23-06 40th AVENUE

QUEENS, NEW YORK

Remedial Action Plan

OER Project Number 24TMP0576Q, 24EHAZ102Q

Prepared For:

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MARCH 2025

REMEDIAL ACTION 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
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

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
RCR	Remedial Closure Report
RAP	Remedial Action Plan
RCA	Recycled Concrete Aggregate
RD	Remedial Design
Phase II ESA	Phase II Environmental Site Assessment
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, Spiro Dongaris, 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 23-06 40th Avenue Site, Site number 24TMP0576Q. I certify under the appropriate standard of care to the following:

- I have reviewed this document and the Stipulation List, to which my signature and seal are affixed.
- This Remedial Action Plan (RAP) has a plan for handling, transport and disposal of remediation-related soil, fill and fluids removed from the property in accordance with applicable City, State and Federal laws and regulations. The RAP also has a plan for importation of all soil, fill and other material from off-Site in accordance with all applicable City, State and Federal laws and requirements. This RAP has provisions to control nuisances during the remediation and all invasive work, including dust and odor suppression.

Spiro I. Dongaris
Name

095954
PE License Number

Signature

03/21/2025
Date

PE Stamp

EXECUTIVE SUMMARY

Tina Yang is working with the NYC Office of Environmental Remediation (OER) in the New York City E-Designation Program to investigate and remediate a 2,521-square foot Site located at 23-06 40th Avenue, Long Island City in Queens, New York. A Phase II ESA was performed to compile and evaluate data and information necessary to develop this Remedial Action Plan (RAP). 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 23-06 40th Avenue in the Long Island City section in Queens, New York and is identified as Block 408 and Lot 23 on the New York City Tax Map. The Site is 2,521-square feet and is bounded by 40th Avenue to the north, a 2-story warehouse building to the south, a 2-story mixed-use commercial and residential building to the east, and a 2-story residential building to the west.

Currently, the Site is occupied by a vacant 2-story residential building with a full basement. The building fronts 40th Avenue to the north, and occupies approximately 40 percent of the total lot area with the remaining open space consisting of a mostly-paved rear yard, which also includes several planter areas.

Summary of Redevelopment Plan

The current redevelopment plan consists of construction of a new 4-story mixed-use residential and commercial building with a partial cellar that will be approximately 53 feet in height and have a total gross area of approximately 8,215 square feet. The planned use of the cellar includes a utility room, electrical closet, and an open cellar area. The first floor will be occupied by a commercial tenant and residential lobby and the second through fourth floors that will maintain six residential units (two per floor). The building footprint will encompass the entire parcel. The existing foundation and concrete slab of the cellar from the current on-Site structure will be reused during redevelopment (as long as they are not residually contaminated). The only proposed excavation for the planned building will be to approximately 4 feet below ground

surface (bgs) around the perimeter of the existing rear yard for installation of the first-floor foundation footing. Approximately 55 cubic yards of soil are estimated to be removed from the Site as part of the proposed redevelopment.

The remedial action contemplated under this RAP may be implemented independently of the proposed redevelopment plan.

Summary of Surrounding Property

The Site is located in a primarily mixed use, industrial, commercial and residential area of Queens, New York. The Subject Property is zoned as M1-2/R5D with a Special Long Island City Mixed Use District overlay. The M1-2 zoning denotes it as a manufacturing zone typically generating light industrial uses and often serving as a buffer zone between commercial or residential and heavier manufacturing zones; the R5D denotes it as a moderate to high density residential area with a maximum building height of 40 feet, typically serving as a transition between lower-density districts and moderate-density districts; and the Special Long Island City overlay denotes it as a district that promotes the development and expansion of the longstanding mix of residential, commercial, industrial, and cultural uses. The Site neighborhood is a mixture of low- to mid-rise residential and mixed-use commercial and residential buildings, low-rise commercial buildings (including auto service facilities), and low-rise industrial facilities (including various warehouses and metalwork facilities).

As listed in Athenica's Phase I Environmental Site Assessment (ESA) report, dated October 6, 2023, the north-adjacent properties maintain a 1-story commercial building and a 1-story auto repair facility. The south-adjacent property maintains a 2-story warehouse building. The east-adjacent property historically maintained a 2-story residential building, but now maintains a 2-story mixed-use commercial and residential building. The west-adjacent property maintains a 2-story residential building. **Figure 2** shows the surrounding land usage.

According to the New York City Mayors Office of Environmental Remediation (OER) Searchable Property Environmental E-Database (SPEED), there is one sensitive receptor (such as schools, hospitals, parks, or day-care facilities) within a 500-foot radius of the Site. This sensitive receptor is a day-care and pre-kindergarten facility located at 39-21 Crescent Street, approximately 500 feet to the east of the Site.

Summary of Past Site Uses and Areas of Concern

According to Athenica's October 2023 Phase I ESA Report, the Site was first developed by at least 1898 with a 1-story residential building, and has maintained the current building since at least 1915.

The areas of concern (AOCs) identified for this Site include:

1. Potential presence of historic fill materials at the Site outside of the footprint of the building, at depths up to two feet bgs.
2. Potential vapor encroachment conditions at the Site due to historic uses of surrounding properties.

Summary of Work Performed under the Phase II ESA

Athenica performed the following scope of work on December 23, 2024:

1. Conducted a Site inspection to identify AOCs and physical obstructions (i.e. structures, buildings, etc.);
2. Advanced two soil borings in the existing rear yard of the Site, and collected four soil samples for chemical analysis from the soil borings to evaluate soil quality;
3. Installed one soil vapor probe in the existing rear yard of the Site (co-located with one of the soil borings) and two Vapor Pins® below the cellar floor slab;
4. Collected three soil vapor samples, one indoor air sample, and one outdoor ambient air sample for chemical analysis.

While the original sampling scope of work discussed with OER included temporary well installation and groundwater sampling, as noted above, bedrock was encountered at the Site before groundwater was reached, so this task was eliminated from the Phase II ESA scope, with prior OER approval.

Summary of Findings of Phase II ESA

A remedial investigation was performed and the results are documented in a companion document called "Phase II ESA, 23-06 40th Avenue", dated January 2025.

1. Elevation of the property ranges from 25 to 30 feet above mean sea level.

2. Depth to groundwater is estimated to be 22 feet at the Site.
3. Published groundwater elevation contour data from the U.S. Geological Survey indicates that regional groundwater flow at the Site is toward the west.
4. During a previous geotechnical investigation conducted at the Site in late 2024, bedrock was encountered at approximately 20 feet bgs.
5. The stratigraphy of the Site consists of brown silty sand, silt, some lean clay and some fine gravel from ground surface to 8 feet below ground surface (bgs). Higher levels of moisture were observed immediately above finer grained (i.e., silty and/or clayey) zones. Bedrock was not encountered during the investigation.
6. Soil samples collected during the Phase II ESA were compared to 6NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives (SCOs) and 6NYCRR Part 375 Restricted Residential Use SCOs.

- No volatile organic compounds (VOCs) were detected in any of the soil samples.
- Seven semi-volatile organic compounds (SVOCs) were detected in the shallow soil samples (i.e., SB-1 (0'-2') and/or SB-2 (0'-2')) at concentrations exceeding Unrestricted Use SCOs and Restricted Residential Use SCOs, including benzo(a)anthracene (max. of 30,000 micrograms per kilogram (µg/Kg) in sample SB-1 (0'-2')), benzo(a)pyrene (max. of 28,000 µg/Kg in sample SB-1 (0'-2')), benzo(b)fluoranthene (max. of 34,000 µg/Kg in sample SB-1 (0'-2')), benzo(k)fluoranthene (max. of 11,000 µg/Kg in sample SB-1 (0'-2')), chrysene (max. of 29,000 µg/Kg in sample SB-1 (0'-2')), dibenz(a,h)anthracene (max. of 5,400 µg/Kg in sample SB-1 (0'-2')), and indeno(1,2,3-cd)pyrene (max. of 16,000 µg/Kg in sample SB-1 (0'-2')). Please note that the Restricted Residential Use SCO for all of these compounds is the same value as the Unrestricted Use SCO, except for benzo(k)fluoranthene and dibenz(a,h)anthracene.
- Five metals were detected in soil samples SB-1 (0'-2') and/or SB-2 (0'-2') at concentrations exceeding Unrestricted Use SCOs, including barium (at 670 milligrams per kilogram (mg/Kg) in sample SB-1 (0'-2')), copper (max. of 92.8 mg/Kg in sample SB-1 (0'-2')), lead (max. of 738 mg/Kg in sample SB-1 (0'-2')), mercury (max. of 67 mg/Kg in sample SB-1 (0'-2')), and zinc (max. of 631 mg/Kg in sample SB-1 (0'-2')).

The concentrations of barium, lead, and mercury in soil sample SB-1 (0'-2') and the concentration of lead in soil sample SB-2 (0'-2')) also exceeded Restricted Residential Use SCOs.

- PCBs were detected in soil sample SB-1 (0'-2')) at 220 µg/Kg, exceeding the Unrestricted Use SCO of 100 µg/Kg.
- Two pesticides were detected in soil sample SB-1 (0'-2') at concentrations exceeding Unrestricted Use SCOs, but not Restricted Residential Use SCOs, including 4,4'-DDE (at 31 µg/Kg) and 4,4'-DDT (at 78 µg/Kg). No other pesticides were detected at concentrations exceeding either Unrestricted or Restricted Residential Use SCOs in any of the soil samples.
- The PFOA/PFAS compound perfluorooctanesulfonic acid (PFOS) (at 4.42 nanograms per kilogram (ng/Kg)) was detected in soil sample SB-1 (0'-2') at a concentration exceeding its Unrestricted Use SCO, but not its Restricted Residential Use SCO. No other PFOA/PFAS compounds were detected at concentrations exceeding Unrestricted Use SCOs in soil sample SB-1 (0'-2') or the PFAS Field Blank.
- 1,4-dioxane was not detected in soil sample SB-1 (0'-2').
- No parameters were detected in either of the deeper soil samples at concentrations exceeding Unrestricted Use SCOs.

7. No groundwater samples were collected during this Phase II ESA, as bedrock was encountered on-Site at a depth of 20 feet bgs, and no groundwater was encountered above bedrock.

8. VOCs detected in soil vapor, indoor air, and outdoor ambient air samples collected during the Phase II ESA are summarized below. Air sample results collected during the Phase III ESA were compared to the guidance values within the NYSDOH *Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York*, dated October 2006, as amended (NYSDOH Guidance Document).

- Thirteen VOCs were detected in the soil vapor samples, including 4-methyl-2-pentanone (at 19.9 micrograms per cubic meter ($\mu g/m^3$) in sample SV-3), acetone (max. of 95.7$\mu g/m^3$ in sample SV-3), carbon disulfide (at 21.5 $\mu g/m^3$ in sample SV-3), ethanol

(max. of 49.7 µg/m^3 in sample SV-3), heptane (at 7.09 µg/m^3 in sample SV-3), hexane (at 10.2 µg/m^3 in sample SV-3), iso-octane (at 7.55 µg/m^3 in sample SV-3), isopropyl alcohol (at 18.2 µg/m^3 in sample SV-3), methyl ethyl ketone (at 10.7 µg/m^3 in sample SV-3), propylene (at 30.3 µg/m^3 in sample SV-3), PCE (max. of 6.91 µg/m^3 in sample SS-1), toluene (at 5.08 µg/m^3 in sample SS-2), and TCE (at 13.5 µg/m^3 in sample SS-1).

