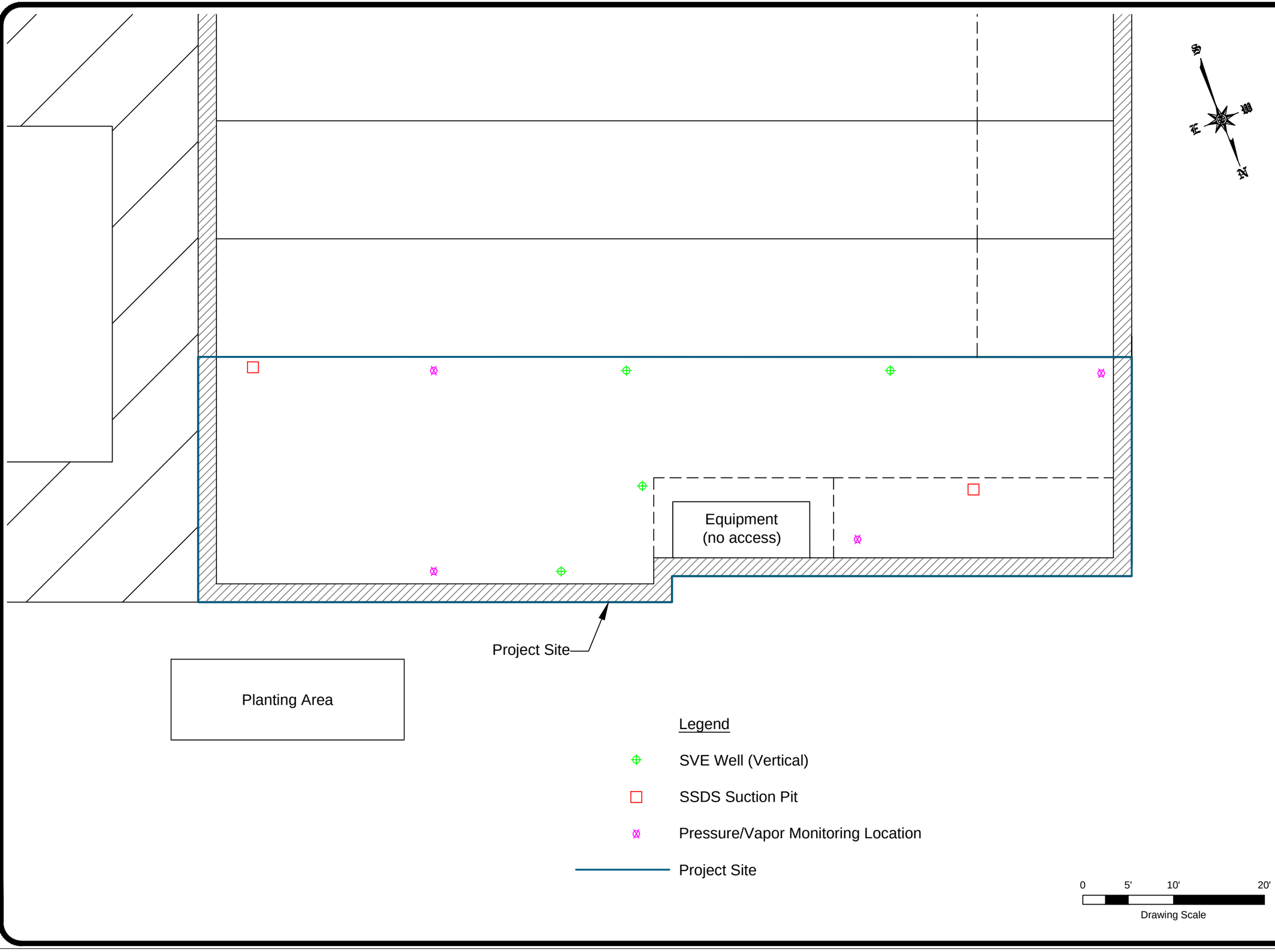


HIP Cleaners
Rochdale Village
169-47 137th Avenue
Jamaica, Queens

SITE

DRAWING TITLE.
Extent of Concrete Cover System

DRAWING NO.
Figure 3

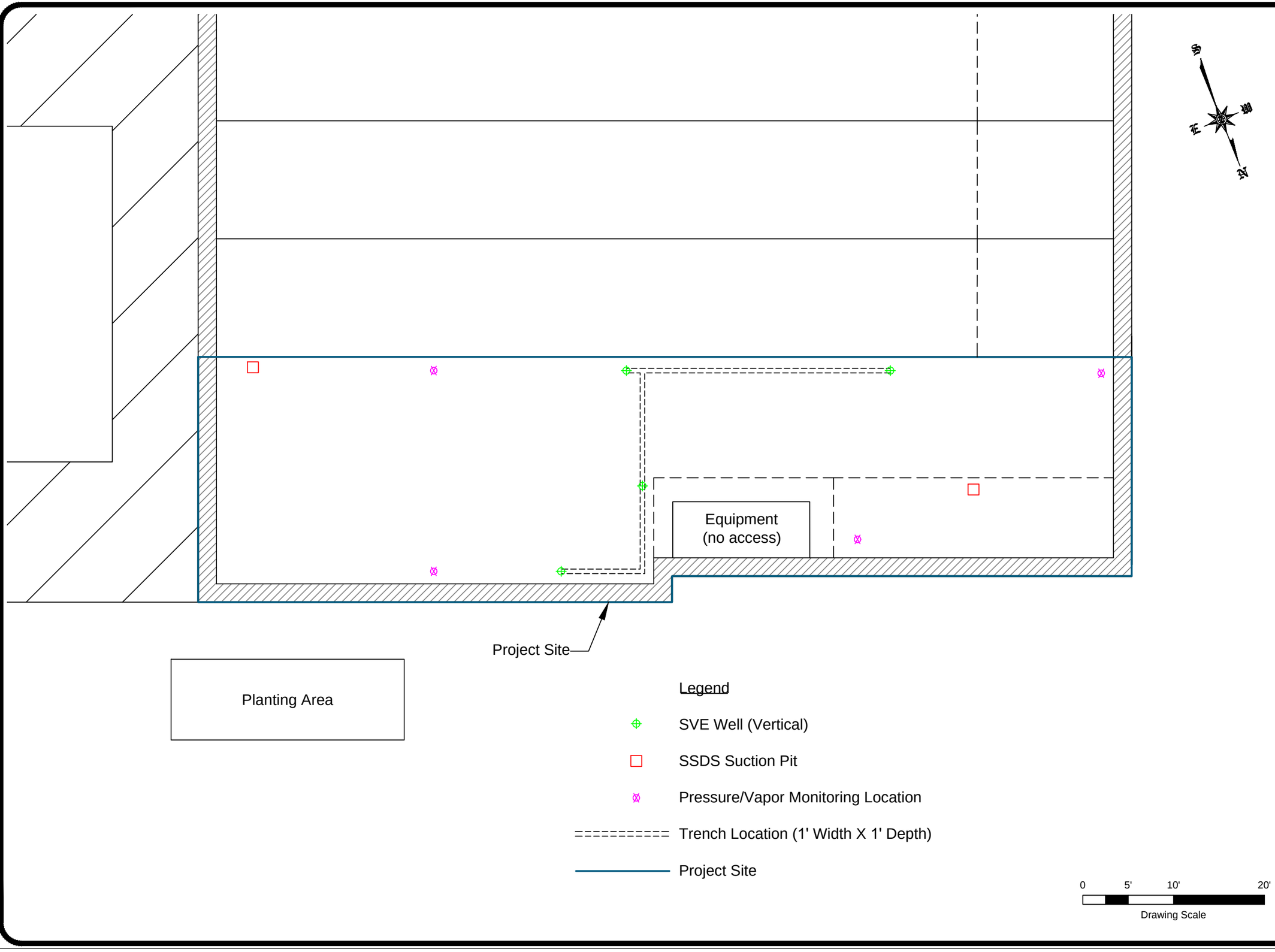


