461 & 463 Tompkins Avenue
BROOKLYN, NEW YORK

Remedial Action Work Plan

NYC VCP Project Number 16CVCP082K

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REMEDIAL ACTION WORK PLAN

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LIST OF ACRONYMS

Acronym	Definition
AOC	Area of Concern
AS/SVE	Air Sparging/Soil Vapor Extraction
BOA	Brownfield Opportunity Area
CAMP	Community Air Monitoring Plan
C&D	Construction and Demolition
CEQR	City Environmental Quality Review
CFR	Code of Federal Regulations
CHASP	Construction Health and Safety Plan
COC	Certificate of Completion
CQAP	Construction Quality Assurance Plan
CSOP	Contractors Site Operation Plan
DCR	Declaration of Covenants and Restrictions
ECs/ICs	Engineering Controls and Institutional Controls
ELAP	Environmental Laboratory Accreditation Program
HASP	Health and Safety Plan
HAZWOPER	Hazardous Waste Operations Emergency Response
IRM	Interim Remedial Measure
MNA	Monitored Natural Attenuation
NOC	Notice of Completion
NYS DEC	New York State Department of Environmental Conservation
NYC DEP	New York City Department of Environmental Protection
NYC DOHMH	New York State Department of Health and Mental Hygiene
NYC OER	New York City Office of Environmental Remediation
NYC VCP	New York City Voluntary Cleanup Program
NYCRR	New York Codes Rules and Regulations
NYS DEC	New York State Department of Environmental Conservation
NYS DEC DER	New York State Department of Environmental Conservation Division of Environmental Remediation

Acronym	Definition
NYS DOH	New York State Department of Health
NYS DOT	New York State Department of Transportation
ORC	Oxygen-Release Compound
OSHA	United States Occupational Health and Safety Administration
PCBs	Polychlorinated Biphenyls
PE	Professional Engineer
PID	Photo Ionization Detector
QEP	Qualified Environmental Professional
QHHEA	Qualitative Human Health Exposure Assessment
RAOs	Remedial Action Objectives
RAR	Remedial Action Report
RAWP	Remedial Action Work Plan or Plan
RCA	Recycled Concrete Aggregate
RD	Remedial Design
RI	Remedial Investigation
RMZ	Residual Management Zone
SCOs	Soil Cleanup Objectives
SCG	Standards, Criteria and Guidance
SMP	Site Management Plan
SPDES	State Pollutant Discharge Elimination System
SSDS	Sub-Slab Depressurization System
SVOC	Semi-Volatile Organic Compound
TAL	Target Analyte List
TCL	Target Compound List
USGS	United States Geological Survey
UST	Underground Storage Tank
VCA	Voluntary Cleanup Agreement
VOC	Volatile Organic Compound

CERTIFICATION

I, Philip Bell, am currently a registered professional engineer licensed by the State of New York. I performed professional engineering services and had primary direct responsibility for designing the remedial program for the 461 & 463 Tompkins Avenue site, site number 16CVCP082K. I certify to the following:

- I have reviewed this document and the Stipulation List, to which my signature and seal are affixed.
- Engineering Controls developed for this remedial action were designed by me or a person under my direct supervision and designed to achieve the goals established in this Remedial Action Work Plan for this site.
- The Engineering Controls to be constructed during this remedial action are accurately reflected in the text and drawings of the Remedial Action Work Plan and are of sufficient detail to enable proper construction.
- This Remedial Action Work Plan (RAWP) has a plan for handling, transport and disposal of soil, fill, fluids and other materials removed from the property in accordance with applicable City, State and Federal laws and regulations. Importation of all soil, fill and other material from off-Site will be in accordance with all applicable City, State and Federal laws and requirements. This RAWP has provisions to control nuisances during the remediation and all invasive work, including dust and odor suppression.

Philip Bell
Name

081943
PE License Number

Signature

6/21/16
Date

I, Paul H. Ciminello, am a qualified Environmental Professional. I will have primary direct responsibility for implementation of the remedial program for the 461 & 463 Tompkins Avenue site, site number 16CVCP082K. I certify to the following:

- This Remedial Action Work Plan (RAWP) has a plan for handling, transport and disposal of soil, fill, fluids and other materials removed from the property in accordance with applicable City, State and Federal laws and regulations. Importation of all soil, fill and other material from off-Site will be in accordance with all applicable City, State and Federal laws and requirements. This RAWP has provisions to control nuisances during the remediation and all invasive work, including dust and odor suppression.

Paul H. Ciminello
QEP Name

QEP Signature

6/21/2016
Date

EXECUTIVE SUMMARY

Van Buren Greene, LLC is working with the NYC Office of Environmental Remediation (OER) in the New York City Voluntary Cleanup Program to investigate and remediate a 4,000-square foot site located at 461 & 463 Tompkins Avenue in Brooklyn, New York. A remedial investigation (RI) was performed to compile and evaluate data and information necessary to develop this Remedial Action Work Plan (RAWP). The remedial action described in this document provides for the protection of public health and the environment consistent with the intended property use, complies with applicable environmental standards, criteria and guidance and conforms with applicable laws and regulations.

Site Location and Background

The Site is located at 461 & 463 Tompkins Avenue in the Bedford-Stuyvesant section in Brooklyn, New York and is identified as Block 1852 and Lots 8 & 9 on the New York City Tax Map. Figure 1 shows the Site location. The Site is 4,000-square feet and is bounded by a 3-story multi-family residential structure to the north, a 3-story multi-family residential structure to the south, a 4-story multi-family residential structure to the east, and Tompkins Avenue to the west. A map showing the site boundary is provided in Figure 2. Currently, the Site is vacant and contains unmaintained land.

Summary of Redevelopment Plan

The proposed future use of the Site will consist of two, 3-story residential structures. The proposed development project consists of re-grading the Site to street level (the Site is currently raised approximately 4-5 feet) and constructing two new 3-story (30 foot height with 3.5 foot front parapet), multi-family residential buildings with full basements. Each building will contain two residential units occupying all aboveground floors. The basements will contain residential storage and/or utility and maintenance rooms. The footprint of each building will cover 800 square feet (1,600 square feet total) and occupy 40% of the Site. The remainder of the Site will consist of: a 1,760 square foot (44% of the entire lot) rear yard, a 240 square foot (6 % of the entire lot) rear concrete patio, and a 400 square foot (10% of the entire lot) front concrete entrance area. The gross building square footage is 6,372 square feet with 4,779 square feet for residential use.

The entire site is currently built up above street grade with approximately 4-5 feet of soil, representing approximately 600-750 cubic yards to be excavated. Excavation for construction of the basement levels is estimated to extend approximately 11 feet below street grade. Approximately 650 cubic yards of additional soils are expected to be removed from the basement excavation. An additional 175-200 cubic yards will be excavated in the landscaped areas at the Site with an additional 100 cubic yards from a hotspot at SB-06/07. The estimated total quantity of soil to be excavated is 1,600-1,900 cubic yards; however, approximately 100 cubic yards may be re-used as backfill for the hotspot excavation. The lowest depth of excavation at the Site will not extend below the water table, which is known to be greater than 30 feet bsg.

Layout of the proposed site development is presented in Figure 3. The current zoning designation is R6A for residential use with a C2-4 commercial overlay. The proposed use is consistent with existing zoning for the property. The remedial action contemplated under this RAWP may be implemented independently of the proposed redevelopment plan.

Summary of Surrounding Property

All adjoining properties contain multi-family residential structures. The surrounding neighborhood consists primarily of residential and/or mixed-use residential and commercial structures. Several institutional facilities are located in the nearby surrounding area. A day care facility is located in the "Stuyvesant Heights Christian Church" approximately 100 feet to the southwest of the Site and the "Leadership Preparatory Charter School" is located approximately 400 feet northwest of the Site. No other sensitive receptors such as schools, hospitals, or daycare facilities were identified within a 500-foot radius of the Site.

Figure 4 shows the surrounding land usage.

Summary of Past Site Uses and Areas of Concern

Based on a review of a Phase I Environmental Site Assessment (Phase I ESA) conducted by Impact Environmental (Impact) in September 2015, and available online New York City Assessor's Office records, the following Site history was established. The Site was historically developed with two dwellings, as early as 1888, one on the northern half (461 Tompkins Avenue) and one on the southern half (463 Tompkins Avenue). The dwelling on 461 Tompkins Avenue was demolished sometime between 1932 and 1951 and the dwelling on 463 Tompkins Avenue was demolished

circa 1991. The Site has been vacant since 1991 and has no known history of commercial or industrial use.

The AOCs identified for this site include:

1. Known presence of poor quality urban fill materials with elevated SVOCs, metals, and pesticides.
2. Potential impacts from a nearby active dry cleaner.

Summary of Work Performed under the Remedial Investigation

The following work was performed as part of the Phase II subsurface investigation by ESI in January 2016 and the Remedial Investigation (RI) by ESI in May 2016:

1. Conducted a Site inspection to identify AOCs and physical obstructions (i.e. structures, buildings, etc.);
2. In January, installed seven soil borings across the entire project Site and collected five soil samples and in May, installed three borings and collected seven samples for chemical analysis from the soil borings to evaluate soil quality;
3. In January, attempted to install two groundwater monitoring wells throughout the Site to establish groundwater flow and evaluate groundwater quality; however, groundwater was not encountered at depths ranging to 30 feet below grade, therefore no groundwater samples were collected; and
4. In January, installed three soil vapor probes around the Site and collected three soil vapor samples and in May, installed one soil vapor probe at the Site and collected one sample for chemical analysis.

Summary of Findings of Remedial Investigation

1. Elevation of the property is approximately 50 feet.
2. Depth to groundwater at the Site is known to be greater than 30 feet below surface grade (bsg).

3. Groundwater flow beneath the Site is not known but is likely to be in an overall southerly direction, towards Jamaica Bay.

4. Bedrock was not encountered to a maximum depth of 16 feet during the RI and was not encountered to a maximum depth of 30 feet during previous environmental investigations at the Site.

5. The stratigraphy of the site, from the surface down, consists of 9 to 11 feet of urban fill materials (variable texture, silty sands with brick, masonry, and rock inclusions), underlain by medium to coarse sands with small gravel to a maximum depth of 30 feet.

6. Soil/fill samples collected during the Phase II and RI were compared to NYSDEC Unrestricted Use Soil Cleanup Objectives and Restricted Residential Soil Cleanup Objectives (SCOs) as presented in 6NYCRR Part 375-6.8 and CP51. Soil/fill samples collected showed trace concentrations of several volatile organic compounds (VOCs) with acetone (max. 0.077 ppm) detected above Unrestricted Use SCOs. Due to elevated PID readings, a third sample was collected at 2SB-01 which showed 1,2,4-trichlorobenzene at 11 ppm, above Unrestricted Use SCOs. Several semi-volatile organic compounds (SVOCs) consisting of the Polycyclic Aromatic Hydrocarbons (PAH) were detected above Restricted Residential Use SCOs in the north-central portion of the site including benz(a)anthracene (max of 31.6 ppm), benzo(a)pyrene (max of 3.01 ppm), benzo(b)fluoranthene (max of 13.4 ppm), benzo(k)fluoranthene (max of 17.2 ppm), chrysene (max of 28.2 ppm), dibenzo(a,h)anthracene (max of 4.26 ppm), indeno(1,2,3-cd)pyrene (max of 6.37 ppm), and 2-methylnaphthalene (max. 7.79 ppm). Four pesticides including 4,4'-DDD (max of 0.021 ppm); 4,4'-DDE (max of 0.031 ppm); 4,4'-DDT (max of 0.18 ppm) and dieldrin (0.012 ppm) were detected exceeding Unrestricted Use SCOs in shallow samples. Total PCBs were detected at a maximum of 0.029 ppm, below the Unrestricted Use SCO. Several metals including barium (max 635 ppm); copper (max 289 ppm); lead (max 1,010 ppm); mercury (max 1.75 ppm); and zinc (max 1,110 ppm) were detected exceeding Unrestricted Use SCOs. Of these metals, barium, lead, and mercury also exceeded Restricted Residential SCOs. Overall, soil chemistry is similar to sites with historic fill material in New York City.

7. Soil vapor results collected during the Phase II and RI were compared to compounds listed in Table 3.1 Air Guideline Values Derived by the NYSDOH located in the New York State Department of Health Final Guidance for Evaluating Soil Vapor Intrusion dated October 2006. Soil vapor samples showed low levels of petroleum related compounds. The max total concentration of petroleum-related VOCs (BTEX) was 21.7 $\mu g/m^3$. Chlorinated VOCs were also detected with tetrachloroethylene (PCE) detected at a maximum of 31 $\mu g/m^3$ and 1,1,1-Trichloroethane detected at 2 $\mu g/m^3$. Carbon tetrachloride and trichloroethene were not detected in any of the soil vapor samples. Concentration for PCE was within the monitoring level ranges established within the State DOH soil vapor guidance matrix.

8. Two attempts were made to install groundwater wells, but refusal was encountered at 30 feet depths in both locations. Due to groundwater depth of more than 50 feet, groundwater sampling is deferred to the results of soil and soil vapor sampling. Based upon results of soil and soil vapor sampling, groundwater investigation is waived.

Summary of the Remedial Action

The preferred remedy for the site is Alternative 2, a Track 4 Site-Specific SCOs remedy. The Alternative 2 remedy will remove all soil/fill exceeding Track 4 Site-Specific SCOs throughout the Site, which will be confirmed with post-excavation sampling. Engineering and Institutional Controls are required for soil management for a Track 4 cleanup. A composite cover consisting of the concrete building slabs, concrete entryways and patios, and 2 feet of clean soil in the landscaped area covering the entire site, a vapor barrier, and a passive SSDS would be installed as part of standard building development to address soil intrusion. Use restrictions will be imposed on the site and Deed Restrictions would be imposed on this property.

The proposed remedial action achieves protection of public health and the environment for the intended use of the property. The proposed remedial action achieves all of the remedial action objectives established for the project and addresses applicable standards, criterion, and guidance; is effective in both the short-term and long-term and reduces mobility, toxicity and volume of contaminants; is cost effective and implementable; and uses standards methods that are well established in the industry.

The proposed remedial action will consist of:

1. Preparation of a Community Protection Statement and performance of all required NYC VCP Citizen Participation activities according to an approved Citizen Participation Plan.
2. Performance of a Community Air Monitoring Program for particulates and volatile organic carbon compounds.
3. Establishment of Track 4 Site-Specific Soil Cleanup Objectives (SCOs).
4. Completion of a Waste Characterization Study prior to excavation activities. Waste characterization soil samples will be collected at a frequency dictated by disposal facility(s). A Waste Characterization Report documenting sample procedures, location, analytical results shall be submitted to NYCOER prior to start of remedial action.
5. Site mobilization involving Site security setup, equipment mobilization, utility mark outs and marking & staking excavation areas.
6. Excavation and removal of soil/fill exceeding Track 4 Site-Specific SCOs. The area beneath the proposed buildings will be excavated to 11 feet, the area beneath proposed concrete patios and entryways will be excavated at least 8-10 inches, and areas beneath proposed grass yards will be excavated to 2 feet. A hotspot located at SB-06 and SB-07, located beneath the proposed yard, will be excavated an additional 2-3 feet to a total depth of 9 feet. The estimated total quantity of soil to be excavated is 1,600-1,900 cubic yards, 1,700-1,800 of which is planned for removal.
7. Screening of excavated soil/fill during intrusive work for indications of contamination by visual means, odor, and monitoring with a PID. Appropriate segregation of excavated media on-Site.
8. Management of excavated materials including temporarily stockpiling and segregating in accordance with defined material types and to prevent co-mingling of contaminated material and non-contaminated materials.
9. Removal of all underground storage tanks that are encountered during soil/fill removal actions. Registration of tanks and reporting of any petroleum spills associated with UST's and appropriate closure of these petroleum spills in compliance with applicable local, State and Federal laws and regulations.

10. Transportation and off-Site disposal of all soil/fill material at permitted facilities in accordance with applicable laws and regulations for handling, transport, and disposal, and this plan. Sampling and analysis of excavated media as required by disposal facilities.
11. Collection and analysis of end-point samples to determine the performance of the remedy with respect to attainment of SCOs.
12. Demarcation of residual soil/fill in landscaped areas.
13. Import of materials to be used for backfill and cover in compliance with this plan and in accordance with applicable laws and regulations.
14. Construction of an engineered composite cover consisting of a 6-inch concrete building slab with an 8-inch clean granular sub-base beneath all building areas, 4-inch poured concrete on a 6-inch sub-base in sidewalk and patio areas, and two feet of clean soil in all open space and landscaped areas to prevent human exposure to residual soil/fill remaining at the Site.
15. Installation of a vapor barrier system consisting of vapor barrier beneath the building slab and outside of sub-grade foundation sidewalls to mitigate soil vapor migration into the building. The vapor barrier system will consist of a minimum 20-mil vapor barrier with the selected manufacturer/model provided to OER in the Stipulation Letter. All welds, seams and penetrations will be properly sealed to prevent preferential pathways for vapor migration. The vapor barrier system is an Engineering Control for the remedial action. The remedial engineer will certify in the RAR that the vapor barrier system was designed and properly installed to mitigate soil vapor migration into the building.
16. Installation of a passive sub-slab depressurization system (SSDS). The design of the SSDS will be provided to OER in the Stipulation Letter. The passive SSDS is an Engineering Control for the remedial action. The remedial engineer will certify in the Remedial Action Report (RAR) that the passive SSDS was designed and properly installed to establish a vacuum in the gas permeable layer and a negative (decreasing outward) pressure gradient across the building slab to prevent vapor migration into the building.
17. Performance of all activities required for the remedial action, including acquisition of required permits and attainment of pretreatment requirements, in compliance with applicable laws and regulations.

18. Implementation of storm-water pollution prevention measures in compliance with applicable laws and regulations.
19. Submission of a Remedial Action Report (RAR) that describes the remedial activities, certifies that the remedial requirements have been achieved, defines the Site boundaries, lists any changes from this RAWP, and describes all Engineering and Institutional Controls to be implemented at the Site.
20. Submission of an approved Site Management Plan (SMP) in the RAR for long-term management of residual contamination, including plans for operation, maintenance, monitoring, inspection and certification of Engineering and Institutional Controls and reporting at a specified frequency.
21. Recording of a Declaration of Covenants and Restrictions that includes a listing of Engineering Controls and Institutional Controls and a requirement that management of these controls must be in compliance with an approved SMP. Institutional Controls will include prohibition of the following: (1) vegetable gardening and farming; (2) use of groundwater without treatment rendering it safe for the intended use; (3) disturbance of residual contaminated material unless it is conducted in accordance with the SMP; and (4) higher level of land usage without OER-approval.

COMMUNITY PROTECTION STATEMENT

The NYC Office of Environmental Remediation (OER) provides governmental oversight for the cleanup of contaminated property in NYC. This Remedial Action Work Plan ("cleanup plan") describes the findings of prior environmental studies, shows the location of identified contamination at the site, and describes the plans to clean up the site to protect public health and the environment.

This cleanup plan provides a very high level of protection for neighboring communities and also includes many other elements that address common community concerns, such as community air monitoring, odor, dust and noise controls, hours of operation, good housekeeping and cleanliness, truck management and routing, and opportunities for community participation. The purpose of this Community Protection Statement is to explain these community protection measures in non-technical language to simplify community review.

Project Information:

- Site Address: 461 & 463 Tompkins Avenue, Brooklyn NY
- NYC Voluntary Cleanup Program Project Number: 16CVCP082K

Project Contacts:

- OER Project Manager: Sarah Pong, 212-788-8841
- Site Project Manager: Paul H. Ciminello, 845-452-1658
- Site Safety Officer: Paul H. Ciminello, 845-452-1658
- Online Document Repository: http://www.nyc.gov/html/oer/html/repository/RBrooklyn.shtml

Remedial Investigation and Cleanup Plan: Under the oversight of the NYC OER, a thorough study of this property (called a remedial investigation) has been performed to identify past property usage, to sample and test soils, groundwater and soil vapor, and to identify contaminant sources present on the property. The cleanup plan has been designed to address all contaminant sources that have been identified during the study of this property.

Identification of Sensitive Land Uses: Prior to selecting a cleanup, the neighborhood was evaluated to identify sensitive land uses nearby, such as schools, day care facilities, hospitals and residential areas. The cleanup program was then tailored to address the special conditions of this community.

Qualitative Human Health Exposure Assessment: An important part of the cleanup planning for the Site is a study to find all of the ways that people might come in contact with contaminants at the Site now or in the future. This study is called a Qualitative Human Health Exposure Assessment (QHHEA). A QHHEA was performed for this project. This assessment has considered all known contamination at the Site and evaluated the potential for people to come in contact with this contamination. All identified public exposures will be addressed under this cleanup plan.

Health and Safety Plan: This cleanup plan includes a Construction Health and Safety Plan (CHASP) that is designed to protect community residents and on-Site workers. The elements of this RAWP are in compliance with applicable safety requirements of the United States Occupational Safety and Health Administration (OSHA). This RAWP includes many protective elements including those discussed below.

Site Safety Coordinator: This project has a designated Site safety coordinator to implement the CHASP. The safety coordinator maintains an emergency contact sheet and protocol for management of emergencies. The Site safety coordinator is identified at the beginning of this Community Protection Statement.

Worker Training: Workers participating in cleanup of contaminated material on this project are required to be trained in a 40-hour hazardous waste operators training course and to take annual refresher training. This pertains to workers performing specific tasks including removing contaminated material and installing cleanup systems in contaminated areas.

Community Air Monitoring Plan: Community air monitoring will be performed during this cleanup project to ensure that the community is properly protected from contaminants, dust and odors. Air samples will be tested in accordance with a detailed plan called the Community Air Monitoring Plan or CAMP. Results will be regularly reported to the NYC Office of Environmental

Remediation. This cleanup plan also has a plan to address any unforeseen problems that might occur during the cleanup (called a 'Contingency Plan').

Odor, Dust and Noise Control: This cleanup plan includes actions for odor and dust control. These actions are designed to prevent off-Site odor and dust nuisances and include steps to be taken if nuisances are detected. Generally, dust is managed by application of physical covers and by water sprays. Odors are controlled by limiting the area of open excavations, physical covers, spray foams and by a series of other actions (called operational measures). The project is also required to comply with applicable NYC noise control standards. If you observe problems in these areas, please contact the onsite Project Manager or NYC Office of Environmental Remediation Project Manager listed on the first page of this Community Protection Statement document.

Quality Assurance: This cleanup plan requires that evidence be provided to illustrate that all cleanup work required under the plan has been completed properly. This evidence will be summarized in the final report, called the Remedial Action Report. This report will be submitted to the NYC Office of Environmental Remediation and will be thoroughly reviewed.

Stormwater Management: To limit the potential for soil erosion and discharge, this cleanup plan has provisions for stormwater management. The main elements of the stormwater management include physical barriers such as tarp covers and erosion fencing, and a program for frequent inspection.

Hours of Operation: The hours for operation of cleanup will comply with the NYC Department of Buildings construction code requirements or according to specific variances issued by that agency. For this cleanup project, the hours of operation will conform to requirements of the NYC Department of Buildings.

Signage: While the cleanup is in progress, a placard will be prominently posted at the main entrance of the property with a laminated project Fact Sheet that states that the project is in the NYC Voluntary Cleanup Program and provides project contact names and numbers, and a link to the document repository where project documents can be viewed.

Complaint Management: The contractor performing this cleanup is required to address all complaints. If you have any complaints, you can call the facility Project Manager or the NYC Office of Environmental Remediation Project Manager listed on the first page of this Community Protection Statement document, or call 311 and mention the Site is in the NYC Voluntary Cleanup Program.

Utility Mark Outs: To promote safety during excavation in this cleanup, the contractor is required to first identify all utilities and must perform all excavation and construction work in compliance with NYC Department of Buildings regulations.

Soil and Liquid Disposal: All soil and liquid material removed from the Site as part of the cleanup will be transported and disposed of in accordance with all applicable City, State and Federal regulations, and required permits will be obtained.

Soil Chemical Testing and Screening: All excavations will be supervised by a trained and properly qualified environmental professional. In addition to extensive sampling and chemical testing of soils on the Site, excavated soil will be screened continuously using hand-held instruments, by sight, and by smell to ensure proper material handling and management, and community protection.

Stockpile Management: Soil stockpiles will be kept covered with tarps to prevent dust, odor and erosion. Stockpiles will be frequently inspected. Damaged tarp covers will be promptly replaced. Stockpiles will be protected with silt fences. Hay bales will be used, as needed, to protect storm water catch basins and other discharge points.

Trucks and Covers: Loaded trucks leaving the Site will be covered in compliance with applicable laws and regulations to prevent dust and odor. Trucks will be properly recorded in logs and records and placarded in compliance with applicable City, State and Federal laws, including those of the New York State Department of Transportation. If loads contain wet material that can leak, truck liners will be used. All transport of materials will be performed by licensed truckers and in compliance with applicable laws and regulations.

Imported Material: All fill materials proposed to be brought onto the Site will comply with rules outlined in this cleanup plan and will be inspected and approved by a qualified worker located on the Site. Waste materials will not be brought onto the Site. Trucks entering the Site with imported clean materials will be covered in compliance with applicable laws and regulations.

Equipment Decontamination: All equipment used for cleanup work will be inspected and washed, if needed, before it leaves the Site. Trucks will be cleaned at a truck inspection station on the property before leaving the Site.

Housekeeping: Locations where trucks enter or leave the Site will be inspected every day and cleaned regularly to ensure that they are free of dirt and other materials from the Site.

Truck Routing: Truck routes have been selected to: (a) limit transport through residential areas and past sensitive nearby properties; (b) maximize use of city-mapped truck routes; (c) limit total distance to major highways; (d) promote safety in entry to highways; (e) promote overall safety in trucking; and (f) minimize off-Site line-ups (queuing) of trucks entering the property. Operators of loaded trucks leaving the Site will be instructed not to stop or idle in the local neighborhood.

Final Report: The results of all cleanup work will be fully documented in a final report (called the Remedial Action Report) that will be available for public review online. A link to the online document repository and the public library with Internet access nearest the Site are listed on the first page of this Community Protection Statement document

Long-Term Site Management: If long-term protection is needed after the cleanup is complete, the property owner will be required to comply with an ongoing Site Management Plan that calls for continued inspection of protective controls, such as Site covers. The Site Management Plan is evaluated and approved by the NYC Office of Environmental Remediation. Requirements that the property owner must comply with are defined in the property's deed. A certification of continued protectiveness of the cleanup will be required from time to time to show that the approved cleanup is still effective.

REMEDIAL ACTION WORK PLAN

1.0 PROJECT BACKGROUND

Van Buren Greene, LLC is working with the NYC Office of Environmental Remediation (OER) in the New York City Voluntary Cleanup Program to investigate and remediate a property located at 461 & 463 Tompkins Avenue in the Bedford-Stuyvesant section of Brooklyn, New York (the "Site"). A Remedial Investigation (RI) was performed to compile and evaluate data and information necessary to develop this Remedial Action Work Plan (RAWP) in a manner that will render the Site protective of public health and the environment consistent with the contemplated end use. This RAWP establishes remedial action objectives, provides a remedial alternatives analysis that includes consideration of a permanent cleanup, and provides a description of the selected remedial action. The remedial action described in this document provides for the protection of public health and the environment, and complies with applicable environmental standards, criteria and guidance and applicable laws and regulations.

1.1 Site Location and Background

The Site is located at 461 & 463 Tompkins Avenue in the Bedford-Stuyvesant section in Brooklyn, New York and is identified as Block 1852 and Lots 8 & 9 on the New York City Tax Map. Figure 1 shows the Site location. The Site is 4,000-square feet and is bounded by a 3-story multi-family residential structure to the north, a 3-story multi-family residential structure to the south, a 4-story multi-family residential structure to the east, and Tompkins Avenue to the west. A map of the site boundary is shown in Figure 2. Currently, the Site is vacant and contains unmaintained land.

1.2 Redevelopment Plan

The proposed future use of the Site will consist of two, 3-story residential structures. The proposed development project consists of re-grading the Site to street level (the Site is currently raised approximately 4-5 feet) and constructing two new 3-story (30 foot height with 3.5 foot front parapet), multi-family residential buildings with full basements. Each building will contain two residential units occupying all aboveground floors. The basements will contain residential storage and/or utility and maintenance rooms. The footprint of each building will cover 800 square feet (1,600 square feet total) and occupy 40% of the Site. The remainder of the Site will consist of: a

1,760 square foot (44% of the entire lot) rear yard, a 240 square foot (6 % of the entire lot) rear concrete patio, and a 400 square foot (10% of the entire lot) front concrete entrance area. The gross building square footage is 6,372 square feet with 4,779 square feet for residential use.

The entire site is currently built up above street grade with approximately 4-5 feet of soil, representing approximately 600-750 cubic yards to be excavated. Excavation for construction of the basement levels is estimated to extend approximately 11 feet below street grade. Approximately 650 cubic yards of additional soils are expected to be removed from the basement excavation. An additional 175-200 cubic yards will be excavated in the landscaped areas at the Site with an additional 100 cubic yards from a hotspot at SB-06/07. The estimated total quantity of soil to be excavated is 1,600-1,900 cubic yards; however, approximately 100 cubic yards may be re-used as backfill for the hotspot excavation. The lowest depth of excavation at the Site will not extend below the water table, which is known to be greater than 30 feet bsg.

Layout of the proposed site development is presented in Figure 3. The current zoning designation is R6A for residential use with a C2-4 commercial overlay. The proposed use is consistent with existing zoning for the property. The remedial action contemplated under this RAWP may be implemented independently of the proposed redevelopment plan.

1.3 Description of Surrounding Property

All adjoining properties contain multi-family residential structures. The surrounding neighborhood consists primarily of residential and/or mixed-use residential and commercial structures. Several institutional facilities are located in the nearby surrounding area. A day care facility is located in the “Stuyvesant Heights Christian Church” approximately 100 feet to the southwest of the Site and the “Leadership Preparatory Charter School” is located approximately 400 feet northwest of the Site. No other sensitive receptors such as schools, hospitals, or daycare facilities were identified within a 500-foot radius of the Site.

Figure 4 shows the surrounding land usage.

1.4 Summary of Past Site Uses and Areas of Concern

Based on a review of a Phase I Environmental Site Assessment (Phase I ESA) conducted by Impact Environmental (Impact) in September 2015, and available online New York City Assessor’s Office records, the following Site history was established. The Site was historically developed with two

dwellings, as early as 1888, one on the northern half (461 Tompkins Avenue) and one on the southern half (463 Tompkins Avenue). The dwelling on 461 Tompkins Avenue was demolished sometime between 1932 and 1951 and the dwelling on 463 Tompkins Avenue was demolished circa 1991. The Site has been vacant since 1991 and has no known history of commercial or industrial use.

The AOCs identified for this site include:

1. Known presence of poor quality urban fill materials with elevated SVOCs, metals, and pesticides.
2. Potential impacts from a nearby active dry cleaner.

1.5 Summary of Work Performed under the Remedial Investigation

The following work was performed as part of the Phase II subsurface investigation by ESI in January 2016 and the Remedial Investigation (RI) by ESI in May 2016:

1. Conducted a Site inspection to identify AOCs and physical obstructions (i.e. structures, buildings, etc.);
2. In January, installed seven soil borings across the entire project Site and collected five soil samples and in May, installed three borings and collected seven samples for chemical analysis from the soil borings to evaluate soil quality;
3. In January, attempted to install two groundwater monitoring wells throughout the Site to establish groundwater flow and evaluate groundwater quality; however, groundwater was not encountered at depths ranging to 30 feet below grade, therefore no groundwater samples were collected; and
4. In January, installed three soil vapor probes around the Site and collected three soil vapor samples and in May, installed one soil vapor probe at the Site and collected one sample for chemical analysis.

1.6 Summary of Findings of Remedial Investigation

A remedial investigation was performed and the results are documented in a companion document called "Remedial Investigation Report, 461 & 463 Tompkins Avenue", dated June 2016 (RIR).

1. Elevation of the property is approximately 50 feet.

2. Depth to groundwater at the Site is not known but is expected to be at least 50 feet below surface grade (bsg).

3. Groundwater flow beneath the Site is not known but is likely to be in an overall southerly direction, towards Jamaica Bay.

4. Bedrock was not encountered to a maximum depth of 16 feet during the RI and was not encountered to a maximum depth of 30 feet during previous environmental investigations at the Site.

5. The stratigraphy of the site, from the surface down, consists of 9 to 11 feet of urban fill materials (variable texture, silty sands with brick, masonry, and rock inclusions), underlain by medium to coarse sands with small gravel to a maximum depth of 30 feet.

6. Soil/fill samples collected during the Phase II and RI were compared to NYSDEC Unrestricted Use Soil Cleanup Objectives and Restricted Residential Soil Cleanup Objectives (SCOs) as presented in 6NYCRR Part 375-6.8 and CP51. Soil/fill samples collected showed trace concentrations of several volatile organic compounds (VOCs) with acetone (max. 0.077 ppm) detected above Unrestricted Use SCOs. Due to elevated PID readings, a third sample was collected at 2SB-01 which showed 1,2,4-trichlorobenzene at 11 ppm, above Unrestricted Use SCOs. Several semi-volatile organic compounds (SVOCs) consisting of the Polycyclic Aromatic Hydrocarbons (PAH) were detected above Restricted Residential Use SCOs in the north-central portion of the site including benz(a)anthracene (max of 31.6 ppm), benzo(a)pyrene (max of 3.01 ppm), benzo(b)fluoranthene (max of 13.4 ppm), benzo(k)fluoranthene (max of 17.2 ppm), chrysene (max of 28.2 ppm), dibenzo(a,h)anthracene (max of 4.26 ppm), indeno(1,2,3-cd)pyrene (max of 6.37 ppm), and 2-methylnaphthalene (max. 7.79 ppm). Four pesticides including 4,4'-DDD (max of 0.021 ppm); 4,4'-DDE (max of 0.031 ppm); 4,4'-DDT (max of 0.18 ppm) and dieldrin (0.012 ppm) were detected

exceeding Unrestricted Use SCOs in shallow samples. Total PCBs were detected at a maximum of 0.029 ppm, below the Unrestricted Use SCO. Several metals including barium (max 635 ppm); copper (max 289 ppm); lead (max 1,010 ppm); mercury (max 1.75 ppm); and zinc (max 1,110 ppm) were detected exceeding Unrestricted Use SCOs. Of these metals, barium, lead, and mercury also exceeded Restricted Residential SCOs. Overall, soil chemistry is similar to sites with historic fill material in New York City.

7. Soil vapor results collected during the Phase II and RI were compared to compounds listed in Table 3.1 Air Guideline Values Derived by the NYSDOH located in the New York State Department of Health Final Guidance for Evaluating Soil Vapor Intrusion dated October 2006. Soil vapor samples showed low levels of petroleum related compounds. The max total concentration of petroleum-related VOCs (BTEX) was 21.7 $\mu g/m^3$. Chlorinated VOCs were also detected with tetrachloroethylene (PCE) detected at a maximum of 31 $\mu g/m^3$ and 1,1,1-Trichloroethane detected at 2 $\mu g/m^3$. Carbon tetrachloride and trichloroethene were not detected in any of the soil vapor samples. Concentration for PCE was within the monitoring level ranges established within the State DOH soil vapor guidance matrix.

8. Attempts were made to install groundwater wells, but refusal was encountered at 30 feet depths in both locations. Due to groundwater depth of more than 50 feet, groundwater sampling is deferred to the results of soil and soil vapor sampling. Based upon results of soil and soil vapor sampling, groundwater investigation is waived.

For more detailed results, consult the RIR. Based on an evaluation of the data and information from the RIR and this RAWP, disposal of significant amounts of hazardous waste is not suspected at this site.

