

# DECISION DOCUMENT

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Chestnut Commons Atlantic Ave Site  
Brownfield Cleanup Program  
Brooklyn, Kings County  
Site No. C224276  
December 2019



**Department of  
Environmental  
Conservation**

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

# DECLARATION STATEMENT - DECISION DOCUMENT

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Chestnut Commons Atlantic Ave Site  
Brownfield Cleanup Program  
Brooklyn, Kings County  
Site No. C224276  
December 2019

## **Statement of Purpose and Basis**

This document presents the remedy for the Chestnut Commons Atlantic Ave 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 Chestnut Commons Atlantic Ave Site and the public's input to the proposed remedy presented by the Department.

## **Description of Selected Remedy**

The elements of the selected remedy are as follows:

### **1. Remedial Design**

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

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

a minimum, a 20-mil vapor barrier/waterproofing membrane on the foundation to improve energy efficiency as an element of construction.

## **2. Excavation**

Excavation and off-site disposal of all on-site soils which exceed the soil cleanup objectives (SCOs) for unrestricted use, as defined by 6 NYCRR Part 375-6.8. If a Track 1 cleanup is achieved, a Cover System will not be a required element of the remedy.

Approximately 21,285 cubic yards of contaminated soil will be removed from the site.

## **3. Backfill**

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

## **4. Vapor Mitigation**

Any on-site buildings will be required to have a sub-slab depressurization system (see Figure 3), or other acceptable measures, to mitigate the migration of vapors into the building from groundwater. The system and any vapor intrusion monitoring must no longer be needed within 5 years of the date of the Certificate of Completion or the remedy would result in a Track 2 residential cleanup.

## **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 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 residential 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 NYCDOHMH; and
- require compliance with the Department approved Site Management Plan.

## **6. Site Management Plan**

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

- a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:
  - Institutional Controls: The environmental easement discussed above.
  - Engineering Controls: The sub-slab depressurization system discussed above.

This plan includes, but may not be limited to:

- descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;

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

***Conditional Track 1***

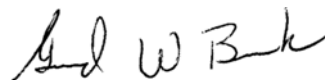
The intent of the remedy is to achieve a Track 1 unrestricted use, However, since a short-term engineering control is needed to address soil vapor intrusion, an environmental easement and site management plan will be required. A Track 1 cleanup can only be achieved if the mitigation system or other required action is no longer needed within 5 years of the date of the Certificate of Completion.

In the event that Track 1 unrestricted use is not achieved, including achievement of groundwater and soil vapor remedial objectives, the remedy will achieve a Track 2 residential cleanup.

**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.

December 12, 2019




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Date

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Gerard Burke, Director  
Remedial Bureau B

# DECISION DOCUMENT

Chestnut Commons Atlantic Ave Site  
Brooklyn, Kings County  
Site No. C224276  
December 2019

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## **SECTION 1: SUMMARY AND PURPOSE**

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

The New York State Brownfield Cleanup Program (BCP) is a voluntary program. The goal of the BCP is to enhance private-sector cleanups of brownfields and to reduce development pressure on "greenfields." A brownfield site is real property, the redevelopment or reuse of which may be complicated by the presence or potential presence of a contaminant.

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

## **SECTION 2: CITIZEN PARTICIPATION**

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

DECInfo Locator - Web Application  
<https://gisservices.dec.ny.gov/gis/dil/index.html?rs=C224276>

Brooklyn Public Library - Arlington Branch  
203 Arlington Ave  
Brooklyn, NY 11207  
Phone: (718) 277-6105

Brooklyn Community Board No. 5  
404 Pine Street, 3rd Floor

Brooklyn, NY 11208  
Phone: (929) 221--8261

### **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**

#### Site Location:

The site is an approximately 0.659 acre fenced-in vacant lot with heavy vegetation located at 110 Dinsmore Place in Brooklyn, NY. The site is located in a highly developed urban area of Brooklyn consisting primarily of industrial and commercial structures.

#### Site Features:

The site is relatively flat and there are no onsite buildings.

#### Current Zoning and Land Use:

The site is currently zoned M1-4 (manufacturing) with an R8A (residential) overlay and is currently vacant. There are various commercial buildings to the north; to the west is a lot currently undergoing development by NYCSCA as a school; to the east is a large vacant lot that is also participating in the Department's BCP (site no. C224236); and to the south is Atlantic Avenue and Conduit Boulevard (major thoroughfares). Immediately adjacent to the south of these thoroughfares is a baseball field. An aboveground subway line is one block to the north of the site and an underground Long Island Rail Road line is located to the south and runs east-west below Atlantic Avenue.

#### Past Use of the Site:

Past uses of the site include a water pump house with associated railroad tracks, and coal storage yard from 1887 to 1980, and an automobile, trailer, and heavy equipment sales facility from 1980 to 1992. The site has been vacant since 2006.

#### Site Geology and Hydrogeology:

The site is underlain by approximately 5 to 10 feet of historic fill material, consisting of sand, silt and brick. Native soils beneath the fill layer consist of sand and trace gravel. Depth to groundwater at the site is approximately 25 to 30 feet bgs and flows in a southerly direction towards Jamaica Bay, which is located approximately 3.1 miles south of the site.

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 residential use (which allows for restricted-residential use, 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 Applicant(s) under the Brownfield Cleanup Agreement is a/are Volunteer(s). The Applicant(s) does/do not have an obligation to address off-site contamination. However, the Department has determined that this site does not pose a significant threat to public health or the environment; accordingly, no enforcement actions are necessary.

## **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

### **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:

lead	chrysene
arsenic	indeno(1,2,3-CD)pyrene
tetrachloroethene (PCE)	mercury
trichloroethene (TCE)	dieldrin
benzene	DDT
toluene	bis(2-ethylhexyl)phthalate
benzo(a)anthracene	chlordane
benzo(a)pyrene	xylene (mixed)
benzo(b)fluoranthene	

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, polychlorinated biphenyls (PCBs), and pesticides. Groundwater samples were also analyzed for Emerging Contaminants. Soil vapor samples were analyzed for VOCs. Based upon investigations conducted to date, the primary contaminants of concern are VOCs, SVOCs and metals.

