DECISION DOCUMENT

Huxley Envelope Industrial Site
Brownfield Cleanup Program
Greenpoint, Kings County
Site No. C224147
March 2014

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

DECLARATION STATEMENT - DECISION DOCUMENT

Huxley Envelope Industrial Site
Brownfield Cleanup Program
Greenpoint, Kings County
Site No. C224147
March 2014

Statement of Purpose and Basis

This document presents the remedy for the Huxley Envelope Industrial Site 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 Huxley Envelope Industrial Site 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

- Demolition of the existing on-site building to allow excavation and off-site disposal of

contaminated soils;

- Permanent sheeting, shoring, and underpinning required to stabilize the Site for the large scale remediation effort requiring excavation;
- Removal of the former 20,000-gallon UST and all associated piping located in the southeast corner of the property. Excavate any contaminated soils and collect end-point samples from the UST excavation;
- All on-site soils which exceed USCOs, as defined by 6 NYCRR Part 375-6.8, will be excavated and transported off-site for disposal. This alternative would require excavation to depths across the site ranging from approximately 15-33 feet below grade to remove all historic fill, approximately 51,000 cubic yards;
- Screening for indications of contamination (by visual means, odor, and monitoring with PID) of all excavated soil during any intrusive site work;
- Dewatering is included as needed to perform the soil excavation below the water table; water removed from the excavation will be properly treated as needed before discharge;
- Appropriate off-site disposal of all material removed from the site in accordance with all Federal, State and local rules and regulations for handling, transport, and disposal;
- Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to establish the designed grades at the site and;
- Confirmation that Track 1 SCOs have been achieved through post-excavation end point sampling.

The intent of the soil removal is to achieve Track 1 unrestricted use; therefore, no environmental easement or site management plan is anticipated. No groundwater use restriction is needed because the area is served by public water and Article 141 of the NYCDOH code prohibits potable use of groundwater without prior approval. In the event that Track 1 unrestricted use is not achieved, the following contingent remedial elements will be required.

Contingent Remedial Elements:
Alternative Engineering and Institutional Controls
Imposition of an institiutional control in the form of an environmental easement and a Site Management Plan, as described below, will be required. The remedy will achieve a Track 2 restricted residential cleanup by removing all soil on the property which exceeds restricted residential SCOs to a depth of at least 15 feet below ground surface.

3. Institutional Controls:
Imposition of an institutional control in the form of an environmental easement for the controlled property that:

- 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);
- allows the use and development of the controlled property for restricted residential, commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- 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;
- requires compliance with the Department approved Site Management Plan.

4. Site Management Plan
A Site Management Plan is required, which includes the following:
a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:
Institutional Controls: The Environmental Easement discussed in Paragraph 3 above.
This plan includes, but may not be limited to:

- descriptions of the provisions of the environmental easement including any land use or groundwater use restrictions;
- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

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.

March 17, 2014

Date

Robert J. Cozzy, Director
Remedial Bureau B

DECISION DOCUMENT

Huxley Envelope Industrial Site
Greenpoint, Kings County
Site No. C224147
March 2014

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 Central Library
Attn: Richard Reyes Gavilian
10 Grand Army Plaza
Brooklyn, NY 11238
Phone: 718-230-2100

Receive Site Citizen Participation Information By Email

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

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

SECTION 3: SITE DESCRIPTION AND HISTORY

Location:

The site is known as Huxley Envelope Industrial Site and is located at 145 West Street, Greenpoint, Brooklyn. It includes the entire City Block 2530, bordered by Huron Street to the north, West Street to the East, India Street to the south, and the East River to the west. The site encompasses the parcels identified on the New York City Tax assessor's maps as Tax Block 2530, Lots 1, 55 and 56. The site is approximately 2.8 acres in size.

Site Features:

The on-site structures include:
• Lot 1 - a single-story vacant warehouse (former Huxley Envelope industrial building), with abandoned office space in the front (along West Street), and rear asphalt-paved loading area at 143-155 West Street, sometimes referred to as 145-155 West Street;
• Lot 56 - vacant two-story building at 157 West Street; and
• Lot 55 - vacant two-story building at 159 West Street, which also contains a basement.
There is a former 20,000-gallon fuel oil underground storage tank (UST) in the southeast corner of Lot 1.

Current Zoning and Land Use(s):

The site is vacant, is currently zoned residential and is located next to other vacant former industrial or underutilized sites. The highest and best use of this land is no longer industrial, but for new, mixed use residential development. As such, in 2006 the City rezoned much of the Greenpoint area from manufacturing use to dense residential development.