2.0 REMEDIAL ACTION OBJECTIVES

Based on the results of the RI, the following Remedial Action Objectives (RAOs) have been identified for this Site:

Soil

- Prevent direct contact with contaminated soil.
- Prevent exposure to contaminants volatilizing from contaminated soil.
- Prevent migration of contaminants that would result in groundwater or surface water contamination.

Groundwater

Groundwater is more than 30 feet deep. Groundwater was not encountered during investigation.

Soil Vapor

- Prevent exposure to contaminants in soil vapor.
- Prevent migration of soil vapor into dwelling and other occupied structures.

3.0 REMEDIAL ALTERNATIVES ANALYSIS

The goal of the remedy selection process is to select a remedy that is protective of human health and the environment taking into consideration the current, intended and reasonably anticipated future use of the property. The remedy selection process begins by establishing RAOs for media in which chemical constituents were found in exceedance of applicable standards, criteria and guidance values (SCGs). Remedial alternatives are then developed and evaluated based on the following ten criteria:

- Protection of human health and the environment;
- Compliance with SCGs;
- Short-term effectiveness and impacts;
- Long-term effectiveness and permanence;
- Reduction of toxicity, mobility, or volume of contaminated material;
- Implementability;
- Cost effectiveness;
- Community acceptance;
- Land use; and
- Sustainability.

As required, a Track 1 Unrestricted Use scenario is evaluated for the remedial action. The following is a detailed description of the alternatives analyzed to address impacted media at the Site:

Alternative 1:

- Selection of NYSDEC 6NYCRR Part 375 Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs).
- Removal of all soil/fill exceeding Track 1 Unrestricted Use SCOs throughout the Site and confirmation that Track 1 Unrestricted Use SCOs have been achieved with post-excavation endpoint sampling. If soil/fill containing analytes at concentrations above Unrestricted Use SCOs is still present at the base of the excavation after removal of all soil required for construction of the new building's cellar level is complete, additional excavation would be

performed to ensure complete removal of soil/ fill that does not meet Track 1 Unrestricted Use SCOs.

- No Engineering or Institutional Controls are required for a Track 1 cleanup. As part of development, a vapor barrier and passive sub-slab depressurization system (SSDS) would be installed to prevent potential exposures from soil vapor in the future.
- As part of development, a composite cover would be placed over the entire Site.

Alternative 2:

- Establishment of Site-Specific (Track 4) SCOs.
- Removal of all soil/fill exceeding Track 4 Site-Specific SCOs and confirmation that Track 4 Site-Specific SCOs have been achieved with post-excavation end point sampling. Based on the results of the Remedial Investigation, it is expected that this alternative would be achieved by excavating a hotspot in the landscape and patio area to a depth of about 9 feet. For development purposes, the entire site to street grade (approximately 4-5 feet), the western half of the property an additional 10 feet (for the cellars), the eastern half of the property an additional 2 feet (for yard areas) and 8-10 inches in the patio areas will be excavated. If soil/fill containing analytes at concentrations above Track 4 Site-Specific SCOs is still present at the base of the excavation, additional excavation would be performed to ensure complete removal of soil that does not meet Track 4 Site-Specific SCOs.
- Placement of a composite cover system over the entire Site to prevent exposure to remaining soil/fill. The engineered composite cover will consist of 6-inch thick concrete slabs beneath the buildings, a 4-inch thick concrete cover in the entryway and patios, and 2 feet of clean soil in the landscaped areas.
- Installation of a vapor barrier system beneath the building slab and along foundation side walls to prevent potential exposures from soil vapor in the future.
- Installation of a passive Sub Slab Depressurization System (SSDS).
- Establishment of use restrictions including prohibitions on the use of groundwater from the Site; prohibitions of restricted Site uses, such as farming or vegetable gardening, to prevent future exposure pathways; and prohibition of a higher level of land use without OER approval.

- Establishment of an approved Site Management Plan (SMP) to ensure long-term management of these Engineering and Institutional Controls including the performance of periodic inspections and certification that the controls are performing as they were intended. The SMP will note that the property owner and property owner's successors and assigns must comply with the approved SMP.
- Placement of a deed notice to record the ECs/ICs on the deed to ensure that future owners of the Site continue to comply with the SMP, as required.

3.1 Threshold Criteria

Protection of Public Health and the Environment

This criterion is an evaluation of the remedy's ability to protect public health and the environment, and an assessment of how risks posed through each existing or potential pathway of exposure are eliminated, reduced or controlled through removal, treatment, and implementation of Engineering Controls or Institutional Controls. Protection of public health and the environment must be achieved for all approved remedial actions.

Alternative 1 would be protective of human health and the environment by removing all soil/fill exceeding Track 1 Unrestricted Use SCOs and groundwater protection standards, thus eliminating potential for direct contact with contaminated soil/fill once construction is complete and eliminating the risk of contaminants leaching into groundwater.

Alternative 2 would achieve comparable protections of human health and the environment by excavation and removal of most of the historic fill at the Site and by ensuring that remaining soil/fill on-Site meets Track 4 Site-Specific SCOs, as well as by placement of Institutional and Engineering Controls, including a composite cover system. The composite cover system would prevent direct contact with any remaining on-Site soil/fill. Implementing Institutional Controls including a Site Management Plan and instituting a deed notice on the property would ensure that the composite cover system remains intact and protective of public health. Establishment of Track 4 Site-Specific SCOs would minimize the risk of contamination leaching into groundwater.

For both Alternatives, potential exposure to contaminated soils or groundwater during construction would be minimized by implementing a Construction Health and Safety Plan, an approved Soil/Materials Management Plan, and Community Air Monitoring Plan (CAMP). Potential

contact with contaminated groundwater would be prevented as its use is prohibited by city laws and regulations. Potential future migration of off-Site soil vapors into the new building would be prevented by installing a vapor barrier below the building slab and outside foundations walls below grade, as well as a passive SSDS.

3.2 Balancing Criteria

Compliance with Standards, Criteria and Guidance (SCGs)

This evaluation criterion assesses the ability of the alternative to achieve applicable standards, criteria and guidance.

Alternative 1 would achieve compliance with the remedial goals, chemical-specific SCGs and RAOs for soil through removal of soil to achieve Track 1 Unrestricted Use SCOs and Protection of Groundwater SCOs. Compliance with SCGs for soil vapor would also be achieved by installing a vapor barrier system below the new building's basement slab and continuing the vapor barrier outside of subgrade foundation walls, as part of development.

Alternative 2 would achieve compliance with the remedial goals, chemical-specific SCGs and RAOs for soil through removal of soil to meet Track 4 Site-Specific SCOs. Compliance with SCGs for soil vapor would also be achieved by installing a vapor barrier system below the new building's basement slab and continuing the vapor barrier outside of subgrade foundation walls. A Site Management Plan would ensure that these controls remained protective for the long term. Health and safety measures contained in the CHASP and Community Air Monitoring Plan (CAMP) will be implemented during Site redevelopment under this RAWP.

For both Alternatives, focused attention on means and methods employed during the remedial action would ensure that handling and management of contaminated material would be in compliance with applicable SCGs. These measures will protect on-site workers and the surrounding community from exposure to Site-related contaminants.

Short-Term Effectiveness and Impacts

This evaluation criterion assesses the effects of the alternative during the construction and implementation phase until remedial action objectives are met. Under this criterion, alternatives are evaluated with respect to their short term effects during the remedial action on public health

and the environment during implementation of the remedial action, including protection of the community, protection of onsite workers and environmental impacts.

Both Alternative 1 and 2 have similar short-term effectiveness during their implementation, as each requires excavation of historic fill material. Both alternatives would result in short-term dust generation impacts associated with excavation, handling, load out of materials, and truck traffic. Short-term impacts could potentially be higher for Alternative 1 since excavation of greater amounts of historical fill material would take place. However, focused attention to means and methods during a Track 1 removal action, including community air monitoring and appropriate truck routing, would minimize the overall impact of these activities.

An additional short-term adverse impact and risks to the community associated with both remedial alternatives is increased truck traffic. Approximately 75-90, 25-ton capacity truck trips would be necessary to transport fill and soil excavated during Site development. Truck traffic will be routed on the most direct course using major thoroughfares where possible and flag persons will be used to protect pedestrians at Site entrances and exits.

The potential adverse impact to the community, workers and the environment for both alternatives will be minimized through implementation of control plans including a Construction Health and Safety Plan, a Community Air Monitoring Plan (CAMP) and a Soil/Materials Management Plan (SMMP), during all on-Site soil disturbance activities and would minimize the release of contaminants into the environment. Both alternatives provide short-term effectiveness in protecting the surrounding community by decreasing the risk of contact with on-Site contaminants. Construction workers operating under appropriate management procedures and a Construction Health and Safety Plan (CHASP) would be protected from on-Site contaminants by wearing personal protective equipment consistent with the documented risks within the respective work zones.

Long-Term Effectiveness and Permanence

This evaluation criterion addresses the results of a remedial action in terms of its permanence and quantity/nature of waste or residual contamination remaining at the Site after response objectives have been met, such as permanence of the remedial alternative, magnitude of remaining contamination, adequacy of controls including the adequacy and suitability of Engineering Controls/Institutional Controls (ECs/ICs) that may be used to manage contaminant residuals that

remain at the Site and assessment of containment systems and ICs that are designed to eliminate exposures to contaminants, and long-term reliability of ECs.

Alternative 1 would achieve long-term effectiveness and permanence related to on-Site contamination by permanently removing all impacted soil/fill above Track 1 Unrestricted Use SCOs. Removal of on-Site contaminant sources will also prevent potential future groundwater contamination.

Alternative 2 would provide long-term effectiveness by removing most on-Site contamination and attaining Track 4 Site-Specific SCOs; installing a composite cover system across the Site; maintaining use restrictions; establishing an SMP to ensure long-term management of ICs and ECs; and instituting a restrictive declaration to memorialize these controls for the long term. The SMP would ensure long-term effectiveness of all ECs and ICs by requiring periodic inspection and certification that these controls and restrictions continue to be in place and are functioning as they were intended, assuring that protections designed into the remedy continue to provide the required level of protection.

Both alternatives would result in removal of soil contamination exceeding the SCOs providing a the highest level, most effective and permanent remedy over the long-term with respect to a remedy for contaminated soil, which would eliminate any migration to groundwater. Potential sources of soil vapor and groundwater contamination would also be eliminated as part of the remedy.

Reduction of Toxicity, Mobility, or Volume of Contaminated Material

This evaluation criterion assesses the remedial alternative's use of remedial technologies that permanently and significantly reduce toxicity, mobility, or volume of contaminants as their principal element. The following is the hierarchy of source removal and control measures that are to be used to remediate a Site, ranked from most preferable to least preferable: removal and/or treatment, containment, elimination of exposure and treatment of source at the point of exposure. It is preferred to use treatment or removal to eliminate contaminants at a Site, reduce the total mass of toxic contaminants, cause irreversible reduction in contaminants mobility, or reduce of total volume of contaminated media.

Alternative 1 will permanently eliminate the toxicity, mobility, and volume of contaminants from on-Site soil by removing all soil in excess of Track 1 Unrestricted Use SCOs.

Alternative 2 would remove most of the historic fill at the Site, and all remaining on-Site soil/fill beneath the new building will meet Track 4 Site-Specific SCOs.

Alternative 1 would remove a greater total mass of contaminants from the Site. The removal of soil to from 2 to 12 feet (below street grade) in both scenarios would lessen the difference in contaminant mass removal between these two alternatives.

Implementability

This evaluation criterion addresses the technical and administrative feasibility of implementing an alternative and the availability of various services and materials required during its implementation, including technical feasibility of construction and operation, reliability of the selected technology, ease of undertaking remedial action, monitoring considerations, administrative feasibility (e.g. obtaining permits for remedial activities), and availability of services and materials.

The techniques, materials and equipment to implement both Alternatives 1 and 2 are readily available and have been proven to be effective in remediating the contaminants present on the Site. They use standard equipment and technologies that are well established in the industry. The reliability of each remedy is also high. There are no special difficulties associated with any of the activities proposed.

Cost Effectiveness

This evaluation criterion addresses the cost of alternatives, including capital costs (such as construction costs, equipment costs, and disposal costs, engineering expenses) and site management costs (costs incurred after remedial construction is complete) necessary to ensure the continued effectiveness of a remedial action.

Since historic fill at the Site was found to extend to a depth of up to 10 feet below street grade during the RI, and the new building requires excavation of 40% of the Site to a depth of 11 feet, the costs associated with Alternative 1 would be significantly higher than Alternative 2 as additional soils would be required to be excavated from landscaped and front concrete covered setback areas to achieve Track 1 Unrestricted Use SCOs. Additional costs would include installation of additional shoring/underpinning, disposal of additional soil, and import of clean soil

for backfill. However, long-term costs for Alternative 2 could potentially be higher than Alternative 1 based on implementation of a Site Management Plan as part of Alternative 2.

The remedial plan would couple the remedial action with the redevelopment of the Site, lowering total costs. The remedial plan will also consider the selection of the most appropriate disposal facilities to reduce transportation and disposal costs during cleanup and redevelopment of the Site.

Community Acceptance

This evaluation criterion addresses community opinion and support for the remedial action. Observations here will be supplemented by public comment received on the RAWP.

This RAWP will be subject to a public review under the NYC VCP and will provide the opportunity for detailed public input on the remedial alternatives and the selected remedy. This public comment will be considered by OER prior to approval of this plan. The Citizen Participation Plan for the project is provided in Appendix D. Observations here will be supplemented by public comment received on the RAWP. Under both alternatives, the overall goals of the remedial program, to protect public health and the environment and eliminate potential contaminant exposures, have been broadly supported by citizens in NYC communities.

Land Use

This evaluation criterion addresses the proposed use of the property. This evaluation has considered reasonably anticipated future uses of the Site and takes into account: current use and historical and/or recent development patterns; applicable zoning laws and maps; NYS Department of State's Brownfield Opportunity Areas (BOA) pursuant to section 970-r of the general municipal law; applicable land use plans; proximity to real property currently used for residential use, and to commercial, industrial, agricultural, and/or recreational areas; environmental justice impacts, Federal or State land use designations; population growth patterns and projections; accessibility to existing infrastructure; proximity of the site to important cultural resources and natural resources, potential vulnerability of groundwater to contamination that might emanate from the site, proximity to flood plains, geography and geology; and current Institutional Controls applicable to the site.

The current, intended, and reasonably anticipated future land use of the Site and its surroundings are compatible with the selected remedy of soil remediation. The proposed future use of the Site

includes two, three-story affordable housing structures to provide a total of four dwelling units. Following remediation, the Site will meet either Track 1 Unrestricted Use or Track 4 Site-Specific SCOs, both of which are protective of public health and the environment for its planned residential use. The proposed use is compliant with the property's zoning and is consistent with recent development patterns. The areas surrounding the site is urban and consists of predominantly residential and mixed-use residential and commercial buildings in zoning districts designated for commercial and residential uses. The development would remediate a vacant contaminated lot and provide a modern residential building. The proposed development would clean up the property and make it safer, create new employment opportunities, living space for affordable housing and associated societal benefits to the community, and other economic benefits from land revitalization.

Temporary short-term project impacts are being mitigated through site management controls and truck traffic controls during remediation activities. Following remediation, the Site will meet either Track 1 Unrestricted Use SCOs or Track 4 Site-Specific SCOs, both of which are protective of public health and the environmental for its planned use.

The Site is not in close proximity to important cultural resources, including federal or state historic or heritage sites or Native American religious sites, natural resources, waterways, wildlife refuges, wetlands, or critical habitats of endangered or threatened species. The Site is located in an urban area and not in proximity to fish or wildlife and neither alternative would result in any potential exposure pathways of contaminant migration affecting fish or wildlife. The remedial action is also protective of groundwater natural resources. The Site does not lie in a Federal Emergency Management Agency (FEMA)-designated flood plain. Both alternatives are equally protective of natural resources and cultural resources. Improvements in the current environmental condition of the property achieved by both alternatives considered in this plan are consistent with the City's goals for cleanup of contaminated land.

Sustainability of the Remedial Action

This criterion evaluates the overall sustainability of the remedial action alternatives and the degree to which sustainable means are employed to implement the remedial action including those that take into consideration NYC's sustainability goals defined in PlaNYC: A Greener, Greater New York. Sustainability goals may include: maximizing the recycling and reuse of non-virgin

materials; reducing the consumption of virgin and non-renewable resources; minimizing energy consumption and greenhouse gas emissions; improving energy efficiency; and promotion of the use of native vegetation and enhancing biodiversity during landscaping associated with Site development.

While Alternative 2 would potentially result in lower energy usage based on reducing the volume of material transported off-Site, both remedial alternatives are comparable with respect to the opportunity to achieve sustainable remedial action. The remedial plan for either alternative would take into consideration the shortest trucking routes during off-Site disposal of historic fill and other soils, which would reduce greenhouse gas emissions and conserve energy used to fuel trucks. The New York City Clean Soil Bank program is available for reuse of any clean native soils under either alternative. A complete list of green remedial activities considered as part of the NYC VCP is included in a Sustainability Statement.

SELECTION OF THE PREFERRED REMEDY

The preferred remedy for the site is Alternative 2, a Track 4 Site-Specific SCOs remedy.

The Alternative 2 remedy will remove all soil/fill exceeding Track 4 Site-Specific SCOs throughout the Site, which will be confirmed with post-excavation sampling. If soil/fill containing analytes at concentrations above Track 4 Site Specific SCOs is still present at the base or walls of the excavation after removal of all soil required for construction of the new building's cellar level and slab are complete, additional excavation would be performed to ensure complete removal of soil/ fill that does not meet Track 4 Site Specific SCOs.

Engineering and Institutional Controls are required for soil management for a Track 4 Site Specific SCOs cleanup. A composite cover consisting of the concrete building slabs, concrete entryways and patios, and 2 feet of clean soil in the landscaped area covering the entire site, and a vapor barrier membrane would be installed as part of standard building development and are not considered part of the remedy. Additional soil vapor management would include a passive SSDS to address soil intrusion.

Use restrictions will be imposed on the site (including prohibitions on any use higher than Restricted Residential, e.g. the use of groundwater from the Site; prohibitions of restricted Site uses, such as farming or vegetable gardening, to prevent future exposure pathways; and prohibition of a higher level of land use without NYSDEC approval). The property would receive a Covenants of Restrictions with the county clerk memorializing institutional controls.

4.0 REMEDIAL ACTION

4.1 Summary of Preferred Remedial Action

The preferred remedial action alternative is Alternative 2, the Track 4 remedial action. The preferred remedial action achieves protection of public health and the environment for the intended use of the property. The preferred remedial action will achieve all of the remedial action objectives established for the project and addresses applicable SCGs. The preferred remedial action is effective in both the short-term and long-term and reduces mobility, toxicity and volume of contaminants. The preferred remedial action alternative is cost effective and implementable and uses standards methods that are well established in the industry.

The proposed remedial action will consist of:

1. Preparation of a Community Protection Statement and performance of all required NYC VCP Citizen Participation activities according to an approved Citizen Participation Plan.
2. Performance of a Community Air Monitoring Program for particulates and volatile organic carbon compounds.
3. Establishment of Track 4 Site-Specific Soil Cleanup Objectives (SCOs).
4. Completion of a Waste Characterization Study prior to excavation activities. Waste characterization soil samples will be collected at a frequency dictated by disposal facility(s). A Waste Characterization Report documenting sample procedures, location, analytical results shall be submitted to NYCOER prior to start of remedial action.
5. Site mobilization involving Site security setup, equipment mobilization, utility mark outs and marking & staking excavation areas.
6. Excavation and removal of soil/fill exceeding Track 4 Site-Specific SCOs. The area beneath the proposed buildings will be excavated to 11 feet, the area beneath proposed concrete patios and entryways will be excavated at least 8-10 inches, and areas beneath proposed grass yards will be excavated to 2 feet. A hotspot located at SB-06 and SB-07, located beneath the proposed yard, will be excavated an additional 2-3 feet to a total depth of 9 feet. The estimated total quantity of soil to be excavated is 1,600-1,900 cubic yards, 1,500-1,800 of which is planned for removal.

7. Screening of excavated soil/fill during intrusive work for indications of contamination by visual means, odor, and monitoring with a PID. Appropriate segregation of excavated media on-Site.
8. Management of excavated materials including temporarily stockpiling and segregating in accordance with defined material types and to prevent co-mingling of contaminated material and non-contaminated materials.
9. Removal of all underground storage tanks that are encountered during soil/fill removal actions. Registration of tanks and reporting of any petroleum spills associated with UST's and appropriate closure of these petroleum spills in compliance with applicable local, State and Federal laws and regulations.
10. Transportation and off-Site disposal of all soil/fill material at permitted facilities in accordance with applicable laws and regulations for handling, transport, and disposal, and this plan. Sampling and analysis of excavated media as required by disposal facilities.
11. Collection and analysis of end-point samples to determine the performance of the remedy with respect to attainment of SCOs.
12. Demarcation of residual soil/fill in landscaped areas.
13. Import of materials to be used for backfill and cover in compliance with this plan and in accordance with applicable laws and regulations.
14. Construction of an engineered composite cover consisting of a 6-inch concrete building slab with an 8-inch clean granular sub-base beneath all building areas, 4-inch poured concrete on a 6-inch sub-base in sidewalk and patio areas, and two feet of clean soil in all open space and landscaped areas to prevent human exposure to residual soil/fill remaining at the Site.
15. Installation of a vapor barrier system consisting of vapor barrier beneath the building slab and outside of sub-grade foundation sidewalls to mitigate soil vapor migration into the building. The vapor barrier system will consist of a minimum 20-mil vapor barrier with the selected manufacturer/model provided to OER in the Stipulation Letter. All welds, seams and penetrations will be properly sealed to prevent preferential pathways for vapor migration. The vapor barrier system is an Engineering Control for the remedial action. The remedial engineer will certify in the RAR that the vapor barrier system was designed and properly installed to mitigate soil vapor migration into the building.

16. Installation of a passive sub-slab depressurization system (SSDS). The design of the SSDS will be provided to OER in the Stipulation Letter. The passive SSDS is an Engineering Control for the remedial action. The remedial engineer will certify in the Remedial Action Report (RAR) that the passive SSDS was designed and properly installed to establish a vacuum in the gas permeable layer and a negative (decreasing outward) pressure gradient across the building slab to prevent vapor migration into the building.
17. Performance of all activities required for the remedial action, including acquisition of required permits and attainment of pretreatment requirements, in compliance with applicable laws and regulations.
18. Implementation of storm-water pollution prevention measures in compliance with applicable laws and regulations.
19. Submission of a Remedial Action Report (RAR) that describes the remedial activities, certifies that the remedial requirements have been achieved, defines the Site boundaries, lists any changes from this RAWP, and describes all Engineering and Institutional Controls to be implemented at the Site.
20. Submission of an approved Site Management Plan (SMP) in the RAR for long-term management of residual contamination, including plans for operation, maintenance, monitoring, inspection and certification of Engineering and Institutional Controls and reporting at a specified frequency.
21. Recording of a Declaration of Covenants and Restrictions that includes a listing of Engineering Controls and Institutional Controls and a requirement that management of these controls must be in compliance with an approved SMP. Institutional Controls will include prohibition of the following: (1) vegetable gardening and farming; (2) use of groundwater without treatment rendering it safe for the intended use; (3) disturbance of residual contaminated material unless it is conducted in accordance with the SMP; and (4) higher level of land usage without OER-approval.

4.2 Soil Cleanup Objectives and Soil/ Fill Management

The following Track 4 Site-Specific SCOs will be utilized for this project:

Contaminant	Site-Specific SCOs
Total SVOCs	100 ppm
Barium	750 ppm
Lead	1000 ppm
Mercury	2.0 ppm

Soil and materials management on-Site and off-Site, including excavation, handling and disposal, will be conducted in accordance with the Soil/Materials Management Plan in Appendix F. Discrete contaminant sources (such as hotspots) identified during the remedial action will be identified by GPS or surveyed. This information will be provided in the Remedial Action Report.

Soil/Fill Excavation and Removal

Areas of the site planned to contain open space will be excavated to a depth of 2 feet below sidewalk grade, with an additional 2-3 feet being excavated at the hotspot at SB-06/07. The area immediately beneath the proposed buildings will be excavated to 11 feet below sidewalk grade. Areas below planned concrete patios will be excavated to at least 8-10 inches below sidewalk grade. The location of planned excavations is shown in Figure 6. The estimated total quantity of soil/fill expected to be excavated is 1,600-1,900 cubic yards; however, approximately 100 cubic yards may be reused as backfill. The total quantity of soil to be removed could potentially increase if additional soils require removal for construction/grading reasons.

For each disposal facility to be used in the remedial action, a letter from the developer/QEP to the receiving facility requesting approval for disposal and a letter back to the developer/QEP providing approval for disposal will be submitted to OER prior to any transport and disposal of soil at a facility.

Disposal facilities will be reported to OER when they are identified and prior to the start of remedial action.

End-point Sampling

End-point samples will be analyzed for compounds and elements as described below utilizing the following methodology:

- Volatile organic compounds by EPA Method 8260;
- Semi-volatile organic compounds by EPA Method 8270;
- Target Analyte List metals; and
- Pesticides/PCBs by EPA Method 8081/8082.

New York State ELAP certified labs will be used for all end-point sample analyses. Labs performing end-point sample analyses will be reported in the RAR. The RAR will provide a tabular and map summary of all end-point sample results and will include all data including non-detects and applicable standards and/or guidance values.

Confirmation End-point Sampling

Removal actions for development purposes under this plan will be performed in conjunction with confirmation end-point soil sampling. Confirmation samples will be collected from the base of the excavation at locations shown on Figure 9. To evaluate attainment of Track 4 Site-specific SCOs, analytes will include those for which SCOs have been developed, including SVOCs and metals, according to analytical methods described above. If Track 1 Unrestricted Use SCOs are pursued, samples will be analyzed for VOCs, SVOCs, pesticides, PCBs and metals according to analytical methods described above.

Hotspot End-point Sampling

End-point samples will be collected from the sidewalls and base of excavation at the hotspot location identified in the Remedial Investigation, according to the procedure listed below. Hotspots include SB-06/SB-07 (7-9') for lead and SVOCs (total SVOCs = 381.12 from this sample). The lateral extent of the hotspot to the east is not fully delineated and therefore, final endpoint sample locations will be determined in the field. End-point samples will be analyzed for SCO trigger parameters.

For any hotspots identified during this remedial program, including any hotspots identified during the remedial action, hotspot removal actions will be performed to ensure that hotspots are fully removed and end-point samples will be collected at the following frequency:

1. For excavations less than 20 feet in total perimeter, at least one bottom sample and one sidewall sample biased in the direction of surface runoff.
2. For excavations 20 to 300 feet in perimeter:
    - For surface removals, one sample from the top of each sidewall for every 30 linear feet of sidewall and one sample from the excavation bottom for every 900 square feet of bottom area.
    - For subsurface removals, one sample from each sidewall for every 30 linear feet of sidewall and one sample from the excavation bottom for every 900 square feet of bottom area.
3. For sampling of volatile organics, bottom samples should be taken within 24 hours of excavation, and should be taken from the zero to six-inch interval at the excavation floor. Samples taken after 24 hours should be taken at six to twelve inches.
4. For contaminated soil removal, post remediation soil samples for laboratory analysis should be taken immediately after contaminated soil removal. If the excavation is enlarged horizontally, additional soil samples will be taken pursuant to bullets 1-3 above.

Post-remediation end-point sample locations and depth will be biased towards the areas and depths of highest contamination identified during previous sampling episodes unless field indicators such as field instrument measurements or visual contamination identified during the remedial action indicate that other locations and depths may be more heavily contaminated. In all cases, post-remediation samples should be biased toward locations and depths of the highest expected contamination.

If either LNAPL and/or DNAPL are detected, appropriate samples will be collected for characterization and “finger print analysis” and required regulatory reporting (i.e. spills hotline) will be performed.

Quality Assurance/Quality Control

The fundamental QA objective with respect to accuracy, precision, and sensitivity of analysis for laboratory analytical data is to achieve the QC acceptance of the analytical protocol. The accuracy, precision and completeness requirements will be addressed by the laboratory for all data generated.

One duplicate sample for every 20 samples collected will be submitted to the approved laboratory for analysis of the same parameters.

Collected endpoint samples will be appropriately packaged, placed in coolers and transferred under proper Chain of Custody to the analytical laboratory. Samples will be containerized in appropriate laboratory provided glassware and shipped in plastic coolers. Samples will be preserved through the use of ice or "cold-packs" to maintain a temperature of 4^{o}C.

Dedicated disposable sampling materials will be used for the collection endpoint samples, eliminating the need to prepare field equipment (rinsate) blanks. However, if non-disposable equipment is used, (stainless steel scoop, etc.) field rinsate blanks will be prepared at the rate of 1 for every eight samples collected. Decontamination of non-dedicated sampling equipment will consist of the following:

- Gently tap or scrape to remove adhered soil
- Rinse with tap water
- Wash with Alconox® detergent solution and scrub
- Rinse with tap water
- Rinse with distilled or deionized water

Trip blanks will be used whenever samples are transported to the laboratory for analysis of VOCs. Trip blanks will not be used for samples to be analyzed for metals, SVOCs or pesticides.

Import of Soils

Import of soils onto the property will be performed in conformance with the Soil/Materials Management Plan in Appendix F. Imported soil will meet the lower of:

- Track 2 Restricted Residential Use SCOs, and
- Groundwater Protection Standards in Part 375-6.8.

The estimated quantity of soil to be imported into the Site for backfill and cover soil is 150-200 cubic yards. This quantity could potentially increase if additional soils (beyond the estimated 1,500-1,800 cubic yards) require removal for construction/grading reasons. Areas that will require backfill are indicated in Figure 8 and include the landscaped yard and the hotspot excavation at SB-06/07.

Reuse of Onsite Soils

Reuse of onsite soils already onsite will be performed in conformance with the Soil/Materials Management Plan in Appendix F. The estimated quantity of soil to be reused on this project is 100 cubic yards. Reuse soils, if any, will meet the SCOs established for this project. A map of soil backfill placement locations is shown in Figure 8.

4.3 Engineering Controls

Engineering Controls will be employed in the remedial action to address residual contamination remaining at the site. The Site has three primary Engineering Control Systems. These are:

1. Composite Cover System
2. Soil Vapor Barrier System
3. Passive Sub-Slab Depressurization System

Composite Cover System

Exposure to residual soil/fill will be prevented by an engineered, composite cover system to be built on the Site. This composite cover system will be comprised of 6 inches of reinforced concrete slab underlain by 8 inches of clean sub-base material in building areas; 4 inches of poured concrete on a 6 inch sub-base in patio areas, and 2 feet of clean soil in open space areas.

Figure 7 shows the location and typical design of each cover type built at the Site.

The composite cover system will be a permanent engineering control. The system will be inspected and its performance certified at specified intervals as required by this RAWP and the Site Management Plan. A Soil and Materials Management Plan will be included in the Site Management Plan and will outline the procedures to be followed in the event that the composite cover system and underlying residual soil/fill is disturbed after the remedial action is complete.

Maintenance of this composite cover system will be described in the Site Management Plan in the Remedial Action Report.

Vapor Barrier System

Migration of soil vapor from onsite or offsite sources into the building will be mitigated with a combination of building slab and vapor barrier. The vapor barrier will consist of a minimum 20 mil thick vapor barrier product below the slab throughout the full building area. All welds, seams and penetrations will be properly sealed to prevent preferential pathways for vapor migration.

The vapor barrier will extend throughout the area occupied by the footprint of the new building and up the foundation sidewalls and will be installed in accordance with manufacturer specifications. The extent of the proposed soil vapor barrier is provided in Figure 10.

Specific plan views and product specification sheets for the vapor barrier system will be provided to OER for review and approval in the Stipulation Letter. The Remedial Action Report will include as-built drawings and diagrams; manufacturer documentation; and photographs. The Remedial Action Report will include a PE-certified letter (on company letterhead) from the primary contractor responsible for installation oversight and field inspections and a copy of the manufacturer's certificate of warranty.

The Vapor Barrier System is a permanent engineering control and will be inspected and its performance certified at specified intervals as required by this RAWP and the Site Management Plan. A Soil and Materials Management Plan will be included in the Site Management Plan and will outline the procedures to be followed in the event that the composite cover system and underlying vapor barrier system is disturbed after the remedial action is complete. Maintenance of these systems will be described in the Site Management Plan in the Remedial Action Report.

Sub-Slab Depressurization System

Migration of soil vapor into the building will be mitigated with the construction of a passive Sub-Slab Depressurization System (SSDS). The design of the SSDS will be provided to OER in the Stipulation Letter. An approximate layout of the SSDS piping is provided in Figure 11.

The SSDS is a permanent engineering control. The system will be inspected and its performance certified at specified intervals as required by this RAWP and the Site Management Plan.

Maintenance of this SSDS will be described in the Site Management Plan in the Remedial Action Report.

4.4 Institutional Controls

A series of Institutional Controls (IC's) are required under this Remedial Action to assure permanent protection of public health by elimination of exposure to residual materials. These IC's define the program to operate, maintain, inspect and certify the performance of Engineering Controls and Institutional Controls on this property. Institutional Controls would be implemented in accordance with a Site Management Plan included in the final Remedial Action Report (RAR). Institutional Controls for this remedial action are:

- Recording of an OER-approved Declaration of Covenant and Restrictions (DCR) with the City Register or county clerk, as appropriate. The DCR will include a description of all ECs and ICs, will summarize the requirements of the SMP, and will note that the property owner and property owner's successors and assigns must comply with the DCR and the approved SMP. The recorded DCR will be submitted in the Remedial Action Report. The DCR will be recorded prior to OER issuance of the Notice of Completion;
- Submittal of a SMP in the RAR for approval by OER that provides procedures for appropriate operation, maintenance, inspection, and certification of ECs and IC's. SMP will require that the property owner and property owner's successors and assigns will submit to OER a periodic written statement that certifies that: (1) controls employed at the Site are unchanged from the previous certification or that any changes to the controls were approved by OER; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. OER retains the right to enter the Site in order to evaluate the continued maintenance of any controls. This certification shall be submitted at a frequency to be determine by OER in the SMP and will comply with RCNY §43-1407(l)(3).
- Vegetable gardens and farming on the Site are prohibited in contact with residual soil materials;
- Use of groundwater underlying the Site is prohibited without treatment rendering it safe for its intended use;

- All future activities on the Site that will disturb residual material must be conducted pursuant to the soil management provisions in an approved SMP; and
- The Site will be used for residential use and will not be used for a higher level of use without prior approval by OER.

4.5 Site Management Plan

Site Management is the last phase of remediation and begins with the approval of the Remedial Action Report and issuance of the Notice of Completion (NOC) for the Remedial Action. The Site Management Plan (SMP) describes appropriate methods and procedures to ensure implementation of all ECs and ICs that are required by this RAWP. The Site Management Plan is submitted as part of the RAR but will be written in a manner that allows its use as an independent document. Site Management continues until terminated in writing by OER. The property owner is responsible to ensure that all Site Management responsibilities defined in the Site Management Plan are implemented.

The SMP will provide a detailed description of the procedures required to manage residual soil/fill left in place following completion of the remedial action in accordance with the Voluntary Cleanup Agreement with OER. This includes a plan for: (1) implementation of EC's and ICs; (2) operation and maintenance of EC's; (3) inspection and certification of IC's and EC's.

Site management activities and EC/IC certification will be scheduled by OER on a periodic basis to be established in the RAR and the SMP and will be subject to review and modification by OER. The Site Management Plan will be based on a calendar year and certification reports will be due for submission to OER by July 30 of the year following the reporting period.

4.6 Qualitative Human Health Exposure Assessment

The objective of the qualitative exposure assessment is to identify potential receptors and pathways for human exposure to the contaminants of concern (COC) that are present at, or migrating from, the Site. The identification of exposure pathways describes the route that the COC takes to travel from the source to the receptor. An identified pathway indicates that the potential for exposure exists; it does not imply that exposures actually occur.

