NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau B
625 Broadway, 12th Floor, Albany, NY 12233-7016
P: (518) 402-9768 I F: (518) 402-9773
www.dec.ny.gov

June 2, 2015

Charles Morisi
Spitzer Enterprises
730 Fifth Avenue
New York, NY 10019

Re: 420 Kent Avenue
Site ID No. C224201
Brooklyn, Kings County
Remedial Work Plan & Decision Document

Dear Mr. Charles

The New York State Department of Environmental Conservation (Department) and the New York State Department of Health (NYSDOH) have reviewed the Remedial Work Plan (RWP) for the 420 Kent Avenue site dated April 2015 and prepared by Langan Engineering on your behalf. The RWP is hereby approved. Please ensure that a copy of the approved RWP is placed in the document repositories. The draft plan should be removed.

Attached is a copy of the Department's Decision Document for the site. The remedy is to be implemented in accordance with this Decision Document. Please ensure that a copy of the Decision Document is placed in the document repositories.

Please contact the Department's Project Manager, MD Hoque, at 518-402-9475 or md.hoque@dec.ny.gov at your earliest convenience to discuss the next steps. Please recall the Department requires notice of seven calendar days prior to the start of field work.

Sincerely,

Robert Cozzy
Director
Remedial Bureau B
Division of Environmental Remediation

Enclosure

ec *w/attachments*:

R. Schick
M. Ryan
M. Komoroske, DEC
MD Hoque, DEC
Jessica Albin, DEC R2
J. O'Connell, DEC R2
Krista Anders, DOH
Justin Deming, DOH
Albert DeMarco, DOH
Mimi Raygorodetsky, Langan Engineering
Christine Leas, Sive, Paget & Riesel

DECISION DOCUMENT

420 Kent Avenue
Brownfield Cleanup Program
Brooklyn, Kings County
Site No. C224201
May 2015

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

DECLARATION STATEMENT - DECISION DOCUMENT

420 Kent Avenue
Brownfield Cleanup Program
Brooklyn, Kings County
Site No. C224201
May 2015

Statement of Purpose and Basis

This document presents the remedy for the 420 Kent Avenue site, a brownfield cleanup site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the 420 Kent Avenue site and the public's input to the proposed remedy presented by the Department.

Description of Selected Remedy

The elements of the selected remedy are as follows:

1. 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. Excavation

After demolition of all existing on-site structures, excavation and off-site disposal at an appropriately permitted facility of soil/fill to depth of between 8 to 20 feet below ground surface (bgs) within the proposed new building footprint. The petroleum hot-spot excavation located in the northwestern corner of the site, will be excavated to the groundwater table, about 8 feet bgs. Grossly-contaminated soil, if identified, will be removed. Any underground storage tanks (USTs) encountered will be removed as part of the remedial action. Following the completion of the excavation, documentation soil samples will be collected and analyzed to document site conditions. Clean fill that meets the requirements of 6NYCRR Part 375-6.7(d) for restricted residential use and/ or recycled concrete aggregate (RCA) will be brought in to complete the backfilling of the excavation.

3. Groundwater Dewatering and Treatment

Dewatering at the site will be required to enable excavation and foundation work. Contaminated groundwater from dewatering operations will be treated as necessary prior to approved discharge to the municipal sewer system or to the East River.

4. Cover System

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

5. Institutional Control

Imposition of an institutional control in the form of an environmental easement for the controlled property that:
a. requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8(h)(3);
b. allows the use and development of the controlled property for restricted-residential, commercial, and industrial uses, as defined by Part 375-l.8(g), although land use is subject to local zoning laws;
c. restricts 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
d. requires compliance with the Department-approved Site Management Plan.

6. Site Management Plan

A Site Management Plan which includes the following:
a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering

controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:
Institutional Controls: The environmental easement discussed in Paragraph 5, above.
Engineering Controls: The soil cover system described in paragraph 4 above.
This plan includes, but may not be limited to:
i. an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
ii. descriptions of the provisions of the environmental easement including any land use, and/or groundwater use restrictions;
iii. provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
iv. provisions for the management and inspection of the identified engineering controls;
v. maintaining site access controls and Department notification; and
vi. 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 for vapor intrusion for any buildings developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above
• a schedule of monitoring and frequency of submittals to the Department.