Soil - VOCs were detected above NYSDEC Unrestricted Use SCOs (UUSCOs) including benzene at a maximum concentration of 4.2 parts per million (ppm) as compared to the UUSCO of 0.6 ppm, and toluene at 2.7 ppm (compared to UUSCO of 0.7 ppm). PCE and TCE were detected at concentrations below the UUSCOs. SVOCs were detected at concentrations exceeding the UUSCOs including benzo(a)anthracene at 2.8 ppm (UUSCO is 1 ppm), benzo(a)pyrene at 2.4 ppm (UUSCO is 1 ppm), benzo(b)fluoranthene at 3.1 ppm (UUSCO is 1 ppm), chrysene at 3.4 ppm (UUSCO is 1 ppm), and indeno(1,2,3-cd)pyrene at 1.4 ppm (UUSCO is 0.5 ppm). Metals detected in exceedance of UUSCOs include lead at 487 ppm (UUSCO is 63 ppm), arsenic at 21.8 ppm (UUSCO is 13 ppm), and mercury at 0.51 ppm (UUSCO is 0.18 ppm). Pesticides and herbicides were detected at concentrations above UUSCOs, including dieldrin at 0.031 ppm (UUSCO is 0.005 ppm), and 4,4-DDT at 0.08 ppm (UUSCO is 0.0033 ppm). PCBs were not detected in any soil samples at concentrations exceeding UUSCOs. Data does not indicate any off-site impacts in soil related to this site.

Groundwater - VOCs were detected at concentrations above their respective ambient water quality standards (AWQSs) including tetrachloroethylene (PCE) at a maximum concentration of 22 parts per billion (ppb) as compared to the AWQS of 5 ppb, and trichloroethene (TCE) at a maximum concentration of 5.4 ppb (AWQS is 5 ppb). One SVOC, bis(2-ethylhexyl)phthalate, was detected at 18 ppb (AWQS is 5 ppb). Only 2 dissolved metals were detected at concentrations exceeding their AWQS: sodium and manganese. These are naturally-occurring metals and are not site-related contaminants. One pesticide, chlordane, was detected at a concentration of 1.4 ppb (AWQS is 0.05 ppb). Data does not indicate any off-site impacts in groundwater related to this site.

Soil Vapor - Several VOCs were detected in soil vapor samples throughout the site, including benzene at a maximum concentration of 57 micrograms per cubic meter (ug/m<sup>3</sup>), toluene at 150 ug/m<sup>3</sup>, xylenes at 190 ug/m<sup>3</sup>, TCE at 4,600 ug/m<sup>3</sup>, and PCE at 13,000 ug/m<sup>3</sup>. Data indicates that the VOCs in soil vapor are migrating onto the site from an off-site source to the east (BCP site no. C224236).

#### **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 is restricted by a fence. However, people who enter the site may come into contact with contaminants in by walking on the site, digging or otherwise disturbing the soil and groundwater. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply that obtains water from a different source not affected by contamination. Volatile organic compounds in soil vapor (air spaces within the soil) may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. The site is vacant so inhalation of site contaminants in indoor air via vapor intrusion is not a current concern. However, the potential exists for inhalation of site contaminants due to soil vapor intrusion for any future on-site development. Additional off-site investigation of soil vapor intrusion will be conducted in response to contamination associated with the adjacent Atlantic Chestnut Brownfield Cleanup Program Sites.

#### **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.

###### **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 Conditional Track 1 remedy.

The selected remedy is referred to as the Excavation and Backfill with Short-Term Vapor Mitigation remedy.

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

### **1. Remedial Design**

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

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gases and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
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- 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.
- Additionally, to incorporate green remediation principles and techniques to the extent feasible in the future development at this site, any future on-site buildings will include, at a minimum, a 20-mil vapor barrier/waterproofing membrane on the foundation to improve energy efficiency as an element of construction.

### **2. Excavation**

Excavation and off-site disposal of all on-site soils which exceed the soil cleanup objectives (SCOs) for unrestricted use, as defined by 6 NYCRR Part 375-6.8. If a Track 1 cleanup is achieved, a Cover System will not be a required element of the remedy.

Approximately 21,285 cubic yards of contaminated soil will be removed from the site.

### **3. Backfill**

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

### **4. Vapor Mitigation**

Any on-site buildings will be required to have a sub-slab depressurization system (see Figure 3), or other acceptable measures, to mitigate the migration of vapors into the building from groundwater. The system and any vapor intrusion monitoring must no longer be needed within 5 years of the date of the Certificate of Completion or the remedy would result in a Track 2 residential cleanup.

### **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 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 residential 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 NYCDOHMH; and
- require compliance with the Department approved Site Management Plan.

### **6. Site Management Plan**

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

- a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:
  - Institutional Controls: The environmental easement discussed above.
  - Engineering Controls: The sub-slab depressurization system discussed above.

This plan includes, but may not be limited to:

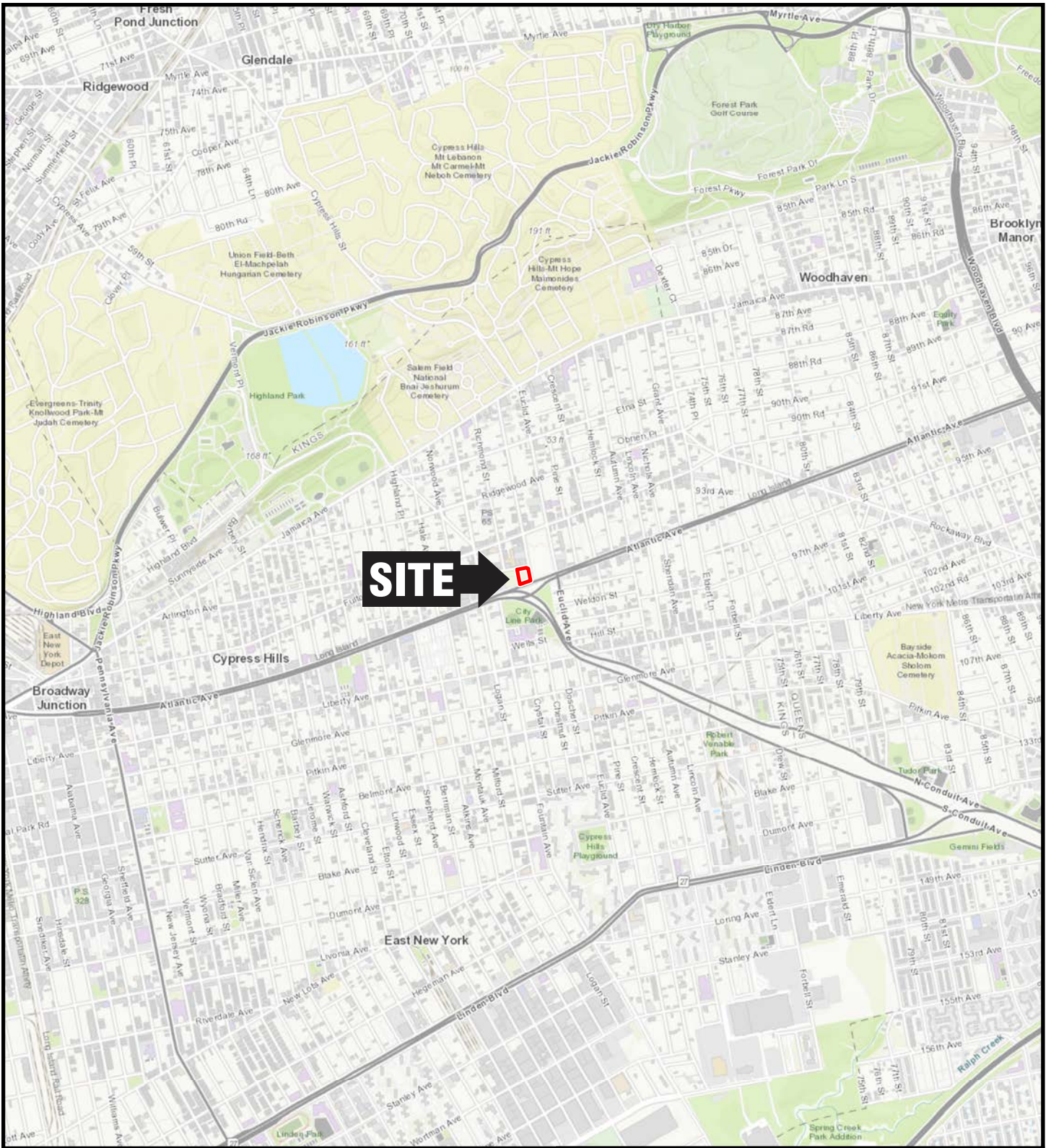
- descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;
  - provisions for the management and inspection of the identified engineering controls;
  - maintaining site access controls and Department notification; and
  - the steps necessary 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 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, inspection, and reporting of any mechanical or physical components of the active vapor mitigation system(s). The plan includes, but is not limited to:
- procedures for operating and maintaining the system(s); and
  - compliance inspection of the system(s) to ensure proper O&M as well as providing the data for any necessary reporting.

***Conditional Track 1***

The intent of the remedy is to achieve a Track 1 unrestricted use, However, since a short-term engineering control is needed to address soil vapor intrusion, an environmental easement and site management plan will be required. A Track 1 cleanup can only be achieved if the mitigation system or other required action is no longer needed within 5 years of the date of the Certificate of Completion.

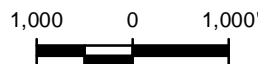
In the event that Track 1 unrestricted use is not achieved, including achievement of groundwater and soil vapor remedial objectives, the remedy will achieve a Track 2 residential cleanup.



**SITE** →

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**QUADRANGLE LOCATION**



Title:

**SITE LOCATION MAP**

CHESTNUT COMMONS ATLANTIC AVE. SITE  
 BLOCK 4142, LOT 34, BROOKLYN, NY  
 NYSDEC BCP SITE C224276

Prepared for:

CHESTNUT COMMONS APARTMENTS, LLC

FIGURE

**1**

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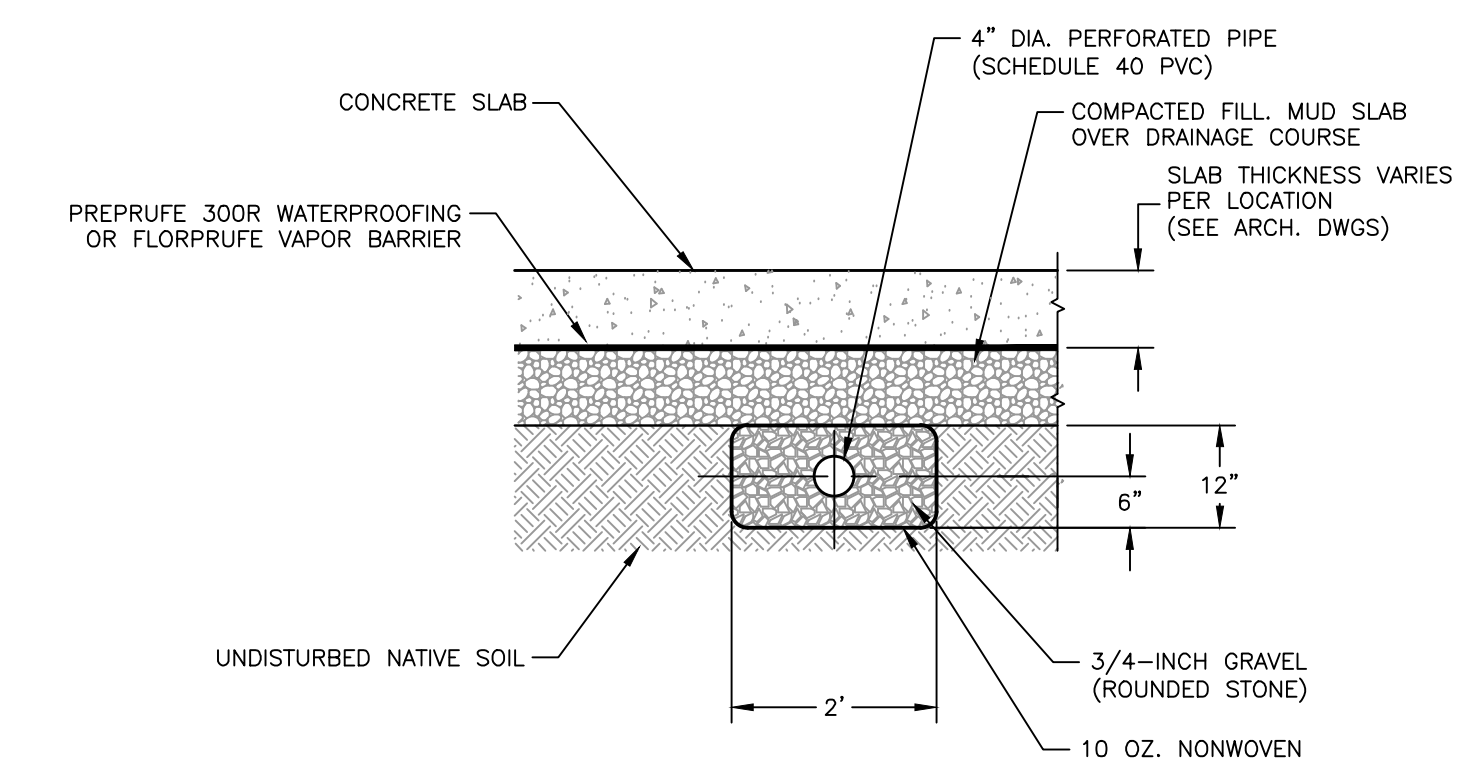
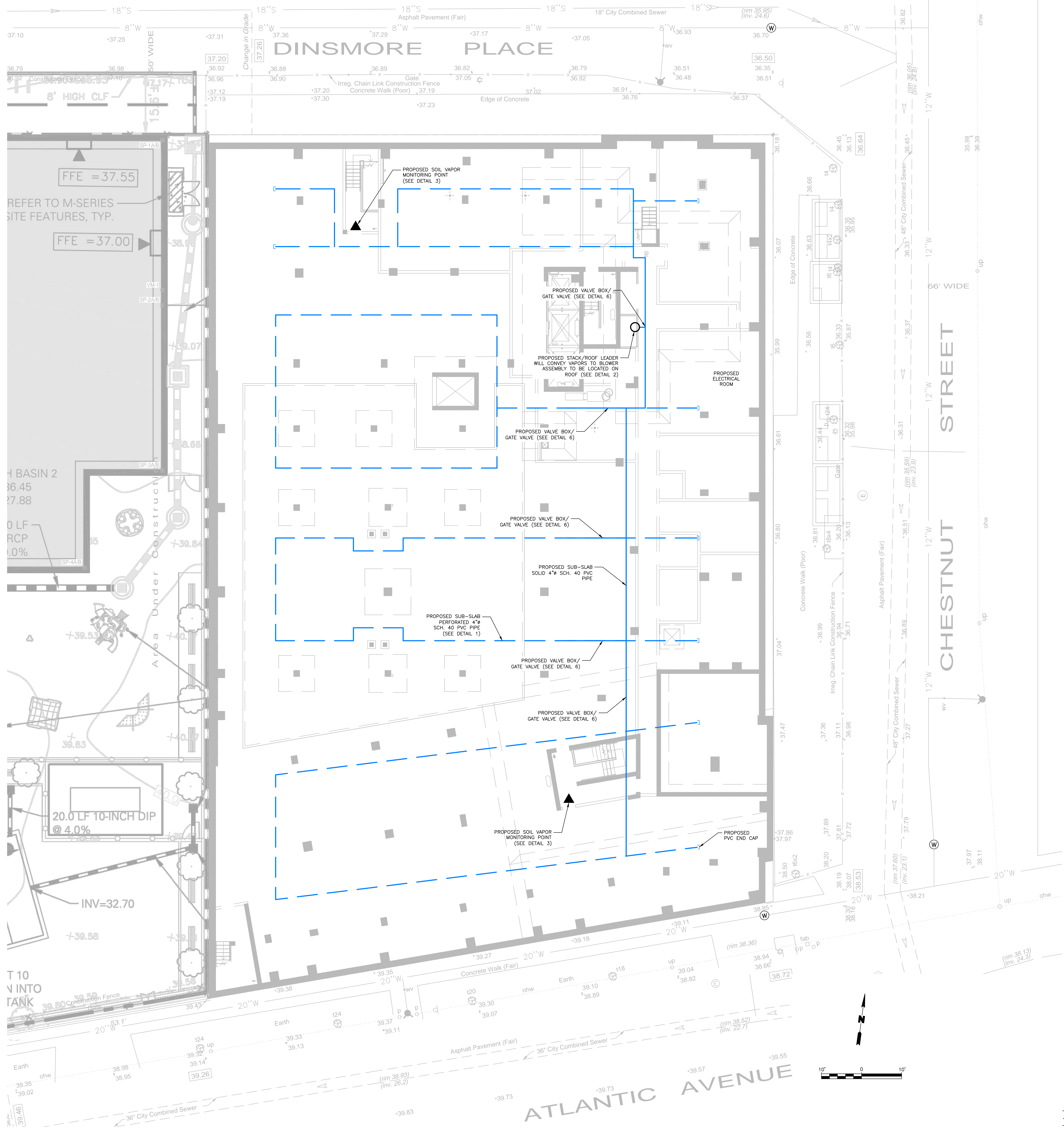
- LEGEND**
- BCP SITE BOUNDARY
  - LOCATION AND DESIGNATION OF SOIL BORING  
RX-2
  - LOCATION AND DESIGNATION OF SOIL BORING/  
SOIL VAPOR SAMPLE POINT  
RX-5/  
SV-1
  - LOCATION AND DESIGNATION OF SOIL BORING/  
SOIL VAPOR SAMPLE POINT AND MONITORING  
WELL  
RX-1/  
MW-1
  - ⊕ LOCATION AND DESIGNATION OF MONITORING  
WELL  
MW-8
  - ▲ LOCATION AND DESIGNATION OF SOIL VAPOR  
SAMPLE POINT  
SV-9
  - LOCATION AND DESIGNATION OF WASTE  
CHARACTERIZATION BORING  
WC-4
  - LOCATION AND DESIGNATION OF WASTE  
CHARACTERIZATION BORING/SOIL VAPOR  
SAMPLE POINT  
WC-2/  
SV-8
  - PROPOSED LIMIT OF EXCAVATION  
14-20 FT BLS
  - PROPOSED LIMIT OF EXCAVATION/BACKFILL  
32 FT BLS
  - FT BLS FEET BELOW LAND SURFACE
  - BCP BROWNFIELDS CLEANUP PROGRAM