- Twenty-two VOCs were detected in indoor ambient air sample IA-1, including 1,2,4-trimethylbenzene (at 9.73 µg/m^3), 1,3,5-trimethylbenzene (at 2.93 µg/m^3), 4-ethyltoluene (at 11.9 µg/m^3), acetone (at 17.6 µg/m^3), benzene (at 4.88 µg/m^3), carbon tetrachloride (at 0.44 µg/m^3), cyclohexane (at 10.6 µg/m^3), dichlorodifluoromethane (at 2.10 µg/m^3), ethanol (at 10.4 µg/m^3), ethylbenzene (at 11.5 µg/m^3), heptane (at 13.6 µg/m^3), hexane (at 8.38 µg/m^3), iso-octane (at 2.07 µg/m^3), isopropyl alcohol (at 2.02 µg/m^3), isopropyl benzene (at 1.01 µg/m^3), m- and p-xylenes (at 40.1 µg/m^3), methyl ethyl ketone (at 1.07 µg/m^3), o-xylene (at 13.7 µg/m^3), propylene (at 2.17 µg/m^3), PCE (at 7.32 µg/m^3), toluene (at 23.4 µg/m^3), and trichlorofluoromethane (at 1.10 µg/m^3).
- Fourteen VOCs were detected in outdoor ambient air sample OA-1, including acetone (at 13.2 µg/m^3), benzene (at 1.32 µg/m^3), carbon tetrachloride (at 0.45 µg/m^3), chloromethane (at 1.07 µg/m^3), dichlorodifluoromethane (at 2.21 µg/m^3), ethanol (at 9.74 µg/m^3), hexane (at 2.03 µg/m^3), iso-octane (at 1.57 µg/m^3), isopropyl alcohol (at 1.54 µg/m^3), m- and p-xylenes (at 2.37 µg/m^3), propylene (at 2.22 µg/m^3), PCE (at 4.74 µg/m^3), toluene (at 5.80 µg/m^3), and trichlorofluoromethane (at 1.11 µg/m^3).

In accordance with the NYSDOH Guidance Document, the risk of soil vapor intrusion was evaluated by comparison of VOC concentrations in the indoor ambient air and soil vapor samples, using the NYSDOH Guidance Document Decision Matrices (updated February 2024). These matrices include eight chlorinated VOCs (TCE, 1,1-Dichloroethene, cis-1,2-Dichloroethene, and carbon tetrachloride (Matrix A Compounds); PCE, methylene chloride, and 1,1,1-trichloroethane (Matrix B Compounds); vinyl chloride (Matrix C Compound)); and thirteen petroleum-related VOCs (benzene, ethylbenzene, naphthalene, cyclohexane, iso-octane, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and o-xylene (Matrix D Compounds); m- and p-xylenes, heptane, and hexane (Matrix E Compounds); and toluene (Matrix F Compound)). Please note that only the results from soil vapor samples SS-1 and SS-2 were compared to the results

from indoor air sample IA-1, as soil vapor sample SV-3 was collected from outside the building footprint.

The assessment for these 21 VOCs using the NYSDOH decision matrices resulted in the following conclusions:

- "**Identify Source(s), Resample, or Mitigate**" for the petroleum-related VOCs ethylbenzene, cyclohexane, o-xylene, and m- and p-xylenes in sample sets SS-1/IA-1 and SS-2/IA-1.
- "**No Further Action**" for the remaining 17 VOCs listed in the decision matrices for all sample sets.

According to the NYSDOH Guidance Document, "**No Further Action**" means no additional actions are recommended to address human exposures to VOCs in soil vapor and indoor ambient air. "**Identify Source(s) and Resample or Mitigate**" means that reasonable and practical actions should be taken to identify the source(s) affecting the indoor air quality and that actions be implemented to reduce indoor air concentrations to within background ranges. In the event that indoor or outdoor sources are not readily identified or confirmed, resampling (which might include additional soil vapor and indoor ambient air sampling locations) is recommended to demonstrate that vapor intrusion mitigation actions are not needed.

In all instances, the driver for the matrix decision of "**Identify Source(s) and Resample or Mitigate**" for all compounds was the concentrations detected in indoor air sample IA-1; based on the PID reading measured at the AST within the basement, the results for many of the compounds detected in indoor air are likely attributable to residual VOCs within the tank. Data collected during the Phase II ESA are sufficient to delineate the distribution of contaminants in soil vapor at the Site.

For more detailed results, consult the Phase II ESA. Based on an evaluation of the data and information from the Phase II ESA and this RAP, disposal of significant amounts of hazardous waste is not suspected at this Site.

Summary of the Remedial Action

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. Performance of a Community Air Monitoring Program (CAMP) for particulates and volatile organic carbon compounds (VOCs).
2. Establishment of Site-specific Soil Cleanup Objectives (SCOs).
3. Site mobilization involving Site security setup, equipment mobilization, utility mark outs and marking & staking excavation areas.
4. Perform additional Site characterization sampling of soil in the form of disposal characterization and delineation sampling around Phase II ESA soil boring SB-1. This would include collecting eight soil samples from 0 to 2 feet bgs for analysis of barium and mercury at five-foot and 10-foot step-out boring locations to the northeast, northwest, southeast, and southwest of Phase II ESA soil boring SB-1. The 10-foot step out samples will be held by the laboratory, and will be analyzed only if the results of the five-foot step out samples show exceedance of applicable SCOs. An additional delineation sample will be collected from a depth of 3 to 5 feet bgs at Phase II ESA soil boring SB-1, to determine whether the remedial excavation can be limited to 3 feet bgs; if not, remedial excavation will be conducted to 5 feet bgs, as confirmed by the analytical results from the Phase II ESA (i.e., sample SB-1, 3-5'). Delineation sample results and the proposed limits of hotspot excavation will be submitted to OER for approval prior to implementation of soil excavation.
5. Completion of a Disposal Characterization Study prior to excavation activities. Disposal characterization soil samples will be collected at a frequency dictated by disposal facility(s). The disposal characterization study will cover all soil to be excavated during the remedial action, with separate samples collected from the barium and mercury hotspot area and from the soil to be excavated for building foundation elements/footings.

6. Excavation and removal of soil/fill exceeding Site Specific SCOs.

   The perimeter of the existing rear yard will be excavated to approximately 4 feet bgs for installation of foundation elements/footings. The barium and mercury hotspot will be excavated to horizontal and vertical dimensions as determined during the delineation sampling program described above, with a minimum horizontal extent of 10 foot by 10 foot area (centered on Phase II ESA soil boring SB-1) and a depth ranging from 3 to 5 feet. The SVOC hotspot will be excavated to a minimum horizontal extent of 10 foot by 10 foot area (centered on Phase II ESA soil boring SB-2) and a minimum depth of 2 feet.
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 UST's 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 licensed or 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. Appropriate segregation of excavated media on-Site.
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 and backfilled areas in the existing rear yard.
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. 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.

15. Submission of a RCR that describes the remedial activities, certifies that the remedial requirements have been achieved, defines the Site boundaries, lists any changes from this RAP, and describes all Institutional Controls to be implemented at the Site.
16. Submission of an approved Site Management Plan (SMP) in the Remedial Closure Report (RCR) for long-term management of residual contamination, including plans for operation, maintenance, monitoring, inspection and certification of Institutional Controls and reporting at a specified frequency.

The property will continue to be registered with an E-Designation at the NYC Buildings Department. Establishment of Institutional Controls in this RAP 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 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 Name: 23-06 40th Avenue
- Site Address: 23-06 40th Avenue, Long Island City, NY 11101
- NYC OER Project Number: 24TMP0576Q

Project Contacts:

- OER Project Manager: Justin Holder, (212) 676-0459
- Site Project Manager: To be determined
- Site Safety Officer: To be determined
- Online Document Repository: https://a002-epic.nyc.gov/app/workspace/pma/35660/docrepository

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 RAP are in compliance with applicable safety requirements of the United States Occupational Safety and Health Administration (OSHA). This RAP 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 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 includes 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 on-Site 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 Closure 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.

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 E-Designation 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 Closure 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 either in the property's deed or established through a city environmental designation registered with the Department of Buildings. 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 PLAN

1.0 Project Background

Tina Yang is working with the NYC Office of Environmental Remediation (OER) in the New York City E-Designation Program to investigate and remediate a property located at 23-06 40th Avenue in the Long Island City section of Queens, New York (the Site). A Phase II ESA was performed to compile and evaluate data and information necessary to develop this Remedial Action Plan (RAP) in a manner that will render the Site protective of public health and the environment consistent with the contemplated end use. This RAP 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 23-06 40th Avenue in the Long Island City section in Queens, New York and is identified as Block 408 and Lot 23 on the New York City Tax Map. **Figure 1** shows the Site location. The Site is 2,521-square feet and is bounded by 40th Avenue to the north, a 2-story warehouse building to the south, a 2-story mixed-use commercial and residential building to the east, and a 2-story residential building to the west. A map of the Site boundary and surrounding land usage is shown in **Figure 2**.

Currently, the Site is occupied by a vacant 2-story residential building with a full basement. The building fronts 40th Avenue to the north, and occupies approximately 40 percent of the total lot area with the remaining open space consisting of a mostly-paved rear yard, which also includes several planter areas.

1.2 Redevelopment Plan

The current redevelopment plan consists of construction of a new 4-story mixed-use residential and commercial building with a partial cellar that will be approximately 53 feet in height and have a total gross area of approximately 8,215 square feet. The planned use of the cellar includes

a utility room, electrical closet, and an open cellar area. The first floor will be occupied by a commercial tenant and residential lobby and the second through fourth floors that will maintain six residential units (two per floor). The building footprint will encompass the entire parcel. The existing foundation and concrete slab of the cellar from the current on-Site structure will be reused during redevelopment. The only proposed excavation for the planned building will be to approximately 4 feet below ground surface (bgs) around the perimeter of the existing rear yard for installation of the first-floor foundation footing. Approximately 55 cubic yards of soil are estimated to be removed from the Site as part of the proposed redevelopment. The proposed Site Redevelopment is presented in **Appendix 1**.

The remedial action contemplated under this RAP may be implemented independently of the proposed redevelopment plan.

1.3 Description of Surrounding Property

The Site is located in a primarily mixed use, industrial, commercial and residential area of Queens, New York. The Subject Property is zoned as M1-2/R5D with a Special Long Island City Mixed Use District overlay. The M1-2 zoning denotes it as a manufacturing zone typically generating light industrial uses and often serving as a buffer zone between commercial or residential and heavier manufacturing zones; the R5D denotes it as a moderate to high density residential area with a maximum building height of 40 feet, typically serving as a transition between lower-density districts and moderate-density districts; and the Special Long Island City overlay denotes it as a district that promotes the development and expansion of the longstanding mix of residential, commercial, industrial, and cultural uses. The Site neighborhood is a mixture of low- to mid-rise residential and mixed-use commercial and residential buildings, low-rise commercial buildings (including auto service facilities), and low-rise industrial facilities (including various warehouses and metalwork facilities).

As listed in Athenica's Phase I Environmental Site Assessment (ESA) report, dated October 6, 2023, the north-adjacent properties maintain a 1-story commercial building and a 1-story auto repair facility. The south-adjacent property maintains a 2-story warehouse building. The east-adjacent property historically maintained a 2-story residential building, but now maintains a 2-story mixed-use commercial and residential building. The west-adjacent property maintains a 2-story residential building. **Figure 2** shows the surrounding land usage.

According to the New York City Mayors Office of Environmental Remediation (OER) Searchable Property Environmental E-Database (SPEED), there is one sensitive receptor (such as schools, hospitals, parks, or day-care facilities) within a 500-foot radius of the Site. This sensitive receptor is a day-care and pre-kindergarten facility located at 39-21 Crescent Street, approximately 500 feet to the east of the Site.

1.4 Summary of Past Site Uses and Areas of Concern

According to Athenica's October 2023 Phase I ESA Report, the Site was first developed by at least 1898 with a 1-story residential building, and has maintained the current building since at least 1915.