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 29, 2015

Date

Robert Cozzy, Director
Remedial Bureau B

DECISION DOCUMENT

420 Kent Avenue
Brooklyn, Kings County
Site No. C224201
May 2015

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 repository:

Brooklyn Public Library - Williamsburg
Attn: Catherine Skrzypek
240 Division Avenue
Brooklyn, NY 11211
Phone: 718-302-3485

Receive Site Citizen Participation Information By Email

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen

participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at http://www.dec.ny.gov/chemical/61092.html

SECTION 3: SITE DESCRIPTION AND HISTORY

Location: The 420 Kent Avenue site is located in an urban area in Brooklyn, Kings County. The site is on the southern portion of the city block bordered by what would be an extension of South 8th Street to the north, Kent Avenue to the east, what would be an extension of South 9th Street followed by Schaeffer Landing (a new residential development) to the south, and the East River to the west.

Site Features: The irregularly-shaped site encompasses an area of approximately 79,800 square feet (1.83 acres) and is occupied by three vacant buildings and an associated parking area. A vacant two-story approximate 31,800 square ft. building occupies the northern portion of the property. The southeastern portion of the property is occupied by an approximately 22,732 square-foot two- to three-story vacant building. The southwestern portion of the property is occupied by an approximately 13,200-square foot one-story vacant warehouse.

Current Zoning and Land Use: The site is located in R7-3 residential district with a C2-4 commercial overlay along Kent Avenue. The site is currently not occupied.

Past Use of the Site: Past land uses include a meter company with an associated iron foundry and a portion of a ferry company (circa 1887); iron and steel corporation, a pipe and iron company, two factories and manufacturing facilities and vacant land (circa 1918); Schaefer Brewing Company from at least 1935 to at least 1965; warehouses and the Center for Special Education from at least 1979 to at least 1986; and, more recently, a packaged foods warehouse and distributor, a dry-goods and electronics warehouse and trucking company, a lighting fixture warehouse and distributor, a film studio and a partially occupied school for disabled children.

Site Geology and Hydrogeology: The subsurface strata at the site consists of historic urban fill characterized by brown to black medium-grained gravelly sand with varying amounts of wood chips, glass, brick, ash, concrete, and asphalt extending to depths of up to 15 feet below grade surface (bgs). Bedrock underlying the site is part of the Hartland Formation and depth to bedrock is approximately 100 feet below the surface.

Groundwater is between 12 to 15 bgs. The groundwater elevation is highest in the southeastern part of the site and appeared to flow to the west-northwest toward the East River.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, alternatives (or an alternative) that restrict(s) the use of the site to 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 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:

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

6.1.1: Standards, Criteria, and Guidance (SCGs)

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

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

6.1.2: RI Results

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

TETRACHLOROETHYLENE (PCE)	LEAD
TRICHLOROETHENE (TCE)	NAPHTHALENE
MERCURY	BENZENE
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 samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, and PCB/pesticides.

Soil: A total of thirty-one soil borings were installed to depths ranging from 4 feet to 30 feet bgs. A total of 67 grab soil samples were collected. Several volatile organic compounds (VOCs) were detected at concentrations exceeding NYSDEC Part 375 unrestricted use soil cleanup objectives (UUSCOs) and/or restricted residential use soil cleanup objectives (RRUSCOs) in four soil borings. The petroleum-related compound benzene was detected in soil at a maximum concentration of 12 parts per million (ppm), which exceeds the RRUSCO of 4.8 ppm. No PCE and TCE were detected in soil samples. Semi-volatile organic compounds (SVOCs) primarily polyaromatic hydrocarbons (PAHs) were detected at concentrations exceeding Part 375 UUSCOs and/ or RRSCOs in three locations. The maximum concentration of benzo(b)flouranthene, a representative PAH at the site was 110 ppm in a sample at 3-4 feet bgs. Several metals were detected above the concentrations of both the UUSCOs and the RRUSCOs. Lead was detected in SB-02 at a maximum concentration of 700 ppm, which exceeds the RRUSCO of 400 ppm within the top 3 to 4 feet of depth bgs. Mercury was detected up to 3.2 ppm in SB-01 at 9 to 10 feet bgs. Data does not indicate any off-site impacts in soil related to this site.