Data and information reported in the Remedial Investigation Report (RIR) are sufficient to complete a Qualitative Human Health Exposure Assessment (QHHEA) for this project. As part of the VCP process, a QHHEA was performed to determine whether the Site poses an existing or future health hazard to the Site's exposed or potentially exposed population. The sampling data from the RI were evaluated to determine whether there is any health risk under current and future conditions by characterizing the exposure setting, identifying exposure pathways, and evaluating contaminant fate and transport. This QHHEA was prepared in accordance with Appendix 3B and Section 3.3 (b) 8 of the NYSDEC Draft DER-10 Technical Guidance for Site Investigation and Remediation.

Known and Potential Contaminant Sources

Based on the results of the RIR, the contaminants of concern are:

Soil: Elevated concentrations of SVOCs including , benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene exceeded Restricted Residential Use SCOs.

Metal including lead, copper and mercury excceded Restricted Residential Use SCOs.

Groundwater: Groundwater was not encountered during the RI and is not expected to be encountered during Site development activities.

Soil Vapor: Tetrachloroethene (PCE) was detected in 2SV-01 at 31 µg/m^3, slightly above the NYSDOH Soil Vapor Matrix value of 30 µg/m^3 for PCE in soil vapor.

Nature, Extent, Fate and Transport of Contaminants

Soil: Elevated SVOCs are present in shallow soils (0-2') at the Site and in deeper soils in one area (SB-06/SB-07). These contaminants are not likely to migrate vertically. These compounds have the potential to migrate into the air as dust during soil disturbance associated with demolition and construction activities.

Groundwater: Groundwater was not encountered during the RI and is not expected to be encountered during Site development activities.

Soil Vapor: A slightly elevated concentration of PCE was detected in one soil vapor sample at the site. Based on soil chemistry data from the Site and its known history of residential use, it is likely that the PCE is migrating onto the site from an offsite source.

Receptor Populations

On-Site Receptors: The site is currently vacant and undeveloped and access to the Site is restricted by an 8 foot high, chained and locked, perimeter fence. Onsite receptors are limited to trespassers, site representatives and visitors granted access to the property. During construction, potential on-site receptors include construction workers, site representatives, and visitors. Under proposed future conditions, potential on-site receptors include adult and child building residents, workers and visitors.

Off-Site Receptors: Potential off-site receptors within a 500 foot radius of the Site include adult and child residents; commercial and construction workers; pedestrians; and trespassers based on the following land uses within 500 feet of the Site:

1. Commercial Businesses – existing and future
2. Residential Buildings – existing and future
3. Building Construction/ Renovation – existing and future
4. Pedestrians, Trespassers, Cyclists – existing and future
5. Schools/Day cares – existing and future

Specifically, a day care facility is located in the "Stuyvesant Heights Christian Church" approximately 100 feet to the southwest of the Site and the "Leadership Preparatory Charter School" is located approximately 400 feet northwest of the Site.

Potential Routes of Exposure

Three potential primary routes exist by which chemicals can enter the body: ingestion, inhalation, and dermal absorption. Exposure can occur based on the following potential media:

- Ingestion of groundwater or fill/ soil;
- Inhalation of vapors or particulates; and
- Dermal absorption of groundwater or fill/ soil.

Potential Exposure Points

Current Conditions: The site is currently uncapped. Potential exposures to exposed fill include ingestion, inhalation of particulates, and dermal absorption. Groundwater is not exposed at the site. The site is served by the public water supply and groundwater is not used at the site for potable supply and there is no potential for exposure. Because the site is currently undeveloped, there is no potential for soil vapor to accumulate on site.

Construction/ Remediation Conditions: During the remedial action, onsite workers will come into direct contact with surface and subsurface soils as a result of on-Site construction and excavation activities. On-Site construction workers potentially could ingest, inhale or have dermal contact with exposed impacted soil and fill. Similarly, off-Site receptors could be exposed to dust and vapors from on-Site activities. Due to the depth of groundwater, direct contact with groundwater is not expected. During construction, on-Site and off-Site exposures to contaminated dust from on-Site will be addressed through the Soil/Materials Management Plan, dust controls, and through the implementation of the Community Air-Monitoring Program and a Construction Health and Safety Plan.

Proposed Future Conditions: Under future remediated conditions, all soils in excess of Track 4 SCOs will be removed. The site will be fully capped, preventing potential direct exposure to soil and groundwater remaining in place, and engineering controls (vapor barrier and passive SSDS) will prevent any potential exposure due to inhalation by preventing soil vapor intrusion. The site is served by the public water supply, and groundwater is not used at the site. There are no plausible off-site pathways for oral, inhalation, or dermal exposure to contaminants derived from the site.

Overall Human Health Exposure Assessment

There are potential complete exposure pathways for the current site condition. There are potential complete exposure pathways that require mitigation during implementation of the remedy. There are no complete exposure pathways under future conditions after the site is developed. This assessment takes into consideration the reasonably anticipated use of the site, which includes a residential structure, site-wide composite cover, and a subsurface vapor barrier system for the building. Under current conditions, on-Site exposure pathways exist for those with access to the Site and trespassers. During remedial construction, on-Site and off-Site exposures to contaminated dust from historic fill material will be addressed through dust controls, and through the

implementation of the Community Air Monitoring Program, the Soil/Materials Management Plan, and a Construction Health and Safety Plan. Potential post-construction use of groundwater is not considered an option because groundwater in this area of New York City is not used as a potable water source. There are no surface waters in close proximity to the Site that could be impacted or threatened.

5.0 REMEDIAL ACTION MANAGEMENT

5.1 Project Organization and Oversight

Principal personnel who will participate in the remedial action include the Professional Engineer (PE), Philip Bell, and the Qualified Environmental Professional (QEP), Paul H. Ciminello.

5.2 Site Security

Site access will be controlled through gated entrances to the fenced property.

5.3 Work Hours

The hours for operation of cleanup will comply with the NYC Department of Buildings construction code requirements or according to specific variances issued by that agency. The hours of operation will be conveyed to OER during the pre-construction meeting.

5.4 Construction Health and Safety Plan

The Health and Safety Plan is included in Appendix G. The Site Safety Coordinator will be Paul H. Ciminello. Remedial work performed under this RAWP will be in full compliance with applicable health and safety laws and regulations, including Site and OSHA worker safety requirements and HAZWOPER requirements. Confined space entry, if any, will comply with OSHA requirements and industry standards and will address potential risks. The parties performing the remedial construction work will ensure that performance of work is in compliance with the HASP and applicable laws and regulations. The HASP pertains to remedial and invasive work performed at the Site until the issuance of the Notice of Completion.

All field personnel involved in remedial activities will participate in training required under 29 CFR 1910.120, such as 40-hour hazardous waste operator training and annual 8-hour refresher training. Site Safety Officer will be responsible for maintaining workers training records.

Personnel entering any exclusion zone will be trained in the provisions of the HASP and will comply with all requirements of 29 CFR 1910.120. Site-specific training will be provided to field personnel. Additional safety training may be added depending on the tasks performed. Emergency telephone numbers will be posted at the site location before any remedial work begins. A safety meeting will be conducted before each shift begins. Topics to be discussed include task hazards

and protective measures (physical, chemical, environmental); emergency procedures; PPE levels and other relevant safety topics. Meetings will be documented in a log book or specific form.

An emergency contact sheet with names and phone numbers is included in the CHASP. That document will define the specific project contacts for use in case of emergency.

5.5 Community Air Monitoring Plan

Real-time air monitoring for volatile organic compounds (VOCs) and particulate levels at the perimeter of the exclusion zone or work area will be performed. Continuous monitoring will be performed for all ground intrusive activities and during the handling of contaminated or potentially contaminated media. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pit excavation or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be performed during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. Periodic monitoring during sample collection, for instance, will consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well bailing/purging, and taking a reading prior to leaving a sample location. Depending upon the proximity of potentially exposed individuals, continuous monitoring may be performed during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence. Exceedences of action levels observed during performance of the Community Air Monitoring Plan (CAMP) will be reported to the OER Project Manager and included in the Daily Report.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) will be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis during invasive work. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work will be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment will be calibrated at least daily for the contaminant(s) of concern or for an appropriate

surrogate. The equipment will be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities will be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities will resume with continued monitoring.
- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities will be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities will resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.
- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities will be shut down.

All 15-minute readings must be recorded and be available for OER personnel to review. Instantaneous readings, if any, used for decision purposes will also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations will be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring will be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment will be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques will be employed. Work

will continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work will be stopped and a re-evaluation of activities initiated. Work will resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

All readings will be recorded and be available for OER personnel to review.

5.6 Agency Approvals

All permits or government approvals required for remedial construction have been or will be obtained prior to the start of remedial construction. Approval of this RAWP by OER does not constitute satisfaction of these requirements and will not be a substitute for any required permit.

5.7 Site Preparation

Pre-Construction Meeting

OER will be invited to attend the pre-construction meeting at the Site with all parties involved in the remedial process prior to the start of remedial construction activities.

Mobilization

Mobilization will be conducted as necessary for each phase of work at the Site. Mobilization includes field personnel orientation, equipment mobilization (including securing all sampling equipment needed for the field investigation), marking/staking sampling locations and utility mark-outs. Each field team member will attend an orientation meeting to become familiar with the general operation of the Site, health and safety requirements, and field procedures.

Utility Marker Layouts, Easement Layouts

The presence of utilities and easements on the Site will be fully investigated prior to the performance of invasive work such as excavation or drilling under this plan by using, at a

minimum, the One-Call System (811). Underground utilities may pose an electrocution, explosion, or other hazard during excavation or drilling activities. All invasive activities will be performed incompliance with applicable laws and regulations including NYC Building Code to assure safety. Utility companies and other responsible authorities will be contacted to locate and mark the locations, and a copy of the Mark-Out Ticket will be retained by the contractor prior to the start of drilling, excavation or other invasive subsurface operations. Overhead utilities may also be present within the anticipated work zones. Electrical hazards associated with drilling in the vicinity of overhead utilities will be prevented by maintaining a safe distance between overhead power lines and drill rig masts.

Proper safety and protective measures pertaining to utilities and easements, and compliance with all laws and regulations will be employed during invasive and other work contemplated under this RAWP. The integrity and safety of on-Site and off-Site structures will be maintained during all invasive, excavation or other remedial activity performed under the RAWP.

Dewatering

Dewatering is not anticipated during remediation and construction. If groundwater is encountered during excavation activities, the water will be disposed into the New York City combined sanitary/storm sewer system. A permit to discharge will be obtained from the New York City Department of Environmental Protection (NYCDEP). As part of the permit to discharge, the location of discharge will be based on the Site-Specific requirements of the DEP. The need for pretreatment will be determined by DEP's requirements for the discharge permit. If pretreatment is required by the DEP, it will be performed in accordance with the requirements of the DEP.

Equipment and Material Staging

Equipment and materials will be stored and staged in a manner that complies with applicable laws and regulations.

Stabilized Construction Entrance

Steps will be taken to ensure that trucks departing the site will not track soil, fill or debris off-Site. Such actions may include use of cleaned asphalt or concrete pads or use of stone or other aggregate-based egress paths between the truck inspection station and the property exit. Measures

will be taken to ensure that adjacent roadways will be kept clean of project related soils, fill and debris.

Truck Inspection Station

An outbound-truck inspection station will be set up close to the Site exit. Before exiting the Site, trucks will be required to stop at the truck inspection station and will be examined for evidence of contaminated soil on the undercarriage, body, and wheels. Soil and debris will be removed. Brooms, shovels and clean water will be utilized for the removal of soil from vehicles and equipment, as necessary.

Extreme Storm Preparedness and Response Contingency Plan

Damage from flooding or storm surge can include dislocation of soil and stockpiled materials, dislocation of site structures and construction materials and equipment, and dislocation of support of excavation structures. Damage from wind during an extreme storm event can create unsafe or unstable structures, damage safety structures and cause downed power lines creating dangerous site conditions and loss of power. In the event of emergency conditions caused by an extreme storm event, Van Buren Greene, LLC will undertake the following steps for site preparedness prior to the event and response after the event.

Storm Preparedness

Preparations in advance of an extreme storm event will include the following: containerized hazardous materials and fuels will be removed from the property; loose materials will be secured to prevent dislocation and blowing by wind or water; heavy equipment such as excavators and generators will be removed from excavated areas, trenches and depressions on the property to high ground or removed from the property; an inventory of the property with photographs will be performed to establish conditions for the site and equipment prior to the event; stockpile covers for soil and fill will be secured by adding weights such as sandbags for added security and worn or ripped stockpile covers will be replaced with competent covers; stockpiled hazardous wastes will be removed from the property; stormwater management systems will be inspected and fortified, including, as necessary: clean and reposition silt fences, hay bales; clean storm sewer filters and traps; and secure and protect pumps and hosing.

Storm Response

At the conclusion of an extreme storm event, as soon as it is safe to access the property, a complete inspection of the property will be performed. A site inspection report will be submitted to OER at the completion of site inspection and after the site security is assessed. Site conditions will be compared to the inventory of site conditions and material performed prior to the storm event and significant differences will be noted. Damage from storm conditions that result in acute public safety threats, such as downed power lines or imminent collapse of buildings, structures or equipment will be reported to public safety authorities via appropriate means such as calling 911. Petroleum spills will be reported to NYS DEC within 2 hours of identification and consistent with State regulations. Emergency and spill conditions will also be reported to OER. Public safety structures, such as construction security fences will be repaired promptly to eliminate public safety threats. Debris will be collected and removed. Dewatering will be performed in compliance with existing laws and regulations and consistent with emergency notifications, if any, from proper authorities. Eroded areas of soil including unsafe slopes will be stabilized and fortified. Dislocated materials will be collected and appropriately managed. Support of excavation structure will be inspected and fortified as necessary. Impacted stockpiles will be contained and damaged stockpile covers will be replaced. Stormwater control systems and structures will be inspected and maintained as necessary. If soil or fill materials are discharged off site to adjacent properties, property owners and OER will be notified and corrective measure plan designed to remove and clean dislocated material will be submitted to OER and implemented following approval by OER and granting of site access by the property owner. Impacted offsite areas may require characterization based on site conditions, at the discretion of OER. If onsite petroleum spills are identified, a qualified environmental professional will determine the nature and extent of the spill and report to NYS DEC's spill hotline at DEC 800-457-7362 within statutory defined timelines. If the source of the spill is ongoing and can be identified, it should be stopped if this can be done safely. Potential hazards will be addressed immediately, consistent with guidance issued by NYS DEC.

Storm Response Reporting

A site inspection report will be submitted to OER at the completion of site inspection. An inspection report established by OER is available on OER's website (www.nyc.gov/oer) and will

be used for this purpose. Site conditions will be compared to the inventory of site conditions and material performed prior to the storm event and significant differences will be noted. The site inspection report will be sent to the OER project manager and will include the site name, address, tax block and lot, site primary and alternate contact name and phone number. Damage and soil release assessment will include: whether the project had stockpiles; whether stockpiles were damaged; photographs of damage and notice of plan for repair; report of whether soil from the site was dislocated and whether any of the soil left the site; estimates of the volume of soil that left the site, nature of impact, and photographs; description of erosion damage; description of equipment damage; description of damage to the remedial program or the construction program, such as damage to the support of excavation; presence of onsite or offsite exposure pathways caused by the storm; presence of petroleum or other spills and status of spill reporting to NYS DEC; description of corrective actions; schedule for corrective actions. This report should be completed and submitted to OER project manager with photographs within 24 hours of the time of safe entry to the property after the storm event.

5.8 Traffic Control

Drivers of trucks leaving the Site with soil/fill will be instructed to proceed without stopping in the vicinity of the Site to prevent neighborhood impacts. The planned route on local roads for trucks leaving the site is The planned route on local roads for trucks leaving the site is to drive on Tompkins Avenue, Fulton Street, Brooklyn Avenue, Herkimer Street, St. Andrews Place, Atlantic Avenue, Flatbush Avenue, 5th Avenue, Bergen Street, 4th Avenue, and 16th Street to reach I-278 west.

5.9 Demobilization

Demobilization will include:

- As necessary, restoration of temporary access areas and areas that may have been disturbed to accommodate support areas (e.g., staging areas, decontamination areas, storage areas, temporary water management areas, and access area);
- Removal of sediment from erosion control measures and truck wash and disposal of materials in accordance with applicable laws and regulations;

- Equipment decontamination, and;
- General refuse disposal.

Equipment will be decontaminated and demobilized at the completion of all field activities. Investigation equipment and large equipment (e.g., soil excavators) will be washed at the truck inspection station as necessary. In addition, all investigation and remediation derived waste will be appropriately disposed.

5.10 Reporting and Record Keeping

Daily Reports

Daily reports providing a general summary of activities for each day of active remedial work will be emailed to the OER Project Manager by the end of the following business day. Those reports will include:

- Project number and statement of the activities and an update of progress made and locations of excavation and other remedial work performed;
- Quantities of material imported and exported from the Site;
- Status of on-Site soil/fill stockpiles;
- A summary of all citizen complaints, with relevant details (basis of complaint; actions taken; etc.);
- A summary of CAMP results noting all excursions. CAMP data may be reported;
- Photograph of notable Site conditions and activities.

The frequency of the reporting period may be revised in consultation with OER project manager based on planned project tasks. Daily email reports are not intended to be the primary mode of communication for notification to OER of emergencies (accidents, spills), requests for changes to the RAWP or other sensitive or time critical information. However, such information will be included in the daily reports. Emergency conditions and changes to the RAWP will be communicated directly to the OER project manager by personal communication. Daily reports will be included as an Appendix in the Remedial Action Report.

Record Keeping and Photo Documentation

Job-site record keeping for all remedial work will be performed. These records will be maintained on-Site during the project and will be available for inspection by OER staff. Representative photographs will be taken of the Site prior to any remedial activities and during major remedial activities to illustrate remedial program elements and contaminant source areas. Photographs will be submitted at the completion of the project in the RAR in digital format (i.e. jpeg files).

5.11 Complaint Management

All complaints from citizens will be promptly reported to OER. Complaints will be addressed and outcomes will also be reported to OER in daily reports. Notices to OER will include the nature of the complaint, the party providing the complaint, and the actions taken to resolve any problems.

5.12 Deviations From The Remedial Action Work Plan

All changes to the RAWP will be reported to, and approved by, the OER Project Manager and will be documented in daily reports and reported in the Remedial Action Report. The process to be followed if there are any deviations from the RAWP will include a request for approval for the change from OER noting the following:

- Reasons for deviating from the approved RAWP;
- Effect of the deviations on overall remedy; and
- Determination with basis that the remedial action with the deviation(s) is protective of public health and the environment.

6.0 REMEDIAL ACTION REPORT

A Remedial Action Report (RAR) will be submitted to OER following implementation of the remedial action defined in this RAWP. The RAR will document that the remedial work required under this RAWP has been completed and has been performed in compliance with this plan. The RAR will include:

- Information required by this RAWP;
- Text description with thorough detail of all engineering and institutional controls (if Track 1 remedial action is not achieved)
- As-built drawings for all constructed remedial elements;
- Manifests for al soil or fill disposal;
- Photographic documentation of remedial work performed under this remedy;
- Site Management Plan (if Track 1 remedial action is not achieved);
- Description of any changes in the remedial action from the elements provided in this RAWP and associated design documents;
- Tabular summary of all end point sampling results (including all soil test results from the remedial investigation for soil that will remain on site) and all soil/fill waste characterization results, QA/QC results for end-point sampling, and other sampling and chemical analysis performed as part of the remedial action;
- Test results or other evidence demonstrating that remedial systems are functioning properly;
- Account of the source area locations and characteristics of all soil or fill material removed from the Site including a map showing the location of these excavations and hotspots, tanks or other contaminant source areas;
- Full accounting of the disposal destination of all contaminated material removed from the Site. Documentation associated with disposal of all material will include transportation and disposal records, and letters approving receipt of the material;

- Account of the origin and required chemical quality testing for material imported onto the Site;
- Recorded Declaration of Covenants and Restrictions;
- The RAWP and Remedial Investigation Report will be included as appendices to the RAR;
- Reports and supporting material will be submitted in digital form and final PDF's will include bookmarks for each appendix; and,
- The following certification:

Remedial Action Report Certification

I, Philip Bell, am currently a registered professional engineer licensed by the State of New York. I performed professional engineering services and had primary direct responsibility for implementation of the remedial program for the 461 & 463 Tompkins Avenue site, site number 16CVCP082K. I certify to the following:

- I have reviewed this document, to which my signature and seal are affixed.
- Engineering Controls implemented during this remedial action were designed by me or a person under my direct supervision and achieve the goals established in the Remedial Action Work Plan for this site.
- The Engineering Controls constructed during this remedial action were professionally observed by me or by a person under my direct supervision and (1) are consistent with the Engineering Control design established in the Remedial action Work Plan and (2) are accurately reflected in the text and drawings for as-built design reported in this Remedial Action Report.
- The OER-approved Remedial Action Work Plan dated [date] and Stipulations in a letter dated [date] were implemented and that all requirements in those documents have been substantively complied with. I certify that contaminated soil, fill, liquids or other material from the property were taken to facilities licensed to accept this material in full compliance with applicable laws and regulations.

Name

PE License Number

PE Stamp

Signature

Date

I, Paul H. Ciminello am a Qualified Environmental Professional. I had primary direct responsibility for implementation of the remedial program for the 461 & 463 Tompkins Avenue site, site number 16CVCP082K. I certify to the following:

- The OER-approved Remedial Action Work Plan dated August 15, 2012 and Stipulations in a letter dated September 10, 2014 were implemented and that all requirements in those documents have been substantively complied with. I certify that contaminated soil, fill, liquids or other material from the property were taken to facilities licensed to accept this material in full compliance with applicable laws and regulations.

QEP Name

QEP Signature

Date

7.0 SCHEDULE

The table below presents a schedule for the proposed remedial action and reporting. If the schedule for remediation and development activities changes, it will be updated and submitted to OER. Currently, a 12 month remediation period is anticipated.

Schedule Milestone	Weeks from Remedial Action Start	Duration (weeks)
OER Approval of RAWP	0	0
Fact Sheet 2 announcing start of remedy	1	1
Mobilization	2 - 3	2
Remedial Excavation	3 - 5	2
SSDS Installation	12 - 15	3
Cover Soils Importation	30 - 31	2
Record Declaration of Covenants and Restrictions	32	1
Submit Remedial Action Report	30 - 35	5

APPENDIX A- FIGURES

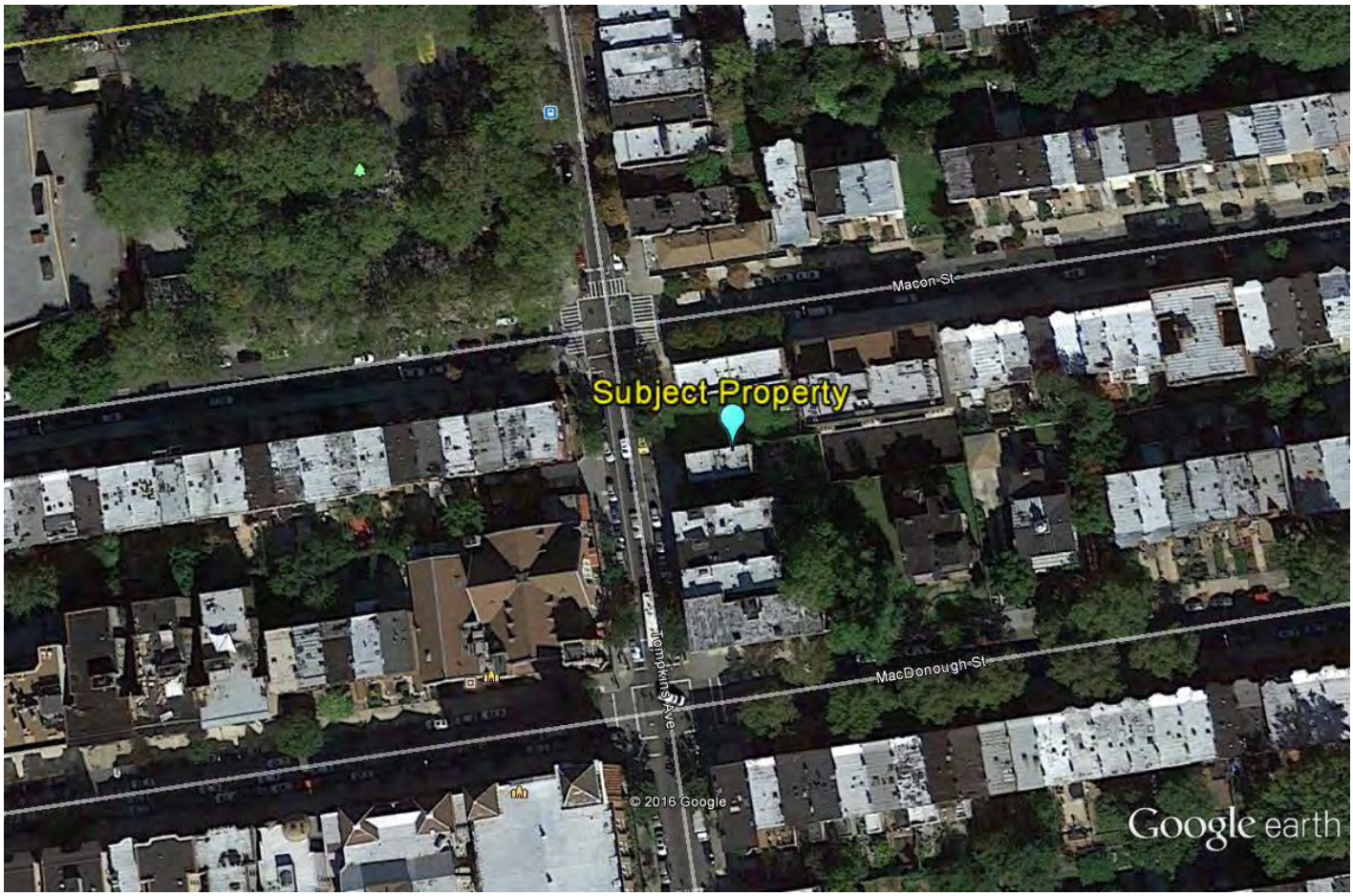


Figure 1: Site Location Map
461 & 463 Tompkins Avenue
Borough of Brooklyn, New York

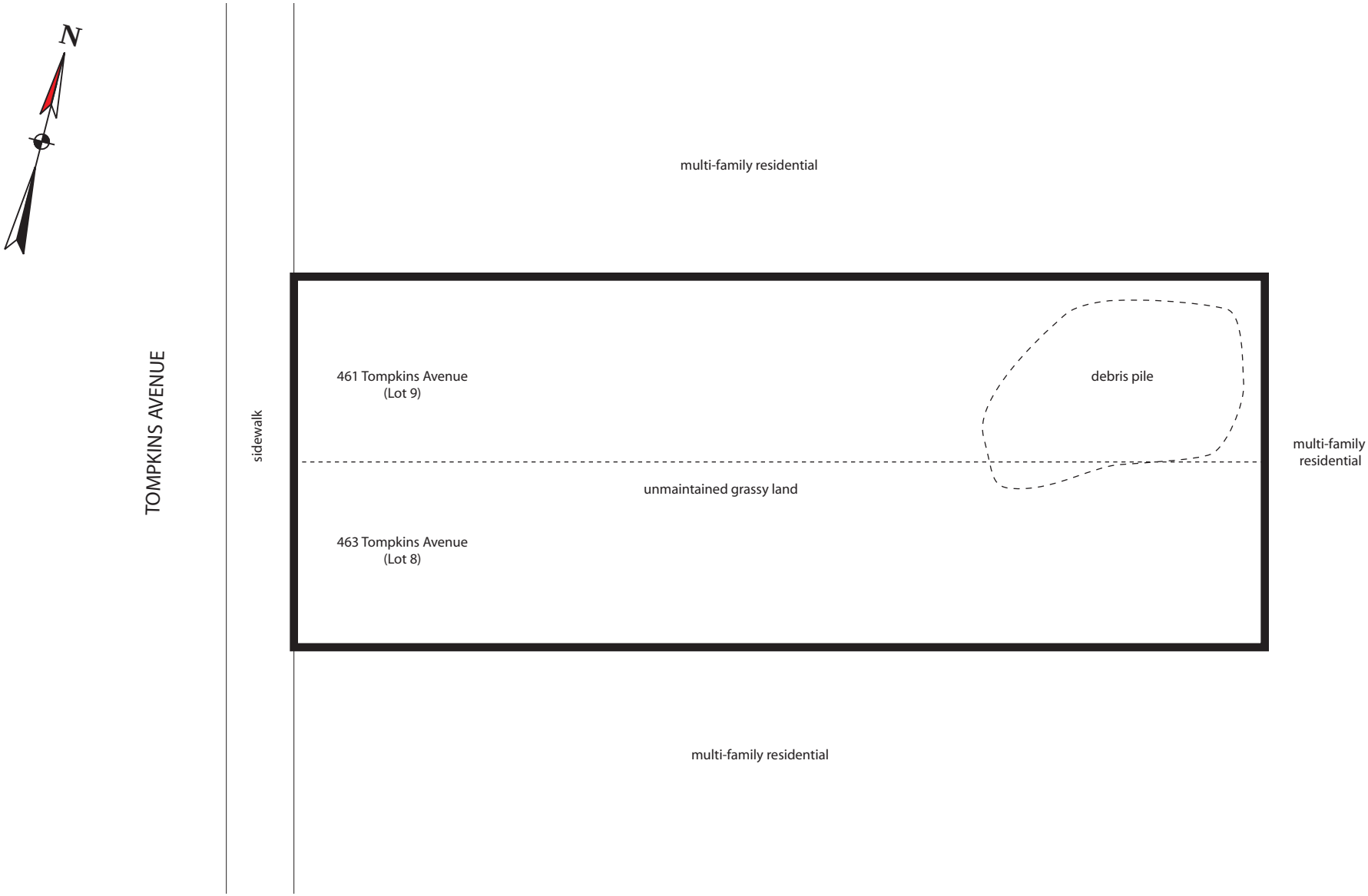
N

ESI File: EB15157A.40

May 2016

Appendix A

Ecosystems Strategies, Inc.



All feature locations are approximate. This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

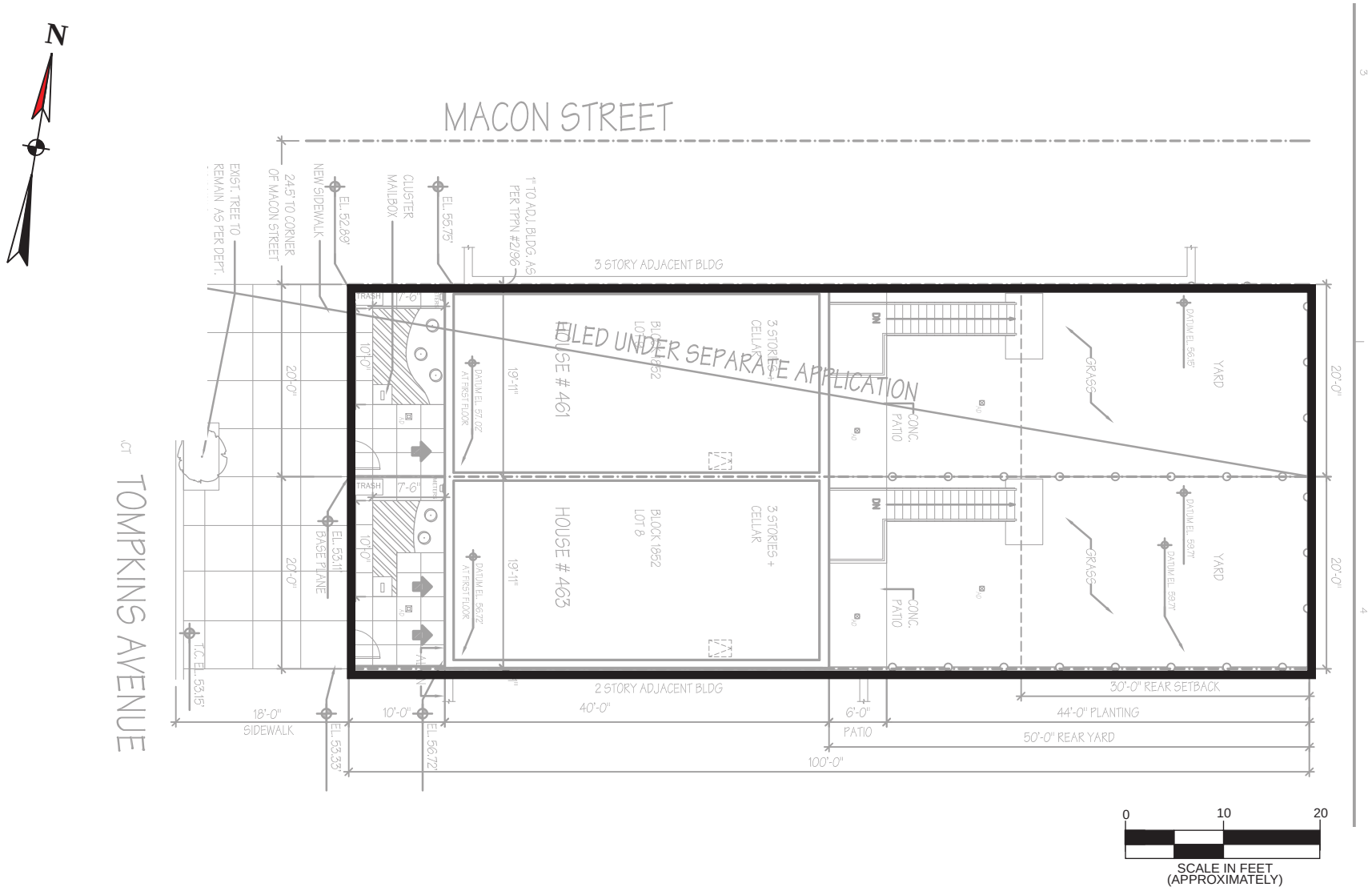
Figure 2: Selected Site Features Map

461 & 463 Tompkins Avenue
Borough of Brooklyn, New York

Legend:

- subject property border
- tax lot boundary

ESI File: EB15157A.40
June 2016
Not to scale
Appendix A



Base map provide by Curtis and Ginsberg Architects LLP - Site Plan dated 12/20/15. All feature locations are approximate.
This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

Figure 3: Proposed Development Plan

461 & 463 Tompkins Avenue
Borough of Brooklyn, New York

Legend:

subject property border

ESI File:	EB15157A.40
	June 2016
	Scale as shown
	Appendix A

Legend:

- 1 & 2 Family Residential
- Multi-familly Residential
- Mixed Use
- Open space & outdoor recreation
- Commercial
- Institutions
- Industrial
- Parking
- Transporation/Utilities
- Vacant Lots

Subject Property

0 100 200

SCALE IN FEET
(APPROXIMATELY)

Source Map provided by http://www.oasisnyc.net/map.aspx.