The areas of concern (AOCs) identified for this Site include:

3. Potential presence of historic fill materials at the Site outside of the footprint of the building, at depths up to two feet bgs.
4. Potential vapor encroachment conditions at the Site due to historic uses of surrounding properties.

1.5 Summary of Work Performed under the Phase II ESA

Athenica performed the following scope of work on December 23, 2024:

5. Conducted a Site inspection to identify AOCs and physical obstructions (i.e. structures, buildings, etc.);
6. Advanced two soil borings in the existing rear yard of the Site, and collected four soil samples for chemical analysis from the soil borings to evaluate soil quality;
7. Installed one soil vapor probe in the existing rear yard of the Site (co-located with one of the soil borings) and two Vapor Pins® below the cellar floor slab;
8. Collected three soil vapor samples, one indoor air sample, and one outdoor ambient air sample for chemical analysis.
9. While the original sampling scope of work discussed with OER included temporary well installation and groundwater sampling, as noted above, bedrock was encountered at the Site

before groundwater was reached, so this task was eliminated from the Phase II ESA scope, with prior OER approval.

1.6 Summary of Findings of Phase II ESA

A remedial investigation was performed and the results are documented in a companion document called "Phase II ESA, 23-06 40th Avenue", dated January 2025.

9. Elevation of the property ranges from 25 to 30 feet above mean sea level.
10. Depth to groundwater is estimated to be 22 feet at the Site.
11. Published groundwater elevation contour data from the U.S. Geological Survey indicates that regional groundwater flow at the Site is toward the west.
12. During a previous geotechnical investigation conducted at the Site in late 2024, bedrock was encountered at approximately 20 feet bgs.
13. The stratigraphy of the Site consists of brown silty sand, silt, some lean clay and some fine gravel from ground surface to 8 feet below ground surface (bgs). Higher levels of moisture were observed immediately above finer grained (i.e., silty and/or clayey) zones. Bedrock was not encountered during the investigation.
14. Soil samples collected during the Phase II ESA were compared to 6NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives (SCOs) and 6NYCRR Part 375 Restricted Residential Use SCOs.

- No volatile organic compounds (VOCs) were detected in any of the soil samples.
- Seven semi-volatile organic compounds (SVOCs) were detected in the shallow soil samples (i.e., SB-1 (0'-2') and/or SB-2 (0'-2')) at concentrations exceeding Unrestricted Use SCOs and Restricted Residential Use SCOs, including benzo(a)anthracene (max. of 30,000 micrograms per kilogram (µg/Kg) in sample SB-1 (0'-2')), benzo(a)pyrene (max. of 28,000 µg/Kg in sample SB-1 (0'-2')), benzo(b)fluoranthene (max. of 34,000 µg/Kg in sample SB-1 (0'-2')), benzo(k)fluoranthene (max. of 11,000 µg/Kg in sample SB-1 (0'-2')), chrysene (max. of 29,000 µg/Kg in sample SB-1 (0'-2')), dibenz(a,h)anthracene (max. of 5,400 µg/Kg in sample SB-1 (0'-2')), and indeno(1,2,3-cd)pyrene (max. of 16,000 µg/Kg in sample SB-1 (0'-2')). Please note that the Restricted Residential Use

SCO for all of these compounds is the same value as the Unrestricted Use SCO, except for benzo(k)fluoranthene and dibenz(a,h)anthracene.

- Five metals were detected in soil samples SB-1 (0'-2') and/or SB-2 (0'-2') at concentrations exceeding Unrestricted Use SCOs, including barium (at 670 milligrams per kilogram (mg/Kg) in sample SB-1 (0'-2')), copper (max. of 92.8 mg/Kg in sample SB-1 (0'-2')), lead (max. of 738 mg/Kg in sample SB-1 (0'-2')), mercury (max. of 67 mg/Kg in sample SB-1 (0'-2')), and zinc (max. of 631 mg/Kg in sample SB-1 (0'-2')). The concentrations of barium, lead, and mercury in soil sample SB-1 (0'-2') and the concentration of lead in soil sample SB-2 (0'-2')) also exceeded Restricted Residential Use SCOs.
- PCBs were detected in soil sample SB-1 (0'-2')) at 220 µg/Kg, exceeding the Unrestricted Use SCO of 100 µg/Kg.
- Two pesticides were detected in soil sample SB-1 (0'-2') at concentrations exceeding Unrestricted Use SCOs, but not Restricted Residential Use SCOs, including 4,4'-DDE (at 31 µg/Kg) and 4,4'-DDT (at 78 µg/Kg). No other pesticides were detected at concentrations exceeding either Unrestricted or Restricted Residential Use SCOs in any of the soil samples.
- The PFOA/PFAS compound perfluorooctanesulfonic acid (PFOS) (at 4.42 nanograms per kilogram (ng/Kg)) was detected in soil sample SB-1 (0'-2') at a concentration exceeding its Unrestricted Use SCO, but not its Restricted Residential Use SCO. No other PFOA/PFAS compounds were detected at concentrations exceeding Unrestricted Use SCOs in soil sample SB-1 (0'-2') or the PFAS Field Blank.
- 1,4-dioxane was not detected in soil sample SB-1 (0'-2').
- No parameters were detected in either of the deeper soil samples at concentrations exceeding Unrestricted Use SCOs.

15. No groundwater samples were collected during this Phase II ESA, as bedrock was encountered on-Site at a depth of 20 feet bgs, and no groundwater was encountered above bedrock.

16. VOCs detected in soil vapor, indoor air, and outdoor ambient air samples collected during the Phase II ESA are summarized below. Air sample results collected during the Phase III ESA were compared to the guidance values within the NYSDOH *Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York*, dated October 2006, as amended (NYSDOH Guidance Document).

- Thirteen VOCs were detected in the soil vapor samples, including 4-methyl-2-pentanone (at 19.9 micrograms per cubic meter ($\mu g/m^3$) in sample SV-3), acetone (max. of 95.7$\mu g/m^3$ in sample SV-3), carbon disulfide (at 21.5 $\mu g/m^3$ in sample SV-3), ethanol (max. of 49.7 $\mu g/m^3$ in sample SV-3), heptane (at 7.09 $\mu g/m^3$ in sample SV-3), hexane (at 10.2 $\mu g/m^3$ in sample SV-3), iso-octane (at 7.55 $\mu g/m^3$ in sample SV-3), isopropyl alcohol (at 18.2 $\mu g/m^3$ in sample SV-3), methyl ethyl ketone (at 10.7 $\mu g/m^3$ in sample SV-3), propylene (at 30.3 $\mu g/m^3$ in sample SV-3), PCE (max. of 6.91 $\mu g/m^3$ in sample SS-1), toluene (at 5.08 $\mu g/m^3$ in sample SS-2), and TCE (at 13.5 $\mu g/m^3$ in sample SS-1).
- Twenty-two VOCs were detected in indoor ambient air sample IA-1, including 1,2,4-trimethylbenzene (at 9.73 $\mu g/m^3$), 1,3,5-trimethylbenzene (at 2.93 $\mu g/m^3$), 4-ethyltoluene (at 11.9 $\mu g/m^3$), acetone (at 17.6 $\mu g/m^3$), benzene (at 4.88 $\mu g/m^3$), carbon tetrachloride (at 0.44 $\mu g/m^3$), cyclohexane (at 10.6 $\mu g/m^3$), dichlorodifluoromethane (at 2.10 $\mu g/m^3$), ethanol (at 10.4 $\mu g/m^3$), ethylbenzene (at 11.5 $\mu g/m^3$), heptane (at 13.6 $\mu g/m^3$), hexane (at 8.38 $\mu g/m^3$), iso-octane (at 2.07 $\mu g/m^3$), isopropyl alcohol (at 2.02 $\mu g/m^3$), isopropyl benzene (at 1.01 $\mu g/m^3$), m- and p-xylenes (at 40.1 $\mu g/m^3$), methyl ethyl ketone (at 1.07 $\mu g/m^3$), o-xylene (at 13.7 $\mu g/m^3$), propylene (at 2.17 $\mu g/m^3$), PCE (at 7.32 $\mu g/m^3$), toluene (at 23.4 $\mu g/m^3$), and trichlorofluoromethane (at 1.10 $\mu g/m^3$).
- Fourteen VOCs were detected in outdoor ambient air sample OA-1, including acetone (at 13.2 $\mu g/m^3$), benzene (at 1.32 $\mu g/m^3$), carbon tetrachloride (at 0.45 $\mu g/m^3$), chloromethane (at 1.07 $\mu g/m^3$), dichlorodifluoromethane (at 2.21 $\mu g/m^3$), ethanol (at 9.74 $\mu g/m^3$), hexane (at 2.03 $\mu g/m^3$), iso-octane (at 1.57 $\mu g/m^3$), isopropyl alcohol (at 1.54 $\mu g/m^3$), m- and p-xylenes (at 2.37 $\mu g/m^3$), propylene (at 2.22 $\mu g/m^3$), PCE (at 4.74 $\mu g/m^3$), toluene (at 5.80 $\mu g/m^3$), and trichlorofluoromethane (at 1.11 $\mu g/m^3$).

In accordance with the NYSDOH Guidance Document, the risk of soil vapor intrusion was evaluated by comparison of VOC concentrations in the indoor ambient air and soil vapor

samples, using the NYSDOH Guidance Document Decision Matrices (updated February 2024). These matrices include eight chlorinated VOCs (TCE, 1,1-Dichloroethene, cis-1,2-Dichloroethene, and carbon tetrachloride (Matrix A Compounds); PCE, methylene chloride, and 1,1,1-trichloroethane (Matrix B Compounds); vinyl chloride (Matrix C Compound)); and thirteen petroleum-related VOCs (benzene, ethylbenzene, naphthalene, cyclohexane, iso-octane, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and o-xylene (Matrix D Compounds); m- and p-xylenes, heptane, and hexane (Matrix E Compounds); and toluene (Matrix F Compound)). Please note that only the results from soil vapor samples SS-1 and SS-2 were compared to the results from indoor air sample IA-1, as soil vapor sample SV-3 was collected from outside the building footprint.

The assessment for these 21 VOCs using the NYSDOH decision matrices resulted in the following conclusions:

- "**Identify Source(s), Resample, or Mitigate**" for the petroleum-related VOCs ethylbenzene, cyclohexane, o-xylene, and m- and p-xylenes in sample sets SS-1/IA-1 and SS-2/IA-1.
- "**No Further Action**" for the remaining 17 VOCs listed in the decision matrices for all sample sets.

According to the NYSDOH Guidance Document, "**No Further Action**" means no additional actions are recommended to address human exposures to VOCs in soil vapor and indoor ambient air. "**Identify Source(s) and Resample or Mitigate**" means that reasonable and practical actions should be taken to identify the source(s) affecting the indoor air quality and that actions be implemented to reduce indoor air concentrations to within background ranges. In the event that indoor or outdoor sources are not readily identified or confirmed, resampling (which might include additional soil vapor and indoor ambient air sampling locations) is recommended to demonstrate that vapor intrusion mitigation actions are not needed.

In all instances, the driver for the matrix decision of "**Identify Source(s) and Resample or Mitigate**" for all compounds was the concentrations detected in indoor air sample IA-1; based on the PID reading measured at the AST within the basement, the results for many of the compounds detected in indoor air are likely attributable to residual VOCs within the tank. Data

collected during the Phase II ESA are sufficient to delineate the distribution of contaminants in soil vapor at the Site.

For more detailed results, consult the Phase II ESA. Based on an evaluation of the data and information from the Phase II ESA and this RAP, disposal of significant amounts of hazardous waste is not suspected at this Site.