**NOTES**

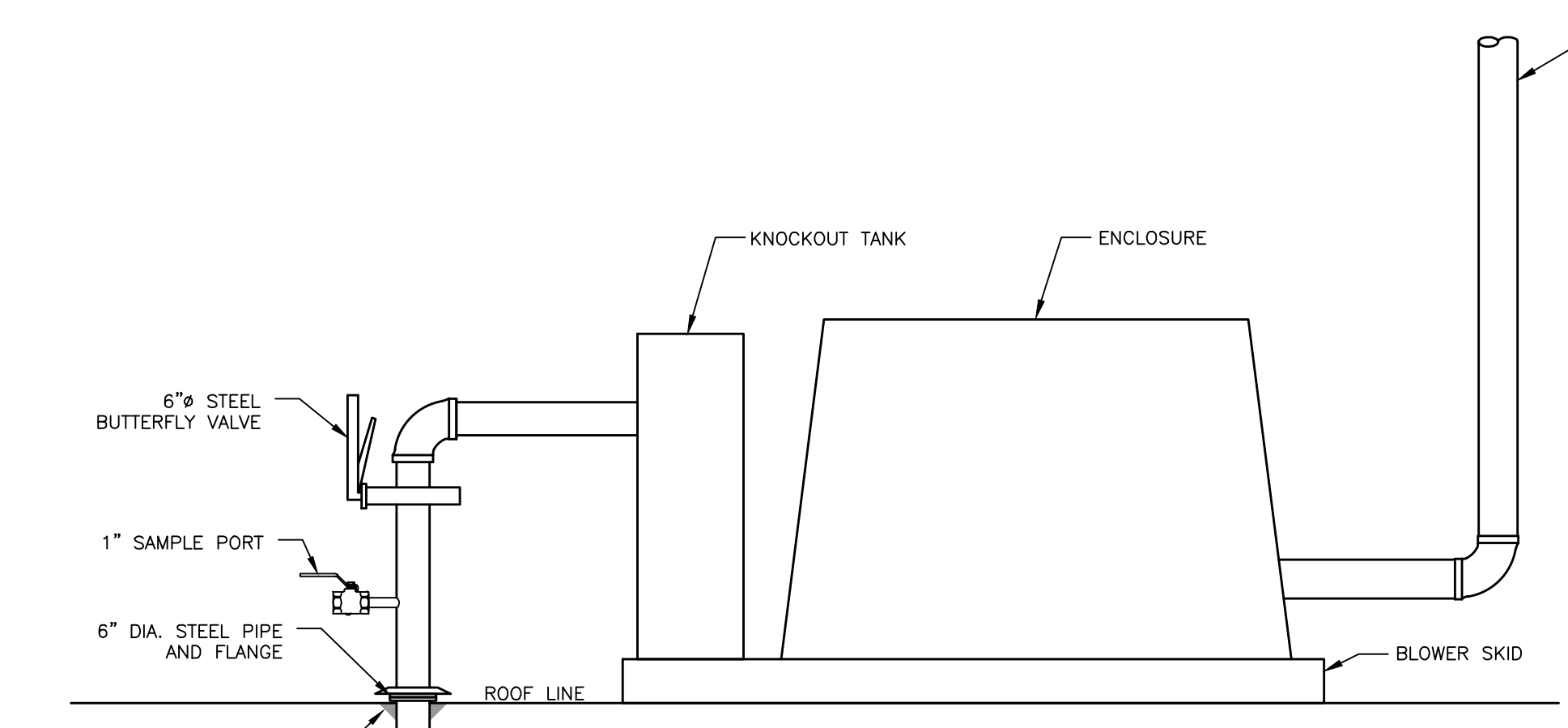
SITE PLAN ADAPTED FROM "100% CONTRACT DOCUMENTS  
- SUPPORT OF EXCAVATION DRAWINGS" PROVIDED BY  
DATNER ARCHITECTS.