Figure 4: Surrounding Land Use Map

46 & 463 Tompkins Avenue
Borough of Brooklyn, New York

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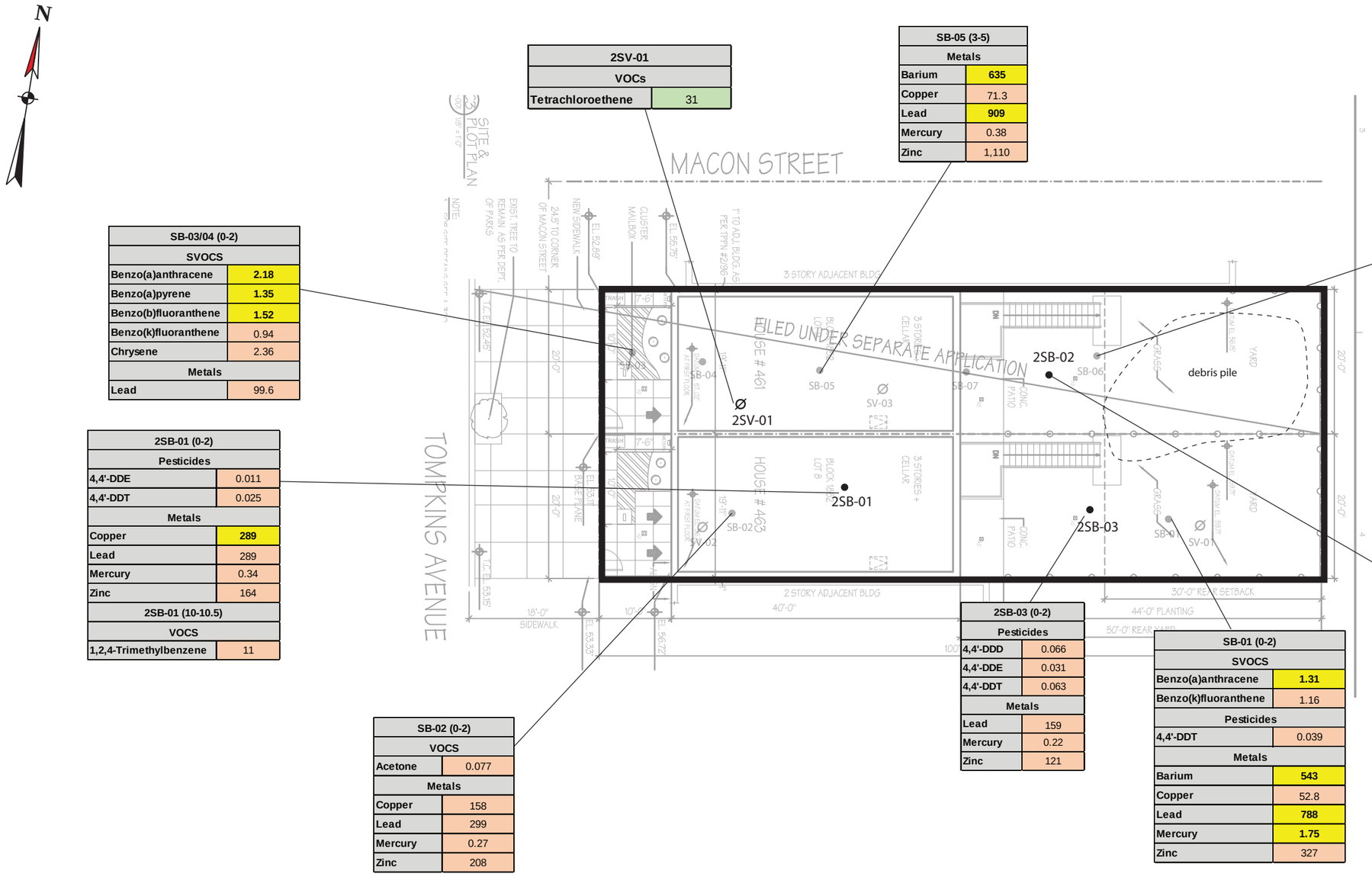
June 2016

Appendix A

Ecosystems Strategies, Inc.



2SV-01	
VOCs	
Tetrachloroethene	31

SB-05 (3-5)	
Metals	
Barium	635
Copper	71.3
Lead	909
Mercury	0.38
Zinc	1,110

SB-06/07 (7-9)	
SVOCS	
Benzo(a)anthracene	31.6
Benzo(a)pyrene	3.01
Benzo(b)fluoranthene	13.4
Benzo(k)fluoranthene	17.2
Chrysene	28.2
Dibenzo(a,h)anthracene	4.26
Indeno(1,2,3-cd)pyrene	6.37
Napthalene	17.2
Pesticides	
4,4'-DDT	0.014
Metals	
Copper	62.7
Lead	1,010
Mercury	1.04
Zinc	269

SB-03/04 (0-2)	
SVOCS	
Benzo(a)anthracene	2.18
Benzo(a)pyrene	1.35
Benzo(b)fluoranthene	1.52
Benzo(k)fluoranthene	0.94
Chrysene	2.36
Metals	
Lead	99.6

2SB-01 (0-2)	
Pesticides	
4,4'-DDE	0.011
4,4'-DDT	0.025
Metals	
Copper	289
Lead	289
Mercury	0.34
Zinc	164
2SB-01 (10-10.5)	
VOCS	
1,2,4-Trimethylbenzene	11

SB-02 (0-2)	
VOCS	
Acetone	0.077
Metals	
Copper	158
Lead	299
Mercury	0.27
Zinc	208

2SB-03 (0-2)	
Pesticides	
4,4'-DDD	0.066
4,4'-DDE	0.031
4,4'-DDT	0.063
Metals	
Lead	159
Mercury	0.22
Zinc	121

SB-01 (0-2)	
SVOCS	
Benzo(a)anthracene	1.31
Benzo(k)fluoranthene	1.16
Pesticides	
4,4'-DDT	0.039
Metals	
Barium	543
Copper	52.8
Lead	788
Mercury	1.75
Zinc	327

2SB-02 (0-2)	
SVOCs	
Benzo(a)anthracene	9.37
Benzo(a)pyrene	6.64
Benzo(b)fluoranthene	8.29
Benzo(k)fluoranthene	6.24
Chrysene	8.83
Dibenzo(a,h)anthracene	1.91
Indeno(1,2,3-cd)pyrene	2.57
Pesticides	
4,4'-DDD	0.021
4,4'-DDE	0.023
4,4'-DDT	0.18
Dieldrin	0.012
Metals	
Copper	51.4
Lead	274
Mercury	0.45
Zinc	189

Legend:

- subject property border
- previous soil sample location
- previous soil vapor sample location
- soil sample locations
- soil vapor sample location

Analyte Above UUSCO in Soil
Analyte Above RRUSCO in Soil
Relatively elevated concentrations in Soil Vapor
All Results in ppm

All feature locations are approximate. This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

Figure 5: Exceedances in Soil and Soil Vapor

461 & 463 Tompkins Avenue
Borough of Brooklyn, New York

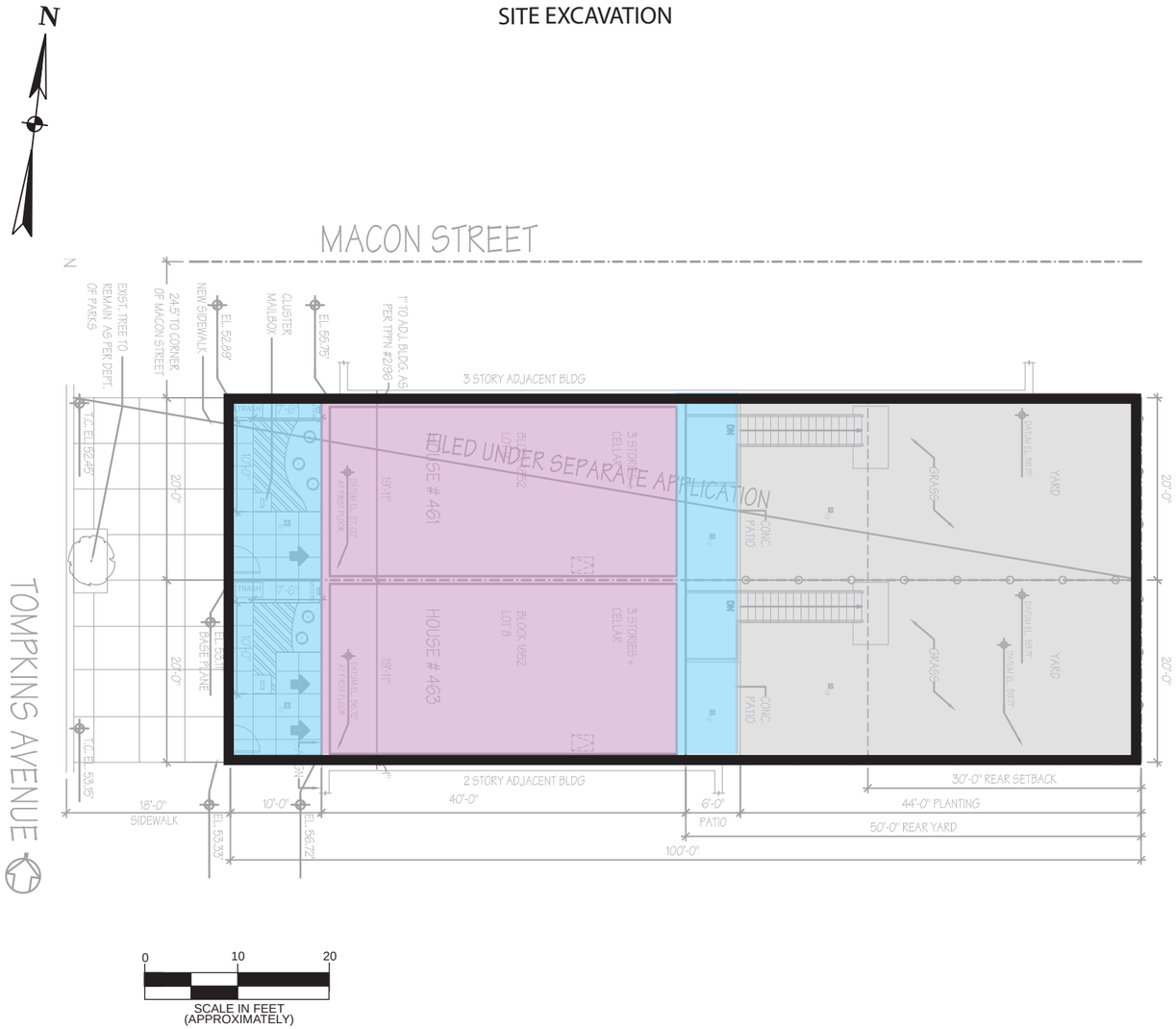
ESI File: EB15157A.40

Scale as shown

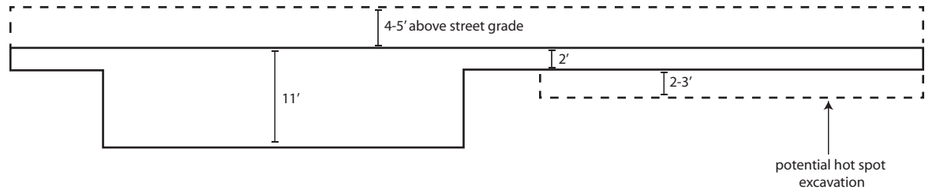
June 2016 | Figures

Ecosystems Strategies, Inc.

SITE EXCAVATION



SCHEMATIC SITE EXCAVATION SIDE VIEW



Legend:
- subject property border
- excavation to 8" - 10"
- excavation to 2'
- excavation to 11'

Note: Excavation depths are from street grade.
The Site is currently built up with 4-5' of material which will be excavated.

Base map provide by Curtis and Ginsberg Architects LLP - Site Plan dated October 28, 2015. All feature locations are approximate. This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

Figure 6: Site Excavation Diagram

461 & 463 Tompkins Avenue
Borough of Brooklyn, New York

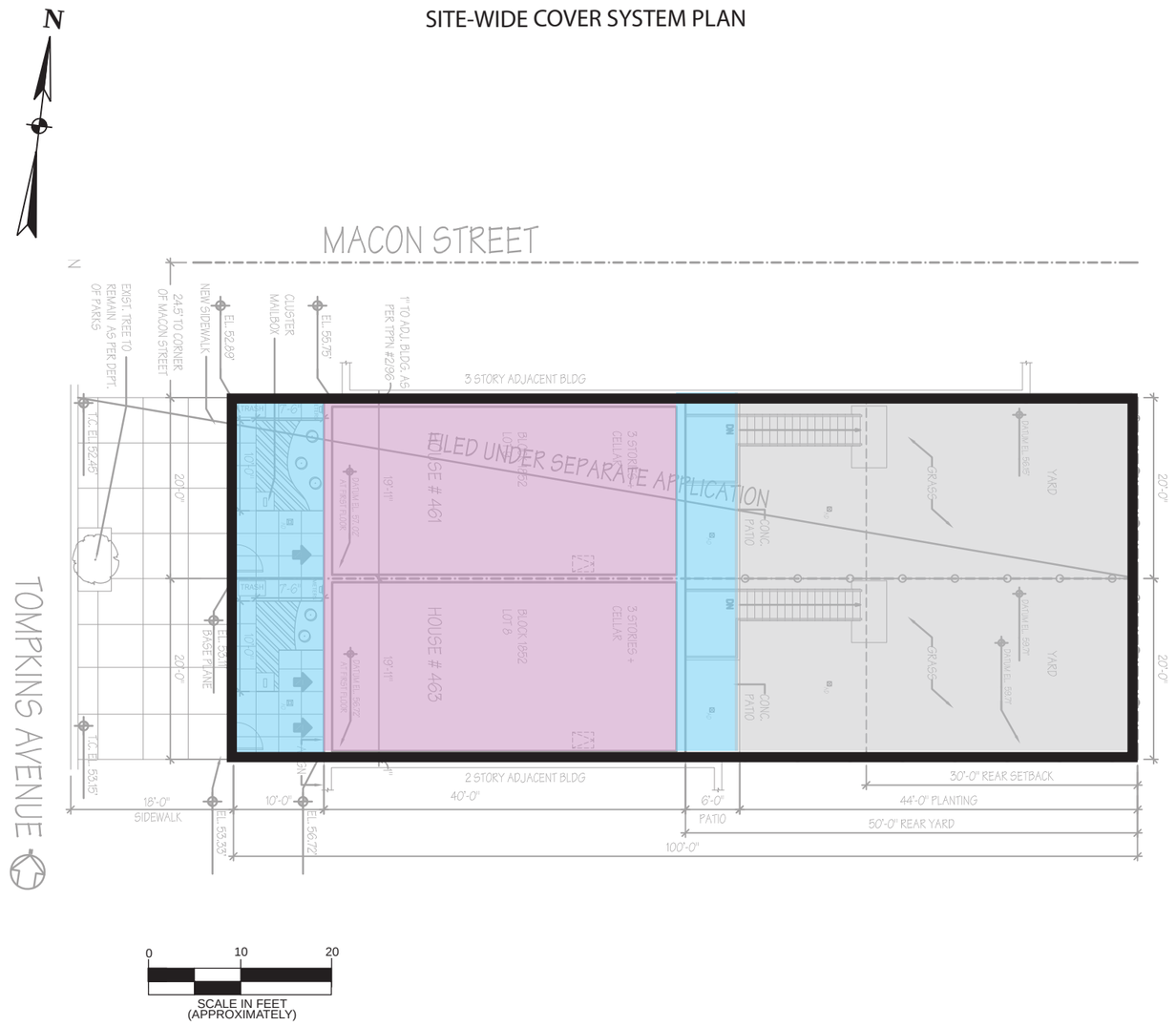
ESI File: EB15157A.40

Scale as shown

June 2016 | Appendix A

Ecosystems Strategies, Inc.

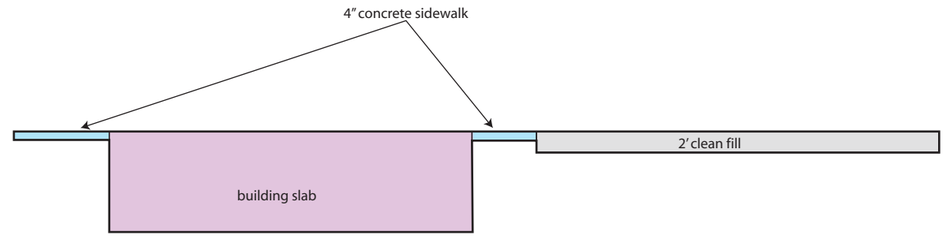
SITE-WIDE COVER SYSTEM PLAN



0 10 20

SCALE IN FEET (APPROXIMATELY)

SCHEMATIC SITE-WIDE COVER SYSTEM SIDE VIEW



Legend:
- subject property border
- 4" poured concrete
- 6" reinforced concrete slab
- 2' clean fill

Base map provide by Curtis and Ginsberg Architects LLP - Site Plan dated October 28, 2015. All feature locations are approximate. This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

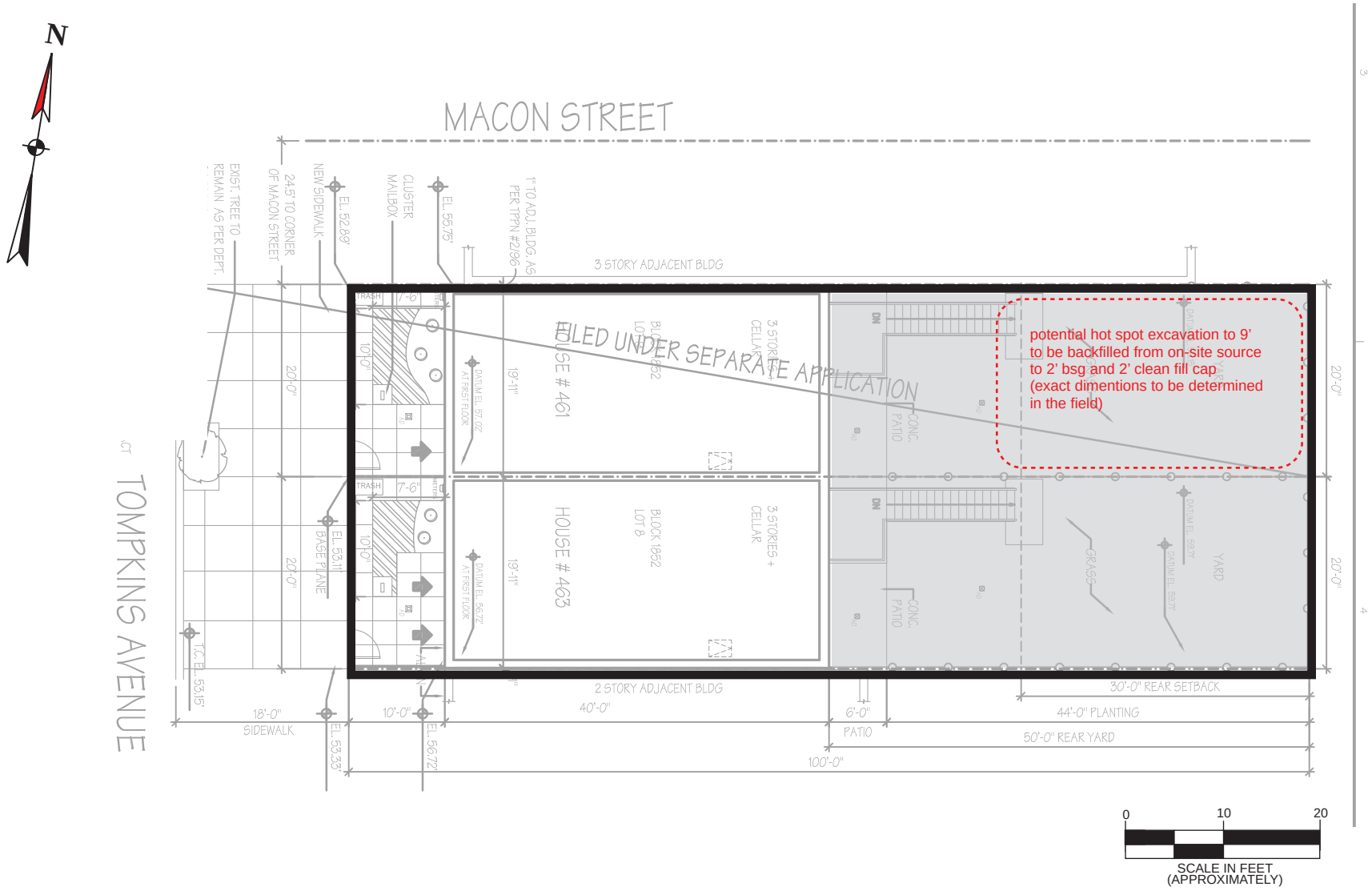
Figure 7: Site-wide Cover System Plan

461 & 463 Tompkins Avenue
Borough of Brooklyn, New York

ESI File: EB15157A.40

Scale as shown

June 2016 | Appendix A



Base map provide by Curtis and Ginsberg Architects LLP - Site Plan dated 12/20/15. All feature locations are approximate.
This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

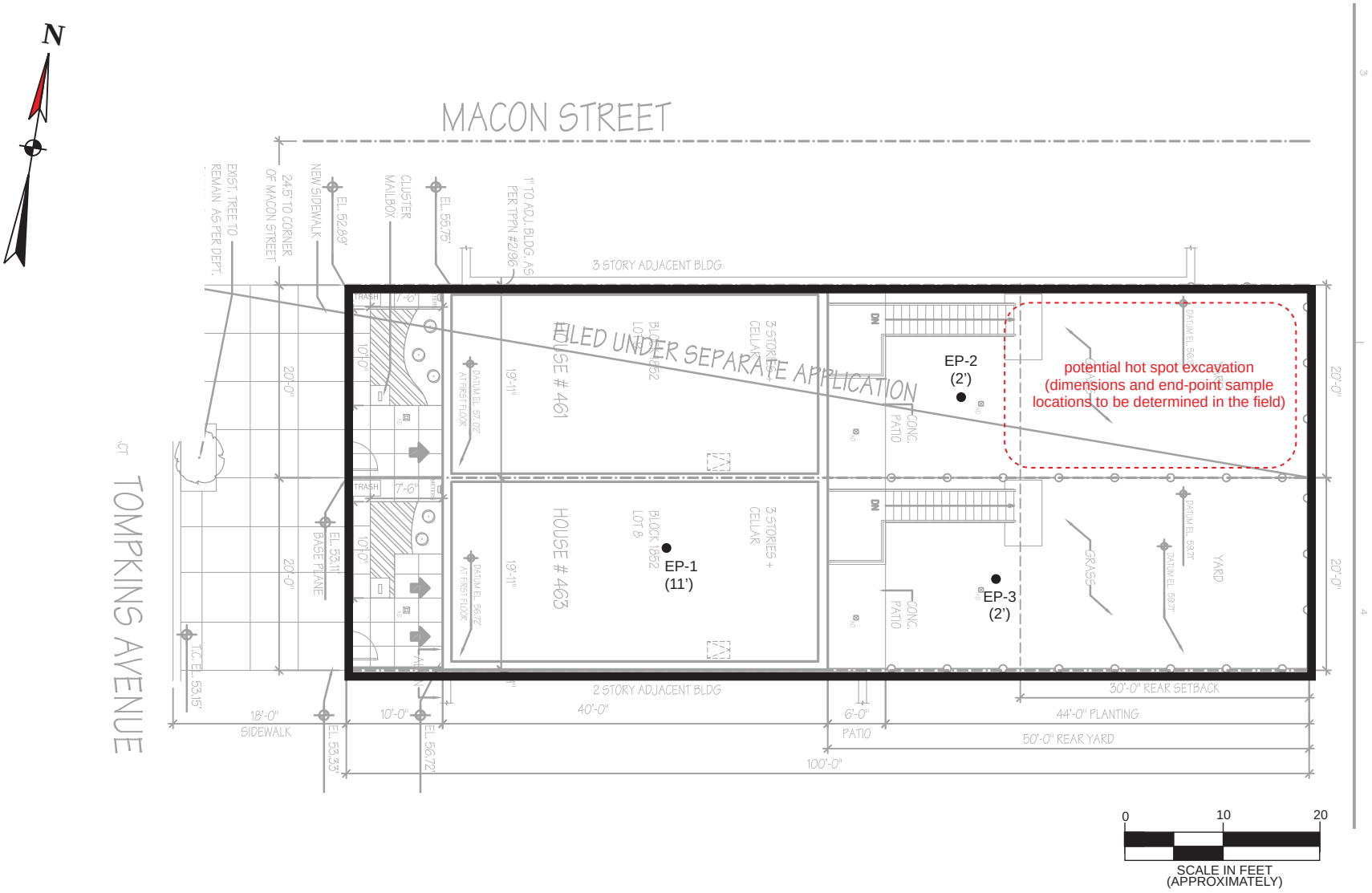
Figure 8: Site Backfill Location Diagram

461 & 463 Tompkins Avenue
Borough of Brooklyn, New York

Legend:

- subject property border
- clean fill to 2'

ESI File: EB15157A.40
June 2016
Scale as shown
Appendix A



Base map provide by Curtis and Ginsberg Architects LLP - Site Plan dated 12/20/15. All feature locations are approximate.
This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

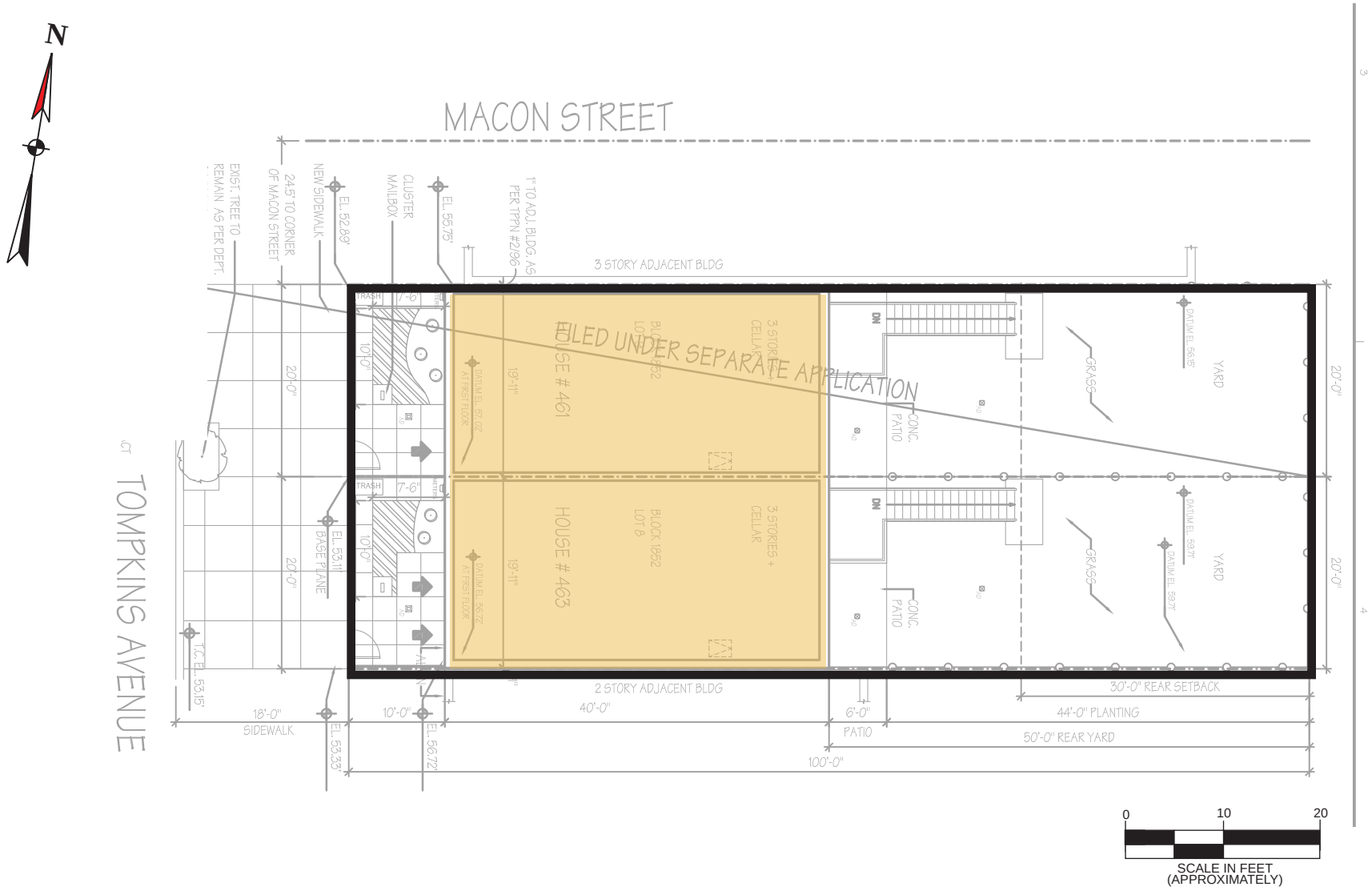
Figure 9: End-point Sample Map

461 & 463 Tompkins Avenue
Borough of Brooklyn, New York

Legend:

- subject property border
- end-point sample location (depth for street grade)

ESI File: EB15157A.40
June 2016
Scale as shown
Appendix A



Base map provide by Curtis and Ginsberg Architects LLP - Site Plan dated 12/20/15. All feature locations are approximate.
This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

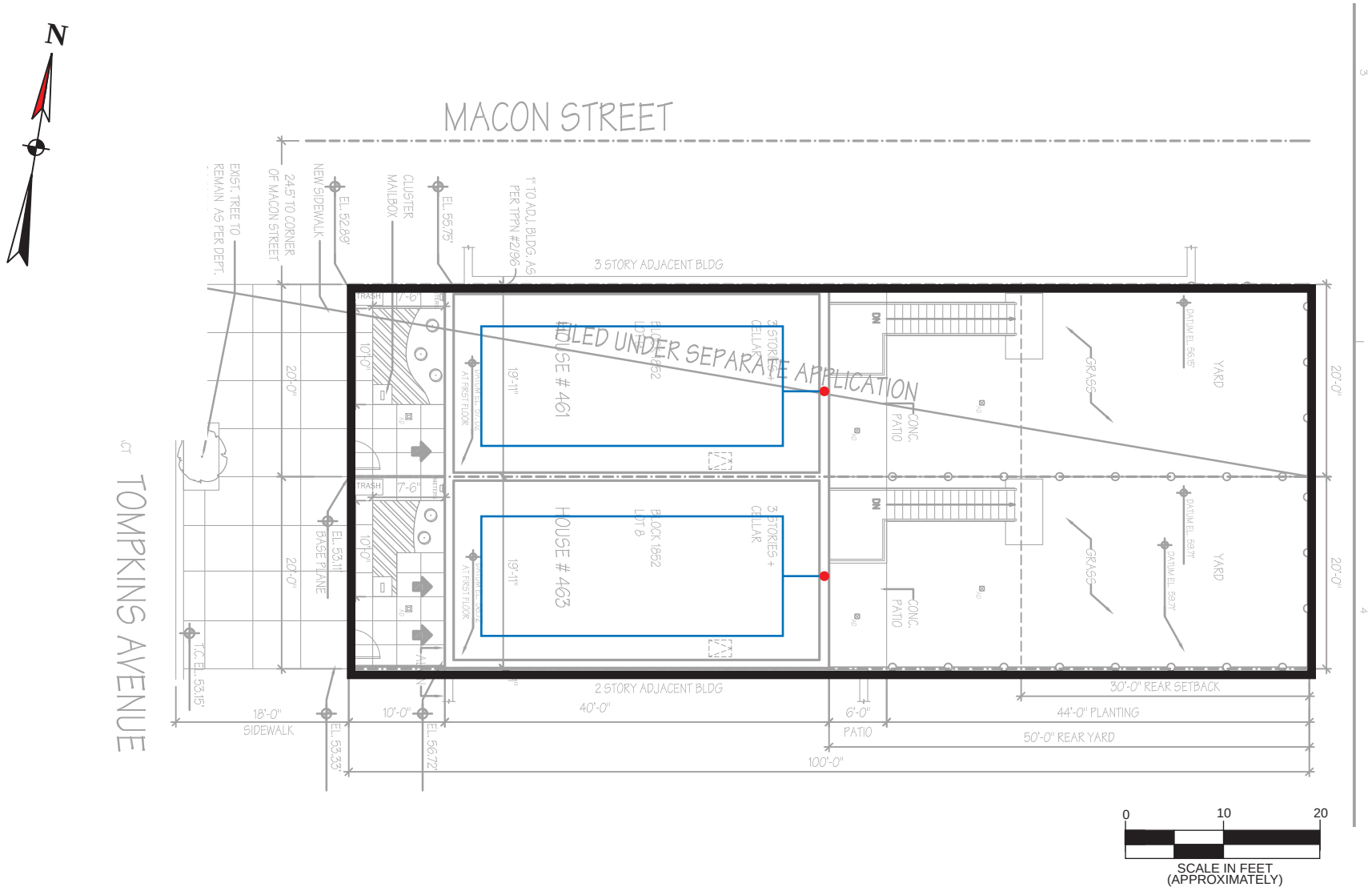
Figure 10: Vapor Barrier Plan

461 & 463 Tompkins Avenue
Borough of Brooklyn, New York

Legend:

- subject property border
- location of vapor barrier

ESI File: EB15157A.40
June 2016
Scale as shown
Appendix A



Base map provide by Curtis and Ginsberg Architects LLP - Site Plan dated 12/20/15. All feature locations are approximate.
This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

Figure 11: SSDS Layout Map

461 & 463 Tompkins Avenue
Borough of Brooklyn, New York

Legend:

- subject property border
- SSDS below ground perforated PVC piping
- riser location

ESI File: EB15157A.40
June 2016
Scale as shown
Appendix A

APPENDIX B - TABLES

Table 1: VOCs in Soils

Ecosystems Strategies, Inc.

ESI File: EB15157A.40

All data in mg/Kg (ppm)			**Sample ID**	**2SB-01 0-2**		**2SB-01 10-10.5**		**2SB-01 14-16**		**2SB-02 0-2**	
U= Not Detected ≥ indicated value			Sample Date	(2016-05-10)		(2016-05-10)		(2016-05-10)		(2016-05-10)	
Data above SCOs shown in **Bold**			Dilution Factor	1		106		1		1	
VOCs, 8260	**UUSCO**	**RRUSCO**		*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1,1,2-Tetrachloroethane	NA	NA		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
1,1,1-Trichloroethane	0.68	100		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
1,1,2,2-Tetrachloroethane	NA	NA		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
1,1,2-Trichloroethane	NA	NA		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
1,1-Dichloroethane	0.27	26		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
1,1-Dichloroethylene (1,1-DCE)	0.33	100		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
1,2,3-Trichlorobenzene	NA	NA		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
1,2,3-Trichloropropane	NA	NA		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
1,2,4-Trichlorobenzene	NA	NA		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
1,2,4-Trimethylbenzene	3.6	52		0.0021	*U*	11	*D*	0.0019	*U*	0.0021	*U*
1,2-Dibromo-3-chloropropane	NA	NA		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
1,2-Dibromoethane	NA	NA		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
1,2-Dichlorobenzene	1.1	100		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
1,2-Dichloroethane	0.2	31		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
1,2-Dichloropropane	NA	NA		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
1,3,5-Trimethylbenzene	8.4	52		0.0021	*U*	0.078		0.0019	*U*	0.0021	*U*
1,3-Dichlorobenzene	2.4	49		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
1,4-Dichlorobenzene	1.8	13		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
1,4-Dioxane	0.1	13		0.042	*U*	0.046	*U*	0.038	*U*	0.043	*U*
2-Butanone (MEK)	0.12	100		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
2-Hexanone	NA	NA		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
4-Methyl-2-pentanone	NA	NA		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
Acetone	0.05	100		0.0051	*J*	0.015		0.0038	*U*	0.0043	*U*
Acrolein	NA	NA		0.0042	*U*	0.0046	*U*	0.0038	*U*	0.0043	*U*
Acrylonitrile	NA	NA		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
Benzene	0.06	48		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
Bromochloromethane	NA	NA		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
Bromodichloromethane	NA	NA		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
Bromoform	NA	NA		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
Bromomethane	NA	NA		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
Carbon disulfide	NA	NA		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
Carbon tetrachloride	0.76	24		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
Chlorobenzene	1.1	100		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
Chloroethane	NA	NA		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
Chloroform	0.37	49		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
Chloromethane	NA	NA		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
cis-1,2-Dichloroethylene (cis-DCE)	0.25	100		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
cis-1,3-Dichloropropylene	NA	NA		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
Cyclohexane	NA	NA		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
Dibromochloromethane	NA	NA		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
Dibromomethane	NA	NA		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
Dichlorodifluoromethane	NA	NA		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
Ethyl Benzene	1	41		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
Hexachlorobutadiene	NA	NA		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
Isopropylbenzene	2.3	100		0.0021	*U*	0.0062		0.0019	*U*	0.0021	*U*
Methyl acetate	NA	NA		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
Methyl tert-butyl ether (MTBE)	0.93	100		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
Methylcyclohexane	NA	NA		0.0021	*U*	0.0027	*J*	0.0019	*U*	0.0021	*U*
Methylene chloride	0.05	500		0.0042	*U*	0.0046	*U*	0.0038	*U*	0.0043	*U*
n-Butylbenzene	12	100		0.0021	*U*	0.051		0.0019	*U*	0.0021	*U*
n-Propylbenzene	3.9	100		0.0021	*U*	0.012		0.0019	*U*	0.0021	*U*
o-Xylene	0.26	100		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
p- & m- Xylenes	0.26	100		0.0042	*U*	0.0046	*U*	0.0038	*U*	0.0043	*U*
p-Isopropyltoluene	10	NA		0.0021	*U*	0.032		0.0019	*U*	0.0021	*U*
sec-Butylbenzene	11	100		0.0021	*U*	0.043		0.0019	*U*	0.0021	*U*
Styrene	NA	NA		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
tert-Butyl alcohol (TBA)	NA	NA		0.0021	*U*	0.0046	*U*	0.0038	*U*	0.0043	*U*
tert-Butylbenzene	5.9	100		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
Tetrachloroethylene (PCE)	1.3	19		0.0021	*U*	0.014		0.0019	*U*	0.0021	*U*
Toluene	0.7	100		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
trans-1,2-Dichloroethylene (trans-DCE)	0.19	100		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
trans-1,3-Dichloropropylene	NA	NA		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
Trichloroethylene (TCE)	0.47	21		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
Trichlorofluoromethane	NA	NA		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
Vinyl chloride (VC)	0.02	0.9		0.0021	*U*	0.0023	*U*	0.0019	*U*	0.0021	*U*
Xylenes, Total	0.26	100		0.0064	*U*	0.0068	*U*	0.0057	*U*	0.0064	*U*
Total VOCs	NA	NA		0.0051		11.2539		0		0	

Analyte Detected

Analyte Above UUSCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 1: VOCs in Soils

Ecosystems Strategies, Inc.