HIP Cleaners
Rochdale Village
169-47 137th Avenue
Jamaica, Queens

SITE

DRAWING TITLE.
SVE and SSDS Layout

DRAWING NO.
Figure 4

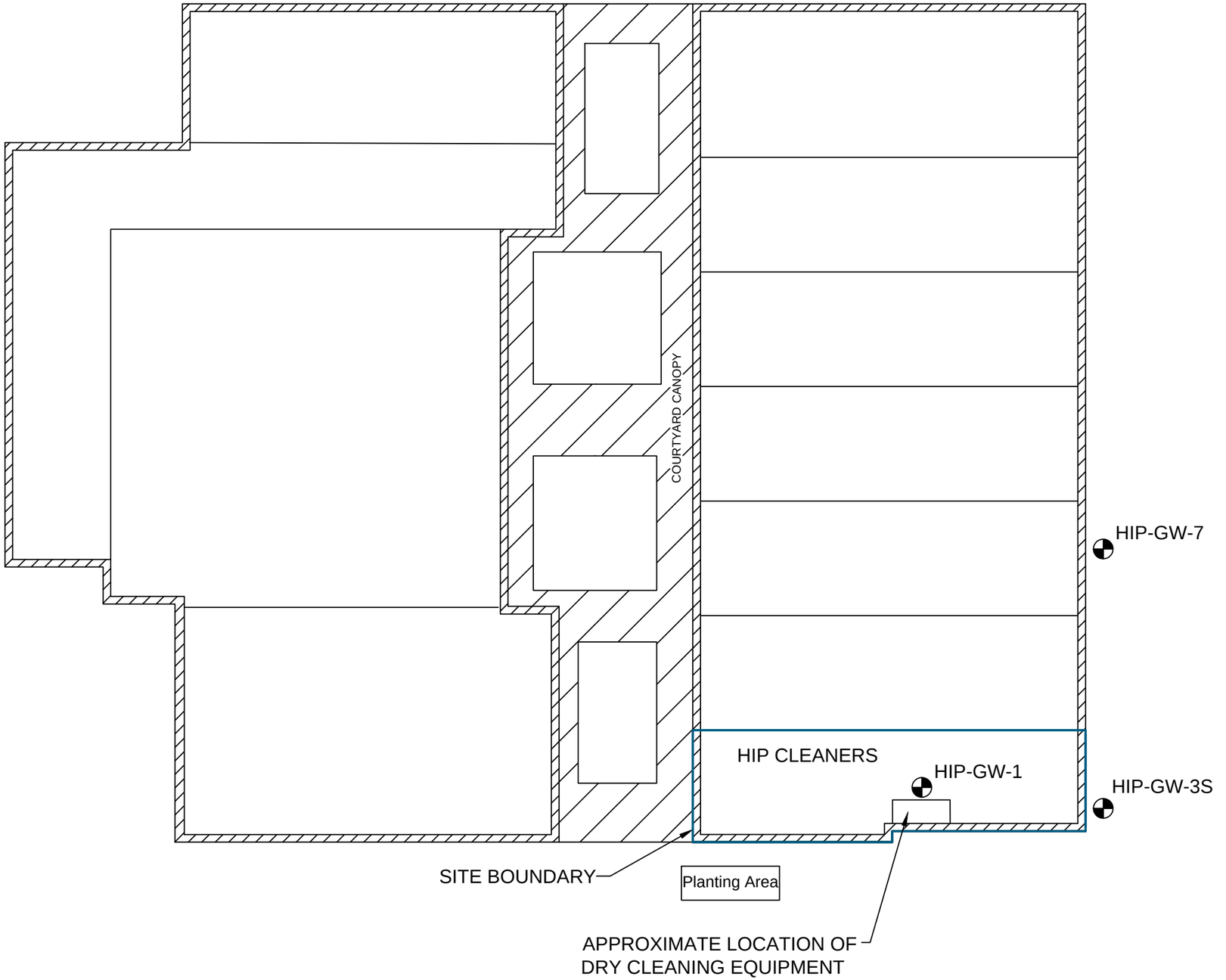


HIP Cleaners
Rochdale Village
169-47 137th Avenue
Jamaica, Queens

SITE

DRAWING TITLE.
Trench Layout

DRAWING NO.
Figure 5



LEGEND

PERMANENT GROUNDWATER MONITORING WELL

GENERAL GROUNDWATER FLOW DIRECTION

0 15' 30' 60'