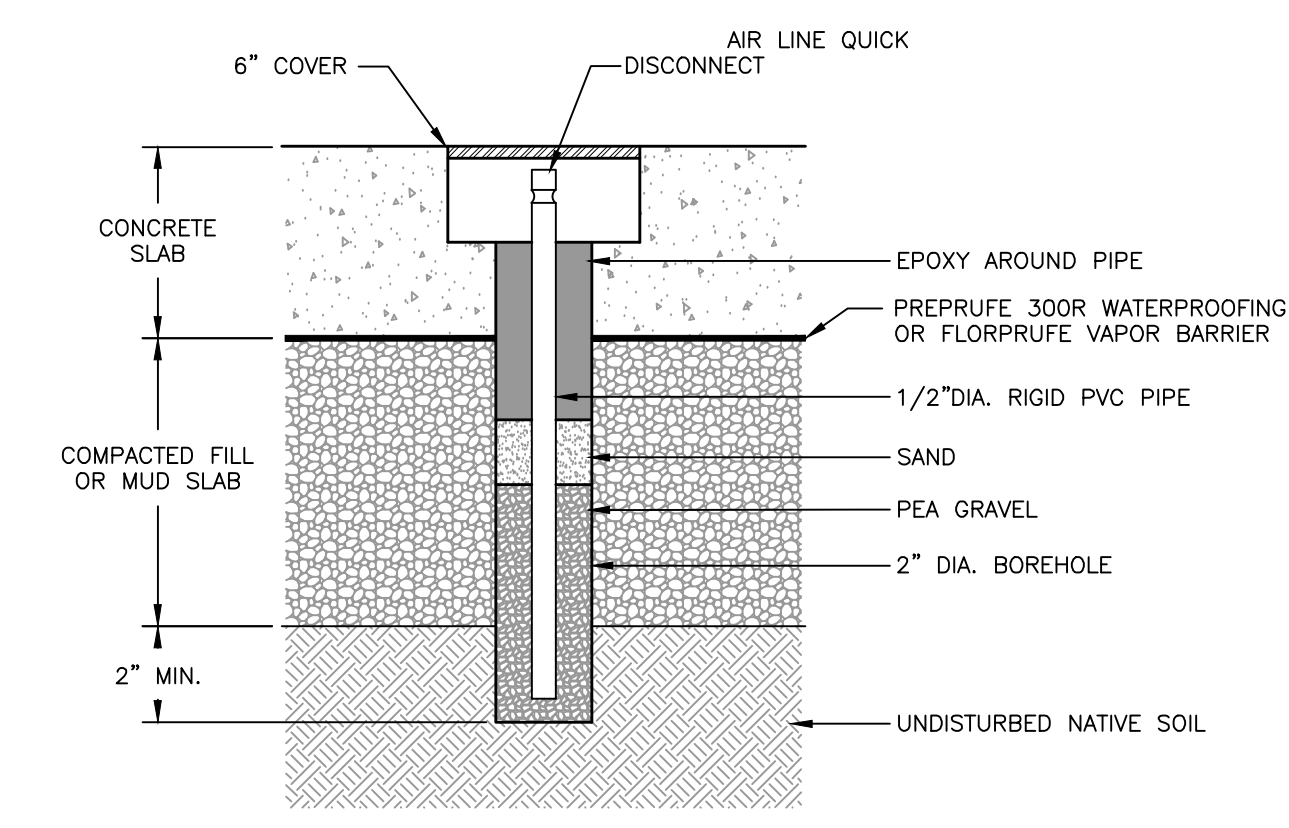
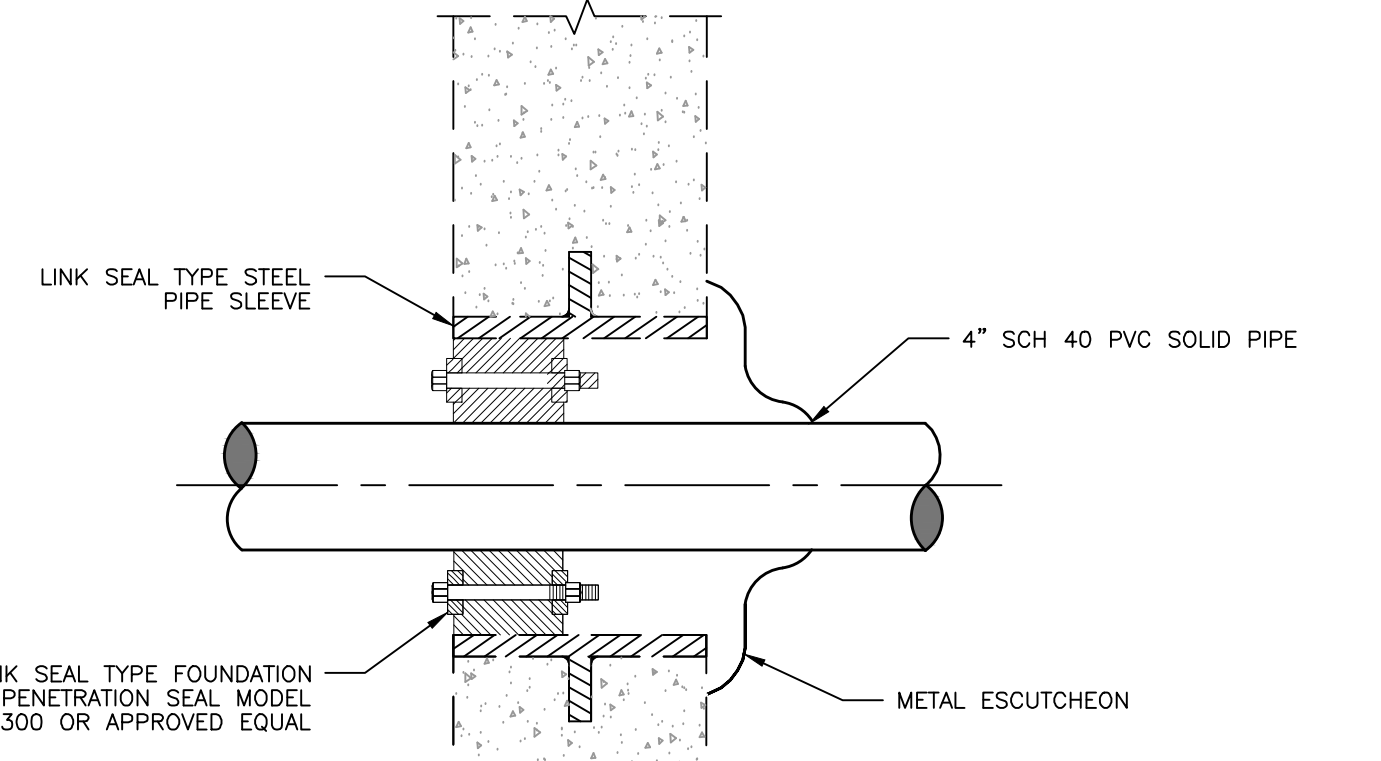
<p>Title:</p> <h2 style="margin: 0;">REMEDIAL ALTERNATIVE 1: TRACK 1 UNRESTRICTED USE CLEANUP</h2>	
<p>CHESTNUT COMMONS ATLANTIC AVENUE SITE BLOCK 4142, LOT 34, BROOKLYN, NEW YORK NYSDEC BCP SITE C224276</p>	
<p>Prepared for:</p> <p>CHESTNUT COMMONS APARTMENTS, LLC</p>	
	<p>FIGURE</p> <h1 style="margin: 0;">2</h1>