Past Uses of the Site:

Lot 1 (143-155 West Street) - Huxley Envelope: The Lot 1 single-story warehouse building (approximately 96,000 square feet), was constructed in or about 1970 for Huxley Envelope, and was owned and operated by this envelope manufacturing company through 1995. Thereafter, it was operated as an ornament manufacturing facility until 2006 and the manufacturing building is still present.

Lot 55 (159 West Street) - The small 2 story building on this parcel most recently contained a seafood distribution facility until 2011. The two-story building includes a loading area and refrigerated storage units on the ground floor, an office on the second floor, and a storage area in

the basement. The building was constructed in 1931.

Lot 56 (157 West Street) - The two-story building, now also vacant, formerly contained a garage on the first floor and an apartment on the second floor. The building was constructed in 1931.

Due to historic industrial uses at the site, all three lots received an environmental or E designation by New York City Department of Environmental Protection (NYCDEP) during the Greenpoint rezoning of this area in 2006. The past identified on-site industrial uses included, but are not limited to, solvent based manufacturing, an iron works facility, and a commercial heating facility; all of these are types of businesses/operations that typically stored and used hazardous materials, and/or generated hazardous wastes.

Site Geology and Hydrogeology:
The site is located within the City's designated coastal zone, in an area which is mapped as ground moraine. Borings within the site area revealed that the site is underlain by brownish grey sand with some silt, ash, fragments of brick and wood (urban fill). Black course grained sand was encountered under the western portion of the site near the East River. Brown and grey silty clay was encountered at depths ranging from 5 to 10 feet below grade in the eastern portion of the site. Groundwater movement is from east to west, with a very low gradient toward the East River, the discharge point. Groundwater was encountered at depths between 7 and 12 feet below grade level. Groundwater in the New York City area is not used as a potable water source. The potable water supply for the site is provided by the City of New York, and originates from upstate reservoirs.

According to the USGS Bedrock and Engineering Geologic Maps, dated 1994, the site straddles a bedrock contact between the Cambrian-Ordovician Ravenswood Granodiorite on the northwestern portion of the site and the Hartland Formation on the remainder of the site. The Ravenswood Granodiorite consists of mica-quartz-feldspar gneiss, and the Hartland Formation is characterized by granulite, mica, schist and amphilblite. The bedrock is between 70 and 100 feet below grade.

The site is within the 100-year Federal Emergency Management Agency (FEMA) flood plainsheet 36049702020F (dated September 5, 2007).

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, an alternative which allows for unrestricted use of the site was evaluated.

A comparison of the results of the Remedial Investigation (RI) against unrestricted use standards, criteria and guidance values (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

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:

ARSENIC	LEAD
BARIUM	MERCURY
COPPER	ZINC

The contaminant(s) of concern exceed the applicable SCGs for:

- 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.

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:

Based upon investigations conducted at the site to date, the primary contaminants of concern include various metals. The contaminants found in each media sampled (soil and groundwater) are summarized below:

Subsurface Soil:
Metals were detected in all soil samples analyzed from the 47 boring locations across the site. In many samples, metals were present above the Track 1 Unrestricted Use Soil Cleanup Objectives (USCOs) and Track 2 Restricted Residential Soil Cleanup Objectives (RRSCOs). Arsenic was

found in 7 out of 47 samples, above the RRSCO of 16 ppm. Concentrations in those 7 samples exceeding the RRSCO ranged from 16.6 ppm to 49.3 ppm. Barium exceeded the RRSCO of 400 ppm in 3 of 47 samples. The 3 samples exceeding the RRSCO for barium ranged from concentrations of 440 ppm to 893 ppm. Barium was not found above the USCO of 350 ppm in any other sample. Copper was found to exceed the USCO of 50 ppm in 26 of 47 samples, with 2 samples exceeding the RRSCO concentration of 270 ppm. One sample had 25,300 ppm of copper. This high concentration of copper in sample from WS-G5 was an isolated result. Samples from boring locations near WS-G5 were below the RRSCO and above the USCO for copper. Lead was detected above the USCO in 36 out of 47 samples. Of those 36 samples, 16 of them contained lead concentrations that exceeded the RRSCO of 400 ppm. The highest concentration of lead detected was 3,190 ppm, in sample WS-G5, the same sample that had a high concentration of copper. Mercury was detected above the USCO of 0.18 ppm in 26 out of 47 samples. Ten of those 26 samples exceeding the USCO were detected at concentrations above the RRSCO of 0.81 ppm, with concentrations in those 10 samples ranging from 1.56 ppm to 6.78 ppm. Zinc was also detected above the USCO of 109 ppm in 26 of 47 samples. No samples exceeded the RRSCO for zinc of 10,000 ppm. The highest concentration of zinc detected was 9,830 ppm in the sample from WS-G5. The highest concentration detected for all six of these metals exceeds the soil clean up objective for the protection of groundwater (PGSCO). The highest concentration of barium detected in the soil, 893 ppm, only slightly exceeds the PGSCO of 820 ppm. Volatile Organic Compounds (VOCs) were detected in 25 of 47 samples above the USCO but all were below the RRSCOs. Semi-volatile organic compounds (SVOCs) were detected in 15 of 47 samples above the USCOs. Of these 15 samples, fourteen 14 were detected above the RRSCO. No polychlorinated biphenyls (PCBs) or pesticides exceeded the USCO.