Drawing Scale

HIP Cleaners
Rochdale Village
169-47 137th Avenue
Jamaica, Queens

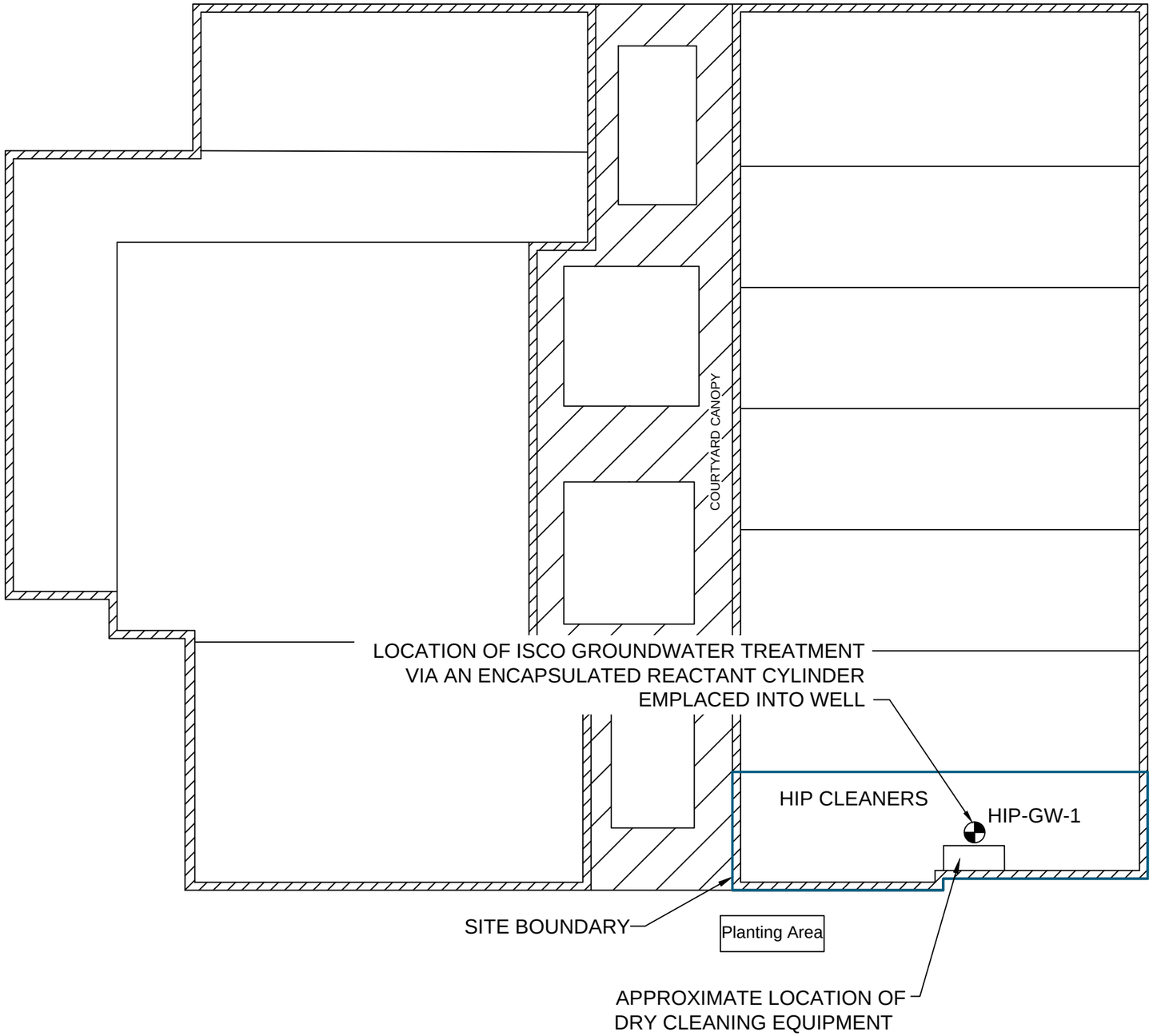
SITE

DRAWING TITLE.

Post Remedial Groundwater Locations

DRAWING NO.

Figure 6



LEGEND

◓ PERMANENT GROUNDWATER MONITORING WELL

GENERAL GROUNDWATER FLOW DIRECTION

0 15' 30' 60'

Drawing Scale

HIP Cleaners
Rochdale Village
169-47 137th Avenue
Jamaica, Queens

SITE

DRAWING TITLE. ISCO Treatment

DRAWING NO. Figure 7

ROCHDALE MALL #2

Dunkin Donuts

Carewell Medical Associates

Restaurant

Citi Bank

Nu Nu Rochdale Car Service

Advantagecare Physicians

Variety Drugs

Howe It's Done Beauty Salon

Mr. Fish

Hair Mart

Nail Salon

HIP CLEANERS

Ideal Food Basket

COURTYARD CANOPY

Abigail's Corner

Kelly's Restaurant and Pizza

Pressure Response Monitoring Location

Suction Pit (Typ.)

Planting Area

SITE BOUNDARY

Approximate location of dry cleaning equipment

SCALE: 1" = 30' 0 15 30

CLIENT

HIP Cleaners
Rochdale Village
BCP # C241166
169-47 137th Avenue
Jamaica, Queens

DRAWING TITLE.

SSDS SUB-SLAB LAYOUT & PRESSURE TEST LOCATIONS

DRAWING NO.

Figure 8