ESI File: EB15157A.40

All data in mg/Kg (ppm)			**Sample ID**	**2SB-01 14-16**		**2SB-03 0-2**		**2SB-03 14-16**		**SB-01 0-2**	
U= Not Detected ≥ indicated value			Sample Date	(2016-05-10)		(2016-05-10)		(2016-05-10)		(2015-12-14)	
Data above SCOs shown in **Bold**			Dilution Factor	1		1		1		1	
VOCs, 8260	**UUSCO**	**RRUSCO**		*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1,1,2-Tetrachloroethane	NA	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
1,1,1-Trichloroethane	0.68	100		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
1,1,2,2-Tetrachloroethane	NA	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
1,1,2-Trichloroethane	NA	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
1,1-Dichloroethane	0.27	26		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
1,1-Dichloroethylene (1,1-DCE)	0.33	100		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
1,2,3-Trichlorobenzene	NA	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
1,2,3-Trichloropropane	NA	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
1,2,4-Trichlorobenzene	NA	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
1,2,4-Trimethylbenzene	3.6	52		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
1,2-Dibromo-3-chloropropane	NA	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
1,2-Dibromoethane	NA	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
1,2-Dichlorobenzene	1.1	100		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
1,2-Dichloroethane	0.2	31		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
1,2-Dichloropropane	NA	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
1,3,5-Trimethylbenzene	8.4	52		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
1,3-Dichlorobenzene	2.4	49		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
1,4-Dichlorobenzene	1.8	13		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
1,4-Dioxane	0.1	13		0.048	*U*	0.046	*U*	0.043	*U*	0.056	*U*
2-Butanone (MEK)	0.12	100		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
2-Hexanone	NA	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
4-Methyl-2-pentanone	NA	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
Acetone	0.05	100		0.011		0.0046	*U*	0.0043	*U*	0.044	
Acrolein	NA	NA		0.0048	*U*	0.0046	*U*	0.0043	*U*	0.0056	*U*
Acrylonitrile	NA	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
Benzene	0.06	48		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
Bromochloromethane	NA	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
Bromodichloromethane	NA	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
Bromoform	NA	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
Bromomethane	NA	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
Carbon disulfide	NA	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
Carbon tetrachloride	0.76	24		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
Chlorobenzene	1.1	100		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
Chloroethane	NA	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
Chloroform	0.37	49		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
Chloromethane	NA	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
cis-1,2-Dichloroethylene (cis-DCE)	0.25	100		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
cis-1,3-Dichloropropylene	NA	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
Cyclohexane	NA	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
Dibromochloromethane	NA	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
Dibromomethane	NA	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
Dichlorodifluoromethane	NA	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
Ethyl Benzene	1	41		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
Hexachlorobutadiene	NA	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
Isopropylbenzene	2.3	100		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
Methyl acetate	NA	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
Methyl tert-butyl ether (MTBE)	0.93	100		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
Methylcyclohexane	NA	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
Methylene chloride	0.05	500		0.0048	*U*	0.0046	*U*	0.0043	*U*	0.0056	*U*
n-Butylbenzene	12	100		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
n-Propylbenzene	3.9	100		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
o-Xylene	0.26	100		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
p- & m- Xylenes	0.26	100		0.0048	*U*	0.0046	*U*	0.0043	*U*	0.0056	*U*
p-Isopropyltoluene	10	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
sec-Butylbenzene	11	100		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
Styrene	NA	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
tert-Butyl alcohol (TBA)	NA	NA		0.0048	*U*	0.0046	*U*	0.0043	*U*	0.0028	*U*
tert-Butylbenzene	5.9	100		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
Tetrachloroethylene (PCE)	1.3	19		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
Toluene	0.7	100		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
trans-1,2-Dichloroethylene (trans-DCE)	0.19	100		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
trans-1,3-Dichloropropylene	NA	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
Trichloroethylene (TCE)	0.47	21		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
Trichlorofluoromethane	NA	NA		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
Vinyl chloride (VC)	0.02	0.9		0.0024	*U*	0.0023	*U*	0.0021	*U*	0.0028	*U*
Xylenes, Total	0.26	100		0.0072	*U*	0.0069	*U*	0.0064	*U*	0.0085	*U*
Total VOCs	NA	NA		0.011		0		0			

Analyte Detected

Analyte Above UUSCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 1: VOCs in Soils

Ecosystems Strategies, Inc.

ESI File: EB15157A.40

All data in mg/Kg (ppm)			**Sample ID**	**SB-02 0-2**		**SB-03/04 0-2**		**SB-05 3-5**		**SB-06/07 7-9**	
U= Not Detected ≥ indicated value			Sample Date	(2015-12-14)		(2015-12-14)		(2015-12-14)		(2015-12-14)	
Data above SCOs shown in **Bold**			Dilution Factor	1		1		1		1	
VOCs, 8260	**UUSCO**	**RRUSCO**		*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1,1,2-Tetrachloroethane	NA	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
1,1,1-Trichloroethane	0.68	100		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
1,1,2,2-Tetrachloroethane	NA	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
1,1,2-Trichloroethane	NA	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
1,1-Dichloroethane	0.27	26		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
1,1-Dichloroethylene (1,1-DCE)	0.33	100		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
1,2,3-Trichlorobenzene	NA	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
1,2,3-Trichloropropane	NA	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
1,2,4-Trichlorobenzene	NA	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
1,2,4-Trimethylbenzene	3.6	52		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
1,2-Dibromo-3-chloropropane	NA	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
1,2-Dibromoethane	NA	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
1,2-Dichlorobenzene	1.1	100		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
1,2-Dichloroethane	0.2	31		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
1,2-Dichloropropane	NA	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
1,3,5-Trimethylbenzene	8.4	52		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
1,3-Dichlorobenzene	2.4	49		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
1,4-Dichlorobenzene	1.8	13		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
1,4-Dioxane	0.1	13		0.05	*U*	0.053	*U*	0.051	*U*	7	*U*
2-Butanone (MEK)	0.12	100		0.0025	*U*	0.0027	*U*	0.0093		0.35	*U*
2-Hexanone	NA	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
4-Methyl-2-pentanone	NA	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
Acetone	0.05	100		0.077		0.0053	*U*	0.045		0.7	*U*
Acrolein	NA	NA		0.005	*U*	0.0053	*U*	0.0051	*U*	0.7	*U*
Acrylonitrile	NA	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
Benzene	0.06	48		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
Bromochloromethane	NA	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
Bromodichloromethane	NA	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
Bromoform	NA	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
Bromomethane	NA	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
Carbon disulfide	NA	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
Carbon tetrachloride	0.76	24		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
Chlorobenzene	1.1	100		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
Chloroethane	NA	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
Chloroform	0.37	49		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
Chloromethane	NA	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
cis-1,2-Dichloroethylene (cis-DCE)	0.25	100		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
cis-1,3-Dichloropropylene	NA	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
Cyclohexane	NA	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
Dibromochloromethane	NA	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
Dibromomethane	NA	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
Dichlorodifluoromethane	NA	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
Ethyl Benzene	1	41		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
Hexachlorobutadiene	NA	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
Isopropylbenzene	2.3	100		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
Methyl acetate	NA	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.63	*JD*
Methyl tert-butyl ether (MTBE)	0.93	100		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
Methylcyclohexane	NA	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
Methylene chloride	0.05	500		0.005	*U*	0.0053	*U*	0.0051	*U*	0.7	*U*
n-Butylbenzene	12	100		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
n-Propylbenzene	3.9	100		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
o-Xylene	0.26	100		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
p- & m- Xylenes	0.26	100		0.005	*U*	0.0053	*U*	0.0051	*U*	0.7	*U*
p-Isopropyltoluene	10	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
sec-Butylbenzene	11	100		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
Styrene	NA	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
tert-Butyl alcohol (TBA)	NA	NA		0.0025	*U*	0.0027	*U*	0.0051	*U*	0.35	*U*
tert-Butylbenzene	5.9	100		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
Tetrachloroethylene (PCE)	1.3	19		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
Toluene	0.7	100		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
trans-1,2-Dichloroethylene (trans-DCE)	0.19	100		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
trans-1,3-Dichloropropylene	NA	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
Trichloroethylene (TCE)	0.47	21		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
Trichlorofluoromethane	NA	NA		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
Vinyl chloride (VC)	0.02	0.9		0.0025	*U*	0.0027	*U*	0.0026	*U*	0.35	*U*
Xylenes, Total	0.26	100		0.0074	*U*	0.008	*U*	0.0077	*U*	1.1	*U*
Total VOCs	NA	NA									

Analyte Detected

Analyte Above UUSCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 2: SVOCs in Soils

Ecosystems Strategies, Inc.

ESI File: EB15157A.40

All data in mg/Kg (ppm)		**Sample ID**	**2SB-01 0-2**		**2SB-01 10-10.5**		**2SB-01 14-16**		**2SB-02 0-2**	
U= Not Detected ≥ indicated value		Sample Date	(2016-05-10)		(2016-05-10)		(2016-05-10)		(2016-05-10)	
Data above SCOs shown in **Bold**		Dilution Factor	2		25		2		106	
SVOCs, 8270	**UUSCO**	**RRUSCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1'-Biphenyl	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
1,2,4,5-Tetrachlorobenzene	NA	NA	0.095	*U*	**NT**		0.088	*U*	0.098	*U*
1,2,4-Trichlorobenzene	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
1,2-Dichlorobenzene	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
1,2-Diphenylhydrazine (Azobenzene)	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
1,3-Dichlorobenzene	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
1,4-Dichlorobenzene	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
2,3,4,6-Tetrachlorophenol	NA	NA	0.095	*U*	**NT**		0.088	*U*	0.098	*U*
2,4,5-Trichlorophenol	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
2,4,6-Trichlorophenol	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
2,4-Dichlorophenol	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
2,4-Dimethylphenol	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
2,4-Dinitrophenol	NA	NA	0.095	*U*	**NT**		0.088	*U*	0.098	*U*
2,4-Dinitrotoluene	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
2,6-Dinitrotoluene	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
2-Chloronaphthalene	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
2-Chlorophenol	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
2-Methylnaphthalene	NA	NA	0.048	*U*	15.9	*D*	0.044	*U*	0.057	*JD*
2-Methylphenol	0.33	100	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
2-Nitroaniline	NA	NA	0.095	*U*	**NT**		0.088	*U*	0.098	*U*
2-Nitrophenol	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
3- & 4-Methylphenols	0.33	100	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
3,3'-Dichlorobenzidine	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
3-Nitroaniline	NA	NA	0.095	*U*	**NT**		0.088	*U*	0.098	*U*
4,6-Dinitro-2-methylphenol	NA	NA	0.095	*U*	**NT**		0.088	*U*	0.098	*U*
4-Bromophenyl phenyl ether	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
4-Chloro-3-methylphenol	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
4-Chloroaniline	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
4-Chlorophenyl phenyl ether	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
4-Nitroaniline	NA	NA	0.095	*U*	**NT**		0.088	*U*	0.098	*U*
4-Nitrophenol	NA	NA	0.095	*U*	**NT**		0.088	*U*	0.098	*U*
Acenaphthene	20	100	0.048	*U*	0.6	*U*	0.044	*U*	0.44	*D*
Acenaphthylene	100	100	0.048	*U*	0.6	*U*	0.044	*U*	0.53	*D*
Acetophenone	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
Aniline	NA	NA	0.19	*U*	**NT**		0.18	*U*	0.2	*U*
Anthracene	100	100	0.1	*D*	0.6	*U*	0.044	*U*	1.64	*D*
Atrazine	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
Benzaldehyde	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
Benzidine	NA	NA	0.19	*U*	**NT**		0.18	*U*	0.2	*U*
Benzo(a)anthracene	1	1	0.35	*D*	0.6	*U*	0.044	*U*	**9.37**	*D*
Benzo(a)pyrene	1	1	0.32	*D*	0.6	*U*	0.044	*U*	**6.64**	*D*
Benzo(b)fluoranthene	1	1	0.21	*D*	0.6	*U*	0.044	*U*	**8.29**	*D*
Benzo(g,h,i)perylene	100	100	0.23	*D*	0.6	*U*	0.044	*U*	2.29	*D*
Benzo(k)fluoranthene	0.8	3.9	0.29	*D*	0.6	*U*	0.044	*U*	**6.24**	*D*
Benzoic acid	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
Benzyl alcohol	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
Benzyl butyl phthalate	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
Bis(2-chloroethoxy)methane	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
Bis(2-chloroethyl)ether	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
Bis(2-chloroisopropyl)ether	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
Bis(2-ethylhexyl)phthalate	NA	NA	0.065	*JD*	**NT**		0.044	*U*	0.18	*D*
Caprolactam	NA	NA	0.095	*U*	**NT**		0.088	*U*	0.098	*U*
Carbazole	NA	NA	0.069	*JD*	**NT**		0.044	*U*	0.75	*D*
Chrysene	1	3.9	0.36	*D*	0.6	*U*	0.044	*U*	**8.83**	*D*
Dibenzo(a,h)anthracene	0.33	0.33	0.13	*D*	0.6	*U*	0.044	*U*	**1.91**	*D*
Dibenzofuran	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.32	*D*
Diethyl phthalate	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
Dimethyl phthalate	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
Di-n-butyl phthalate	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
Di-n-octyl phthalate	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
Fluoranthene	100	100	0.77	*D*	0.6	*U*	0.044	*U*	15.9	*D*
Fluorene	30	100	0.048	*U*	2.84	*D*	0.044	*U*	0.54	*D*
Hexachlorobenzene	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
Hexachlorobutadiene	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
Hexachlorocyclopentadiene	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
Hexachloroethane	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.22	*D*	0.6	*U*	0.044	*U*	**2.57**	*D*
Isophorone	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
Naphthalene	12	100	0.048	*U*	2.01	*D*	0.044	*U*	0.049	*U*
Nitrobenzene	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
N-Nitrosodimethylamine	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
N-nitroso-di-n-propylamine	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
N-Nitrosodiphenylamine	NA	NA	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
Pentachlorophenol	0.8	6.7	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
Phenanthrene	100	100	0.5	*D*	5.28	*D*	0.044	*U*	9.8	*D*
Phenol	0.33	100	0.048	*U*	**NT**		0.044	*U*	0.049	*U*
Pyrene	100	100	0.58	*D*	0.74	*JD*	0.044	*U*	12.5	*D*
Total SVOCs	NA	NA	4.194		26.77	**	0		88.797	

Analyte Detected
Analyte Above UUSCO
Analyte Above RRUSCO
** = total PAHs only

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 2: SVOCs in Soils

Ecosystems Strategies, Inc.

ESI File: EB15157A.40

All data in mg/Kg (ppm)		**Sample ID**	**2SB-01 14-16**		**2SB-03 0-2**		**2SB-03 14-16**		**SB-01 0-2**		**SB-02 0-2**	
U= Not Detected ≥ indicated value		Sample Date	(2016-05-10)		(2016-05-10)		(2016-05-10)		(2015-12-14)		(2015-12-14)	
Data above SCOs shown in **Bold**		Dilution Factor	2		2		2		2		2	
SVOCs, 8270	**UUSCO**	**RRUSCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1'-Biphenyl	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
1,2,4,5-Tetrachlorobenzene	NA	NA	0.089	*U*	0.098	*U*	0.089	*U*	**NT**		**NT**	
1,2,4-Trichlorobenzene	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
1,2-Dichlorobenzene	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
1,2-Diphenylhydrazine (Azobenzene)	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
1,3-Dichlorobenzene	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
1,4-Dichlorobenzene	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
2,3,4,6-Tetrachlorophenol	NA	NA	0.089	*U*	0.098	*U*	0.089	*U*	**NT**		**NT**	
2,4,5-Trichlorophenol	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
2,4,6-Trichlorophenol	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
2,4-Dichlorophenol	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
2,4-Dimethylphenol	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
2,4-Dinitrophenol	NA	NA	0.089	*U*	0.098	*U*	0.089	*U*	**NT**		**NT**	
2,4-Dinitrotoluene	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
2,6-Dinitrotoluene	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
2-Chloronaphthalene	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
2-Chlorophenol	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
2-Methylnaphthalene	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	0.048	*U*	0.048	*U*
2-Methylphenol	0.33	100	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
2-Nitroaniline	NA	NA	0.089	*U*	0.098	*U*	0.089	*U*	**NT**		**NT**	
2-Nitrophenol	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
3- & 4-Methylphenols	0.33	100	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
3,3'-Dichlorobenzidine	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
3-Nitroaniline	NA	NA	0.089	*U*	0.098	*U*	0.089	*U*	**NT**		**NT**	
4,6-Dinitro-2-methylphenol	NA	NA	0.089	*U*	0.098	*U*	0.089	*U*	**NT**		**NT**	
4-Bromophenyl phenyl ether	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
4-Chloro-3-methylphenol	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
4-Chloroaniline	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
4-Chlorophenyl phenyl ether	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
4-Nitroaniline	NA	NA	0.089	*U*	0.098	*U*	0.089	*U*	**NT**		**NT**	
4-Nitrophenol	NA	NA	0.089	*U*	0.098	*U*	0.089	*U*	**NT**		**NT**	
Acenaphthene	20	100	0.045	*U*	0.049	*U*	0.045	*U*	0.19	*D*	0.048	*U*
Acenaphthylene	100	100	0.045	*U*	0.049	*U*	0.045	*U*	0.048	*U*	0.048	*U*
Acetophenone	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
Aniline	NA	NA	0.18	*U*	0.2	*U*	0.18	*U*	**NT**		**NT**	
Anthracene	100	100	0.045	*U*	0.06	*JD*	0.045	*U*	0.43	*D*	0.1	*D*
Atrazine	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
Benzaldehyde	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
Benzidine	NA	NA	0.18	*U*	0.2	*U*	0.18	*U*	**NT**		**NT**	
Benzo(a)anthracene	1	1	0.045	*U*	0.28	*D*	0.045	*U*	**1.31**	*D*	0.35	*D*
Benzo(a)pyrene	1	1	0.045	*U*	0.23	*D*	0.045	*U*	0.9	*D*	0.25	*D*
Benzo(b)fluoranthene	1	1	0.045	*U*	0.18	*D*	0.045	*U*	0.58	*D*	0.24	*D*
Benzo(g,h,i)perylene	100	100	0.045	*U*	0.17	*D*	0.045	*U*	0.27	*D*	0.09	*JD*
Benzo(k)fluoranthene	0.8	3.9	0.045	*U*	0.22	*D*	0.045	*U*	1.16	*D*	0.25	*D*
Benzoic acid	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
Benzyl alcohol	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
Benzyl butyl phthalate	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
Bis(2-chloroethoxy)methane	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
Bis(2-chloroethyl)ether	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
Bis(2-chloroisopropyl)ether	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
Bis(2-ethylhexyl)phthalate	NA	NA	0.045	*U*	0.076	*JD*	0.045	*U*	**NT**		**NT**	
Caprolactam	NA	NA	0.089	*U*	0.098	*U*	0.089	*U*	**NT**		**NT**	
Carbazole	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
Chrysene	1	3.9	0.045	*U*	0.29	*D*	0.045	*U*	1.52	*D*	0.46	*D*
Dibenzo(a,h)anthracene	0.33	0.33	0.045	*U*	0.093	*JD*	0.045	*U*	0.14	*D*	0.048	*U*
Dibenzofuran	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
Diethyl phthalate	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
Dimethyl phthalate	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
Di-n-butyl phthalate	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
Di-n-octyl phthalate	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
Fluoranthene	100	100	0.064	*JD*	0.59	*D*	0.045	*U*	2.22	*D*	0.7	*D*
Fluorene	30	100	0.045	*U*	0.049	*U*	0.045	*U*	0.16	*D*	0.048	*U*
Hexachlorobenzene	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
Hexachlorobutadiene	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
Hexachlorocyclopentadiene	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
Hexachloroethane	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.045	*U*	0.17	*D*	0.045	*U*	0.25	*D*	0.095	*JD*
Isophorone	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
Naphthalene	12	100	0.045	*U*	0.049	*U*	0.045	*U*	0.096	*JD*	0.048	*U*
Nitrobenzene	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
N-Nitrosodimethylamine	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
N-nitroso-di-n-propylamine	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
N-Nitrosodiphenylamine	NA	NA	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
Pentachlorophenol	0.8	6.7	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
Phenanthrene	100	100	0.045	*U*	0.31	*D*	0.045	*U*	2.18	*D*	0.55	*D*
Phenol	0.33	100	0.045	*U*	0.049	*U*	0.045	*U*	**NT**		**NT**	
Pyrene	100	100	0.045	*U*	0.41	*D*	0.045	*U*	2.28	*D*	0.57	*D*
Total SVOCs	NA	NA	0.064		3.079		0		13.686	**	3.799	**

Analyte Detected

Analyte Above UUSCO

Analyte Above RRUSCO

** = total PAHs only

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 2: SVOCs in Soils

Ecosystems Strategies, Inc.

ESI File: EB15157A.40

All data in mg/Kg (ppm)		**Sample ID**	**SB-03/04 0-2**		**SB-05 3-5**		**SB-06/07 7-9**	
U= Not Detected ≥ indicated value		Sample Date	(2015-12-14)		(2015-12-14)		(2015-12-14)	
Data above SCOs shown in **Bold**		Dilution Factor	20		2		50	
SVOCs, 8270	**UUSCO**	**RRUSCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1'-Biphenyl	NA	NA	**NT**		**NT**		**NT**	
1,2,4,5-Tetrachlorobenzene	NA	NA	**NT**		**NT**		**NT**	
1,2,4-Trichlorobenzene	NA	NA	**NT**		**NT**		**NT**	
1,2-Dichlorobenzene	NA	NA	**NT**		**NT**		**NT**	
1,2-Diphenylhydrazine (Azobenzene)	NA	NA	**NT**		**NT**		**NT**	
1,3-Dichlorobenzene	NA	NA	**NT**		**NT**		**NT**	
1,4-Dichlorobenzene	NA	NA	**NT**		**NT**		**NT**	
2,3,4,6-Tetrachlorophenol	NA	NA	**NT**		**NT**		**NT**	
2,4,5-Trichlorophenol	NA	NA	**NT**		**NT**		**NT**	
2,4,6-Trichlorophenol	NA	NA	**NT**		**NT**		**NT**	
2,4-Dichlorophenol	NA	NA	**NT**		**NT**		**NT**	
2,4-Dimethylphenol	NA	NA	**NT**		**NT**		**NT**	
2,4-Dinitrophenol	NA	NA	**NT**		**NT**		**NT**	
2,4-Dinitrotoluene	NA	NA	**NT**		**NT**		**NT**	
2,6-Dinitrotoluene	NA	NA	**NT**		**NT**		**NT**	
2-Chloronaphthalene	NA	NA	**NT**		**NT**		**NT**	
2-Chlorophenol	NA	NA	**NT**		**NT**		**NT**	
2-Methylnaphthalene	NA	NA	0.22	*D*	0.046	*U*	7.79	*D*
2-Methylphenol	0.33	100	**NT**		**NT**		**NT**	
2-Nitroaniline	NA	NA	**NT**		**NT**		**NT**	
2-Nitrophenol	NA	NA	**NT**		**NT**		**NT**	
3- & 4-Methylphenols	0.33	100	**NT**		**NT**		**NT**	
3,3'-Dichlorobenzidine	NA	NA	**NT**		**NT**		**NT**	
3-Nitroaniline	NA	NA	**NT**		**NT**		**NT**	
4,6-Dinitro-2-methylphenol	NA	NA	**NT**		**NT**		**NT**	
4-Bromophenyl phenyl ether	NA	NA	**NT**		**NT**		**NT**	
4-Chloro-3-methylphenol	NA	NA	**NT**		**NT**		**NT**	
4-Chloroaniline	NA	NA	**NT**		**NT**		**NT**	
4-Chlorophenyl phenyl ether	NA	NA	**NT**		**NT**		**NT**	
4-Nitroaniline	NA	NA	**NT**		**NT**		**NT**	
4-Nitrophenol	NA	NA	**NT**		**NT**		**NT**	
Acenaphthene	20	100	0.66	*D*	0.17	*D*	16.9	*D*
Acenaphthylene	100	100	0.047	*U*	0.046	*U*	0.28	*D*
Acetophenone	NA	NA	**NT**		**NT**		**NT**	
Aniline	NA	NA	**NT**		**NT**		**NT**	
Anthracene	100	100	1.27	*D*	0.26	*D*	29.1	*D*
Atrazine	NA	NA	**NT**		**NT**		**NT**	
Benzaldehyde	NA	NA	**NT**		**NT**		**NT**	
Benzidine	NA	NA	**NT**		**NT**		**NT**	
Benzo(a)anthracene	1	1	**2.18**	*D*	0.48	*D*	**31.6**	*D*
Benzo(a)pyrene	1	1	**1.35**	*D*	0.33	*D*	**3.01**	*D*
Benzo(b)fluoranthene	1	1	**1.52**	*D*	0.34	*D*	**13.4**	*D*
Benzo(g,h,i)perylene	100	100	0.31	*D*	0.11	*D*	6.41	*D*
Benzo(k)fluoranthene	0.8	3.9	0.94	*D*	0.35	*D*	**17.2**	*D*
Benzoic acid	NA	NA	**NT**		**NT**		**NT**	
Benzyl alcohol	NA	NA	**NT**		**NT**		**NT**	
Benzyl butyl phthalate	NA	NA	**NT**		**NT**		**NT**	
Bis(2-chloroethoxy)methane	NA	NA	**NT**		**NT**		**NT**	
Bis(2-chloroethyl)ether	NA	NA	**NT**		**NT**		**NT**	
Bis(2-chloroisopropyl)ether	NA	NA	**NT**		**NT**		**NT**	
Bis(2-ethylhexyl)phthalate	NA	NA	**NT**		**NT**		**NT**	
Caprolactam	NA	NA	**NT**		**NT**		**NT**	
Carbazole	NA	NA	**NT**		**NT**		**NT**	
Chrysene	1	3.9	2.36	*D*	0.59	*D*	**28.2**	*D*
Dibenzo(a,h)anthracene	0.33	0.33	0.21	*D*	0.053	*JD*	**4.26**	*D*
Dibenzofuran	NA	NA	**NT**		**NT**		**NT**	
Diethyl phthalate	NA	NA	**NT**		**NT**		**NT**	
Dimethyl phthalate	NA	NA	**NT**		**NT**		**NT**	
Di-n-butyl phthalate	NA	NA	**NT**		**NT**		**NT**	
Di-n-octyl phthalate	NA	NA	**NT**		**NT**		**NT**	
Fluoranthene	100	100	8.21	*D*	1.16	*D*	61	*D*
Fluorene	30	100	0.66	*D*	0.13	*D*	20.1	*D*
Hexachlorobenzene	NA	NA	**NT**		**NT**		**NT**	
Hexachlorobutadiene	NA	NA	**NT**		**NT**		**NT**	
Hexachlorocyclopentadiene	NA	NA	**NT**		**NT**		**NT**	
Hexachloroethane	NA	NA	**NT**		**NT**		**NT**	
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.37	*D*	0.1	*D*	**6.37**	*D*
Isophorone	NA	NA	**NT**		**NT**		**NT**	
Naphthalene	12	100	0.49	*D*	0.11	*D*	17.2	*D*
Nitrobenzene	NA	NA	**NT**		**NT**		**NT**	
N-Nitrosodimethylamine	NA	NA	**NT**		**NT**		**NT**	
N-nitroso-di-n-propylamine	NA	NA	**NT**		**NT**		**NT**	
N-Nitrosodiphenylamine	NA	NA	**NT**		**NT**		**NT**	
Pentachlorophenol	0.8	6.7	**NT**		**NT**		**NT**	
Phenanthrene	100	100	9.36	*D*	1.29	*D*	69.2	*D*
Phenol	0.33	100	**NT**		**NT**		**NT**	
Pyrene	100	100	8.54	*D*	0.92	*D*	49.1	*D*
Total SVOCs	NA	NA	38.65	**	6.393	**	381.12	**

Analyte Detected
Analyte Above UUSCO
Analyte Above RRUSCO
** = total PAHs only

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 3: Pesticides and PCBs in Soils

Ecosystems Strategies, Inc.

ESI File: EB15157A.40

All data in mg/Kg (ppm)		**Sample ID**	**2SB-01 0-2**		**2SB-01 10-10.5**		**2SB-01 14-16**		**2SB-02 0-2**	
U= Not Detected ≥ indicated value		Sample Date	(2016-05-10)		(2016-05-10)		(2016-05-10)		(2016-05-10)	
Data above SCOs shown in **Bold**		Dilution Factor	5				5		5	
Pesticides, 8081	**UUSCO**	**RRUSCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
4,4'-DDD	0.0033	13	0.0019	*U*	**NT**		0.0017	*U*	0.021	*D*
4,4'-DDE	0.0033	8.9	0.011	*D*	**NT**		0.0017	*U*	0.023	*D*
4,4'-DDT	0.0033	7.9	0.025	*D*	**NT**		0.0017	*U*	0.18	*D*
Aldrin	0.005	0.097	0.0019	*U*	**NT**		0.0017	*U*	0.0019	*U*
alpha-BHC	0.02	0.48	0.0019	*U*	**NT**		0.0017	*U*	0.0019	*U*
alpha-Chlordane	0.094	4.2	0.004	*D*	**NT**		0.0017	*U*	0.018	*D*
beta-BHC	0.036	0.36	0.0019	*U*	**NT**		0.0017	*U*	0.0019	*U*
Chlordane (total)	NA	NA	0.075	*U*	**NT**		0.07	*U*	0.31	*D*
delta-BHC	0.04	100	0.0019	*U*	**NT**		0.0017	*U*	0.0019	*U*
Dieldrin	0.005	0.2	0.0019	*U*	**NT**		0.0017	*U*	0.012	*D*
Endosulfan I	2.4	24	0.0019	*U*	**NT**		0.0017	*U*	0.0019	*U*
Endosulfan II	2.4	24	0.0019	*U*	**NT**		0.0017	*U*	0.0019	*U*
Endosulfan sulfate	2.4	24	0.0019	*U*	**NT**		0.0017	*U*	0.0019	*U*
Endrin	0.014	11	0.0019	*U*	**NT**		0.0017	*U*	0.0019	*U*
Endrin aldehyde	NA	NA	0.0019	*U*	**NT**		0.0017	*U*	0.0019	*U*
Endrin ketone	NA	NA	0.0019	*U*	**NT**		0.0017	*U*	0.0019	*U*
gamma-BHC (Lindane)	0.1	1.3	0.0019	*U*	**NT**		0.0017	*U*	0.0019	*U*
gamma-Chlordane	NA	0.54	0.0033	*D*	**NT**		0.0017	*U*	0.02	*D*
Heptachlor	0.042	2.1	0.0019	*U*	**NT**		0.0017	*U*	0.0019	*U*
Heptachlor Epoxide	NA	0.077	0.0019	*U*	**NT**		0.0017	*U*	0.0019	*U*
Methoxychlor	NA	100	0.0094	*U*	**NT**		0.0087	*U*	0.0097	*U*
Toxaphene	NA	NA	0.095	*U*	**NT**		0.088	*U*	0.098	*U*

		Sample ID	**2SB-01 0-2**		**2SB-01 10-10.5**		**2SB-01 14-16**		**2SB-02 0-2**	
		Sample Date	(2016-05-10)		(2016-05-10)		(2016-05-10)		(2016-05-10)	
		Dilution Factor	1		1		1		1	
PCBs, 8082	**UUSCO**	**RRUSCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aroclor 1016	0.1	1.00	0.019	*U*	0.019	*U*	0.018	*U*	0.02	*U*
Aroclor 1221	0.1	1.00	0.019	*U*	0.019	*U*	0.018	*U*	0.02	*U*
Aroclor 1232	0.1	1.00	0.019	*U*	0.019	*U*	0.018	*U*	0.02	*U*
Aroclor 1242	0.1	1.00	0.019	*U*	0.019	*U*	0.018	*U*	0.02	*U*
Aroclor 1248	0.1	1.00	0.019	*U*	0.019	*U*	0.018	*U*	0.02	*U*
Aroclor 1254	0.1	1.00	0.019	*U*	0.019	*U*	0.018	*U*	0.02	*U*
Aroclor 1260	0.1	1.00	0.019	*U*	0.019	*U*	0.018	*U*	0.02	*U*
Aroclor, Total	0.1	1.00	0.025		0.019	*U*	0.018	*U*	0.029	

Analyte Detected

Analyte Above UUSCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 3: Pesticides and PCBs in Soils

Ecosystems Strategies, Inc.