Groundwater: Six monitoring well were installed during the RI and eight groundwater samples, six from the new wells, one from an existing well and one duplicate samples were collected. Tetrachloroethene (PCE) was detected in two wells on the eastern side of the site with a high of 9 parts per billion (ppb) which is above the NYSDEC TOGS 1.1.1 Class GA Ambient Water Quality Standards, or Guidance Values (AWQSGV) of 5 ppb. Naphthalene was detected from 14 ppb to 450 ppb (AWQSGV of 10 ppb). Benzene was detected above the AWQSGV of 1 ppb ranging from 6.1 ppb to a maximum of 2,900 ppb in MW02. Both dissolved and total metals were found in groundwater and exceeds their Class GA AWQSGVs. The dissolved metals detected were not contaminants of concern. Off-site impacts from groundwater are not expected.

Soil Vapor, Sub-slab vapor and Ambient Air: One ambient air, five soil vapor samples and eight sub-slab samples were collected during the RI. Eight sub-slab soil vapor points were installed just below the building slabs to a depth of 1 foot bgs, while 5 soil vapor points were installed in the parking lot area to a depth of 5 feet bgs. Multiple VOCs, including petroleum related compounds were detected. The VOC compound benzene was detected in soil vapor samples ranged from a concentration of 6.26 µg/m3 to a maximum concentration of 212,000 µg/m3, which was located closer to the former underground storage tank (UST). PCE was detected in one soil vapor sample at concentration 1.91 µg/m3. No TCE was detected in soil vapor samples. No chlorinated volatile organic compounds (CVOCs) or benzene were detected in the sub-slab samples. Benzene was detected in the ambient air sample at 2.83 µg/m3. No CVOCs were detected in the ambient air sample. Off-site impacts from soil vapor are not expected since the levels detected decrease substantially as the distance from the UST area in the middle of the site increases.

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 a building or 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 the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. 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 for people to inhale site contaminants in indoor air due to soil vapor intrusion in any future on-site building development and occupancy. Sampling indicates that soil vapor intrusion is not a concern for off-site structures.

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

- 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 Excavation and Cover System 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;
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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. Excavation

After demolition of all existing on-site structures, excavation and off-site disposal at an appropriately permitted facility of soil/fill to depth of between 8 to 20 feet below ground surface (bgs) within the proposed new building footprint. The petroleum hot-spot excavation located in the northwestern corner of the site, will be excavated to the groundwater table, about 8 feet bgs. Grossly-contaminated soil, if identified, will be removed. Any underground storage tanks (USTs) encountered will be removed as part of the remedial action. Following the completion of the excavation, documentation soil samples will be collected and analyzed to document site conditions. Clean fill that meets the requirements of 6NYCRR Part 375-6.7(d) for restricted residential use and/ or recycled concrete aggregate (RCA) will be brought in to complete the backfilling of the excavation.

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Dewatering at the site will be required to enable excavation and foundation work. Contaminated groundwater from dewatering operations will be treated as necessary prior to approved discharge to the municipal sewer system or to the East River.