2.0 Remedial Action Objectives

Based on the results of the Phase II ESA, 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

- If identified, remove contaminant sources causing impact to groundwater.
- Prevent exposure to contaminants volatilizing from contaminated groundwater.

Soil Vapor

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

3.0 Remedial Action

3.1 Summary of Preferred 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. Performance of a Community Air Monitoring Program (CAMP) for particulates and volatile organic carbon compounds (VOCs).
2. Establishment of Site-specific Soil Cleanup Objectives (SCOs).
3. Site mobilization involving Site security setup, equipment mobilization, utility mark outs and marking & staking excavation areas.
4. Perform additional Site characterization sampling of soil in the form of disposal characterization and delineation sampling around Phase II ESA soil boring SB-1. This would include collecting eight soil samples from 0 to 2 feet bgs for analysis of barium and mercury at five-foot and 10-foot step out boring locations to the northeast, northwest, southeast, and southwest of Phase II ESA soil boring SB-1 (see **Figure 3**). The 10-foot step out samples will be held by the laboratory, and will be analyzed only if the results of the five-foot step out samples show exceedance of applicable SCOs. As additional delineation sample will be collected from a depth of 3 to 5 feet bgs at Phase II ESA soil boring SB-1, to determine whether the remedial excavation can be limited to 3 feet bgs; if not, remedial excavation will be conducted to 5 feet bgs, as confirmed by the analytical results from the Phase II ESA (i.e., sample SB-1, 3-5'). Delineation sample results and the proposed limits of hotspot excavation will be submitted to OER for approval prior to implementation of soil excavation.
5. Completion of a Disposal Characterization Study prior to excavation activities. Disposal characterization soil samples will be collected at a frequency dictated by

disposal facility(s). The disposal characterization study will cover all soil to be excavated during the remedial action, with separate samples collected from the barium and mercury hotspot area and from the soil to be excavated for building foundation elements/footings.

6. Excavation and removal of soil/fill exceeding Site Specific SCOs.
   The perimeter of the existing rear yard will be excavated to approximately 4 feet bgs for installation of foundation elements/footings. The barium and mercury hotspot will be excavated to horizontal and vertical dimensions as determined during the delineation sampling program described above, with a minimum horizontal extent of 10 foot by 10 foot area (centered on Phase II ESA soil boring SB-1) and a depth ranging from 3 to 5 feet. The SVOC hotspot will be excavated to a minimum horizontal extent of 10 foot by 10 foot area (centered on Phase II ESA soil boring SB-2) and a minimum depth of 2 feet.
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 UST's 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 licensed or 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. Appropriate segregation of excavated media on-Site.
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 and backfilled areas in the existing rear yard.

13. Import of materials to be used for backfill and cover in compliance with this plan and in accordance with applicable laws and regulations (see **Figure 4** for backfill placement locations).
14. 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.
15. Submission of a RCR that describes the remedial activities, certifies that the remedial requirements have been achieved, defines the Site boundaries, lists any changes from this RAP, and describes all Institutional Controls to be implemented at the Site.
16. Submission of an approved Site Management Plan (SMP) in the Remedial Closure Report (RCR) for long-term management of residual contamination, including plans for operation, maintenance, monitoring, inspection and certification of Institutional Controls and reporting at a specified frequency.
17. The property will continue to be registered with an E-Designation at the NYC Buildings Department. Establishment of Institutional Controls in this RAP 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.

3.2 Soil Cleanup Objectives and Soil/ Fill Management

The Site-specific SCOs to be utilized for this project consist of Restricted Residential Use SCOs for all contaminants of concern (as defined in 6 NYCRR Part 375, Table 6.8) as amended for the following compounds:

Contaminant	**Site-specific SCOs**
Total SVOCs	100 ppm
Lead	800 ppm
Mercury	2.5 ppm
Barium	600 ppm

The Site-specific SCOs for this project are further listed in **Table 1**. 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 3**. 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 Closure Report.

Soil/Fill Excavation and Removal

The perimeter of the existing rear yard will be excavated to approximately 4 feet bgs for installation of foundation elements/footings. The barium and mercury hotspot will be excavated to horizontal and vertical dimensions as determined during the delineation sampling program described above, with a minimum horizontal extent of 10 foot by 10 foot area (centered on Phase II ESA soil boring SB-1) and a depth ranging from 3 to 5 feet. The SVOC hotspot will be excavated to a minimum horizontal extent of 10 foot by 10 foot area (centered on Phase II ESA soil boring SB-2) and a minimum depth of 2 feet.

The location of planned excavations is shown in **Figure 5**. The total quantity of soil/fill expected to be excavated and disposed off-Site is 86.8 tons. 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 appropriate parameters as described below, utilizing the following methodologies, as applicable:

- Volatile organic compounds by EPA Method 8260;
- Semi-volatile organic compounds by EPA Method 8270;
- Target Analyte List (TAL) 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 RCR. The RCR 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. Two confirmation samples will be collected from the base of the excavation at locations outside of the barium and mercury and the SVOC hotspots (see **Figure 6** for proposal locations). To evaluate attainment of Site-specific SCOs, end-point samples will be analyzed for those parameters for which SCOs have been developed, including VOCs, SVOCs, pesticides, PCBs, and TAL metals.

Hotspot End-point Sampling

If the delineation sampling program does not completely determine the horizontal extent of the barium and mercury hotspot, end-point samples will be collected from all hotspot sidewalls, where applicable SCOs are exceeded. Additionally, an end-point sample will be collected from the base of the SVOC hotspot. All hotspot end-point samples will be collected according to the procedure listed below.

The end-point samples will be collected following completion of the hotspot excavations. An end-point sample will be collected from each sidewall of the barium and mercury hotspot where exceedances of the SCOs for barium and/or mercury have not been delineated. Samples will be collected at a depth representing the midpoint of the sidewall. One (1) end-point sample will be collected from the base of the SVOC hotspot.

For any additional 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

All samples collected during the Remedial Action will adhere to the requirements of NYSDEC DER-10 protocols. Dedicated, disposable, hand-held sampling apparatus (e.g., polyethylene scoops, etc.) will be used for collection of all samples except for those to be analyzed for VOCs; samples for VOC analysis will be collected from the desired sampling depth utilizing a Terra Core sampling kit that includes a dedicated sample plunger. Since only new, dedicated, and disposable sampling equipment will be utilized for sampling, decontamination will not be required, and field equipment blanks will not be utilized.

The laboratory will provide the appropriate clean sample containers for the analyses to be conducted (i.e., Terra Core kits for VOC samples and 4-ounce or 8-ounce glass jars for samples to be analyzed for SVOCs, pesticides, PCBs, and metals). Immediately upon collection, each sample will be labeled with a unique sample identifier, and the filled sample containers will be

placed into an iced cooler for subsequent delivery to the laboratory under Chain of Custody protocols. Sample preservation will be in accordance with the requirements of the analytical methods and DER-10 (i.e., cooling to 4^{o} C for all samples, with field preservation using methanol for one of the Terra Core vials). All samples will be analyzed by an ELAP-approved environmental laboratory, who will strictly adhere to the requirements pertaining to holding times, sample handling requirements, calibration and performance checks, analysis of spiked samples, method blanks, and analytical protocols for each of the specific methods to be utilized for the sample analyses. In accordance with OER requirements, the laboratory data package(s) for the end-point samples will include analytical results for all method blank samples analyzed with the end-point samples. Detection limits will be no greater than the comparison criteria (i.e., Site-specific SCOs).

Import of Soils

Soil import is only expected to backfill the barium and mercury and SVOC hotspots.
Documentation of the geotechnical characteristics and source(s) of any backfill material that will be imported to the Site will be provided to OER for approval prior to such importation.

Reuse of On-Site Soils

Soil reuse is not planned for this project.

3.3 Engineering Controls

Engineering Controls are not required for this Remedial Action. **3.4**

Institutional Controls

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

- Continued registration of the E-Designation for the property. This RAP includes a description of all ICs and summarizes the requirements of the SMP which will note that

the property owner and property owner's successors and assigns must comply with the approved SMP;

- Submittal of a SMP in the RCR for approval by OER that provides procedures for appropriate operation, maintenance, inspection, and certification of ICs. 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;
- The Site will be used for mixed use commercial and residential use and will not be used for a higher level of use without prior approval by OER.

3.5 Site Management Plan

Site Management is the last phase of remediation and begins with the approval of the Remedial Closure 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 ICs that are required by this RAP. The Site Management Plan is submitted as part of the RCR 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. This includes a plan for: (1) implementation of ICs;(2) inspection and certification of ICs.

Site management activities and IC certification will be scheduled by OER on a periodic basis to be established in the RCR 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.

3.6 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 Phase II ESA Report are sufficient to complete a Qualitative Human Health Exposure Assessment (QHHEA) for this project. 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 Phase II ESA 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 Phase II ESA Report, the contaminants of concern are:

Soil: Parameters detected in soil at concentrations exceeding Restricted Residential Use SCOs include the SVOCs benzo(a)anthracene (max. of 30,000 micrograms per kilogram (µg/Kg) in sample SB-1 (0'-2')), benzo(a)pyrene (max. of 28,000 µg/Kg in sample SB-1 (0'-2')), benzo(b)fluoranthene (max. of 34,000 µg/Kg in sample SB-1 (0'-2')), benzo(k)fluoranthene (max. of 11,000 µg/Kg in sample SB-1 (0'-2')), chrysene (max. of 29,000 µg/Kg in sample SB-1 (0'-2')), dibenzo(a,h)anthracene (max. of 5,400 µg/Kg in sample SB-1 (0'-2')), and

indeno(1,2,3-cd)pyrene (max. of 16,000 µg/Kg in sample SB-1 (0'-2')); and the metals barium (at 670 milligrams per kilogram (mg/Kg) in sample SB-1 (0'-2')), lead (738 mg/Kg in sample SB-1 (0'-2') and 428 mg/Kg in sample SB-2 (0'-2')), and mercury (max. of 67 mg/Kg in sample SB-1 (0'-2')).

Soil Vapor: In accordance with the NYSDOH Guidance Document, the risk of soil vapor intrusion was evaluated by comparison of VOC concentrations in the indoor ambient air and soil vapor samples, using the NYSDOH Guidance Document Decision Matrices (updated February 2024). These matrices include eight chlorinated VOCs (TCE, 1,1-Dichloroethene, cis-1,2-Dichloroethene, and carbon tetrachloride (Matrix A Compounds); PCE, methylene chloride, and 1,1,1-trichloroethane (Matrix B Compounds); vinyl chloride (Matrix C Compound)); and thirteen petroleum-related VOCs (benzene, ethylbenzene, naphthalene, cyclohexane, iso-octane, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and o-xylene (Matrix D Compounds); m- and p-xylenes, heptane, and hexane (Matrix E Compounds); and toluene (Matrix F Compound)). Please note that only the results from soil vapor samples SS-1 and SS-2 were compared to the results from indoor air sample IA-1, as soil vapor sample SV-3 was collected from outside the building footprint.

The assessment for these 21 VOCs using the NYSDOH decision matrices resulted in the following conclusions:

- "**Identify Source(s), Resample, or Mitigate**" for the petroleum-related VOCs ethylbenzene, cyclohexane, o-xylene, and m- and p-xylenes in sample sets SS-1/IA-1 and SS-2/IA-1.