ESI File: EB15157A.40

All data in mg/Kg (ppm)		**Sample ID**	**2SB-01 14-16**		**2SB-03 0-2**		**2SB-03 14-16**		**SB-01 0-2**	
U= Not Detected ≥ indicated value		Sample Date	(2016-05-10)		(2016-05-10)		(2016-05-10)		(2015-12-14)	
Data above SCOs shown in **Bold**		Dilution Factor	5		5		5		5	
Pesticides, 8081	**UUSCO**	**RRUSCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
4,4'-DDD	0.0033	13	0.0018	*U*	0.0066	*D*	0.0018	*U*	0.0019	*U*
4,4'-DDE	0.0033	8.9	0.0018	*U*	0.031	*D*	0.0018	*U*	0.0019	*U*
4,4'-DDT	0.0033	7.9	0.0018	*U*	0.063	*D*	0.0018	*U*	0.0039	*D*
Aldrin	0.005	0.097	0.0018	*U*	0.0019	*U*	0.0018	*U*	0.0019	*U*
alpha-BHC	0.02	0.48	0.0018	*U*	0.0019	*U*	0.0018	*U*	0.0019	*U*
alpha-Chlordane	0.094	4.2	0.0018	*U*	0.0065	*D*	0.0018	*U*	0.0019	*U*
beta-BHC	0.036	0.36	0.0018	*U*	0.0019	*U*	0.0018	*U*	0.0019	*U*
Chlordane (total)	NA	NA	0.071	*U*	0.11	*D*	0.071	*U*	0.076	*U*
delta-BHC	0.04	100	0.0018	*U*	0.0019	*U*	0.0018	*U*	0.0019	*U*
Dieldrin	0.005	0.2	0.0018	*U*	0.0045	*D*	0.0018	*U*	0.0019	*U*
Endosulfan I	2.4	24	0.0018	*U*	0.0019	*U*	0.0018	*U*	0.0019	*U*
Endosulfan II	2.4	24	0.0018	*U*	0.0019	*U*	0.0018	*U*	0.0019	*U*
Endosulfan sulfate	2.4	24	0.0018	*U*	0.0019	*U*	0.0018	*U*	0.0019	*U*
Endrin	0.014	11	0.0018	*U*	0.0019	*U*	0.0018	*U*	0.0019	*U*
Endrin aldehyde	NA	NA	0.0018	*U*	0.0019	*U*	0.0018	*U*	0.0019	*U*
Endrin ketone	NA	NA	0.0018	*U*	0.0019	*U*	0.0018	*U*	0.0019	*U*
gamma-BHC (Lindane)	0.1	1.3	0.0018	*U*	0.0019	*U*	0.0018	*U*	0.0019	*U*
gamma-Chlordane	NA	0.54	0.0018	*U*	0.0047	*D*	0.0018	*U*	0.0019	*U*
Heptachlor	0.042	2.1	0.0018	*U*	0.0019	*U*	0.0018	*U*	0.0019	*U*
Heptachlor Epoxide	NA	0.077	0.0018	*U*	0.0019	*U*	0.0018	*U*	0.0019	*U*
Methoxychlor	NA	100	0.0088	*U*	0.0097	*U*	0.0088	*U*	0.0095	*U*
Toxaphene	NA	NA	0.09	*U*	0.098	*U*	0.089	*U*	0.097	*U*

		Sample ID	**2SB-01 14-16**		**2SB-03 0-2**		**2SB-03 14-16**		**SB-01 0-2**	
		Sample Date	(2016-05-10)		(2016-05-10)		(2016-05-10)		(2015-12-14)	
		Dilution Factor	1		1		1		1	
PCBs, 8082	**UUSCO**	**RRUSCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aroclor 1016	0.1	1.00	0.018	*U*	0.02	*U*	0.018	*U*	0.019	*U*
Aroclor 1221	0.1	1.00	0.018	*U*	0.02	*U*	0.018	*U*	0.019	*U*
Aroclor 1232	0.1	1.00	0.018	*U*	0.02	*U*	0.018	*U*	0.019	*U*
Aroclor 1242	0.1	1.00	0.018	*U*	0.02	*U*	0.018	*U*	0.019	*U*
Aroclor 1248	0.1	1.00	0.018	*U*	0.02	*U*	0.018	*U*	0.019	*U*
Aroclor 1254	0.1	1.00	0.018	*U*	0.02	*U*	0.018	*U*	0.019	*U*
Aroclor 1260	0.1	1.00	0.018	*U*	0.02	*U*	0.018	*U*	0.019	*U*
Aroclor, Total	0.1	1.00	0.018	*U*	0.02	*U*	0.018	*U*	0.019	*U*

Analyte Detected

Analyte Above UUSCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 3: Pesticides and PCBs in Soils

Ecosystems Strategies, Inc.

ESI File: EB15157A.40

All data in mg/Kg (ppm)		**Sample ID**	**SB-06/07 7-9**	
U= Not Detected ≥ indicated value		Sample Date	(2015-12-14)	
Data above SCOs shown in **Bold**		Dilution Factor	5	
Pesticides, 8081	**UUSCO**	**RRUSCO**	*Result*	*Qualifier*
4,4'-DDD	0.0033	13	0.0027	*D*
4,4'-DDE	0.0033	8.9	0.0025	*D*
4,4'-DDT	0.0033	7.9	0.014	*D*
Aldrin	0.005	0.097	0.0019	*U*
alpha-BHC	0.02	0.48	0.0019	*U*
alpha-Chlordane	0.094	4.2	0.0048	*D*
beta-BHC	0.036	0.36	0.0019	*U*
Chlordane (total)	NA	NA	0.077	*U*
delta-BHC	0.04	100	0.0019	*U*
Dieldrin	0.005	0.2	0.0019	*U*
Endosulfan I	2.4	24	0.0019	*U*
Endosulfan II	2.4	24	0.0019	*U*
Endosulfan sulfate	2.4	24	0.0019	*U*
Endrin	0.014	11	0.0019	*U*
Endrin aldehyde	NA	NA	0.0019	*U*
Endrin ketone	NA	NA	0.0019	*U*
gamma-BHC (Lindane)	0.1	1.3	0.0019	*U*
gamma-Chlordane	NA	0.54	0.0039	*D*
Heptachlor	0.042	2.1	0.0019	*U*
Heptachlor Epoxide	NA	0.077	0.0019	*U*
Methoxychlor	NA	100	0.0097	*U*
Toxaphene	NA	NA	0.098	*U*

		Sample ID	**SB-06/07 7-9**	
		Sample Date	(2015-12-14)	
		Dilution Factor	1	
PCBs, 8082	**UUSCO**	**RRUSCO**	*Result*	*Qualifier*
Aroclor 1016	0.1	1.00	0.02	*U*
Aroclor 1221	0.1	1.00	0.02	*U*
Aroclor 1232	0.1	1.00	0.02	*U*
Aroclor 1242	0.1	1.00	0.02	*U*
Aroclor 1248	0.1	1.00	0.02	*U*
Aroclor 1254	0.1	1.00	0.02	*U*
Aroclor 1260	0.1	1.00	0.02	*U*
Aroclor, Total	0.1	1.00	0.02	*U*

Analyte Detected

Analyte Above UUSCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 4: TAL Metals in Soils

Ecosystems Strategies, Inc.

ESI File: EB15157A.40

All data in mg/Kg (ppm)		**Sample ID**	**2SB-01 0-2**		**2SB-01 10-10.5**		**2SB-01 14-16**		**2SB-02 0-2**	
U= Not Detected ≥ indicated value		Sample Date	(2016-05-10)		(2016-05-10)		(2016-05-10)		(2016-05-10)	
Data above SCOs shown in **Bold**		Dilution Factor	1		1		1		1	
Metals, 6010 and 7473	**UUSCO**	**RRUSCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aluminum	NA	NA	8,810		**NT**		4,990		8,280	
Antimony	NA	NA	0.57	*U*	**NT**		0.53	*U*	0.59	*U*
Arsenic	13	16	4.09		**NT**		1.05	*U*	8.91	
Barium	350	400	174		**NT**		31.4		282	
Beryllium	7.2	72	0.15		**NT**		0.11	*U*	0.14	
Cadmium	2.5	4.3	0.34	*U*	**NT**		0.32	*U*	0.41	
Calcium	NA	NA	7,250		**NT**		1,270		39,500	
Chromium	30	180	17.2		**NT**		16.3		21.4	
Cobalt	NA	NA	6.41		**NT**		5.73		6.53	
Copper	50	270	**289**		**NT**		13.1		51.4	
Iron	NA	NA	16,500		**NT**		17,900		23,000	
Lead	63	400	289		**NT**		2.78		274	
Magnesium	NA	NA	2,330		**NT**		1,550		3,280	
Manganese	1,600	2,000	292		**NT**		316		291	
Mercury	0.18	0.81	0.34		**NT**		0.032	*U*	0.45	
Nickel	30	310	16		**NT**		12.5		14	
Potassium	NA	NA	943		**NT**		774		1,390	
Selenium	3.9	180	2.9		**NT**		2.48		2.99	
Silver	2	180	0.57	*U*	**NT**		0.53	*U*	0.59	*U*
Sodium	NA	NA	161		**NT**		165		232	
Thallium	NA	NA	1.14	*U*	**NT**		1.05	*U*	1.18	*U*
Vanadium	NA	NA	24.6		**NT**		27.6		34.8	
Zinc	109	10,000	164		**NT**		25.7		189	

Analyte Detected

Analyte Above UUSCO

Analyte Above RRUSCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 4: TAL Metals in Soils

Ecosystems Strategies, Inc.

ESI File: EB15157A.40

All data in mg/Kg (ppm)		**Sample ID**	**2SB-01 14-16**		**2SB-03 0-2**		**2SB-03 14-16**		**SB-01 0-2**	
U= Not Detected ≥ indicated value		Sample Date	(2016-05-10)		(2016-05-10)		(2016-05-10)		(2015-12-14)	
Data above SCOs shown in **Bold**		Dilution Factor	1		1		1		1	
Metals, 6010 and 7473	**UUSCO**	**RRUSCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aluminum	NA	NA	6,020		12,000		5,250		8,630	
Antimony	NA	NA	0.54	*U*	0.59	*U*	0.54	*U*	0.58	*U*
Arsenic	13	16	2.76		5.93		1.68		9.13	
Barium	350	400	59.6		216		37.8		**543**	
Beryllium	7.2	72	0.11	*U*	0.33		0.11	*U*	0.12	*U*
Cadmium	2.5	4.3	0.32	*U*	0.35	*U*	0.32	*U*	1.27	
Calcium	NA	NA	1,210		26,000		1,670		19,400	
Chromium	30	180	13.3		19		14.6		19.5	
Cobalt	NA	NA	5.85		5.06		5.16		7.55	
Copper	50	270	13.1		13.9		12		52.8	
Iron	NA	NA	14,900		17,500		14,700		18,700	
Lead	63	400	4.88		159		3.33		**788**	
Magnesium	NA	NA	1,670		3,430		1,290		1,870	
Manganese	1,600	2,000	254		254		320		418	
Mercury	0.18	0.81	0.032	*U*	0.22		0.032	*U*	**1.75**	
Nickel	30	310	13.3		11.3		14.1		16.9	
Potassium	NA	NA	962		1,840		722		666	
Selenium	3.9	180	1.82		1.18	*U*	1.36		2.03	
Silver	2	180	0.54	*U*	0.59	*U*	0.54	*U*	0.58	*U*
Sodium	NA	NA	122		423		123		196	
Thallium	NA	NA	1.07	*U*	1.18	*U*	1.07	*U*	1.16	*U*
Vanadium	NA	NA	27.7		31.4		23.6		28	
Zinc	109	10,000	22		121		18.4		327	

Analyte Detected

Analyte Above UUSCO

Analyte Above RRUSCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 4: TAL Metals in Soils

Ecosystems Strategies, Inc.

ESI File: EB15157A.40

All data in mg/Kg (ppm)		**Sample ID**	**SB-02 0-2**		**SB-03/04 0-2**		**SB-05 3-5**		**SB-06/07 7-9**	
U= Not Detected ≥ indicated value		Sample Date	(2015-12-14)		(2015-12-14)		(2015-12-14)		(2015-12-14)	
Data above SCOs shown in **Bold**		Dilution Factor	1		1		1		1	
Metals, 6010 and 7473	**UUSCO**	**RRUSCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aluminum	NA	NA	8,210		9,960		8,520		7,060	
Antimony	NA	NA	0.57	*U*	0.57	*U*	0.75		0.9	
Arsenic	13	16	3.03		2.41		5.97		9.05	
Barium	350	400	152		92.8		**635**		317	
Beryllium	7.2	72	0.11	*U*	0.11	*U*	0.11	*U*	0.12	*U*
Cadmium	2.5	4.3	0.34	*U*	0.34	*U*	1.16		0.57	
Calcium	NA	NA	8,530		3,980		26,500		35,600	
Chromium	30	180	18.5		17.3		20.1		29.2	
Cobalt	NA	NA	7.68		7.57		7.4		8.08	
Copper	50	270	158		45.8		71.3		62.7	
Iron	NA	NA	17,200		17,600		19,300		34,100	
Lead	63	400	229		99.6		**909**		**1,010**	
Magnesium	NA	NA	2,500		2,230		3,050		3,110	
Manganese	1,600	2,000	338		399		350		280	
Mercury	0.18	0.81	0.27		0.11		0.38		**1.04**	
Nickel	30	310	16.6		13.9		20.8		18.7	
Potassium	NA	NA	833		596		848		914	
Selenium	3.9	180	1.14	*U*	1.13	*U*	1.87		2.96	
Silver	2	180	0.57	*U*	0.57	*U*	0.56	*U*	0.59	*U*
Sodium	NA	NA	86.9		167		196		288	
Thallium	NA	NA	1.14	*U*	1.13	*U*	1.11	*U*	1.17	*U*
Vanadium	NA	NA	26.1		24.6		33.6		24.9	
Zinc	109	10,000	208		85.7		1,110		269	

Analyte Detected

Analyte Above UUSCO

Analyte Above RRUSCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 5: VOCs in Soil Vapor

Ecosystems Strategies, Inc.

ESI File: EB15157A.40

All data in µg/m³ / **Sample ID**	**2SV-01**		**SV-01**		**SV-02**		**SV-03**	
U= Not Detected ≥ indicated value / Sample Date	(2016-05-10)		(2015-12-14)		(2015-12-14)		(2015-12-14)	
Data above AGVs shown in **Bold** / Dilution Factor	22.9		1.833		2.016		2.191	
VOCs, TO-15	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1,1,2-Tetrachloroethane	16	*U*	1.3	*U*	1.4	*U*	1.5	*U*
1,1,1-Trichloroethane	12	*U*	1	*U*	1.1	*U*	2	*D*
1,1,2,2-Tetrachloroethane	16	*U*	1.3	*U*	1.4	*U*	1.5	*U*
1,1,2-Trichloro-1,2,2-trifluoroethane	18	*U*	1.4	*U*	1.5	*U*	1.7	*U*
1,1,2-Trichloroethane	12	*U*	1	*U*	1.1	*U*	1.2	*U*
1,1-Dichloroethane	9.3	*U*	0.74	*U*	0.82	*U*	0.89	*U*
1,1-Dichloroethene	9.1	*U*	0.73	*U*	0.8	*U*	0.87	*U*
1,2,4-Trichlorobenzene	17	*U*	1.4	*U*	1.5	*U*	1.6	*U*
1,2,4-Trimethylbenzene	11	*U*	1.6	*D*	0.99	*U*	1.1	*U*
1,2-Dibromoethane	18	*U*	1.4	*U*	1.5	*U*	1.7	*U*
1,2-Dichlorobenzene	14	*U*	1.1	*U*	1.2	*U*	1.3	*U*
1,2-Dichloroethane	9.3	*U*	0.74	*U*	0.82	*U*	0.89	*U*
1,2-Dichloropropane	11	*U*	0.85	*U*	0.93	*U*	1	*U*
1,2-Dichlorotetrafluoroethane	16	*U*	1.3	*U*	1.4	*U*	1.5	*U*
1,3,5-Trimethylbenzene	11	*U*	0.9	*U*	0.99	*U*	1.1	*U*
1,3-Butadiene	15	*U*	2.4	*U*	11	*D*	2.8	*U*
1,3-Dichlorobenzene	14	*U*	1.1	*U*	1.2	*U*	1.3	*U*
1,3-Dichloropropane	11	*U*	0.85	*U*	0.93	*U*	1	*U*
1,4-Dichlorobenzene	14	*U*	1.1	*U*	1.2	*U*	1.3	*U*
1,4-Dioxane	17	*U*	1.3	*U*	1.5	*U*	1.6	*U*
2-Butanone	250	*D*	70	*D*	120	*D*	86	*D*
2-Hexanone	33	*D*	16	*D*	24	*D*	19	*D*
3-Chloropropene	36	*U*	2.9	*U*	3.2	*U*	3.4	*U*
4-Methyl-2-pentanone	9.4	*U*	5.6	*D*	7.8	*D*	3.5	*D*
Acetone	65	*D*	22	*D*	56	*D*	34	*D*
Acrylonitrile	5	*U*	0.4	*U*	0.44	*U*	0.48	*U*
Benzene	7.3	*U*	0.59	*U*	3.7	*D*	1.3	*D*
Benzyl chloride	12	*U*	0.95	*U*	1	*U*	1.1	*U*
Bromodichloromethane	15	*U*	1.1	*U*	1.3	*U*	1.4	*U*
Bromoform	24	*U*	1.9	*U*	2.1	*U*	2.3	*U*
Bromomethane	8.9	*U*	0.71	*U*	0.78	*U*	0.85	*U*
Carbon disulfide	7.1	*U*	15	*D*	18	*D*	8.2	*D*
Carbon tetrachloride	3.6	*U*	0.29	*U*	0.32	*U*	0.34	*U*
Chlorobenzene	11	*U*	0.84	*U*	0.93	*U*	1	*U*
Chloroethane	6	*U*	0.48	*U*	0.53	*U*	0.58	*U*
Chloroform	11	*U*	0.89	*U*	0.98	*U*	1.1	*U*
Chloromethane	4.7	*U*	0.38	*U*	0.42	*U*	0.45	*U*
cis-1,2-Dichloroethene	9.1	*U*	0.73	*U*	0.8	*U*	0.87	*U*
cis-1,3-Dichloropropene	10	*U*	0.83	*U*	0.91	*U*	0.99	*U*
Cyclohexane	7.9	*U*	0.63	*U*	1.7	*D*	0.75	*U*
Dibromochloromethane	20	*U*	1.5	*U*	1.6	*U*	1.8	*U*
Dichlorodifluoromethane	11	*U*	2.7	*D*	2.3	*D*	2.8	*D*
Ethyl Acetate	17	*U*	1.3	*U*	1.5	*U*	1.6	*U*
Ethylbenzene	9.9	*U*	1.1	*D*	5.2	*D*	3.1	*D*
Hexachlorobutadiene	24	*U*	2	*U*	2.2	*U*	2.3	*U*
Isopropanol	11	*U*	0.9	*U*	2.4	*D*	1.2	*D*
Methyl Methacrylate	9.4	*U*	0.75	*U*	0.83	*U*	0.9	*U*
Methyl tert butyl ether	8.3	*U*	0.66	*U*	0.73	*U*	0.79	*U*
Methylene chloride	16	*U*	1.3	*U*	1.4	*U*	1.5	*U*
n-Heptane	9.4	*U*	11	*D*	0.83	*U*	0.9	*U*
n-Hexane	10	*D*	29	*D*	92	*D*	1.8	*D*
o-Xylene	9.9	*U*	1.4	*D*	2.3	*D*	1.2	*D*
p/m-Xylene	20	*U*	3.1	*D*	4.9	*D*	2.5	*D*
p-Ethyltoluene	11	*U*	1.4	*D*	0.99	*U*	1.1	*U*
Propylene	230	*D*	0.32	*U*	0.35	*U*	0.38	*U*
Styrene	9.8	*U*	0.78	*U*	0.86	*U*	0.93	*U*
Tetrachloroethene	31	*D*	4.5	*D*	11	*D*	22	*D*
Tetrahydrofuran	14	*U*	1.1	*U*	1.2	*U*	2	*D*
Toluene	8.6	*U*	2.7	*D*	5.6	*D*	1.9	*D*
trans-1,2-Dichloroethene	9.1	*U*	0.73	*U*	0.8	*U*	0.87	*U*
trans-1,3-Dichloropropene	10	*U*	0.83	*U*	0.91	*U*	0.99	*U*
Trichloroethene	3.1	*U*	0.25	*U*	0.27	*U*	0.29	*U*
Trichlorofluoromethane	13	*U*	12	*D*	3.6	*D*	6.9	*D*
Vinyl acetate	8.1	*U*	0.65	*U*	0.71	*U*	0.77	*U*
Vinyl bromide	10	*U*	0.8	*U*	0.88	*U*	0.96	*U*
Vinyl chloride	5.9	*U*	0.47	*U*	0.52	*U*	0.56	*U*

Detected concentrations

Relatively elevated concentrations

Notes: NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank

APPENDIX C

PROPOSED DEVELOPMENT PLANS

SYMBOLS

- DRAWING/DETAIL TITLE
- ELEVATION
- BUILDING SECTION
- WALL SECTION
- DETAIL SECTION
- INTERIOR ELEVATIONS
- PLAN DETAIL
- PARTITION TYPE
- DOOR NUMBER
- WINDOW TYPE
- DIMENSION STRINGS
- ELEVATION INDICATOR
- REVISION CLOUD/NUMBER
- STAIR DIRECTION
- CENTER LINE
- PROPERTY LINE
- 1 HOUR RATED CONSTRUCTION
- 2 HOUR RATED CONSTRUCTION
- BUILDING ENTRY
- FLOOR DRAIN
- AREA DRAIN
- SMOKE & CARBON M. DETECTOR
- SMOKE DETECTOR
- ELECTRICAL SWITCH

MATERIALS

- EARTH
- GRAVEL/POROUS FILL
- CONCRETE
- BRICK
- STONE
- CONCRETE MASONRY UNITS
- STEEL
- BATT INSULATION
- RIGID INSULATION
- GYPSUM BOARD
- GLASS
- CERAMIC/QUARRY TILE
- ACOUSTIC TILE
- RESILIENT FLOORING

ABBREVIATIONS

NOTE: NOT ALL ABBREVIATIONS HAVE BEEN USED IN THIS SET OF DRAWINGS

ABV	ABOVE	FIN	FINISH	PREFAB	PREFABRICATED
A/C	AIR CONDITIONER(ING/ED)	FIX	FIXTURE	PSF	POUNDS PER SQUARE FOOT
ACOUST	ACOUSTIC(AL)	FL	FLOOR(ING)	PSI	POUNDS PER SQUARE INCH
ACT	ACOUSTICAL TILE	FLUOR	FLUORESCENT	PT	POINT
AD	AREA DRAIN	FND	FOUNDATION	PTN	PARTITION
ADJ	ADJACENT	FO	FACE OF	PVC	POLYVINYL CHLORIDE
ADJT	ADJUSTABLE	FOC	FACE OF CONCRETE	PVMT	PAVEMENT
AFF	ABOVE FINISH FLOOR	FOF	FACE OF FINISH		
AFR	ABOVE FINISH ROOF	FOM	FACE OF MASONRY	QT	QUARRY TILE
AGG	AGGREGATE	FOS	FACE OF STUDS		
ALT	ALTERNATE	FP	FIRE PROOF/PROTECTED	R	RIGHT
AL	ALUMINUM	FPSC	FIRE PROTECTED SELF-CLOSING	RAD	RADIUS
AMP	ACOUSTICAL METAL PANEL	FR	FIRE RATED	RD	ROOF DRAIN
ANOD	ANODIZED	FRMG	FRAMING	REC	RECESSED
AP	ACCESS PANEL	FRP	FIBERGLASS REINFORCED PLASTIC	RECEPT	RECEPTACLE
APPROX	APPROXIMATE(LY)	FTG	FOOTING	REFL	REFLECT(ED)
ARCH	ARCHITECT(URAL)	FUR	FURRED	REFRIG	REFRIGERAT(OR)ION)
ATTEN	ATTENUATION	FURN	FURNITURE	REINF	REINFORC(ING/EMENT)
AV	AUDIOVISUAL	FUT	FUTURE	REM	REMOVE
BC	BRICK COURSE			REQ	REQUIRE(D)
BD	BOARD	GA	GAUGE	REV	REVISION
BEL	BELOW	GALV	GALVANIZED	RH	RIGHT HAND
BET	BETWEEN	GC	GENERAL CONTRACT(OR)	RM	ROOM
BITUM	BITUMINOUS	GEN	GENERAL	RO	ROUGH OPENING
BLDG	BUILDING	GL	GLASS/GLAZING	RT	RUBBER TILE
BLK	BLOCK	GYP BD	GYPSUM BOARD	RVT	RESILIENT VINYL TILE
BLKG	BLOCKING				
BM	BEAM	HC	HOLLOW CORE	S	SOUTH
BO	BOTTOM OF	HCF	HARDENED CONCRETE FINISH	SA	SLEEPING AREA
BYO	BY OWNER	HD	HEAVY DUTY	SC	SOLID CORE
BOT	BOTTOM	HDR	HEADER	SCH	SCHEDULE
BR	BRONZE	HDW	HARDWARE	SD	SMOKE DETECTOR
BRK	BRICK	HDWD	HARD WOOD	SEC	SECTION
BS	BOTH SIDES	HM	HOLLOW METAL	SF	SQUARE FEET
BSMT	BASEMENT	HOR	HORIZONTAL	SH	SHELF(VES)
		HP	HIGH POINT	SHT	SHEET
CAB	CABINET(RY)	HT	HEIGHT	SHTH	SHEATHING
CAR	CARPET	HTG	HEATING	SHW	SHOWER
CB	CATCH BASIN	HVAC	HEATING, VENTILATION, AIR CONDITIONING, COOLING	SIM	SIMILAR
CEM	CEMENT			SLD	SOLDIER
CEM PL	CEMENT PLASTER			SPEC	SPECIFICATION
CHAM	CHAMFER	ID	INSIDE DIAMETER	SPH	SPRINKLER HEAD
CJ	CONTROL JOINT	INCAN	INCANDESCENT	SPRINK	SPRINKLER
CL	CLOSET	INCL	INCLUD(E/ING)	SQ	SQUARE
CLG	CEILING	INSUL	INSULATION	SS	STAINLESS STEEL
CLL	CONTRACT LIMIT LINE	INT	INTERIOR	STC	SOUND TRANSMISSION CLASS
CLR	CLEAR(ANCE)	INV	INVERT	STD	STANDARD
CMT	CERAMIC MOSAIC TILE	IPS	IRON PIPE SIZE	STL	STEEL
CMU	CONCRETE MASONRY UNIT			STOR	STORAGE
CNTR	COUNTER	JC	JANITOR'S CLOSET	STRUC	STRUCTURAL
COL	COLUMN	JT	JOINT	SUPP	SUPPORT
COMB.	COMBUSTION			SURF	SURFACE
CONC	CONCRETE	L	LENGTH	SUSP	SUSPENDED
COND	CONDUIT	LAM	LAMINATE(D)	SVC	SERVICE
CONST	CONSTRUCTION	LAV	LAVATORY	SYN	SYNTHETIC
CONT	CONTINUOUS	LEV	LEVEL	SYS	SYSTEM
CONTR	CONTRACT(OR)	LH	LEFT-HAND		
CONV	CONVECTOR	LL	LIVE LOAD	T	TREAD
CP	CENTER POINT	LP	LOW POINT	T&B	TOP AND BOTTOM
CS	CAST STONE	LTG	LIGHTING	TC	TERRA COTTA
CT	CERAMIC TILE	LTL	LINTEL	TEL	TELEPHONE
		LTWT	LIGHTWEIGHT	TER	TERRAZZO
DA	DROPPED ARCH			T&G	TONGUE AND GROOVE
DBL	DOUBLE	M	MALE	THK	THICK(NESS)
DEM	DEMOLISH	MAT	MATERIAL	TO	TOP OF
DEP	DEPRESSED	MAX	MAXIMUM	TOL	TOILET
DF	DRINKING FOUNTAIN	MBL	MARBLE	TOL	TOLERANCE
DIAG	DIAGONAL	MC	MEDICINE CABINET	TOS	TOP OF SLAB
DIAM	DIAMETER	MCT	METAL CEILING TILE	TO STL	TOP OF STEEL
DIM	DIMENSION	ME	MECHANICAL EQUIPMENT	TOW	TOP OF WALL
DISP	DISPENSER	MECH	MECHANICAL	TYP	TYPICAL
DIV	DIVISION	MEMB	MEMBRANE		
DL	DEAD LOAD	MEZZ.	MEZZANINE	UNF	UNFINISHED
DN	DOWN	MFR	MANUFACTURE(R)	UON	UNLESS OTHERWISE NOTED
DO	DITTO	MIN	MINIMUM		
DR	DOOR	MIR	MIRROR	V	VINYL
DRN	DRAIN	MISC	MISCELLANEOUS	VARN	VARNISH
DTL	DETAIL	MM	METAL MESH	VB	VAPOR BARRIER
DVTL	DOVETAIL	MO	MASONRY OPENING	VERT	VERTICAL
DW	DISHWASHER	MP	METAL PANELS	VEST	VESTIBULE
DWG	DRAWING	MTD	MOUNTED	VNR	VENEER
DWR	DRAWER	MTL	METAL	VT	VINYL TILE
				VTR	VENT THROUGH ROOF
E	EAST	N	NORTH	VWC	VINYL WALL COVERING
EA	EACH	NIC	NOT IN CONTRACT		
EJ	EXPANSION JOINT	NO	NUMBER		
EL	ELEVATION	NOM	NOMINAL	W	WEST
ELEC	ELECTRICAL	NR	NO RATING/NOT REQUIRED	W/	WITH
ELEV	ELEVATOR	NRC	NOISE RESISTANCE COEFFICIENT	WC	WATER CLOSET
EMERG	EMERGENCY	NTS	NOT TO SCALE	WD	WOOD
ENCL	ENCLOS(E/URE)			WF	WIDE FLANGE
ENG	ENGINEER	OC	ON CENTER	WI	WID(E/TH)
ENT	ENTRY	OD	OUTSIDE DIAMETER	WIN	WINDOW
EQ	EQUAL	OFF	OFFICE	W/O	WITHOUT
EQUIP	EQUIPMENT	OH	OVERHEAD	WP	WATERPROOF(ING)
EST	ESTIMATE(D)	OPG	OPENING	WR	WATER RESISTANT/REPELLENT
EWC	ELECTRIC WATER COOLER	OPH	OPPOSITE HAND	WT	WEIGHT
EXCAV	EXCAVATE(D)	OPP	OPPOSITE	WTW	WALL TO WALL
EXH	EXHAUST			WWF	WELDED WIRE FABRIC
EXIST	EXISTING	P	PLASTIC	WWM	WOVEN WIRE MESH
EXP	EXPOSED	PENT	PENTHOUSE		
EXPAN	EXPANSION	PL	PLATE	&	AND
EXT	EXTERIOR	P.L.	PROPERTY LINE	∠	ANGLE
		PLAS	PLASTER	@	AT
F	FEMALE	PLF	POUNDS PER LINEAR FOOT	⌀	DIAMETER
FA	FIRE ALARM	PLUMB	PLUMBING	'	FEET
FD	FLOOR DRAIN	PLYWD	PLYWOOD	"	INCHES
FE	FIRE EXTINGUISHER	PNL	PANEL	#	NUMBER
FEC	FIRE EXTINGUISHER CABINET	PNT	PAINT(ED)	/	PER
FF	FINISH FLOOR			♿	HANDICAPPED ACCESSIBLE

PROPOSED APARTMENT DISTRIBUTION

		CELLAR	1ST FL.	2ND FL.	3RD FL.	TOTAL
461	3 BR - UFAS	0	0	0	0	0
	3 BR	0	0	0.5	0.5	1
	2 BR - UFAS	0	0	0	0	0
	2 BR	0	0	0	0	0
	1 BR - UFAS	0	0	0	0	0
	1 BR	0	1	0	0	1
	0 BR - UFAS	0	0	0	0	0
	0 BR	0	0	0	0	0
TOTAL RESIDENTIAL		0	1	0.5	0.5	2
COMMERCIAL		0	0	0	0	0

DRAWING LIST

ARCHITECTURAL

G-001.00	COVER SHEET
G-002.00	GENERAL NOTES
G-01.00.0	BUILDING CODE ANALYSIS I
G-011.00	BUILDING CODE ANALYSIS II
G-012.00	BUILDING CODE ANALYSIS III
G-013.00	BUILDING CODE ANALYSIS IV
Z-001.00	ZONING DATA
V-001.00	SURVEY
B-001.00	BORING LOGS-1
A-100.00	CELLAR & 1ST FLR PLAN
A-101.00	2ND & 3RD FLOOR PLAN
A-102.00	ROOF PLAN
A-110.00	CELLAR & 1ST FLR. REFLECTED CEILING PLAN
A-111.00	2ND & 3RD FLR REFLECTED CEILING PLAN
A-200.00	ELEVATIONS
A-210.00	BUILDING SECTIONS
A-230.00	KITCHEN ELEVATIONS
A-231.00	BATHROOM ELEVATIONS
A-240.00	TYPICAL DETAILS
A-241.00	INTERIOR DETAILS
A-300.00	EXTERIOR WALL SECTIONS
A-303.00	EXTERIOR DETAILS
A-304.00	CAST STONE DETAILS
A-310.00	TYPICAL ROOF DETAILS
A-320.00	TYPICAL SITE DETAILS
A-340.00	WINDOW SCHEDULE & GUARD DTLS
A-341.00	WINDOW DETAILS
A-401.00	STAIR SECTION & DTLS
A-600.00	PARTITION TYPES
A-610.00	DOOR TYPES & SCHEDULE
A-611.00	DOOR DETAILS
A-620.00	FINISH SCHEDULE

STRUCTURAL

S-100.00	FOUNDATION PLAN, 1ST FLR FRAMING PLAN, AND 2ND FLR FRAMING PLAN
S-101.00	3RD FLR FRAMING PLAN AND ROOF FRAMING PLAN
S-200.00	DETAILS & NOTES

MECHANICAL

M-101.00	CELLAR & FIRST FLOOR PLANS
M-201.00	SECOND & THIRD FLOOR PLANS
M-301.00	ROOF PLAN
M-401.00	SCHEDULE, LEGEND NOTES, RISER DIAGRAM & DETAILS

PLUMBING

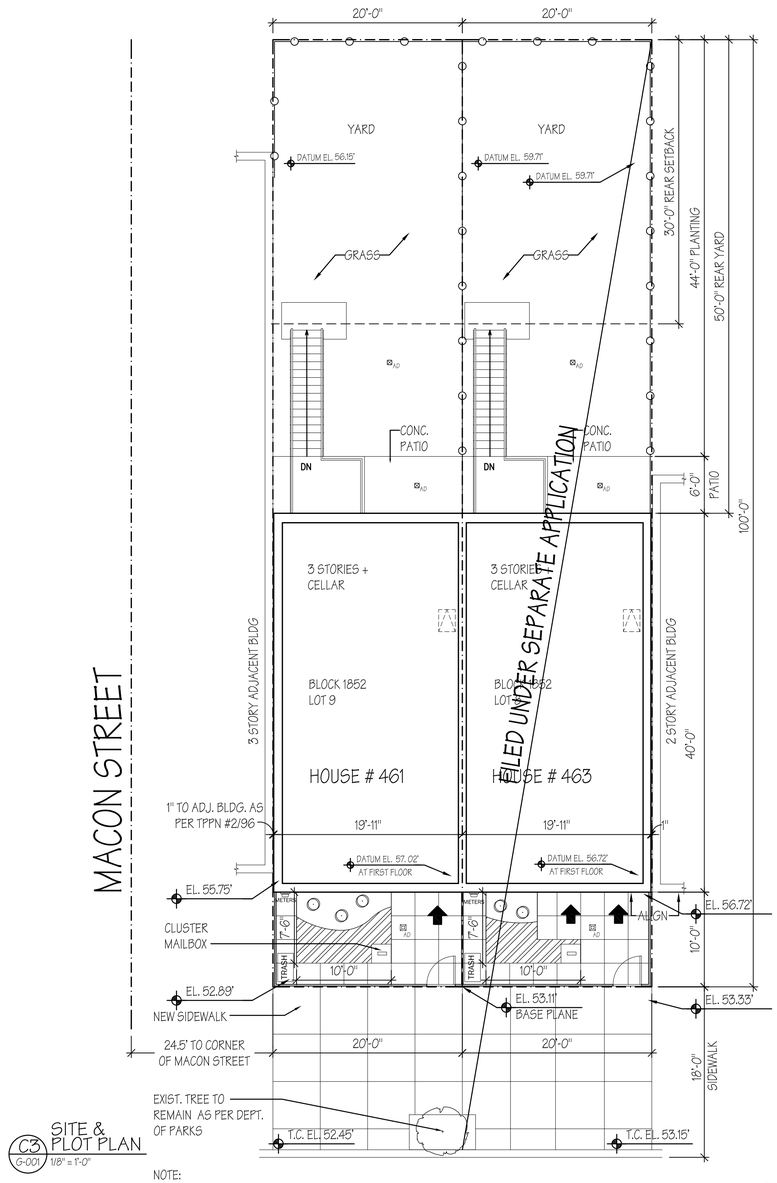
P-101.00	CELLAR & FIRST FLOOR PLANS
P-201.00	SECOND & THIRD FLOOR PLANS
P-301.00	ROOF PLAN
P-401.00	RISER DIAGRAM & DETAILS

SPRINKLER

SP-101.00	CELLAR, 1ST & 2ND FLOOR PLANS
SP-201.00	3RD FLOOR PLAN & SITE PLAN
SP-301.00	LEGEND, RISER DIAGRAM, DETAILS, NOTES
SP-401.00	HYDRAULIC CALCULATIONS

ELECTRICAL

E-101.00	CELLAR, 1ST & 2ND FLOOR PLANS
E-201.00	3RD & ROOF FLOOR PLANS
E-301.00	DETAILS, RISERS & SCHEDULES



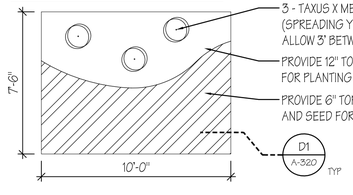
C3 G-001 SITE & PLOT PLAN 1/8" = 1'-0"

NOTE:
1. FOR SITE DETAILS SEE A-320.
2. STREET TREE PER BLDG. REQUIRED BY ZR 26-41. EXACT LOCATION TO BE DETERMINED BY DEPARTMENT OF PARKS & RECREATION.
3. PROVIDE PAVING AS PER BPP.