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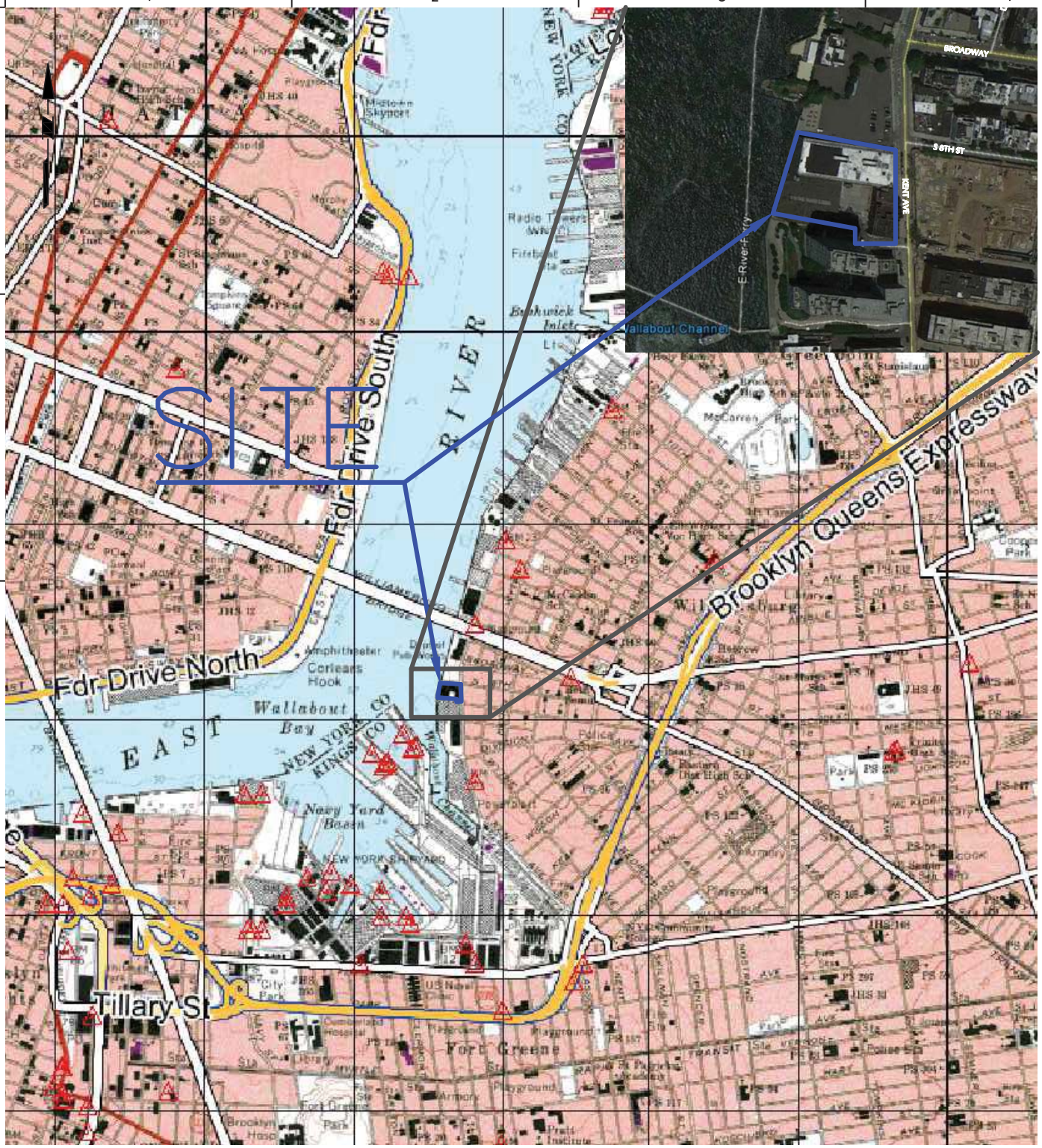
5. Institutional Control

Imposition of an institutional control in the form of an environmental easement for the controlled property that:
a. requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8(h)(3);
b. allows the use and development of the controlled property for restricted-residential, commercial, and industrial uses, as defined by Part 375-l.8(g), although land use is subject to local zoning laws;
c. restricts 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
d. requires compliance with the Department-approved Site Management Plan.

6. Site Management Plan

A Site Management Plan which includes the following:
a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary
to ensure the following institutional and/or engineering controls remain in place and effective:
Institutional Controls: The environmental easement discussed in Paragraph 5, above.
Engineering Controls: The soil cover system described in paragraph 4 above.
This plan includes, but may not be limited to:
i. an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
ii. descriptions of the provisions of the environmental easement including any land use, and/or groundwater use restrictions;
iii. provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site, including provision for implementing actions recommended to address exposures
related to soil vapor intrusion;

iv. provisions for the management and inspection of the identified engineering controls;
v. maintaining site access controls and Department notification; and
vi. 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 for vapor intrusion for any buildings developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above
• a schedule of monitoring and frequency of submittals to the Department.