Sixteen additional soil samples were analyzed from below the fill material, collected from the native silty clay layer below the fill at depths ranging from 20 to 30 feet below grade. The deep sample results showed arsenic, copper, lead, mercury, nickel, and zinc at concentrations at two locations exceeding the USCO. These two locations are in the northwest region of the property outside of the proposed building footprint. One sample collected at a depth of 20 feet below grade contained the following metals at concentrations above the USCO: lead (132 ppm), mercury (0.28 ppm), nickel (31.1 ppm), and zinc (113 ppm). The other sample from 25 feet below grade contained the following metals at concentrations above the USCO: arsenic (18.2 ppm), copper (76.4 ppm), lead (270 ppm), mercury (1.25 ppm), nickel (29.2 ppm), and zinc (185 ppm).

No VOCs, SVOCs, PCBs, or pesticides/herbicides were found above unrestricted use soil cleanup objectives SCOs for any deep (below 20 feet) soil samples.

Groundwater:
Groundwater samples were collected from four groundwater monitoring wells installed on-site. Since the East River is downgradient of the site there are no off-site monitoring wells. Several metals exceeded groundwater standards for each of the groundwater samples, however aluminum, iron, magnesium, manganese and sodium exceedances are attributable to either road salt or are naturally occurring metals. Lead was found at 278 parts per billion (ppb), above its standard of 25 ppb.

Only one sample had one VOC (methyl t-butyl ether or MTBE) detected above the detection limit of the analytical method, but this concentration was lower than the standard of 10 ppb. The sample (MW-102) had 1.6 ppb of MTBE which is likely due to an upgradient spill site.

SVOCs and PCBs/pesticides were not detected above the detection limit of the analytical method.

Special Resources Impacted/Threatened:
The site borders the East River, but no impacts from the site have been identified.

Significant Threat: NYSDEC and NYSDOH determined that this site does not pose a significant threat to human health or the environment.

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 buildings and pavement. 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 this contamination.

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.

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.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

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 1: Unrestricted use remedy.

The selected remedy is referred to as the excavation and removal 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;
- 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

- Demolition of the existing on-site building to allow excavation and off-site disposal of contaminated soils;
- Permanent sheeting, shoring, and underpinning required to stabilize the Site for the large scale remediation effort requiring excavation;
- Removal of the former 20,000-gallon UST and all associated piping located in the southeast corner of the property. Excavate any contaminated soils and collect end-point samples from the UST excavation;
- All on-site soils which exceed USCOs, as defined by 6 NYCRR Part 375-6.8, will be excavated and transported off-site for disposal. This alternative would require excavation to

depths across the site ranging from approximately 15-33 feet below grade to remove all historic fill, approximately 51,000 cubic yards;

- Screening for indications of contamination (by visual means, odor, and monitoring with PID) of all excavated soil during any intrusive site work;
- Dewatering is included as needed to perform the soil excavation below the water table; water removed from the excavation will be properly treated as needed before discharge;
- Appropriate off-site disposal of all material removed from the site in accordance with all Federal, State and local rules and regulations for handling, transport, and disposal;
- Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to establish the designed grades at the site and;
- Confirmation that Track 1 SCOs have been achieved through post-excavation end point sampling.

The intent of the soil removal is to achieve Track 1 unrestricted use; therefore, no environmental easement or site management plan is anticipated. No groundwater use restriction is needed because the area is served by public water and Article 141 of the NYCDOH code prohibits potable use of groundwater without prior approval. In the event that Track 1 unrestricted use is not achieved, the following contingent remedial elements will be required.