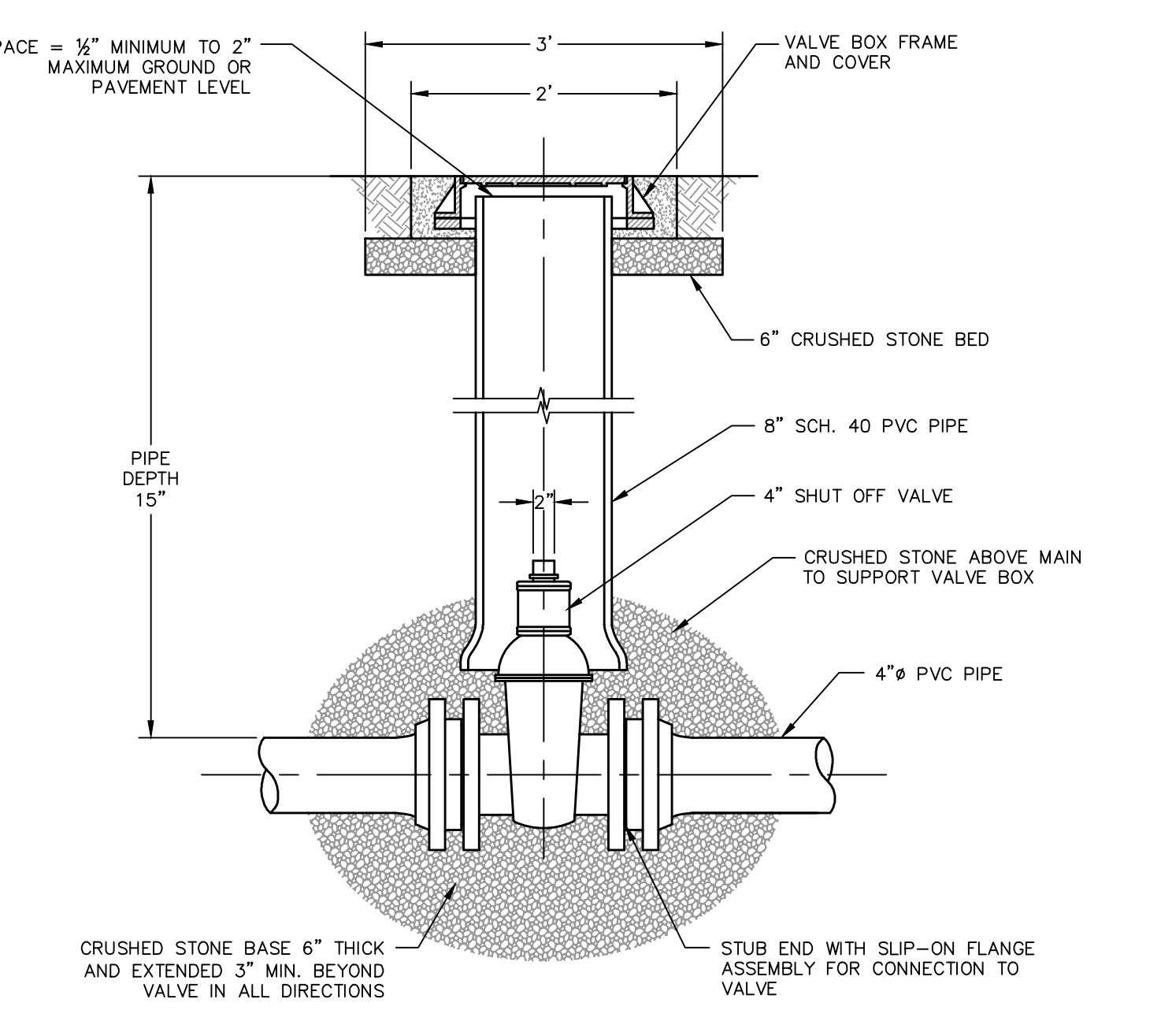
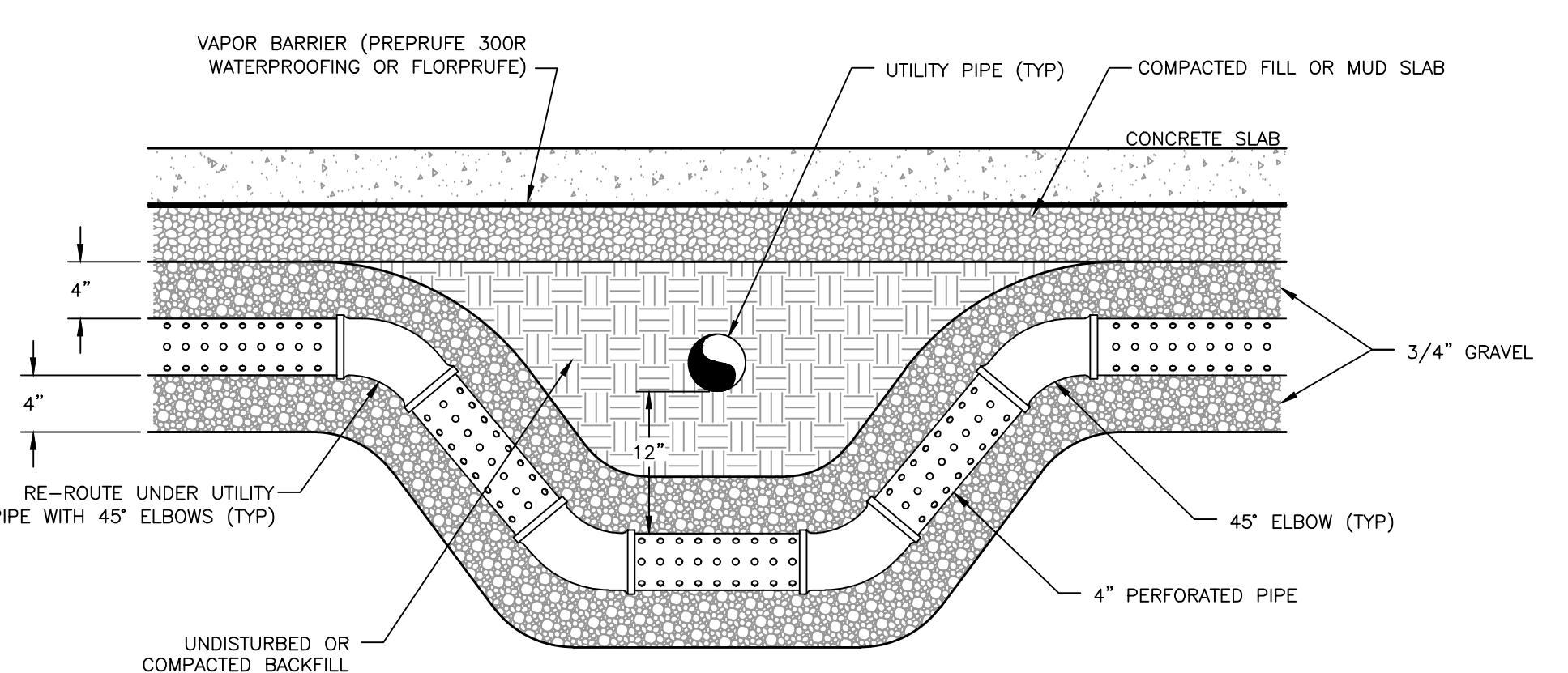
- SUB-SLAB DEPRESSURIZATION SYSTEM NOTES**
1. CONTRACTOR SHALL COORDINATE WITH PLUMBING, MECHANICAL, CIVIL AND ELECTRICAL CONTRACTORS FOR ALL UTILITY CROSSINGS.
  2. THE PERFORATED PIPE MAY BE ROUTED AROUND OR UNDERNEATH ANY UTILITY LINES (SEWER, WATER, GAS), AS REQUIRED AND AS APPROVED BY THE ENGINEER.
  3. THE SURFACES TO BE LINED WITH GEOTEXTILE SHALL BE FREE OF ALL ROCKS, STONES, SHARP OBJECTS OR CONSTRUCTION DEBRIS OF ANY KIND.
  4. INSTALL GEOTEXTILE NONWOVEN FABRIC DIRECTLY ON FILL MATERIAL OVERLAPS SHALL BE A MINIMUM OF 12" THE OVERLAPPED SEAMS WILL BE SEALED WITH TAPE.
  5. ALL PENETRATIONS THROUGH THE SLAB ON GRADE (SOG) SHALL BE SEALED USING A SILICONE BASED WATERPROOF SEALANT OR EQUIVALENT.