Nature, Extent, Fate and Transport of Contaminants

Soil: Exceedances of Restricted Residential Use SCOs for SVOCs and metals were detected in shallow soil samples only. Since the exceedances only occurred in shallow depth samples, it is reasonable to associate these exceedances with the historic fill material at the Site. The high levels of barium and mercury in the shallow soil surrounding soil boring location SB-1 will be delineated and removed from the Site during the Remedial Action. Additionally, the elevated levels of SVOCs in the shallow soil surrounding soil boring location SB-2 will be delineated and removed from the Site during the Remedial Action. Soil will be removed from the existing rear yard of the Site during the installation of the first-floor foundation footing. All unexcavated

soil/fill and backfilled areas, including the two hotspot areas, in the existing rear yard of the Site will have an overlying demarcation layer installed consisting of geosynthetic fencing or equivalent material. This will be placed on the surface of residual soil/fill and backfilled areas in the entire existing rear yard to provide an observable reference layer. A description or map of the approximate depth of the demarcation layer will be provided.

Soil Vapor: "**Identify Source(s) and Resample or Mitigate**" means that reasonable and practical actions should be taken to identify the source(s) affecting the indoor air quality and that actions be implemented to reduce indoor air concentrations to within background ranges. In the event that indoor or outdoor sources are not readily identified or confirmed, resampling (which might include additional soil vapor and indoor ambient air sampling locations) is recommended to demonstrate that vapor intrusion mitigation actions are not needed.

In all instances, the driver for the matrix decision of "**Identify Source(s) and Resample or Mitigate**" for all compounds was the concentrations detected in indoor air sample IA-1; based on the PID reading measured at the AST within the basement, the results for many of the compounds detected in indoor air are likely attributable to residual VOCs within the tank.

Receptor Populations

On-Site Receptors: The Site is currently occupied by a vacant 2-story residential building with a full basement and access to the Site building is restricted by locked windows and doors and access to the rear yard is restricted by a 3.5-foot high, locked fence. On-Site 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 – existing and future

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

Potential Exposure Points

Current Conditions: The Site is currently covered with concrete with some parts of the rear yard being uncapped which allows for potential exposure pathways from ingestion, inhalation, or dermal absorption of soil/ fill. Groundwater is not exposed at the Site and not used at the Site for a potable supply, so there is no potential for exposure. Because the Site is currently developed with the 2-story residential building, there is potential for soil vapor/indoor ambient air to accumulate on-Site.

Construction/ Remediation Conditions: During the remedial action, on-Site 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, a demarcation layer will be installed consisting of geosynthetic fencing or equivalent material to be placed on the surface of residual soil/fill and backfilled areas, including the two hotspot areas, to provide an observable reference layer. The Site will be fully capped, preventing potential direct exposure to soil remaining in place. 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 mixed-use commercial and residential structure and Site-wide surface cover. 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.

4.0 Remedial Action Management

4.1 Project Organization and Oversight

Principal personnel who will participate in the remedial action include Kenneth P Wenz, Jr., (P.G.), Jessica Collins (Project Manager), and Evan Greenberg, EIT (Project Engineer). The Professional Engineer (PE) and Qualified Environmental Professionals (QEP) for this project are Spiro Dongaris, P.E. and Kenneth Wenz, Jr., P.G., respectively.

4.2 Site Security

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

4.3 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.

4.4 Construction Health and Safety Plan

The Health and Safety Plan is included in **Appendix 4**. The Site Safety Coordinator will be determined upon selection of the construction contractor. Remedial work performed under this RAP 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.

4.5 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. Exceedances 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

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 shutdown.

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/m3 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/m3 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/m3 of the upwind level and in preventing visible dust migration.

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

4.6 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 RAP by OER does not constitute satisfaction of these requirements and will not be a substitute for any required permit.

4.7 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 RAP. 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 RAP.

Dewatering

Dewatering is not anticipated during remediation and construction.

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, the enrollee 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 off-Site areas may require characterization based on-Site conditions, at the discretion of OER. If on-Site petroleum spills are identified, a qualified environmental professional will determine the nature and extent of the spill and report to NYSDECs 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 NYSDEC.

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 on-Site or off-Site exposure pathways caused by the storm; presence of petroleum or other spills and status of spill reporting to NYSDEC; 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.

4.8 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 shown on **Figure 7**.

4.9 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.

4.10 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 RAP or other sensitive or time critical information. However, such information will be included in the daily reports. Emergency conditions and changes to the RAP will be communicated directly to the OER project manager by personal communication. Daily reports will be included as an Appendix in the Remedial Closure 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 RCR in digital format (i.e. jpeg files).

4.11 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.

4.12 Deviations from The Remedial Action Plan

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

- Reasons for deviating from the approved RAP;
- 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.

5.0 Remedial Closure Report

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

- Information required by this RAP;
- Text description with thorough detail of all institutional controls (if Unrestricted Use 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 Unrestricted Use remedial action is not achieved);
- Description of any changes in the remedial action from the elements provided in this RAP 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 disposal 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;
- Continue registration of the property with an E-Designation by the NYC Department of Buildings (if Unrestricted Use remedial action is not achieved);
- The RAP and Phase II ESA Report will be included as appendices to the RCR;

- Reports and supporting material will be submitted in digital form and final PDF’s will include bookmarks for each appendix.

Remedial Closure Report Certification

I, [name], certify the following:

- I 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 [Site name (address)] Site, Site number [OER Site number].
- 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 Plan for this Site.
  If a Unrestricted Use or a Track 2 Restricted Residential Remedial Action was achieved (without an active SSDS), substitute the following passage for above:
  The [list protective elements like vapor barrier, passive SSDS, composite cover system implemented as part of construction] constructed during this remedial action were designed by me or a person under my direct supervision and achieve the goals established in the Remedial Action 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 Plan and (2) are accurately reflected in the text and drawings for as-built design reported in this Remedial Closure Report.
  If a Unrestricted Use or a Track 2 Restricted Residential Remedial Action was achieved (without an active SSDS), substitute the following passage for above:
  The [list protective elements like vapor barrier, passive SSDS, composite cover system implemented as part of construction] constructed during this remedial action were professionally observed by me or by a person under my direct supervision are accurately reflected in the text and drawings for as-built design reported in this Remedial Closure Report.
- The OER-approved Remedial Action 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, liquid or other material from the property was taken to facilities licensed to accept this material in full compliance with applicable laws and regulations.

Name

PE License Number

Signature

Date

PE Stamp

I, [name], certify the following:

- I am a Qualified Environmental Professional. I had primary direct responsibility for implementation of the remedial program for the [Site name (address)] Site, Site number [OER Site number].
- The OER-approved Remedial Action 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, liquid or other material from the property was taken to facilities licensed to accept this material in full compliance with applicable laws and regulations.

QEP Name

QEP Signature

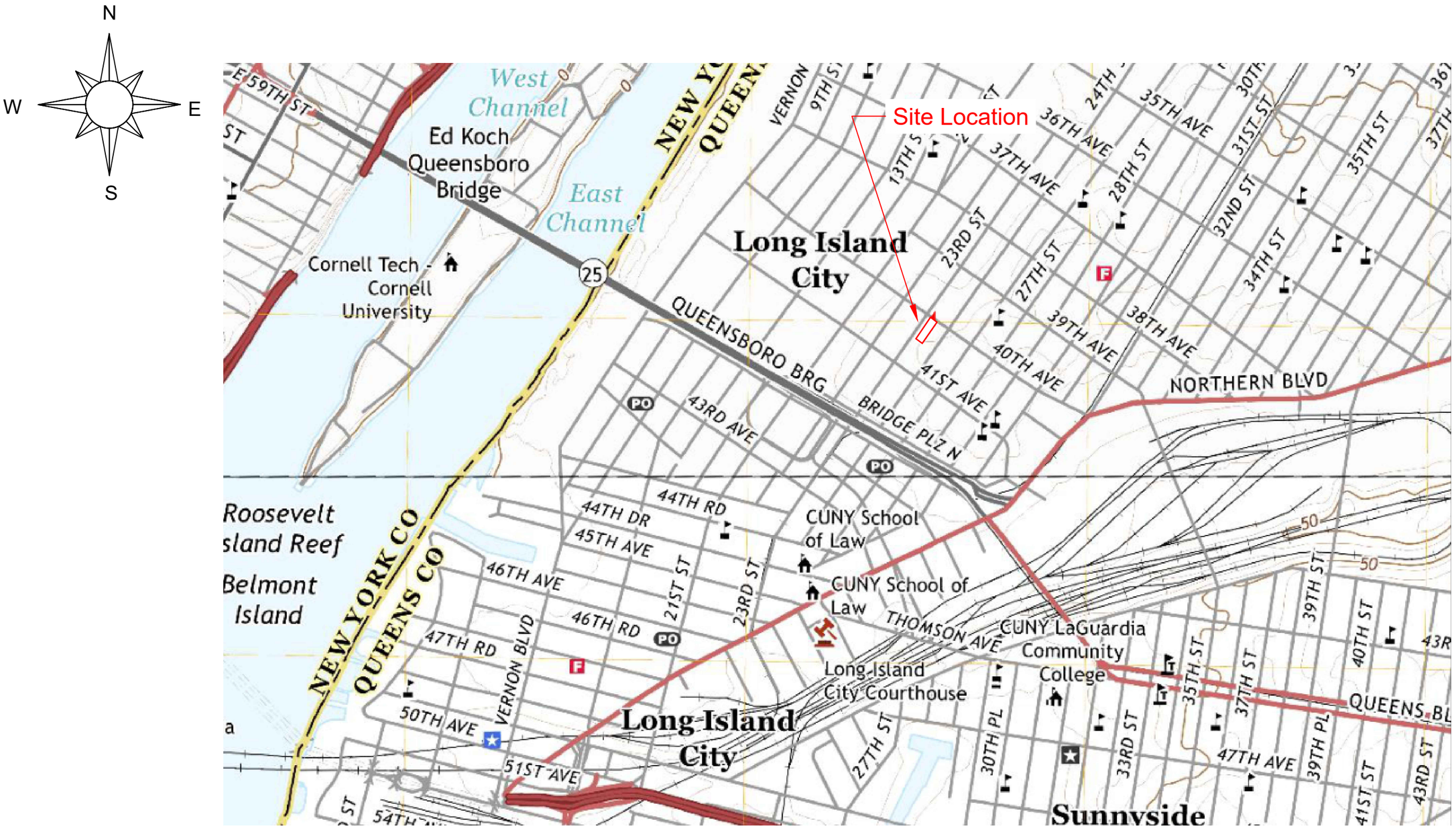
Date

6.0 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 four-month remediation period is anticipated.

Schedule Milestone	**Weeks from Remedial Action Start**	**Duration (weeks)**
OER Approval of RAP	0	-
Fact Sheet 2 announcing start of remedy	0	-
Mobilization	1	2
Remedial Excavation	3	6
Demobilization	9	2
Submit Remedial Closure Report	24	4

Figures



LEGEND:

Site Location

ATHENICA ENVIRONMENTAL SERVICES, INC.
Environmental Engineering Consultants
31-33 31st STREET, 2ND Floor
ASTORIA, NY 11105
TEL: (718) 784 - 7490
FAX: (718) 784 - 4085

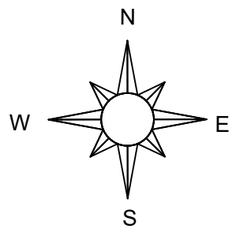
Adapted from 2019 USGS Topographic Quadrangle Maps.