Contingent Remedial Elements:
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- 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);
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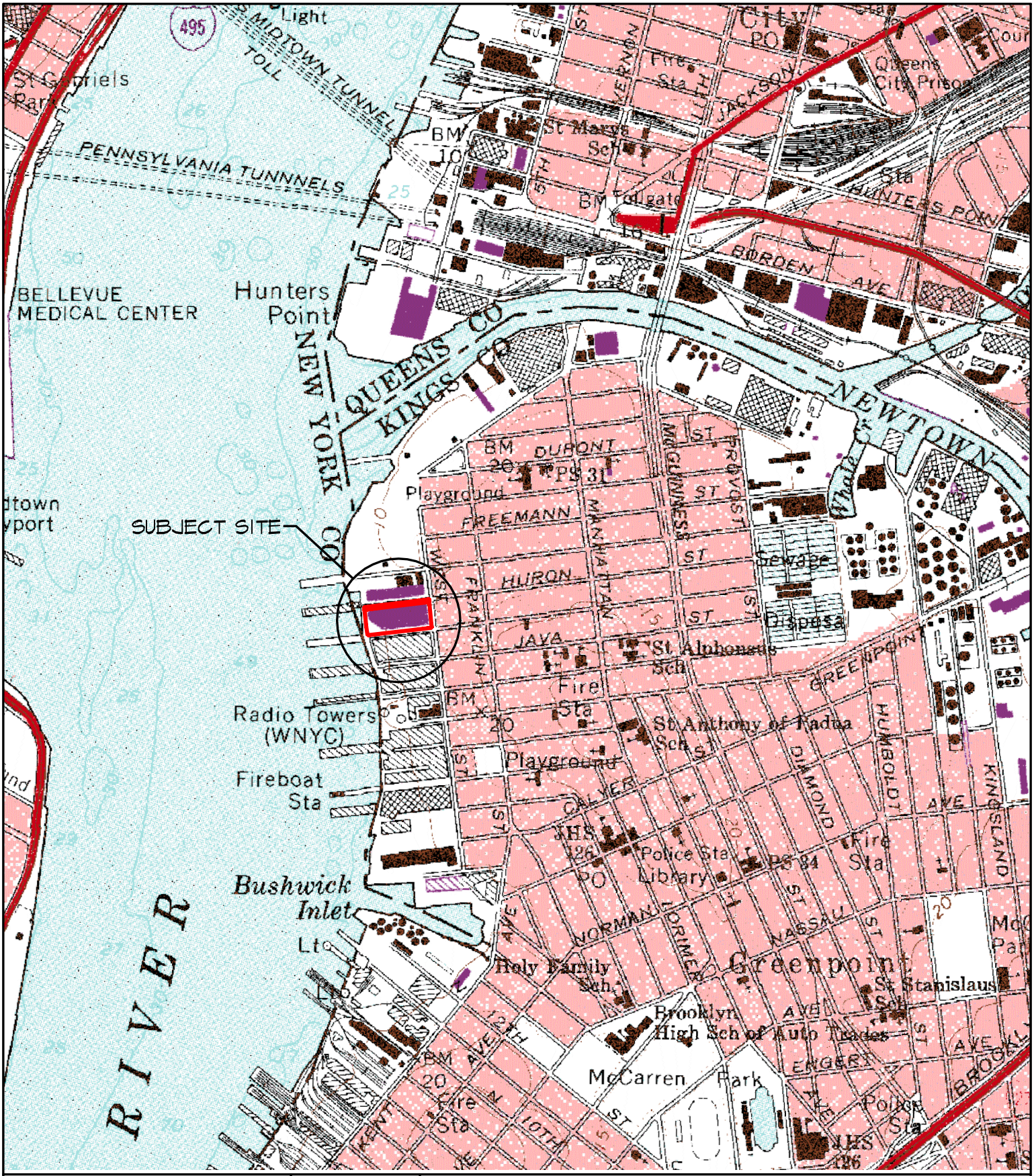
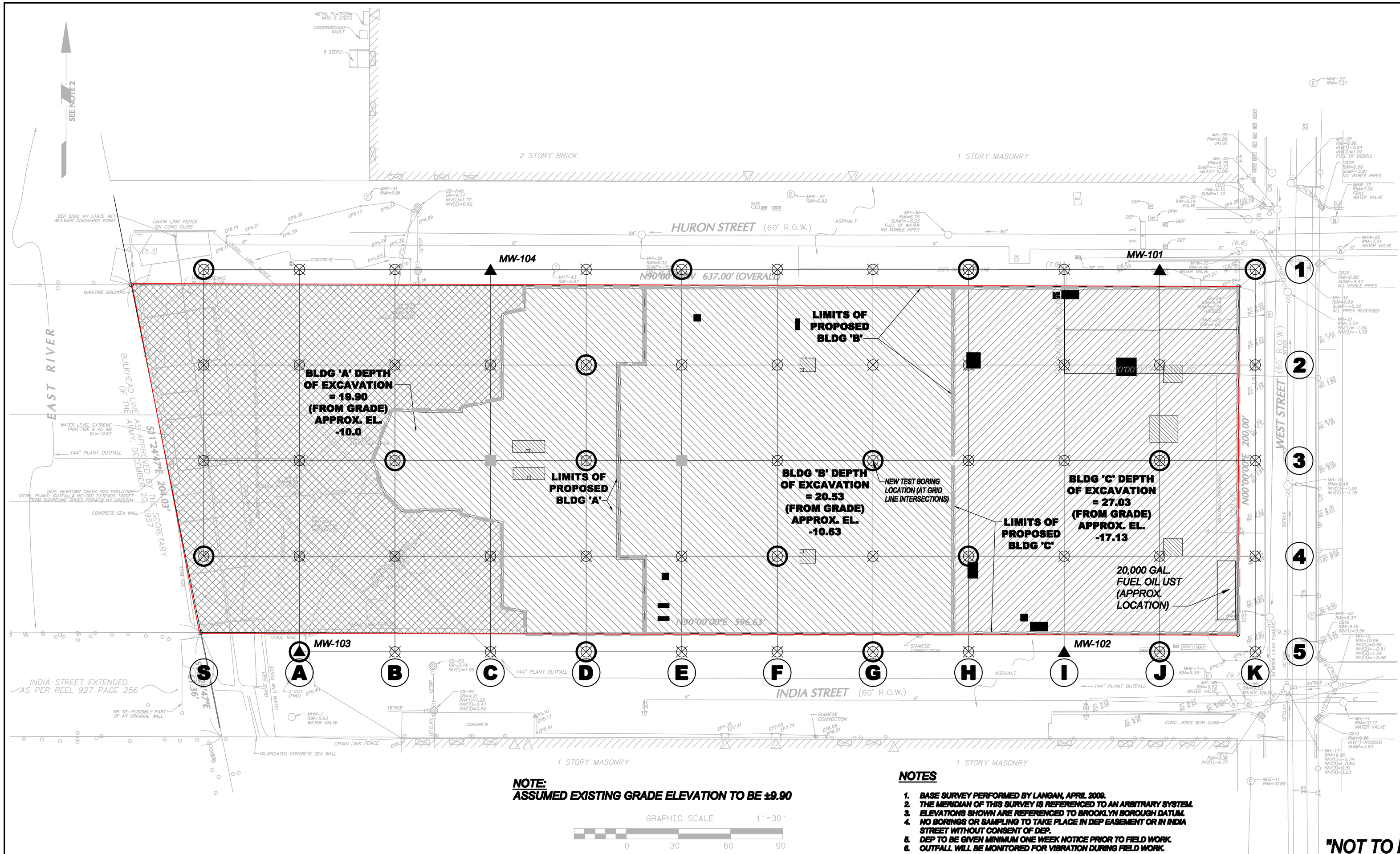
- restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or NYCDOH and;
- requires compliance with the Department approved Site Management Plan.