ZONING INFORMATION

ADDRESS:	461 TOMPKINS AVENUE BROOKLYN, NY
BLOCK:	1852
LOT(S):	9
LOT AREA:	2000 SF
ZONING DISTRICT:	R6B
ZONING MAP:	17 A
CONSTRUCTION CLASSIFICATION:	III-B
OCCUPANCY GROUP:	R3

FRONT YARD PLANTING PLAN



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212-777-0200

Civil Engineer
William Atlas Associates
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New York, NY 10018
212-279-9740

No.	Date	Revision

12/20/15 DOB SUBMISSION
12/15/15 BLDS SUBMISSION

No.	Date	Submission

Title:
461 TOMPKINS AVENUE COVER SHEET

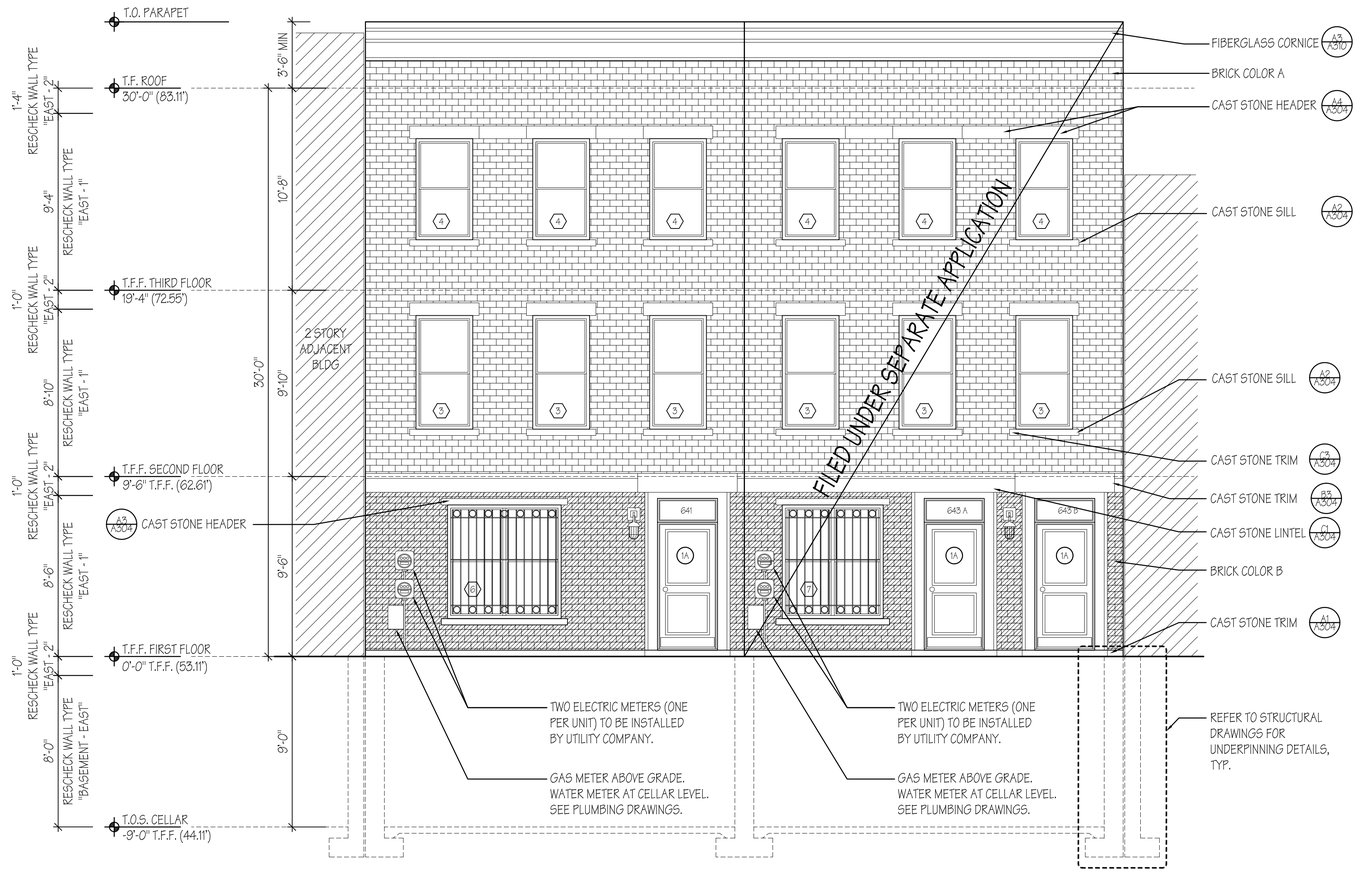
REGISTERED ARCHITECT ROBERTA DARBY CURTIS 029281 STATE OF NEW YORK

Job No.: 0708-3
Scale: AS NOTED
Drawn By: LG / LT
Checked By: RDC

Bldg.Type Cluster Site

G-001.00

G:\DWG\0708



C1 / A-200 FRONT ELEVATION
1/4" = 1'-0"

NOTE:
1. SEE A-340 FOR WINDOW TYPES & DETAILS
2. SEE A-304 FOR CAST STONE DETAILS
3. SEE SPECS FOR BRICK COLOR AND SIDING DIMENSIONS

BRICK COLOR A

BRICK COLOR B

WINDOW FRAME / GRILLE NOTE:

FOR THE OCCUPANT'S OWN SAFETY, ALL PROPOSED WINDOW / DOOR SECURITY METAL GATES ARE HIGHLY RECOMMENDED TO BE THE TYPES APPROVED BY BOARD OF STANDARDS AND APPEALS OF NYC.

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No.	Date	Revision

12/20/15 DOB SUBMISSION
12/15/15 BLDS SUBMISSION

No.	Date	Submission

Title:
461 TOMPKINS AVENUE FRONT ELEVATION

REGISTERED ARCHITECT ROBERTA DARBY CURTIS 20281 STATE OF NEW YORK

JOB No.: 0708-3
Scale: AS NOTED
Drawn By: LG / LT
Checked By: RDC

Bldg.Type Cluster Site

A-200.00

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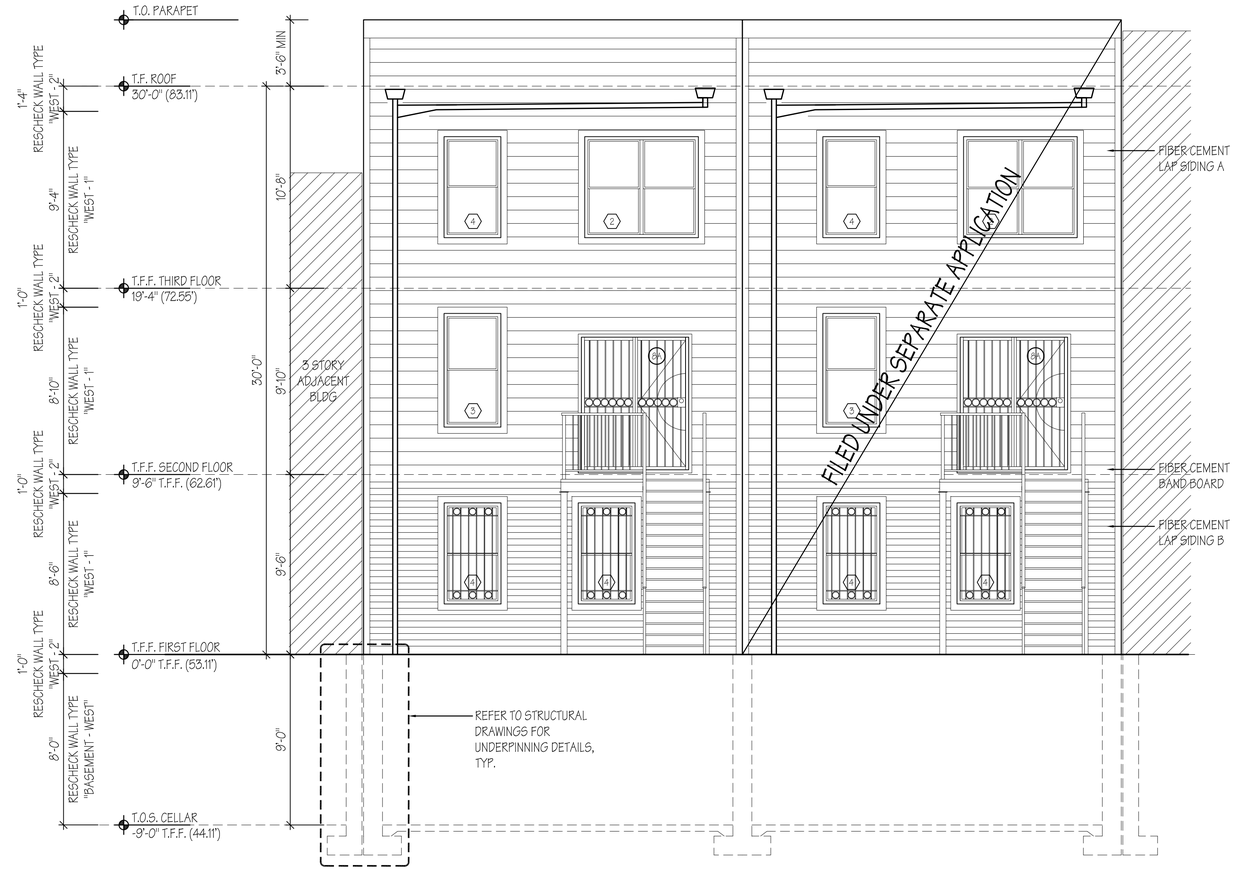

C1 / A-201 REAR ELEVATION
1/4" = 1'-0"

NOTE:
1. SEE A-340 FOR WINDOW TYPES & DETAILS
2. SEE A-304 FOR CAST STONE DETAILS
3. SEE SPECS FOR BRICK COLOR AND SIDING DIMENSIONS

BRICK COLOR A

BRICK COLOR B

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No.	Date	Revision

No.	Date	Submission
	12/20/15	DOB SUBMISSION
	12/15/15	BLDS SUBMISSION

Title:
461 TOMPKINS AVENUE
REAR ELEVATION

REGISTERED ARCHITECT ROBERTA DARBY CURTIS 029281 STATE OF NEW YORK

Job No.: 0708-3
Scale: AS NOTED
Drawn By: LG / LT
Checked By: RDC

Bldg.Type Cluster Site

A-201.00

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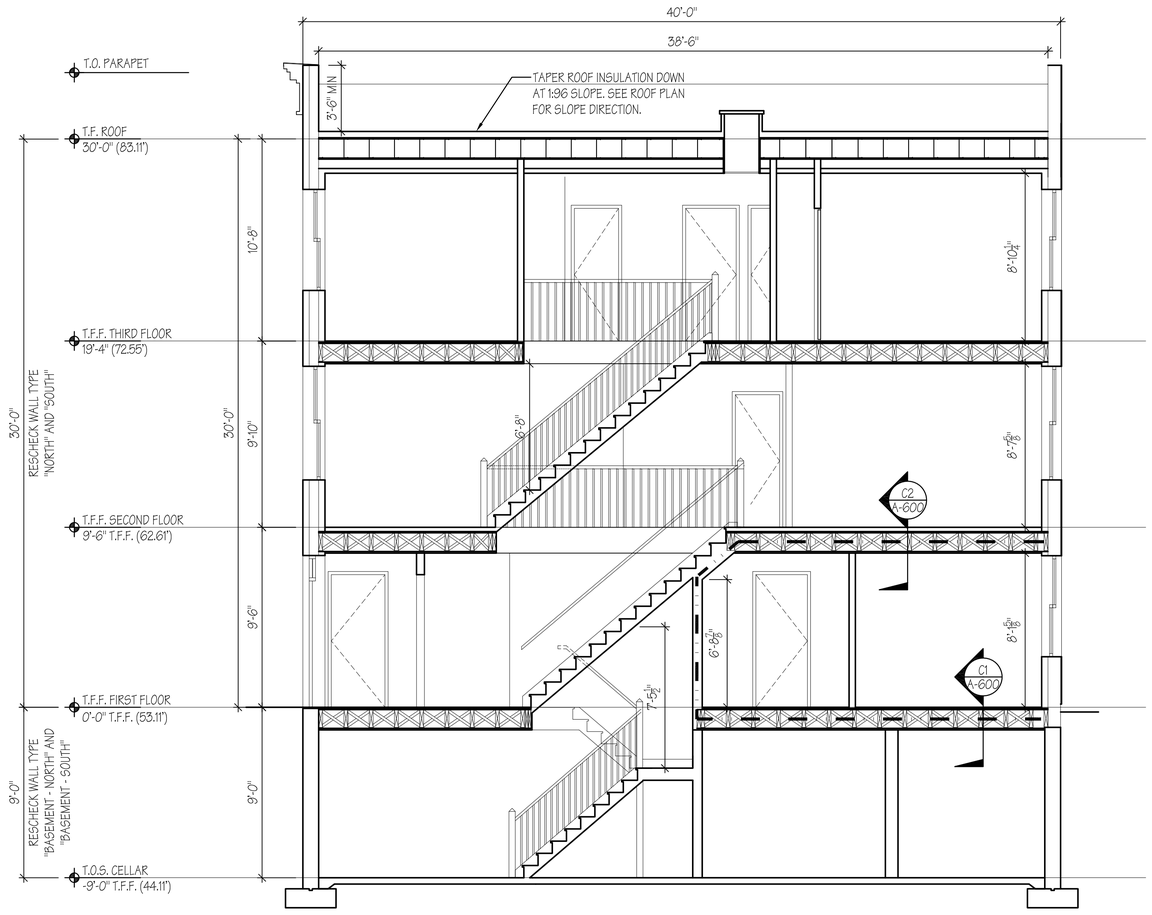

C1 A-210 LONGITUDINAL SECTION
1/4" = 1'-0"

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212-279-9740

No.	Date	Revision

12/20/15 DOB SUBMISSION
12/15/15 BLDS SUBMISSION

No.	Date	Submission

Title:

461 TOMPKINS AVENUE
LONGITUDINAL SECTION

REGISTERED ARCHITECT ROBERTA DARBY CURTIS 029811 STATE OF NEW YORK

Job No.: 0708-3

Scale: AS NOTED
Drawn By: LG / LT
Checked By: RDC

Bldg.Type Cluster Site

A-210.00

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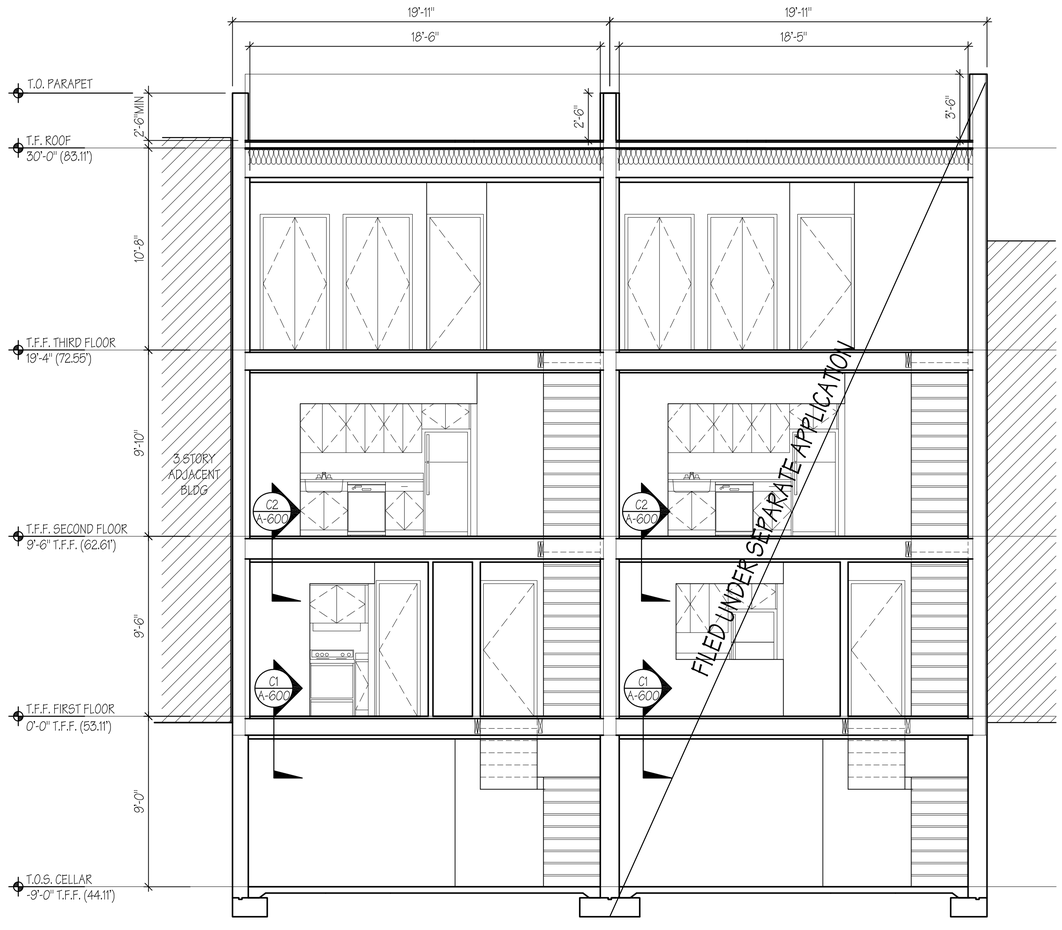

C1 TRANSVERSE SECTION
A-211 1/4" = 1'-0"

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212-279-9740

No.	Date	Revision

No.	Date	Submission
	12/20/15	DOB SUBMISSION
	12/15/15	BLDS SUBMISSION

Title:
461 TOMPKINS AVENUE
TRANSVERSE SECTION

Job No.: 0708-3
Scale: AS NOTED
Drawn By: LG / LT
Checked By: RDC

Bldg.Type Cluster Site

A-211.00

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APPENDIX D

CITIZEN PARTICIPATION PLAN

The NYC Office of Environmental Remediation and Van Buren Greene, LLC have established this Citizen Participation Plan because the opportunity for citizen participation is an important component of the NYC Voluntary Cleanup Program. This Citizen Participation Plan describes how information about the project will be disseminated to the Community during the remedial process. As part of its obligations under the NYC VCP, Van Buren Greene, LLC will maintain a repository for project documents and provide public notice at specified times throughout the remedial program. This Plan also takes into account potential environmental justice concerns in the community that surrounds the project Site. Under this Citizen Participation Plan, project documents and work plans are made available to the public in a timely manner. Public comment on work plans is strongly encouraged during public comment periods. Work plans are not approved by the NYC Office of Environmental Remediation (OER) until public comment periods have expired and all comments are formally reviewed. An explanation of cleanup plans in the form of a public meeting or informational session is available upon request to OER's project manager assigned to this Site, Sarah Pong, who can be contacted about these issues or any others questions, comments or concerns that arise during the remedial process at (212) 788-8841.

Project Contact List: OER has established a Site Contact List for this project to provide public notices in the form of fact sheets to interested members of the Community. Communications will include updates on important information relating to the progress of the cleanup program at the Site as well as to request public comments on the cleanup plan. The Project Contact List includes owners and occupants of adjacent buildings and homes, principal administrators of nearby schools, hospitals and day care centers, the public water supplier that serves the area, established document repositories, the representative Community Board, City Council members, other elected representatives and any local Brownfield Opportunity Area (BOA) grantee organizations. Any member of the public or organization will be added to the Site Contact List on request. A copy of the Site Contact List is maintained by OER's project manager. If you would like to be added to the Project Contact List, contact NYC OER at (212) 788-8841 or by email at brownfields@cityhall.nyc.gov.

Repositories: A document repository is maintained online. Internet access to view OER's document repositories is available at public libraries. This document repository is intended to house, for community review, all principal documents generated during the cleanup program including Remedial Investigation plans and reports, Remedial Action work plans and reports, and all public notices and fact sheets produced during the lifetime of the remedial project. The library nearest the Site is:

Brooklyn Public Library, Macon Branch	Mon	10:00am - 8:00pm
361 Lewis Avenue	Tue	10:00am - 8:00pm
Brooklyn NY 11233	Wed	10:00am - 8:00pm
718-573-5606	Thu	10:00am - 6:00pm
	Fri	10:00am - 5:00pm
	Sat	1:00pm - 5:00pm

Digital Documentation: NYC OER requires the use of digital documents in our repository as a means of minimizing paper use while also increasing convenience in access and ease of use.

Issues of Public Concern: Van Buren Greene, LLC is required to identify whether there are specific issues of concern to stakeholders proximate to the project site. Such issues include but are not limited to interests of Environmental Justice communities. No issues of public concern have been identified.

Public Notice and Public Comment: Public notice to all members of the Project Contact List is required at three major steps during the performance of the cleanup program (listed below) and at other points that may be required by OER. Notices will include Fact Sheets with descriptive project summaries, updates on recent and upcoming project activities, repository information, and important phone and email contact information. All notices will be reviewed and approved by OER prior to distribution and mailed by Van Buren Greene, LLC. Public comment is solicited in public notices for all work plans developed under the NYC Voluntary Cleanup Program. Final review of all work plans by OER will consider all public comments. Approval will not be granted until the public comment period has been completed.

Citizen Participation Milestones: Public notice and public comment activities occur at several steps during a typical NYC VCP project.

These steps include:

- **Public Notice of the availability of the Remedial Investigation Report and Remedial Action Work Plan and a 30-day public comment period on the Remedial Action Work Plan:** Public notice in the form of a Fact Sheet is sent to all parties listed on the Site Contact List announcing the availability of the Remedial Investigation Report and Remedial Action Work Plan and the initiation of a 30-day public comment period on the Remedial Action Work Plan. The Fact Sheet summarizes the findings of the RIR and provides details of the RAWP. The public comment period will be extended an additional 15 days upon public request. A public meeting or informational session will be conducted by OER upon request.
- **Public Notice announcing the approval of the RAWP and the start of remediation:** Public notice in the form of a Fact Sheet is sent to all parties listed on the Site Contact List announcing the approval of the RAWP and the start of remediation.
- **Public Notice announcing the completion of remediation, designation of Institutional and Engineering Controls and issuance of the Notice of Completion:** Public notice in the form of a Fact Sheet is sent to all parties listed on the Site Contact List announcing the completion of remediation, providing a list of all Institutional and Engineering Controls implemented for to the Site and announcing the issuance of the Notice of Completion.

APPENDIX E

SUSTAINABILITY STATEMENT

This Sustainability Statement documents sustainable activities and green remediation efforts planned under this remedial action.

Reuse of Clean, Recyclable Materials and Reduced Consumption of Non-Renewable Resources: Reuse of clean, locally-derived recyclable materials reduces consumption of non-renewable virgin resources and can provide energy savings and greenhouse gas reduction. To the extent feasible, concrete aggregate, stone and masonry derived from the Site, or imported from local sources, will be used as backfill for remedial excavations. An estimate of the quantity (in tons) of clean, non-virgin materials (reported by type of material) reused under this plan will be quantified and reported in the RAR.

Reduced Energy Consumption and Promotion of Greater Energy Efficiency: Reduced energy consumption lowers greenhouse gas emissions, improves local air quality, lessens in-city power generation requirements, can lower traffic congestion, and provides substantial cost savings. Best efforts will be made to quantify energy efficiencies achieved during the remediation and will be reported in the Remedial Action Report (RAR). Where energy savings cannot be easily quantified, a gross indicator of the amount of energy saved or the means by which energy savings was achieved will be reported.

Conversion to Clean Fuels: Use of clean fuel improves NYC's air quality by reducing harmful emissions. Natural gas will be utilized for fuel in the new building.

An estimate of the volume of clean fuels used during remedial activities will be quantified and reported in the RAR.

Recontamination Control: Recontamination after cleanup and redevelopment is completed undermines the value of work performed, may result in a property that is less protective of public health or the environment, and may necessitate additional cleanup work later or impede future redevelopment. Recontamination can arise from future releases that occur within the property or by influx of contamination from off-Site. Recontamination controls for the Site include the installation of a composite cover system and building vapor barrier. An estimate of the area of the Site that utilizes recontamination controls under this plan will be reported in the RAR in square

feet. An estimate of the area of the Site that utilizes recontamination controls under this plan will be reported in the RAR in square feet.

Stormwater Retention: Stormwater retention improves water quality by lowering the rate of combined stormwater and sewer discharges to NYC's sewage treatment plants during periods of precipitation, and reduces the volume of untreated influent to local surface waters. Approximately 45% of the site is proposed to contain grass yards. An estimate of the enhanced stormwater retention capability of the redevelopment project will be included in the RAR.

Linkage with Green Building: Green buildings provide a multitude of benefits to the city across a broad range of areas, such as reduction of energy consumption, conservation of resources, and reduction in toxic materials use. The number of Green Buildings that are associated with this brownfield redevelopment property will be reported in the RAR. The total square footage of green building space created as a function of this brownfield redevelopment will be quantified for residential, commercial and industrial/manufacturing uses.

Paperless Voluntary Cleanup Program: Van Buren Greene, LLC is participating in OER's Paperless Voluntary Cleanup Program. Under this program, submission of electronic documents will replace submission of hard copies for the review of project documents, communications and milestone reports.

Low-Energy Project Management Program: Van Buren Greene, LLC is participating in OER's low-energy project management program. Under this program, whenever possible, meetings are held using remote communication technologies, such as videoconferencing and teleconferencing to reduce energy consumption and traffic congestion associated with personal transportation.

Trees and Plantings: Trees and other plantings provide habitat and add to NYC's environmental quality in a wide variety of ways. Native plant species and native habitat provide optimal support to local fauna, promote local biodiversity, and require less maintenance. One existing tree is to remain in the sidewalk to the west of the Site. An estimate of the land area that will be vegetated, including the number of trees planted or preserved, will be reported in square feet in the RAR.

APPENDIX F

SOIL/MATERIALS MANAGEMENT PLAN

1.1 Soil Screening Methods

Visual, olfactory and PID soil screening and assessment will be performed under the supervision of a Qualified Environmental Professional and will be reported in the final remedial report. Soil screening will be performed during invasive work performed during the remedy and development phases prior to issuance of final signoff by OER.

1.2 Stockpile Methods

Excavated soil from suspected areas of contamination (e.g., hot spots, USTs, drains, etc.) will be stockpiled separately and will be segregated from clean soil and construction materials. Stockpiles will be used only when necessary and will be removed as soon as practicable. While stockpiles are in place, they will be inspected daily, and before and after every storm event. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by OER. Excavated soils will be stockpiled on, at minimum, double layers of 8-mil minimum sheeting, will be kept covered at all times with appropriately anchored plastic tarps, and will be routinely inspected. Broken or ripped tarps will be promptly replaced.

All stockpile activities will be compliant with applicable laws and regulations. Soil stockpile areas will be appropriately graded to control run-off in accordance with applicable laws and regulations. Stockpiles of excavated soils and other materials shall be located at least of 50 feet from the property boundaries, where possible. Hay bales or equivalent will surround soil stockpiles except for areas where access by equipment is required. Silt fencing and hay bales will be used as needed near catch basins, surface waters and other discharge points.

1.3 Characterization of Excavated Materials

Soil/fill or other excavated media that is transported off-Site for disposal will be sampled in a manner required by the receiving facility, and in compliance with applicable laws and regulations. Soils proposed for reuse on-Site will be managed as defined in this plan.

1.4 Materials Excavation, Load-Out, and Departure

The PE/QEP overseeing the remedial action will:

- oversee remedial work and the excavation and load-out of excavated material;
- ensure that there is a party responsible for the safe execution of invasive and other work performed under this work plan;
- ensure that Site development activities and development-related grading cuts will not interfere with, or otherwise impair or compromise the remedial activities proposed in this RAWP;
- ensure that the presence of utilities and easements on the Site has been investigated and that any identified risks from work proposed under this plan are properly addressed by appropriate parties;
- ensure that all loaded outbound trucks are inspected and cleaned if necessary before leaving the Site;
- ensure that all egress points for truck and equipment transport from the Site will be kept clean of Site-derived materials during Site remediation.

Locations where vehicles exit the Site shall be inspected daily for evidence of soil tracking off premises. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to Site-derived materials.

Open and uncontrolled mechanical processing of historical fill and contaminated soil on-Site will not be performed without prior OER approval.

1.5 Off-Site Materials Transport

Loaded vehicles leaving the Site will comply with all applicable materials transportation requirements (including appropriate covering, manifests, and placards) in accordance with applicable laws and regulations, including use of licensed haulers in accordance with 6 NYCRR Part 364. If loads contain wet material capable of causing leakage from trucks, truck liners will be used. Queuing of trucks will be performed on-Site, when possible in order to minimize off Site disturbance. Off-Site queuing will be minimized.

Outbound truck transport routes are described in the remedial report. This routing takes into account the following factors: (a) limiting transport through residential areas and past sensitive sites; (b) use of mapped truck routes; (c) minimizing off-Site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport. To the extent possible, all trucks loaded with Site materials will travel from the Site using these truck routes. Trucks will not stop or idle in the neighborhood after leaving the project Site.

1.6 Materials Disposal Off-Site

The following documentation will be established and reported by the PE/QEP for each disposal destination used in this project to document that the disposal of regulated material exported from the Site conforms with applicable laws and regulations: (1) a letter from the PE/QEP or Van Buren Greene, LLC to each disposal facility describing the material to be disposed and requesting written acceptance of the material. This letter will state that material to be disposed is regulated material generated at an environmental remediation Site in New York City under a governmental remediation program. The letter will provide the project identity and the name and phone number of the PE/QEP or Van Buren Greene, LLC. The letter will include as an attachment a summary of all chemical data for the material being transported; and (2) a letter from each disposal facility stating it is in receipt of the correspondence (1, above) and is approved to accept the material. These documents will be included in the final remedial report.

The Remedial Action Report will include an itemized account of the destination of all material removed from the Site during this remedial action. Documentation associated with disposal of all material will include records and approvals for receipt of the material. This information will be presented in the final remedial report.

All impacted soil/fill or other waste excavated and removed from the Site will be managed as regulated material and will be disposed in accordance with applicable laws and regulations. Historic fill and contaminated soils taken off-Site will be handled as solid waste and will not be disposed at a Part 360-16 Registration Facility (also known as a Soil Recycling Facility).

Waste characterization will be performed for off-Site disposal in a manner required by the receiving facility and in conformance with its applicable permits. Waste characterization sampling and analytical methods, sampling frequency, analytical results and QA/QC will be

reported in the final remedial report. A manifest system for off-Site transportation of exported materials will be employed. Manifest information will be reported in the final remedial report. Hazardous wastes derived from on-Site will be stored, transported, and disposed of in compliance with applicable laws and regulations.

If disposal of soil/fill from this Site is proposed for unregulated disposal (i.e., clean soil removed for development purposes), including transport to a Part 360-16 Registration Facility, a formal request will be made for approval by OER with an associated plan compliant with 6NYCRR Part 360-16. This request and plan will include the location, volume and a description of the material to be recycled, including verification that the material is not impacted by site uses and that the material complies with receipt requirements for recycling under 6NYCRR Part 360. This material will be appropriately handled on-Site to prevent mixing with impacted material.

1.7 Materials Reuse On-Site

Soil and fill that is derived from the property that meets the Soil Cleanup Objectives (SCOs) established in this plan may be reused on-Site. The SCOs for on-Site reuse are listed in Section 4.2 of this cleanup plan. 'Reuse on-Site' means material that is excavated during the remedy or development, does not leave the property, and is relocated within the same property and on land with comparable levels of contaminants in soil/fill material, compliant with applicable laws and regulations, and addressed pursuant to the NYC VCP agreement subject to Engineering and Institutional Controls. The PE/QEP will ensure that reused materials are segregated from other materials to be exported from the Site and that procedures defined for material reuse in this remedial plan are followed. The expected location for placement of reused material is shown in Section 4.2.

Organic matter (wood, roots, stumps, etc.) or other waste derived from clearing and grubbing of the Site will not be buried on-Site. Soil or fill excavated from the site for grading or other purposes will not be reused within a cover soil layer or within landscaping berms.

1.8 Demarcation

After completion of hotspot removal and any other invasive remedial activities, and prior to backfilling, the top of the residual soil/fill will be defined by one of three methods: (1) placement of a demarcation layer. The demarcation layer will consist of geosynthetic fencing or equivalent

material to be placed on the surface of residual soil/fill to provide an observable reference layer. A description or map of the approximate depth of the demarcation layer will be provided in the SMP; or (2) a land survey of the top elevation of residual soil/fill before the placement of cover soils, pavement and associated sub-soils, or other materials or structures or, (3) all materials beneath the approved cover will be considered impacted and subject to site management after the remedy is complete. Demarcation may be established by one or any combination of these three methods. As appropriate, a map showing the method of demarcation for the Site and all associated documentation will be presented in the RAR.

This demarcation will constitute the top of the site management horizon. Materials within this horizon require adherence to special conditions during future invasive activities as defined in the Site Management Plan.

1.9 Import of Backfill Soil From Off-Site Sources

This Section presents the requirements for imported fill materials to be used below the cover layer and within the clean soil cover layer. All imported soils will meet OER-approved backfill and cover soil quality objectives for this Site. Imported soils will not exceed groundwater protection standards established in Part 375. Imported soils for Track 1 remedial action projects will not exceed Track 1 SCOs.

A process will be established to evaluate sources of backfill and cover soil to be imported to the Site, and will include an examination of source location, current and historical use(s), and any applicable documentation. Material from industrial sites, spill sites, environmental remediation sites or other potentially contaminated sites will not be imported to the Site.

The following potential sources may be used pending attainment of backfill and cover soil quality objectives:

- Clean soil from construction projects at non-industrial sites in compliance with applicable laws and regulations;
- Clean soil from roadway or other transportation-related projects in compliance with applicable laws and regulations;
- Clean recycled concrete aggregate (RCA) from facilities permitted or registered by the regulations of NYS DEC.