LEGEND:

SITE BOUNDARY

NOTES:

1. BASE MAP BASED ON USGS 5.7 MINUTE SERIES BROOKLYN QUADRANGLE MAP DATED 1929.
2. INSET BASE MAP TAKEN FROM GOOGLE EARTH IMAGE DATED 6/19/2014, 1 INCH = 400 FEET.

LANGAN

21 Penn Plaza, 360 West 31st Street, 8th Floor
New York, NY 10001
T: 212.479.5400 F: 212.479.5444 www.langan.com

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan CT, Inc.
Langan International LLC
Collectively known as Langan

Project

420 KENT AVENUE

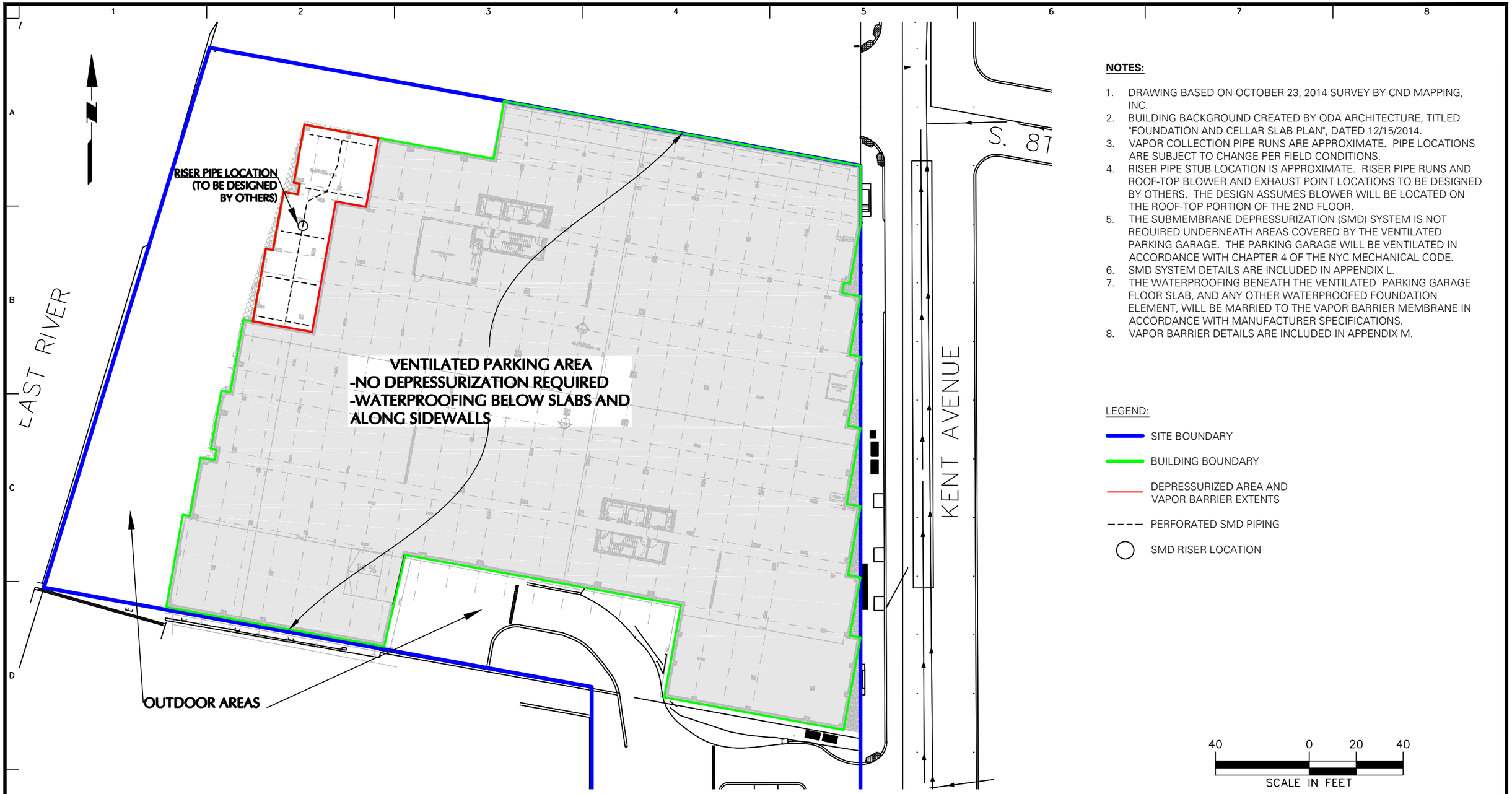
BLOCK No. 2134, LOT No. 56
BROOKLYN
KINGS NEW YORK