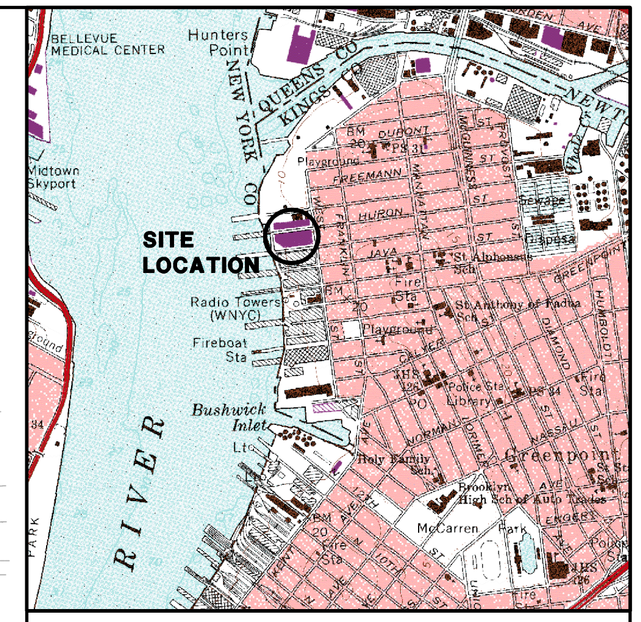
4. Site Management Plan
A Site Management Plan is required, which includes the following:
a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:
Institutional Controls: The Environmental Easement discussed in Paragraph 3 above.
This plan includes, but may not be limited to:

- descriptions of the provisions of the environmental easement including any land use or groundwater use restrictions;
- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.