- BLOWER DETAIL NOTES**
1. PROVIDE ELECTRICAL/CONTROL CONDUIT TO BLOWER. COORDINATE WITH ELECTRICAL CONTRACTOR.
  2. ELECTRICAL CONDUIT SHALL BE SIZED APPROPRIATELY IN ACCORDANCE WITH THE ELECTRICAL DESIGNER.
  3. THE BLOWER SHALL BE PROVIDED WITH A NOISE REDUCING ENCLOSURE.
  4. THE BLOWER SKID SHALL INCLUDE ENCLOSURE, KNOCKOUT TANK (WITH HIGH LEVEL ALARM), VACUUM RELIEF VALVE, GAUGES, AND INTERCONNECTING PIPING/FITTINGS.
  5. PROVIDE ALARM LIGHT INDICATING SYSTEM SHUT DOWN IN MANAGER'S OFFICE. SPECIFIC LOCATION TO BE COORDINATED AND CONFIRMED WITH THE CONTRACTOR AND ROUX ASSOCIATES.
  6. TREATMENT OF BLOWER DISCHARGE WITH CARBON WILL BE EVALUATED AT SYSTEM START-UP AND ON A PERIODIC BASIS IF NEEDED.
  7. PROVIDE ALL NECESSARY PIPE SUPPORTS.
  8. THE BLOWER DISCHARGE SHALL BE A MINIMUM OF 10 FEET FROM HVAC AIR INLETS AND PROPERTY LINE.
  9. THE BLOWER SHALL BE A 7.5 HP, AMETEK ROTRON MODEL: DR85AT72W OR APPROVED EQUAL.



**SOIL VAPOR MONITORING POINT NOTE**  
DEPICTED LOCATIONS OF SOIL VAPOR MONITORING POINTS ARE APPROXIMATE AND SHALL BE COORDINATED AND CONFIRMED WITH THE CONTRACTOR AND ROUX ASSOCIATES PRIOR TO CONSTRUCTION.



NO.	DATE	REVISION DESCRIPTION	BY

PROJECT NAME:  
**CHESTNUT COMMONS  
BLOCK 4142, LOT 34, BROOKLYN, NEW YORK**

PROJECT FOR:  
**MHANY MANAGEMENT, INC URBAN BUILDERS  
COLLABORATIVE**

TITLE:  
**SUB-SLAB DEPRESSURIZATION  
PLAN**