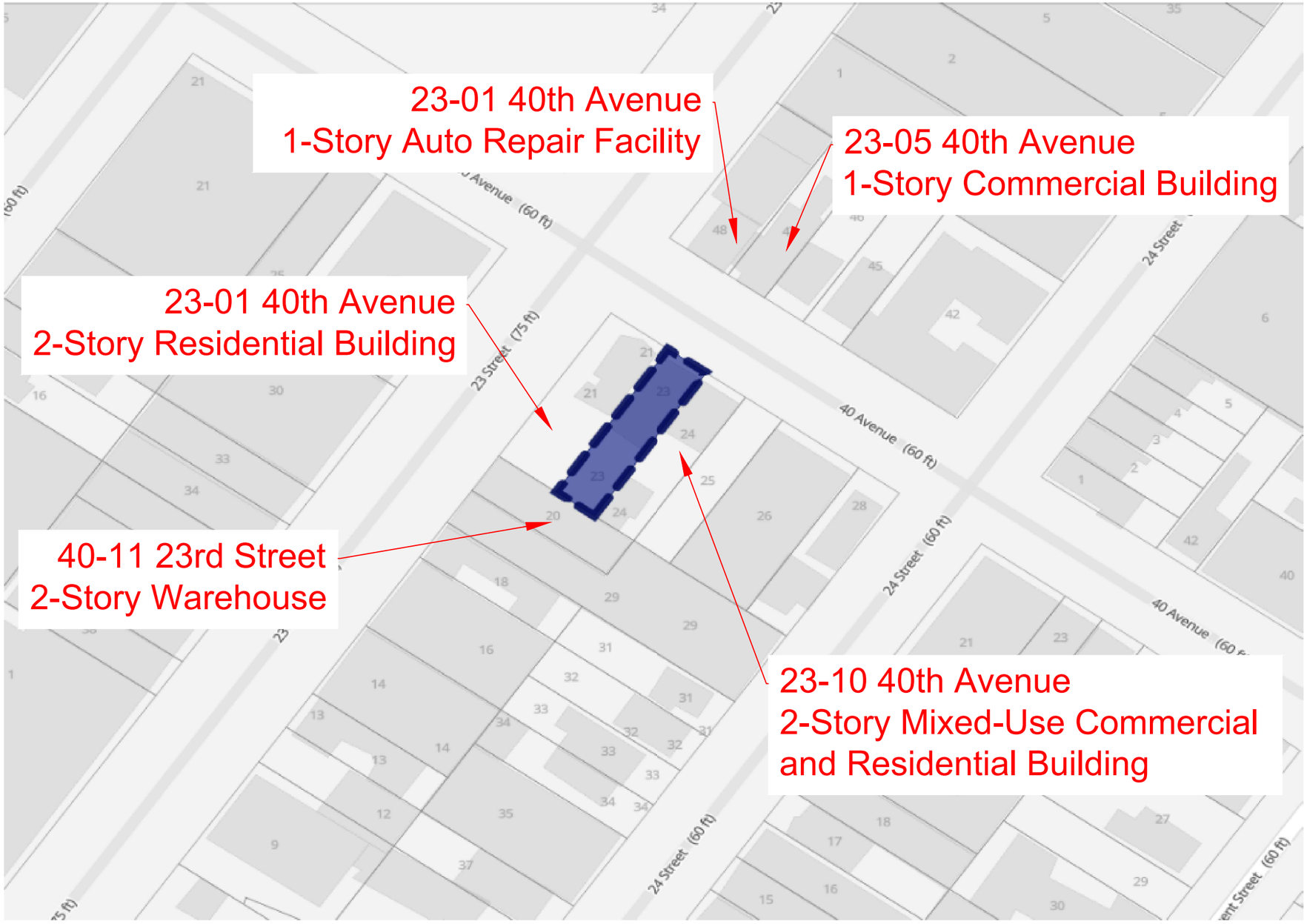
Date:	February 12, 2025
Drawn by:	Evan Greenberg, EIT
Checked by:	Kenneth P. Wenz Jr., PG, LEP
Drawing Scale:	Not To Scale
Project No.:	24-133-1573

Site: 23-06 40th Avenue
Long Island City, NY 11101
Remedial Action Plan

Figure: 1

Title: Site Location Map





LEGEND:

Site Location

ATHENICA ENVIRONMENTAL SERVICES, INC.
Environmental Engineering Consultants
31-33 31st STREET, 2ND FLOOR
ASTORIA, NY 11106
TEL: (718) 784 - 7490
FAX: (718) 784 - 4085

Adapted from NYC Zoning and Land Use (ZOLA) Map.

Date:	January 14, 2025
Drawn by:	Evan Greenberg, EIT
Checked by:	Kenneth P. Wenz Jr., PG, LEP
Drawing Scale:	As Drawn
Project No.:	24-133-1573

Site: 23-06 40th Avenue
Long Island City, NY 11101
Remedial Action Plan

Figure: 2

Title: Site Boundary and Surrounding Land Usage Map

LEGEND:

- Site Boundary
- Delineation Sample Location
- Site Building Boundary

ATHENICA ENVIRONMENTAL SERVICES, INC.
Environmental Engineering Consultants
A NYS and NYC WBE Company
31-33 31st Street, Second Floor
Astoria, New York 11106
TEL: (718) 784 - 7490
FAX: (718) 784 - 4085

NOTES:

- Adapted from google earth.
- Not drawn to scale.

Date:	2/12/2025
Drawn by:	Michael Oliver
Checked by:	Kenneth P. Wenz Jr., PG, LEP
Drawing Scale:	As Drawn
Project No.:	23-133-1573

Site: 23-06 40th Avenue, Long Island City, NY 11101
Remedial Action Plan

Figure: 3

Title: Delineation Sample Locations

LEGEND:

- Site Boundary
- Demarcation Layer
- Backfill Placement for the Barium and Mercury Hotspot
- Backfill Placement for the SVOC Hotspot
- Site Building Boundary

ATHENICA ENVIRONMENTAL SERVICES, INC.
Environmental Engineering Consultants
A NYS and NYC WBE Company
31-33 31st Street, Second Floor
Astoria, New York 11106
TEL: (718) 784 - 7490
FAX: (718) 784 - 4085

NOTES:

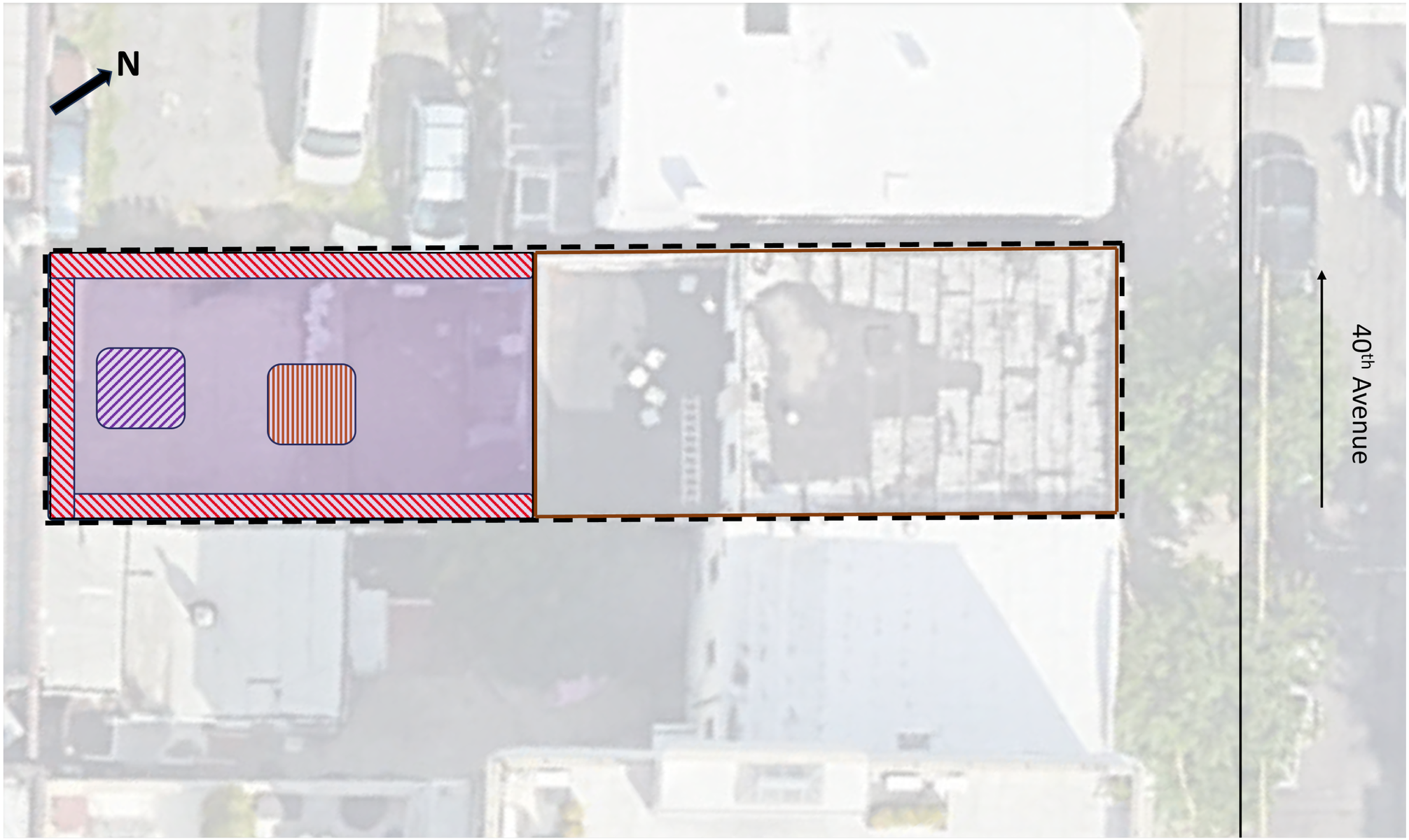
- Adapted from google earth.
- Not drawn to scale.
- bgs = below ground surface.

Date:	3/21/2025
Drawn by:	Michael Oliver
Checked by:	Kenneth P. Wenz Jr., PG, LEP
Drawing Scale:	Not Drawn to Scale
Project No.:	23-133-1573

Site: 23-06 40th Avenue, Long Island City, NY 11101
Remedial Action Plan

Figure: 4

Title: Backfill Placement Locations



LEGEND:

- Site Boundary
- 10 X 10 Foot SVOC Hotspot Excavation to a Minimum of 2 feet bgs
- 10 X 10 Foot Barium and Mercury Hotspot Excavation to a Minimum of 3 feet bgs
- Excavation to 4 feet bgs for Installation of Foundation Elements/Footings
- Site Building Boundary
- Demarcation Layer

ATHENICA ENVIRONMENTAL SERVICES, INC.
Environmental Engineering Consultants
A NYS and NYC WBE Company
31-33 31st Street, Second Floor
Astoria, New York 11106
TEL: (718) 784 - 7490
FAX: (718) 784 - 4085

NOTES:

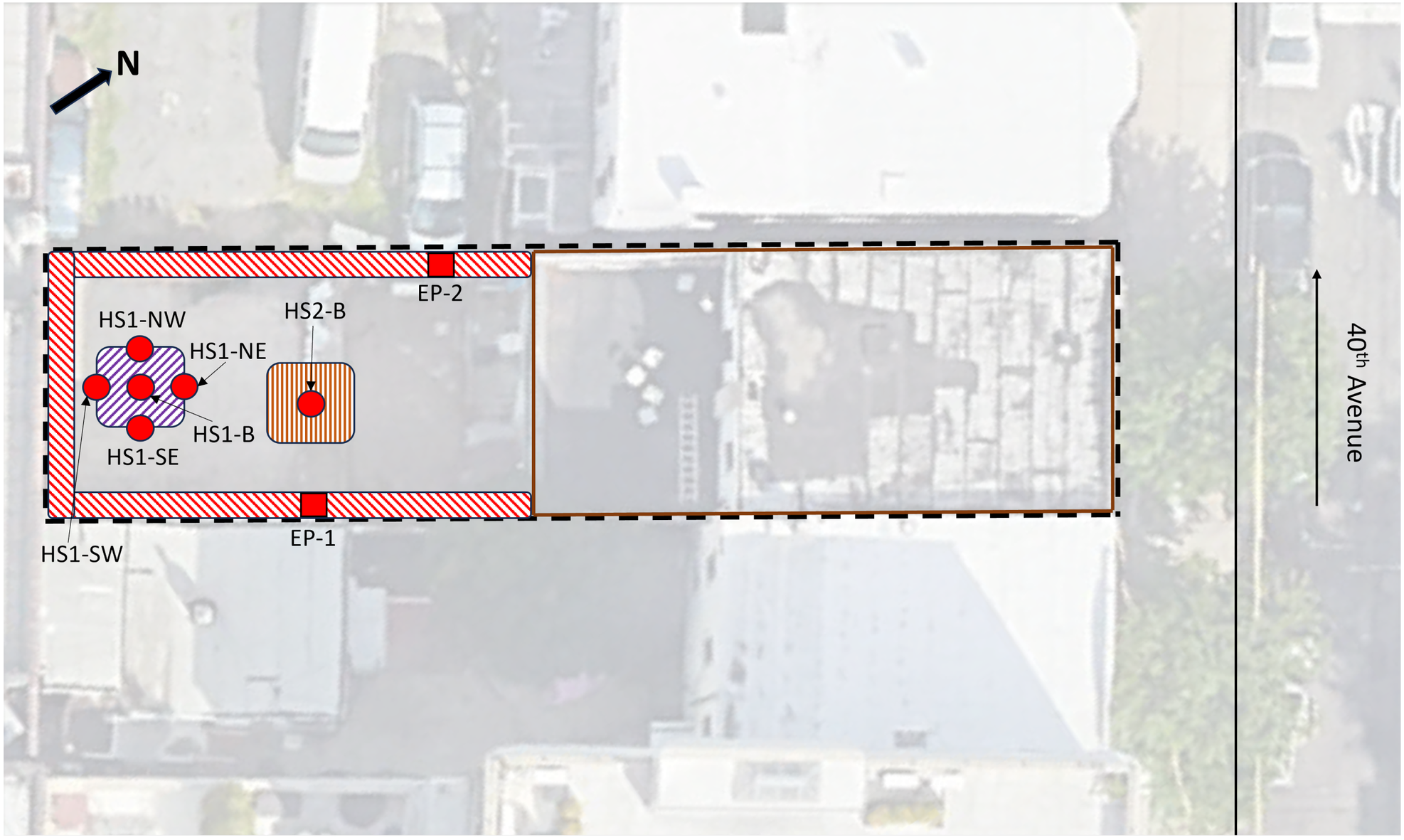
- Adapted from google earth.
- Not drawn to scale.
- bgs = below ground surface.

Date:	3/20/2025
Drawn by:	Michael Oliver
Checked by:	Kenneth P. Wenz Jr., PG, LEP
Drawing Scale:	Not Drawn to Scale
Project No.:	23-133-1573

Site: 23-06 40th Avenue, Long Island City, NY 11101
Remedial Action Plan

Figure: 5

Title: Site Excavation Diagram



LEGEND:

Site Boundary

End-point Sample Location

Hotspot End-point Sample Location

10 X 10 Foot Barium and Mercury Hotspot Excavation to a Minimum of 3 feet bgs

Excavation to 4 feet bgs for Installation of Foundation Elements/Footings

Site Building Boundary

10 X 10 Foot SVOC Hotspot Excavation to a Minimum of 2 feet bgs

ATHENICA ENVIRONMENTAL SERVICES, INC.
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Astoria, New York 11106
TEL: (718) 784 - 7490
FAX: (718) 784 - 4085

NOTES:

- Adapted from google earth.
- Not drawn to scale.
- bgs = below ground surface.

Date:	3/21/2025
Drawn by:	Michael Oliver
Checked by:	Kenneth P. Wenz Jr., PG, LEP
Drawing Scale:	Not Drawn to Scale
Project No.:	23-133-1573

Site: 23-06 40th Avenue, Long Island City, NY 11101
Remedial Action Plan

Figure: 6

Title: Map of End-point Sample Locations

N

from 23-6 40th Ave, Long Island City, NY 11101
to Goethals Brg

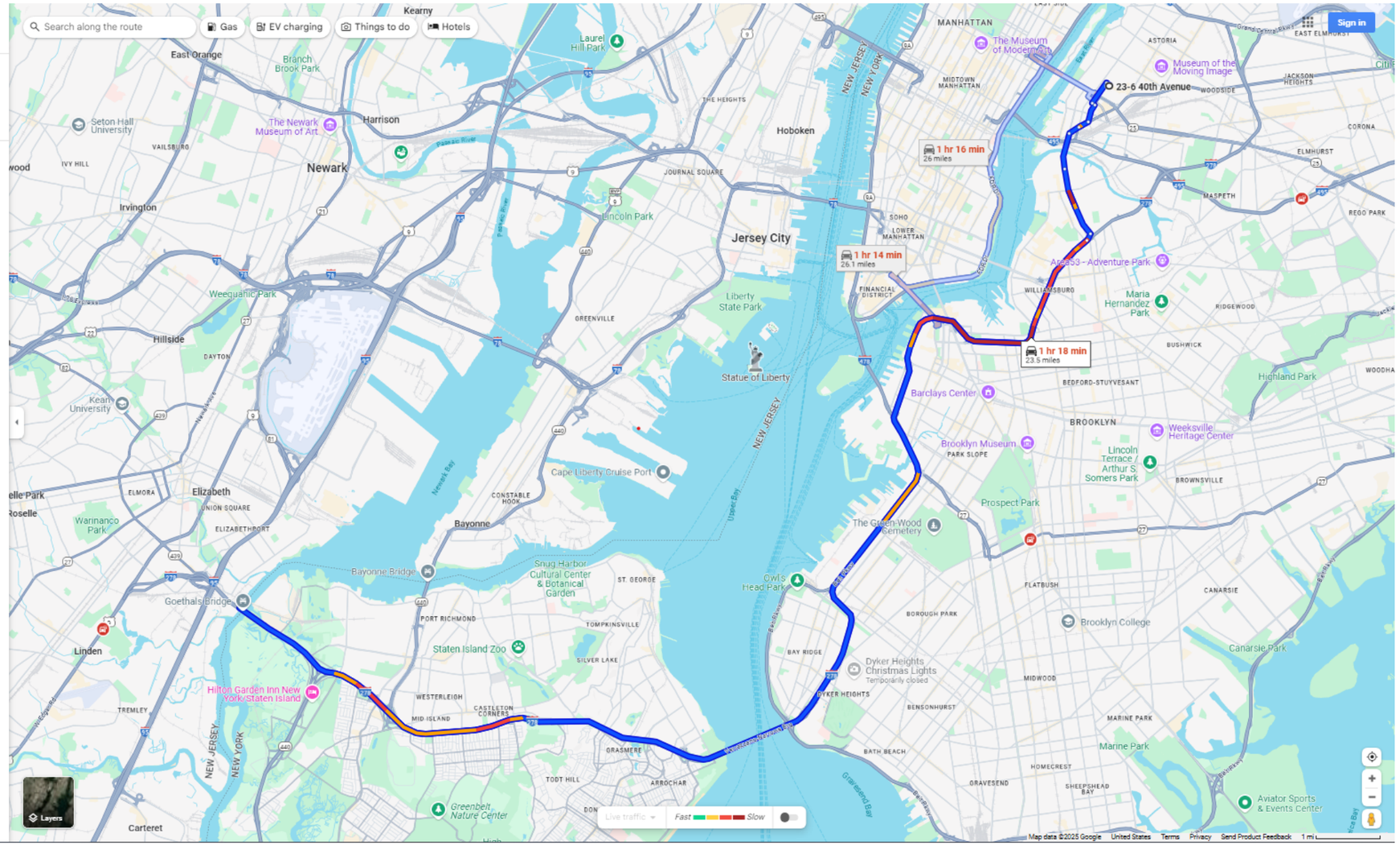
1 hr 18 min (23.5 miles)

via McGuinness Blvd and I-278 W
Slowdown on I-278 W causing 26-min delay
⚠ **This route has tolls.**

23-6 40th Ave
Long Island City, NY 11101

- Get on I-278 W in Brooklyn from 22nd St, Jackson Ave, Pulaski Brg and McGuinness Blvd
  - 15 min (2.9 mi)
- ↑ Head northwest on 40th Ave toward 23rd St
  - 344 ft
- ↰ Turn left at the 2nd cross street onto 22nd St
  - 0.4 mi
- ↰ Turn left onto 43rd Ave
  - 266 ft
- ↱ Turn right at the 1st cross street onto 23rd St
  - 0.3 mi
- ↱ Turn right onto Jackson Ave
  - 0.2 mi
- ↑ Continue straight to stay on Jackson Ave
  - 0.2 mi
- ↰ Use the left 2 lanes to turn left onto Pulaski Brg
  - 0.6 mi
- ↑ Continue onto McGuinness Blvd
  - 1.1 mi
- Slight right onto the I-278 W/Bklyn-Qns Expwy ramp to Staten Island
  - 0.1 mi
- Merge onto I-278 W
  - ⚠ Toll road
  - ℹ Entering New Jersey
  - 32 min (20.6 mi)

Goethals Brg



ATHENICA ENVIRONMENTAL SERVICES, INC.
Environmental Engineering Consultants
A NYS and NYC WBE Company
31-33 31st Street, Second Floor
Astoria, New York 11106
TEL: (718) 784 - 7490
FAX: (718) 784 - 4085

NOTES:

- Adapted from Google Maps.
- Once in New Jersey, trucks will follow NJ truck routes to the facility.

Date:	2/12/2025
Drawn by:	Michael Oliver
Checked by:	Kenneth P. Wenz Jr., PG, LEP
Drawing Scale:	As Drawn
Project No.:	23-133-1573

Site: 23-06 40th Avenue, Long Island City, NY 11101
Remedial Action Plan

Figure: 7

Title: Map Showing Truck Route

Table

Table 1
Site-specific Soil Cleanup Objectives
23-06 40th Avenue, Long Island City, New York

Compound	Track 2 Restricted Residential Soil Cleanup Objective
Volatile Organic Compounds	
1,1,1-Trichloroethane	100
1,1-Dichloroethane	26
1,1-Dichloroethene	100
1,2,4-Trimethylbenzene	52
1,2-Dichlorobenzene	100
1,2-Dichloroethane	3.1
1,3,5-Trimethylbenzene	52
1,3-Dichlorobenzene	49
1,4-Dichlorobenzene	13
1,4-Dioxane	13
2-Butanone	100
Acetone	100
Benzene	4.8
Carbon tetrachloride	2.4
Chlorobenzene	100
Chloroform	49
cis-1,2-Dichloroethene	100
Ethyl Benzene	41
Methyl tert-butyl ether (MTBE)	100
Methylene chloride	100
n-Butylbenzene	100
n-Propylbenzene	100
sec-Butylbenzene	100
tert-Butylbenzene	100
Tetrachloroethene	19
Toluene	100
trans-1,2-Dichloroethene	100
Trichloroethene	21
Vinyl Chloride	0.9
Xylenes, Total	100
Semi-Volatile Organic Compounds	
1,2-Dichlorobenzene	100
1,3-Dichlorobenzene	49
1,4-Dichlorobenzene	13
2-Methylphenol	100
3- & 4-Methylphenols	100
Acenaphthene	100
Acenaphthene	100
Anthracene	100
Benzo(a)anthracene	1.0
Benzo(a)pyrene	1.0
Benzo(b)fluoranthene	1.0
Benzo(g,h,i)perylene	100
Benzo(k)fluoranthene	3.9

Compound	Track 2 Restricted Residential Soil Cleanup Objective
Semi-Volatile Organic Compounds (continued)	
Chrysene	3.9
Dibenzo(a,h)anthracene	0.33
Dibenzofuran	59
Fluoranthene	100
Fluorene	100
Hexachlorobenzene	1.2
Indeno(1,2,3-cd)pyrene	0.5
Naphthalene	100
Pentachlorophenol	6.7
Phenanthrene	100
Phenol	100
Pyrene	100
Total SVOCs	100*
Pesticides	
4,4'-DDD	13
4,4'-DDE	8.9
4,4'-DDT	7.9
Aldrin	0.097
alpha-Chlordane	4
alpha-BHC	0.48
beta-BHC	0.4
delta-BHC	100
Dieldrin	0.2
Endosulfan I	24
Endosulfan II	24
Endosulfan sulfate	24
Endrin	11
gamma-BHC (Lindane)	1.3
Heptachlor	2.1
Metals	
Arsenic	16
Barium	600*
Beryllium	72
Cadmium	4.300
Chromium (trivalent)	180
Copper	270
Lead	800*
Manganese	2,000
Mercury	2.5*
Nickel	310
Selenium	180
Silver	180
Zinc	10,000
Total PCBs	1.0

NOTES:
Units are milligrams per kilogram.
*: Site-specific SCO. Other listed values represent 6NYCRR Part 375 Restricted Residential Use SCOs.