Galli Engineering, P.C. 734 Walt Whitman Road, Suite 402A Melville, New York 11747	JOB NO. 0815-01-003		145 WEST STREET LLC
	DATE 8/18/11		
	SCALE N.T.S.	CHKD. BY KLB	FIGURE 1 – SITE LOCATION MAP
	DRWN. BY JJR	DSGN. BY KLB	





KEY MAP

LEGEND

- HYDRANT
- STREET LIGHT
- SIGNAL POLE
- MANHOLE
- WATER VALVE
- GAS VALVE
- UNKNOWN VALVE
- CATCH BASIN
- METAL COVER
- ELECTRIC BOX
- DOOR
- DOUBLE DOOR
- GARAGE DOOR
- PARKING METER
- MONITORING WELL
- x 322.35 SPOT ELEVATION
- CLEAN OUT
- TREE
- BM-1 BENCH MARK
- SIGN
- POLE
- BOLLARD
- STORM DRAIN
- SANITARY
- GAS
- WATER
- ELECTRIC
- FENCE (TYPE AS NOTED)
- OVERHEAD WIRE
- GUIDE RAIL (TYPE AS NOTED)
- TELEPHONE
- TREE LINE
- REFERENCED UTILITY LINE (TYPE AS NOTED)
- (6.8) LEGAL GRADE (TYPICAL)
- BORING LOCATION (LANGAN 12/08)
- BORING & MONITORING WELL LOCATION (LANGAN 12/08)
- NEW MONITORING WELL AND BORING LOCATION
- NEW TEST BORING LOCATION
- NEW TEST PIT LOCATION
- ENDPOINT SAMPLE LOCATION

NOTE:
ASSUMED EXISTING GRADE ELEVATION TO BE ±9.90

GRAPHIC SCALE 1"=30'
0 30 60 90

NOTES

1. *BASE SURVEY PERFORMED BY LANGAN, APRIL 2009.*
2. *THE MERIDIAN OF THIS SURVEY IS REFERENCED TO AN ARBITRARY SYSTEM.*
3. *ELEVATIONS SHOWN ARE REFERENCED TO BROOKLYN BOROUGH DATUM.*
4. *NO BORINGS OR SAMPLING TO TAKE PLACE IN DEP EASEMENT OR IN INDIA STREET WITHOUT CONSENT OF DEP.*
5. *DEP TO BE GIVEN MINIMUM ONE WEEK NOTICE PRIOR TO FIELD WORK.*
6. *OUTFALL WILL BE MONITORED FOR VIBRATION DURING FIELD WORK.*

"NOT TO BE USED FOR CONSTRUCTION"

HATCH LEGEND

- *HATCH DENOTES DEPTH IN EXCAVATION AS REQUIRED TO MEET PROJECT GOALS*
- *LIMITS OF INDIVIDUAL DEPTH EXCAVATION FOOTPRINTS (EXCAVATION DEPTH TO BE INDICATED)*
- *HATCH DENOTES 20 FOOT DEPTH IN EXCAVATION BELOW LAND SURFACE*
- *HATCH DENOTES ADDITIONAL 2 FOOT DEPTH IN EXCAVATION*
- *HATCH DENOTES 27 FOOT DEPTH IN EXCAVATION BELOW LAND SURFACE*
- *HATCH DENOTES ADDITIONAL 5 FOOT DEPTH IN EXCAVATION*

SITE BOUNDARY

REV.	DATE	DESCRIPTION	BY

JOB NO. 0815-01-003
DRAWN AXC
CHECKED KLB
APPROVED RDG
SEAL

145 WEST STREET, LLC
BROOKLYN, NEW YORK

PROPOSED SITE EXCAVATION DEPTHS AND LOCATIONS

Galli engineering, P.C.
734 Walt Whitman Road, Suite 402A
Melville, New York 11747

DATE 12/31/12 | SCALE AS SHOWN | DRAWING NO. **FIGURE 2**