Figure Title

SITE LOCATION MAP

Project No. 170332901	Figure No. 1
Date 12/5/2014	
Scale NTS	
Drawn By JL / Checked By NR	
Submission Date	Sheet 1 of 13

Filename: \\langan.com\data\NY\data9\170332901\Cadd Data - 170332901\2D-DesignFiles\BCP RAWP\South Lot\Figure 1 - Site location map.dwg Date: 2/10/2015 Time: 12:16 User: pmcmahon Style Table: Langan.stb Layout: ANSIA-BP



NOTES:

1. DRAWING BASED ON OCTOBER 23, 2014 SURVEY BY CND MAPPING, INC.
2. BUILDING BACKGROUND CREATED BY ODA ARCHITECTURE, TITLED "FOUNDATION AND CELLAR SLAB PLAN", DATED 12/15/2014.
3. VAPOR COLLECTION PIPE RUNS ARE APPROXIMATE. PIPE LOCATIONS ARE SUBJECT TO CHANGE PER FIELD CONDITIONS.
4. RISER PIPE STUB LOCATION IS APPROXIMATE. RISER PIPE RUNS AND ROOF-TOP BLOWER AND EXHAUST POINT LOCATIONS TO BE DESIGNED BY OTHERS. THE DESIGN ASSUMES BLOWER WILL BE LOCATED ON THE ROOF-TOP PORTION OF THE 2ND FLOOR.
5. THE SUBMEMBRANE DEPRESSURIZATION (SMD) SYSTEM IS NOT REQUIRED UNDERNEATH AREAS COVERED BY THE VENTILATED PARKING GARAGE. THE PARKING GARAGE WILL BE VENTILATED IN ACCORDANCE WITH CHAPTER 4 OF THE NYC MECHANICAL CODE.
6. SMD SYSTEM DETAILS ARE INCLUDED IN APPENDIX L.
7. THE WATERPROOFING BENEATH THE VENTILATED PARKING GARAGE FLOOR SLAB, AND ANY OTHER WATERPROOFED FOUNDATION ELEMENT, WILL BE MARRIED TO THE VAPOR BARRIER MEMBRANE IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.
8. VAPOR BARRIER DETAILS ARE INCLUDED IN APPENDIX M.

LEGEND:

- SITE BOUNDARY
- BUILDING BOUNDARY
- DEPRESSURIZED AREA AND VAPOR BARRIER EXTENTS
- PERFORATED SMD PIPING
- SMD RISER LOCATION

40 0 20 40
SCALE IN FEET

LANGAN
21 Penn Plaza, 360 West 31st Street, 8th Floor
New York, NY 10001
T: 212.479.5400 F: 212.479.5444 www.langan.com
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan CT, Inc.
Langan International LLC
Collectively known as Langan

Project
420 KENT AVE
BLOCK No. 2134, LOT No. 56
BROOKLYN
KINGS **NEW YORK**

Figure Title
SMD SYSTEM AND VAPOR BARRIER LAYOUT PLAN

Project No. 170332901	Figure No. 2
Date 2/13/2015	
Scale 1" = 40'	
Drawn By PM / Checked By NR	
Submission Date	Sheet 11 of 13

Filename: \\langan.com\data\NY\data9\170332901\Cadd Data - 170332901\2D-DesignFiles\BCP RAWP\South Lot\Figure 11 - Vapor Barrier and SMD Layout.dwg Date: 4/2/2015 Time: 13:35 User: pmcmahon Style Table: Langan.stb Layout: ANSIB-BL