- All materials received for import to the Site will be approved by a PE/QEP and will be in compliance with provisions in this remedial plan. The final remedial report will report the source of the fill, evidence that an inspection was performed on the source, chemical sampling results, frequency of testing, and a Site map indicating the locations where backfill or soil cover was placed.
- All material will be subject to source screening and chemical testing.
- Inspection of imported fill material will include visual, olfactory and PID screening for evidence of contamination. Materials imported to the Site will be subject to inspection, as follows:
- Trucks with imported fill material will be in compliance with applicable laws and regulations and will enter the Site at designated locations;
- The PE/QEP is responsible to ensure that every truck load of imported material is inspected for evidence of contamination; and
- Fill material will be free of solid waste including pavement materials, debris, stumps, roots, and other organic matter, as well as ashes, oil, perishables or foreign matter.

Composite samples of imported material will be taken at a minimum frequency of one sample for every 500 cubic yards of material. Once it is determined that the fill material meets imported backfill or cover soil chemical requirements and is non-hazardous, and lacks petroleum contamination, the material will be loaded onto trucks for delivery to the Site.

Recycled concrete aggregate (RCA) will be imported from facilities permitted or registered by NYSDEC. Facilities will be identified in the final remedial report. A PE/QEP is responsible to ensure that the facility is compliant with 6NYCRR Part 360 registration and permitting requirements for the period of acquisition of RCA. RCA imported from compliant facilities will not require additional testing, unless required by NYSDEC under its terms for operation of the facility. RCA imported to the Site must be derived from recognizable and uncontaminated concrete. RCA material is not acceptable for, and will not be used as cover material.

1.10 Fluids Management

All liquids to be removed from the Site, including dewatering fluids, will be handled, transported and disposed in accordance with applicable laws and regulations. Liquids discharged into the New York City sewer system will receive prior approval by New York City Department of Environmental Protection (NYC DEP). The NYC DEP regulates discharges to the New York City sewers under Title 15, Rules of the City of New York Chapter 19. Discharge to the New York City sewer system will require an authorization and sampling data demonstrating that the groundwater meets the City's discharge criteria. The dewatering fluid will be pretreated as necessary to meet the NYC DEP discharge criteria. If discharge to the City sewer system is not appropriate, the dewatering fluids will be managed by transportation and disposal at an off-Site treatment facility.

Discharge of water generated during remedial construction to surface waters (i.e. a stream or river) is prohibited without a SPDES permit issued by New York State Department of Environmental Conservation.

1.11 Stormwater Pollution Prevention

Applicable laws and regulations pertaining to stormwater pollution prevention will be addressed during the remedial program. Erosion and sediment control measures identified in this remedial plan (silt fences and barriers, and hay bale checks) will be installed around the entire perimeter of the remedial construction area and inspected once a week and after every storm event to ensure that they are operating appropriately. Discharge locations will be inspected to determine whether erosion control measures are effective in preventing significant impacts to receptors. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by OER. All necessary repairs shall be made immediately. Accumulated sediments will be removed as required to keep the barrier and hay bale check functional. Undercutting or erosion of the silt fence toe anchor will be repaired immediately with appropriate backfill materials. Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

1.12 Contingency Plan for Unknown Contamination Sources

This contingency plan is developed for the remedial construction to address the discovery of unknown structures or contaminated media during excavation. Identification of unknown contamination source areas during invasive Site work will be promptly communicated to OER's Project Manager. Petroleum spills will be reported to the NYS DEC Spill Hotline. These findings will be included in the daily report. If previously unidentified contaminant sources are found during on-Site remedial excavation or development-related excavation, sampling will be performed on contaminated source material and surrounding soils and reported to OER. Chemical analytical testing will be performed for TAL metals, TCL volatiles and semi-volatiles, TCL pesticides and PCBs, as appropriate.

1.13 Odor, Dust, and Nuisance Control

Odor Control

All necessary means will be employed to prevent on- and off-Site odor nuisances. At a minimum, procedures will include: (a) limiting the area of open excavations; (b) shrouding open excavations with tarps and other covers; and (c) use of foams to cover exposed odorous soils. If odors develop and cannot otherwise be controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-Site disposal; and (e) use of chemical odorants in spray or misting systems.

This odor control plan is capable of controlling emissions of nuisance odors. If nuisance odors are identified, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. OER will be notified of all odor complaint events. Implementation of all odor controls, including halt of work, will be the responsibility of the PE/QEP's certifying this remedial plan.

Dust Control

Dust management during invasive on-Site work will include, at a minimum:

- Use of a dedicated water spray methodology for roads, excavation areas and stockpiles.
- Use of properly anchored tarps to cover stockpiles.
- Exercise extra care during dry and high-wind periods.

- Use of gravel or recycled concrete aggregate on egress and other roadways to provide a clean and dust-free road surface.

This dust control plan is capable of controlling emissions of dust. If nuisance dust emissions are identified, work will be halted and the source of dusts will be identified and corrected. Work will not resume until all nuisance dust emissions have been abated. OER will be notified of all dust complaint events. Implementation of all dust controls, including halt of work, will be the responsibility of the PE/QEP's responsible for certifying this remedial plan.

Other Nuisances

Noise control will be exercised during the remedial program. All remedial work will conform, at a minimum, to NYC noise control standards.

Rodent control will be provided during Site clearing and grubbing and during the remedial program, as necessary, to prevent nuisances.

APPENDIX G

CONSTRUCTION HEALTH AND SAFETY PLAN

CONSTRUCTION HEALTH AND SAFETY PLAN

FOR

SITE REMEDIATION

(INCORPORATING COMMUNITY HEALTH AND SAFETY PLAN)

461 & 463 Tompkins Avenue

Brooklyn, New York

June 2016

ESI File: EB15157A.40

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1.0 INTRODUCTION

1.1 Purpose

This Construction Health and Safety Plan for Site Remediation (CHASP) has been developed to provide the requirements and general procedures to be followed by Ecosystems Strategies, Inc. (ESI) and on-site subcontractors while performing investigative services at the property located at 461 & 463 Tompkins Avenue in Brooklyn, New York.

This CHASP incorporates policies, guidelines and procedures that have the objective of protecting the public health of the community during the performance of fieldwork activities, and therefore serves as a Community Health and Safety Plan. The objectives of the CHASP are met by establishing guidelines to minimize community exposure to hazards during fieldwork, and by planning for and responding to emergencies affecting the public adjacent to the site.

This CHASP describes the responsibilities, training requirements, protective equipment and standard operating procedures to be utilized by all personnel while on the Site. All on-site personnel and visitors shall follow the guidelines, rules, and procedures contained in this safety plan. The Project Manager or Site Health and Safety Officer (SHSO) may impose any other procedures or prohibitions believed to be necessary for safe operations. This CHASP incorporates by reference the applicable Occupational Safety and Health Administration (OSHA) requirements in 29 CFR 1910 and 29 CFR 1926.

The requirements and guidelines in this CHASP are based on a review of available information and evaluation of potential on-site hazards. This CHASP will be discussed with Site personnel and will be available on-site for review while work is underway. On-site personnel will report to the Site Health and Safety Officer (SHSO) in matters of health and safety. The on-site project supervisor(s) are responsible for enforcement and implementation of this CHASP, which is applicable to all field personnel, including contractors and subcontractors.

This CHASP is specifically intended for the conduct of activities within the defined scope of work in specified areas of the Site. Changes in site conditions and future actions that may be conducted at the Site may necessitate the modification of the requirements of the CHASP. Although this CHASP can be made available to interested persons for informational purposes, ESI has no responsibility over the interpretations or activities of any other persons or entities other than employees of ESI or ESI's subcontractors.

1.2 Site Location and Description

The Site as defined in this CHASP is the property located at 461 & 463 Tompkins Avenue, Borough of Brooklyn, New York City, New York.

1.3 Work Activities

Environmental remediation activities are detailed in the Remedial Action Work Plan (RAWP), dated June 2016. The specific tasks detailed in the RAWP are wholly incorporated by reference into this CHASP. The RAWP describes the tasks required to remediate documented soil contamination at the Site.

The Remedial Investigation Report prepared for the Site documented the presence of poor-quality urban fill and contaminated soils containing elevated concentrations of SVOCs and metals. Proposed remedial actions consist of the removal of fill and contaminated soil from the Site.

2.0 HEALTH AND SAFETY HAZARDS

2.1 Hazard Overview for On-Site Personnel

The potential exists for the presence of elevated levels of organic compounds and metals in on-site soils. The possibility exists for on-site personnel to have contact with contaminated soils during site remediation work. Contact with contaminated substances may present a skin contact, inhalation and/or ingestion hazard. These potential hazards are addressed in Sections 3.0 through 11.0, below.

2.2 Potential Hazards to the Public from Fieldwork Activities

The potential exists for the public to be exposed to contaminated soils, which may present a skin contact, inhalation and/or ingestion hazard. Additional potential hazards to the public that are associated with fieldwork activities include mechanical/physical hazards, traffic hazards from fieldwork vehicles, and noise impacts associated with operation of mechanical equipment.

Impacts to public health and safety are expected to be limited to hazards that could directly affect on-site visitors and/or trespassers. These effects will be mitigated through site access and control measures (see Section 6.0, below). Specific actions taken to protect the public health (presented in Sections 3.0 through 11, below) are anticipated to minimize any potential off-site impacts from contaminant migration, noise and traffic hazards.

3.0 PERSONAL PROTECTIVE EQUIPMENT

The levels of protection identified for the services specified in the RAWP represent a best estimate of exposure potential and protective equipment needed for that exposure. Determination of levels was based on data provided by previous studies of the Site and information reviewed on current and past Site usage. The SHSO may recommend revisions to these levels based on an assessment of actual exposures and may at any time require Site workers, supervisors and/or visitors to use specific safety equipment.

The level of protective clothing and equipment selected for this project is Level D. Level D PPE provides minimal skin protection and no respiratory protection, and is used when the atmosphere contains no known hazard, oxygen concentrations are not less than 19.5%, and work activities exclude splashes, immersion or the potential for unexpected inhalation or contact with hazardous levels of chemicals. Workers will wear Level D protective clothing including, but not limited to, a hard hat, steel-toed boots, nitrile gloves (when handling soils and/or groundwater), hearing protection (foam ear plugs or ear muffs, as required), and safety goggles (in areas of exposed groundwater and when decontaminating equipment). Personal protective equipment (PPE) will be worn at all times, as designated by this CHASP.

Disposable gloves will be changed immediately following the handling of contaminated soils, water, or equipment. Tyvek suits will be worn during activities likely to excessively expose work clothing to contaminated dust or soil (chemically-resistant over garments will be required in situations where exposures could lead to penetration of clothing and direct dermal contact by contaminants).

The requirement for the use of PPE by official on-site visitors shall be determined by the SHSO, based on the most restrictive PPE requirement for a particular Work Zones (see Section 6 for Work Zone definitions). All on-site visitors shall, at a minimum, be required to wear an approved hardhat and be provided with appropriate hearing protection as necessary.

The need for an upgrade in PPE will be determined based upon encountered Site conditions, including measurements taken in the breathing zone of the work area using a photo-ionization detector (PID). An upgrade to a higher level of protection (Level C) will begin when specific action levels are reached (see Section 5.0, below), or as otherwise required by the SHSO. Level C PPE includes a full-face or half-mask air-purifying respirator (NIOSH approved for the compound[s] of concern), hooded chemical-resistant clothing, outer and inner chemical-resistant gloves, and (as needed) coveralls, outer boots/boot covers, escape mask, and face shield. Level C PPE may be used only when: oxygen concentrations are not less than 19.5%; contaminant contact will not adversely affect any exposed skin; types of air contaminants have been identified, concentrations measured, and a cartridge or canister is available that can remove the contaminant; atmospheric contaminant concentrations do not exceed immediately dangerous to life or health (IDLH) levels; and job functions do not require self-contained breathing apparatus (SCBAs). The need for Level B or Level A PPE is not anticipated for the planned remedial activities at this Site.

If any equipment fails and/or any employee experiences a failure or other alteration of their protective equipment that may affect its protective ability, that person will immediately leave the work area. The Project Manager and the SHSO will be notified and, after reviewing the situation, determine the effect of the failure on the continuation of on-going operations. If the failure affects the safety of personnel, the work site, or the surrounding environment, personnel will be evacuated until appropriate corrective actions have been taken.

4.0 CONTAMINANT CONTROL

Precautions will be taken during dry weather (e.g., wetting or covering exposed soils) to avoid generating and breathing dust-generated from soils. A PID (or equivalent equipment) will be used to monitor potential contaminant levels. Response to the monitoring will be in accordance with the action levels provided in Section 5.0.

5.0 MONITORING AND ACTION LEVELS

Concentrations of petroleum compounds in the air are expected to be below the OSHA Permissible Exposure Limits (PELs). Air monitoring will be conducted for VOCs and dust according to the NYSDOH Generic Community Air Monitoring Plan (CAMP). Monitoring will be conducted at all times that fieldwork activities which are likely to generate emissions are occurring. PID and dust readings consistently in excess of CAMP limits will be used as an indication of the need to initiate personnel monitoring, increase worker protective measures, and/or modify or cease on-site operations in order to mitigate off-site community exposure.

PID readings that consistently exceed background in the breathing zone (during any of the proposed tasks) will necessitate moving away from the source or implementing a higher PPE level.

6.0 SITE CONTROL/WORK ZONES

Site control procedures will be established to reduce the possibility of worker/visitor contact with compounds present in the soil, to protect the public in the area surrounding the Site and to limit access to the Site to only those persons required to be in the work zone. Notices will be placed near the Site warning the public not to enter fieldwork areas and directing visitors to report to the Project Manager or SHSO. Measures will be taken to limit the entry of unauthorized personnel into the specific areas of field activity and to safely direct and control all vehicular traffic in and near the Site (e.g., placement of traffic cones and warning tape).

The following Work Zone will be established:

Exclusion Zone ("Hot Zone") - The exclusion zone will be that area immediately surrounding the work being performed for remediation purposes (i.e. the area where contaminated media are being handled). It is anticipated that much of the work will be accomplished with heavy equipment in the exclusion zone. Only individuals with appropriate PPE and training are allowed into this zone. It is the responsibility of the Site Health and Safety Officer to prevent unauthorized personnel from entering the exclusion zone. When necessary, such as in high traffic areas, the exclusion zone will be delineated with barricade tape, cones and/or barricades.

Decontamination Area - A decontamination area for personnel and equipment is not anticipated being required during completion of the RAWP; however, care will be taken to remove gloves, excess soil from boots, and soiled clothing (if necessary) before entering the Intermediate Zone.

Contamination Reduction Zone and Support Zone - Not anticipated being required during the completion of the RAWP.

Intermediate Zone (Decontamination Zone) - The intermediate zone, also known as the decontamination zone, is where patient decontamination should take place, if necessary. A degree of contamination still is found in this zone; thus, some PPE is required, although it is usually of a lesser degree than that required for the hot zone.

Command Zone - The command zone is located outside the decontamination zone. All exposed individuals and equipment from the "hot zone" and decontamination zone should be decontaminated before entering the command zone. Access to all zones must be controlled. Keeping the media and onlookers well away from the Site is critical and will be the responsibility of both the SSHO and the Project Manager, and other Site personnel as appropriate.

7.0 NOISE CONTROL

All fieldwork activities will be conducted in a manner designed to reduce unnecessary noise generation, and to minimize the potential for both on-site and off-site harmful noise levels. The Project Manager and SHSO will establish noise reduction procedures (as appropriate to the Site and the work) to meet these requirements.

8.0 PERSONNEL TRAINING

Work zones that will accomplish the general objective stated above will be established by the Project Manager and the SHSO. Site access will be monitored by the SHSO, who will maintain a log-in sheet for

personnel that will include, at the minimum, personnel on the Site, their arrival and departure times and their destination on the Site. All workers will be properly trained in accordance with OSHA requirements (29 CFR 1910). Personnel exiting the work zone(s) will be decontaminated prior to exiting the Site.

Site-specific training will be provided to each employee. Personnel will be briefed by the SHSO as to the potential hazards to be encountered. Topics will include:

- Availability of this CHASP;
- General site hazards and specific hazards in the work areas, including those attributable to known of suspect on-site contaminants;
- Selection, use, testing, and care of the body, eye, hand, and foot protection being worn, with the limitations of each;
- Decontamination procedures for personnel, their personal protective equipment, and other equipment used on the Site;
- Emergency response procedures and requirements;
- Emergency alarm systems and other forms of notification, and evacuation routes to be followed; and,
- Methods to obtain emergency assistance and medical attention.

9.0 DECONTAMINATION

The SHSO will establish a decontamination system and decontamination procedures (appropriate to the Site and the work) that will prevent potentially hazardous materials from leaving the Site. Trucks will be brushed to remove materials adhering to their surfaces. Sampling equipment will be segregated and, after decontamination, stored separately from splash protection equipment. Decontaminated or clean sampling equipment not in use will be covered with plastic and stored in a designated storage area in the work zone.

10.0 EMERGENCY RESPONSE

10.1 Notification of Site Emergencies

In the event of an emergency, the SHSO will be immediately notified of the nature and extent of the emergency (the names and contact information for key site safety and management personnel, as well as other site safety contact telephone numbers, shall be posted at the Site).

Table 1 in this CHASP contains Emergency Response Telephone Numbers, and immediately following is a map detailing the directions to the nearest hospital emergency room. This information will be maintained at the work Site by the SHSO. The location of the nearest telephone will be determined prior to the initiation of on-site activities. In addition to any permanent phone lines, a cellular phone will be in the possession of the SHSO, or an authorized designee, at all times.

10.2 Responsibilities

Prior to the initiation of on-site work activities, the SHSO will:

- Notify individuals, authorities and/or health care facilities of the potentially hazardous activities and potential wastes that may develop as a result of the remedial activities.
- Confirm that first aid supplies and a fire extinguisher are available on-site.
- Have a working knowledge of safety equipment available.
- Confirm that a map detailing the most direct route to the hospital is prominently posted with the emergency telephone numbers.

The SHSO will be responsible for directing notification, response and follow-up actions and for contacting outside response personnel (ambulance, fire department, or others). In the case of an evacuation, the SHSO will account for personnel. A log of individuals entering and leaving the Site will be kept so that everyone can be accounted for in an emergency.

Upon notification of an exposure incident, the SHSO will contact the appropriate emergency response personnel for recommended medical diagnosis and, if necessary, treatment. The SHSO will determine whether and at what levels exposure actually occurred, the cause of such exposure, and the means to prevent similar incidents from occurring.

10.3 Accidents and Injuries

In the event of an accident or injury, measures will be taken to assist those who have been injured or exposed and to protect others from hazards. If an individual is transported to a hospital or doctor, a copy of the CHASP will accompany the individual.

The SHSO will be notified and will respond according to the severity of the incident. The SHSO will perform an investigation of the incident and prepare a signed and dated report documenting the investigation. An exposure-incident report will also be completed by the SHSO and the exposed individual. The form will be filed with the employee's medical and safety records to serve as documentation of the incident and the actions taken.

10.4 Communication

No special hand signals will be utilized within the work zone. Field personnel will utilize standard hand signals during the operation of heavy equipment.

10.5 Safe Refuge

Vehicles and on-site structures will serve as the immediate place of refuge in the event of an emergency. If evacuation from the area is necessary, project vehicles will be used to transport on-site personnel to safety.

10.6 Site Security and Control

Site security and control during emergencies, accidents and incidents will be monitored by the SHSO. The SHSO is responsible for limiting access to the Site to authorized personnel and for oversight of reaction activities.

10.7 Emergency Evacuation

In case of an emergency, personnel will evacuate to the safe refuge identified by the SHSO, both for their personal safety and to prevent the hampering of response/rescue efforts.

10.8 Resuming Work

A determination that it is safe to return to work will be made by the SHSO and/or any personnel assisting in the emergency, e.g., fire department, police department, utility company, etc. No personnel will be allowed to return to the work areas until a full determination has been made by the above-identified personnel that all field activities can continue unobstructed. Such a determination will depend upon the nature of the emergency (e.g., downed power lines -- removal of all lines from the property; fire -- extinguished fire; injury -- safe transport of the injured party to a medical facility with either assurance of acceptable medical care present or completion of medical care; etc.). Before on-site work is resumed following an emergency, necessary emergency equipment will be recharged, refilled or replaced. Government agencies will be notified as appropriate. An Incident Report Form will be filed.

10.9 Fire Fighting Procedures

A fire extinguisher will be available in the work zone during on-site activities. This extinguisher is intended for small fires. When a fire cannot be controlled with the extinguisher, the area will be evacuated immediately. The SHSO will be responsible for directing notification, response and follow-up actions and for contacting ambulance and fire department personnel.

10.10 Emergency Decontamination Procedure

The extent of emergency decontamination depends on the severity of the injury or illness and the nature of the contamination. Whenever possible, minimum decontamination will consist of washing, rinsing and/or removal of contaminated outer clothing and equipment. If time does not permit decontamination, the person will be given first aid treatment and then wrapped in plastic or a blanket prior to transport.

10.11 Emergency Equipment

The following on-site equipment for safety and emergency response will be maintained in the on-site vehicle of the SHSO:

- Fire extinguisher;
- First-aid kit; and,
- Extra copy of this Health and Safety Plan.

11.0 SPECIAL PRECAUTIONS AND PROCEDURES

The activities associated with this remediation may involve potential risks of exposure to both chemical and physical hazards. The potential for chemical exposure to hazardous or regulated substances will be significantly reduced through the use of monitoring, personal protective clothing, engineering controls, and implementation of safe work practices.

11.1 Heat/Cold Stress

Training in prevention of heat/cold stress will be provided as part of the site-specific training. The timing of this project is such that heat/cold stress may pose a threat to the health and safety of personnel. Work/rest regimens will be employed, as necessary, so that personnel do not suffer adverse effects from heat/cold stress. Special clothing and appropriate diet and fluid intake regimens will be recommended to personnel to further reduce this temperature-related hazard. Rest periods will be recommended in the event of high/low temperatures and/or humidity to counter the negative effects of heat/cold stress.

11.2 Heavy Equipment

Working in the vicinity of heavy equipment is the primary safety hazard at the Site. Physical hazards in working near heavy construction equipment include the following: overhead hazards, slips/trip/falls, hand and foot injuries, moving part hazards, improper lifting/back injuries and noise. All workers will be properly trained in accordance with OSHA requirements (29 CFR 1910). No workers will be permitted within any excavated areas without proper personal protective equipment (PPE), including, as warranted, any necessary Level C equipment (e.g., respirators and protective suits). Air monitoring in excavation areas will be conducted for VOCs in accordance with Section 5.0.

11.3 Additional Safety Practices

The following are important safety precautions which will be enforced during the remedial activities:

- Medicine and alcohol can aggravate the effect of exposure to certain compounds. Controlled substances and alcoholic beverages will not be consumed during remedial activities. Consumption of prescribed drugs will only be at the discretion of a physician familiar with the person's work.
- Eating, drinking, chewing gum or tobacco, smoking, or other practices that increase the probability of hand-to-mouth transfer and ingestion of material is prohibited except in areas designated by the SHSO.
- Contact with potentially contaminated surfaces will be avoided whenever possible. Workers will not unnecessarily walk through puddles, mud or other discolored surfaces; kneel on the ground; or lean, sit, or place equipment on drums, containers, vehicles, or the ground.
- Personnel and equipment in the work areas will be minimized, consistent with effective site operations.
- Unsafe equipment left unattended will be identified by a "DANGER, DO NOT OPERATE" tag.
- Work areas for various operational activities will be established.

11.4 Daily Log Contents

The SHSO will establish a system appropriate to the Site, the work and the work zones that will record, at a minimum, the following information:

- Personnel on the Site, their arrival and departure times and their destination on the Site.
- Incidents and unusual activities that occur on the Site such as, but not limited to, accidents, spills,

breaches of security, injuries, equipment failures and weather-related problems.

- Changes to the CHASP.
- Daily information generated such as: changes to work and health and safety plans; work accomplished and the current Site status; and monitoring results.

12.0 TABLE AND FIGURES

Table 1: Emergency Contact Information

Emergency Agencies	Phone Numbers
EMERGENCY	**911**
NYC Health + Hospitals Woodhull 760 Broadway Brooklyn, NY 11206	(718) 963-8000 or 911
NYC Police Department 263 Tompkins Ave Brooklyn, NY 11216	(718) 636-6611 or 911
NYC Fire Department	911
City Hall	(212) 788-3000
Main Water and Sewer	(212) 315-2101
Site Health and Safety Officer, Paul Ciminello, ESI	(845) 452-1658
Remedial Engineer, Jolanda G. Jansen, PE	(845) 505-0324
Construction Manager	TBD

Figure 1: Directions to Hospital (approximately 10-15 minutes travel time)

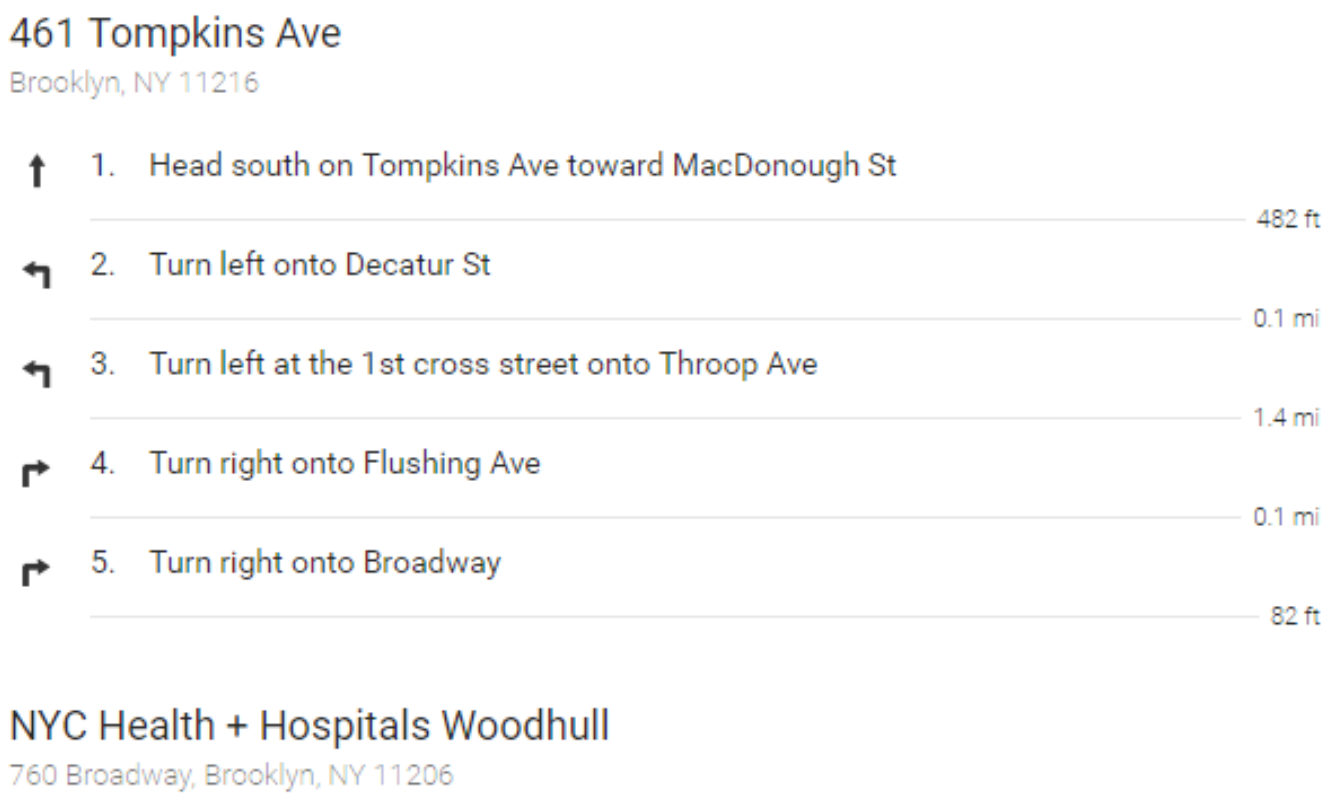
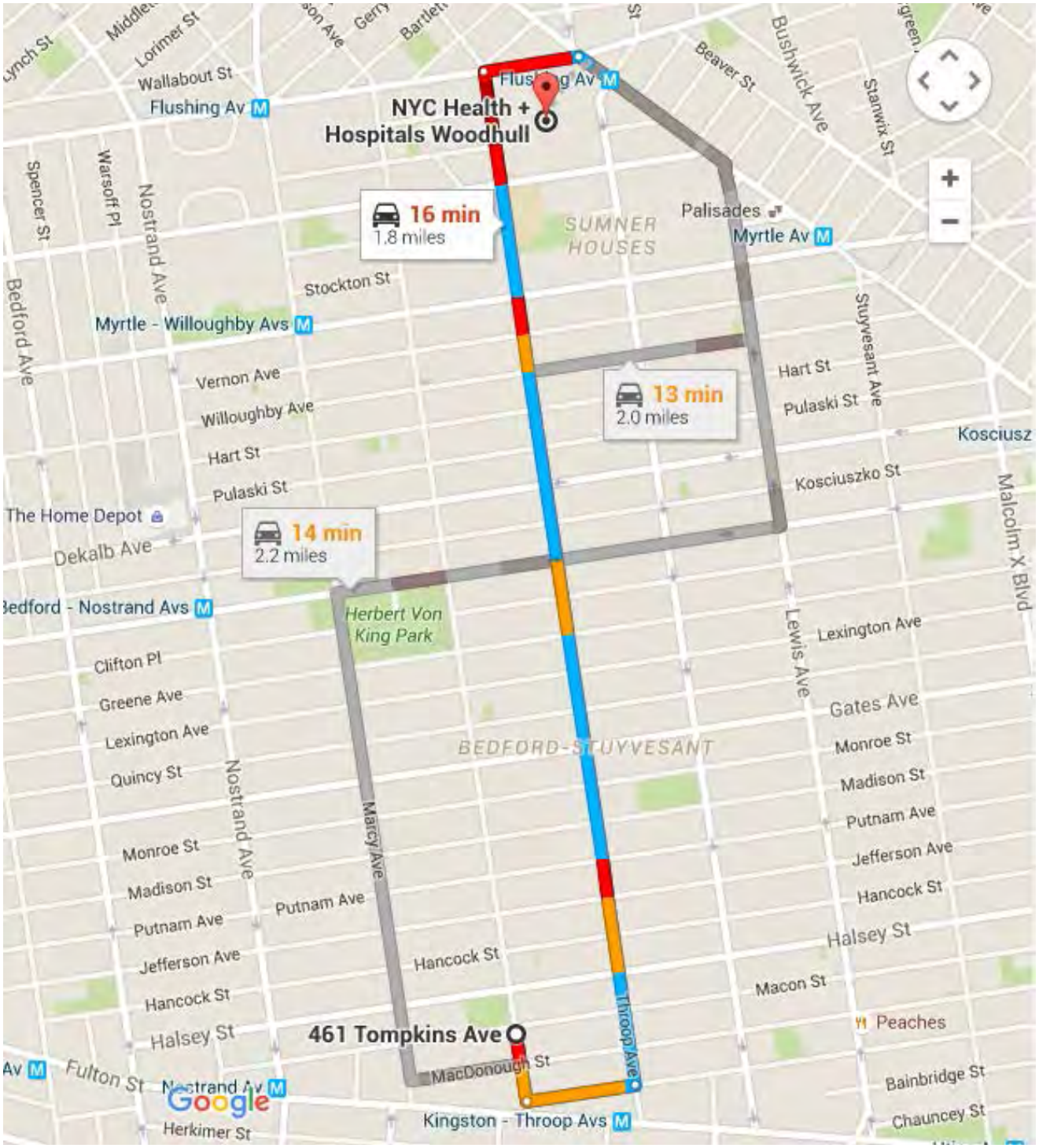
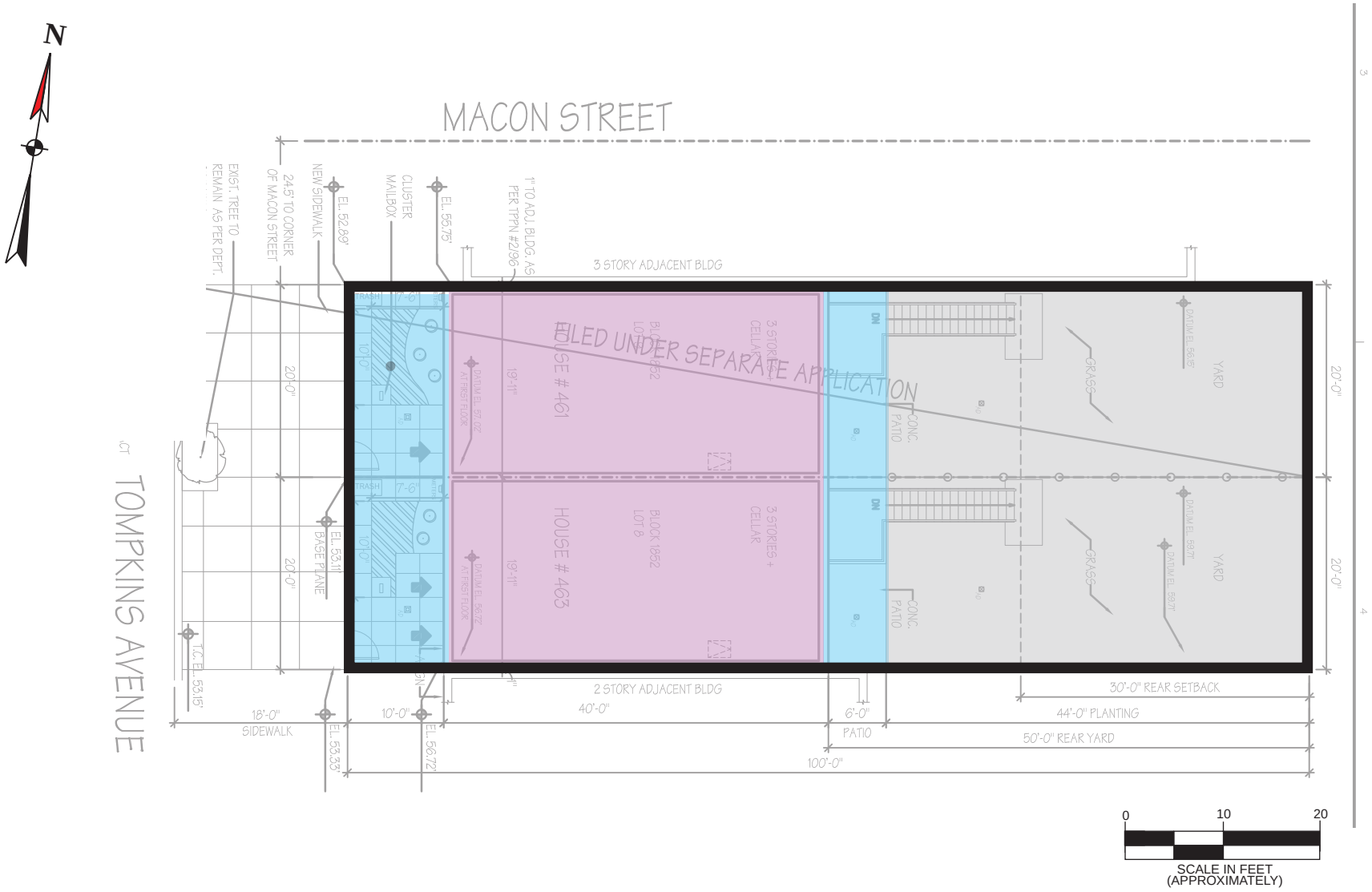


Figure 2: Map to Hospital (overview)



Ecosystems Strategies, Inc.



Base map provide by Curtis and Ginsberg Architects LLP - Site Plan dated 12/20/15. All feature locations are approximate.
This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

Site Excavation Diagram

461 & 463 Tompkins Avenue
Borough of Brooklyn, New York

Legend:
- subject property border
- excavation to 8" - 10"
- excavation to 2'
- excavation to 11'

Note: Excavation depths are from street grade.
The Site is currently built up with 4-5' of material which will be excavated.

ESI File: EB15157A.40
June 2016
Scale as shown
Attachment