Appendix 1

Proposed Development Plans

Appendix 1

Proposed Development Plans

LEGEND OF SYMBOLS

SYMBOL	DESCRIPTION
x" A.F.F.	HEIGHT ABOVE FINISHED FLOOR
EF	DENOTES EXHAUST FAN. SEE FLOOR PLANS FOR REQUIRED C.F.M.
CO/SD	N.Y.C. APPROVED TYPE CARBON MONOXIDE AND SMOKE COMBINATION DETECTOR. SEE NOTES.
EL	DENOTES N.Y.C. APPROVED HARDWIRED EMERGENCY LIGHTING WALL PACK WITH BATTERY BACK-UP
EXIT	DENOTES N.Y.C. APPROVED EMERGENCY EXIT LIGHTING AND DIRECTIONAL LOCATION WITH BATTERY BACK-UP
TH	DENOTES THERMOSTAT
FIRST FLOOR ELEV. XX.XX	DENOTES FLOOR NAME
	ELEVATION HEIGHT OF FLOOR
X	DENOTES WALL TYPE. SEE FLOOR PLANS AND WALL CONSTRUCTION LEGEND
X	DENOTES WINDOW TYPE. SEE WINDOW SCHEDULE AND PLANS
0 / A-002	SECTION NUMBER DENOTES SECTION SEE FLOOR PLANS SECTION DRAWING
	DETAIL NUMBER DENOTES DETAIL SEE FLOOR PLANS
	DETAIL DRAWING
0 / A-000	ELEVATION NUMBER DENOTES ELEVATION SEE FLOOR PLANS
	ELEVATION DRAWING
ROOM NAME 000	DENOTES ROOM NAME AND ROOM NUMBER INDICATION REFERENCES TO LIGHT AND AIR CALCULATIONS
X	DENOTES DOOR TYPE. SEE DOOR SCHEDULE AND PLANS

SITE NOTES

1. ALL EXISTING SITE CONDITIONS BY ANY CONSTRUCTION EQUIPMENT OR CONSTRUCTION SHALL BE REPAIRED TO THEIR EXISTING CONDITION PRIOR TO CONSTRUCTION AT NO COST TO THE OWNER.
2. IT IS THE RESPONSIBILITY OF THE OWNER AND OR CONTRACTOR FOR NOTIFYING ALL UTILITY COMPANIES AND VERIFYING THE LOCATION OF THE SAME UTILITY COMPANY LINES, SERVICES, AND OTHER UTILITY COMPANIES.
3. THE CONTRACTOR IS TO PROTECT THE SIDE OF EXCAVATION BY MEANS OF SHORING AND BRACING AND SHEETING. THE SIDES OF ALL EXCAVATION OPERATION OF 5'-0" OR GREATER IN DEPTH SHALL BE PROTECTED AND MAINTAINED. AS AN ALTERNATIVE EXCAVATED SLOPES MAY INCLINE NOT STEEPER THAN A 45 DEGREE SLOPE IN THAT WHICH WILL NOT ENDANGER ANY ADJACENT STRUCTURES.
4. ALL DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OF RECORD, PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION WORK. ■

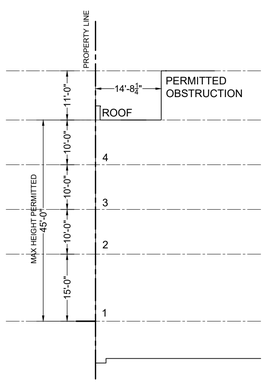
NOTE:
JLS DESIGNS IS NOT RETAINED FOR THE SUPERVISION OF THE ACTUAL CONSTRUCTION. THE ARCHITECT SHALL NOT HAVE CONTROL OR CHANGE OF AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, DEVIATIONS, TECHNIQUES, SEQUENCES, OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR IS TO ALWAYS USE DIMENSIONS AS SHOWN ON DRAWINGS AND ARE NOT TO BE SCALED.

NOTE: CONTRACTOR IS RESPONSIBLE IN CONTACTING THE ARCHITECT OF RECORD 24 - 48 HOURS PRIOR TO THE INSPECTION REQUIRED BY N.Y.C.B.C.

BUILDING HEIGHT ENVELOPE

LEGEND

(A) MAXIMUM BUILDING HEIGHT ALLOWABLE AS PER Z.R. 117-634(B) 45'-0"



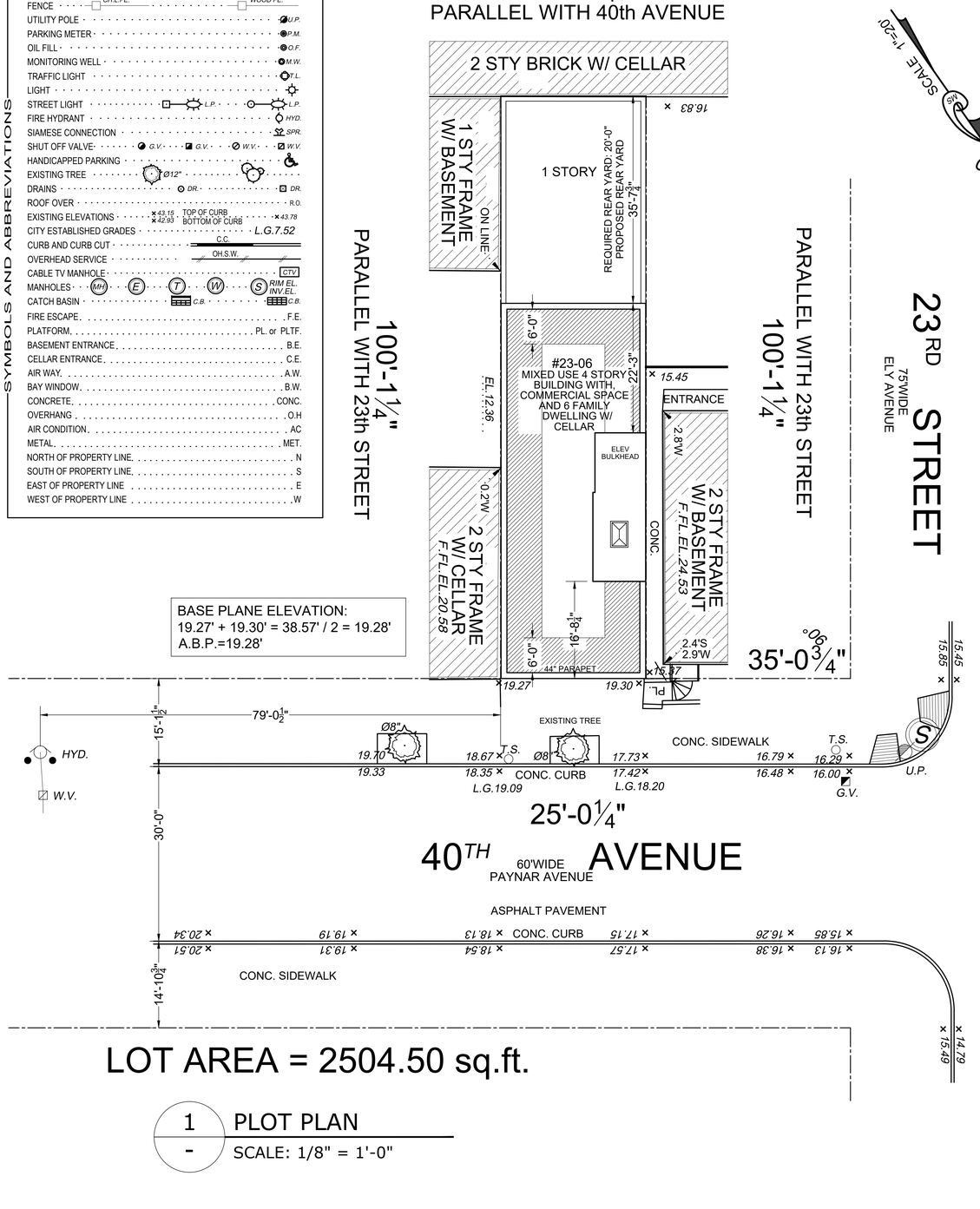
PARTIAL SECTION
1/16" = 1'-0"

BASE PLANE ELEVATION:
19.27' + 19.30' = 38.57' / 2 = 19.28'
A.B.P.=19.28'

PLOT PLAN

SYMBOLS AND ABBREVIATIONS

FENCE	CH.L.FE. — WOOD FE.
UTILITY POLE	U.P.
PARKING METER	P.M.
OIL FILL	O.F.
MONITORING WELL	M.W.
TRAFFIC LIGHT	T.L.
LIGHT	
STREET LIGHT	L.P. — L.P.
FIRE HYDRANT	HYD.
SIAMESE CONNECTION	SPR.
SHUT OFF VALVE	G.V. · G.V. · W.V. · W.V.
HANDICAPPED PARKING	
EXISTING TREE	Ø12"
DRAINS	DR. — DR.
ROOF OVER	R.O.
EXISTING ELEVATIONS	×43.15 TOP OF CURB ×42.93 BOTTOM OF CURB ×43.78
CITY ESTABLISHED GRADES	L.G.7.52 C.C.
CURB AND CURB CUT	OH.S.W.
OVERHEAD SERVICE	
CABLE TV MANHOLE	CTV
MANHOLES	MH · E · T · W · S — RIM EL. INV. EL.
CATCH BASIN	C.B. — C.B.
FIRE ESCAPE	F.E.
PLATFORM	PL. or PLTF.
BASEMENT ENTRANCE	B.E.
CELLAR ENTRANCE	C.E.
AIR WAY	A.W.
BAY WINDOW	B.W.
CONCRETE	CONC.
OVERHANG	O.H
AIR CONDITION	AC
METAL	MET.
NORTH OF PROPERTY LINE	N
SOUTH OF PROPERTY LINE	S
EAST OF PROPERTY LINE	E
WEST OF PROPERTY LINE	W



JLS DESIGNS
Joseph Sultana, A.I.A.
Architect
214-41 42nd Avenue, Suite 2C
Bayside, New York 11361
P. 718.224.3330 F. 718.224.5933
email: JOE@JLSDESIGNSNYC.COM

PROJECT:
40TH AVENUE LLC
23-06 40TH AVENUE
LONG ISLAND CITY, NY 11101

BUILDING CODE:	2022
BLOCK:	0408
LOT:	23
BIN:	4004940
COMMUNITY BOARD:	401
ZONING MAP:	9B
ZONING DISTRICT	M1-2/R5D
OCCUPANCY CLASS:	R-2
CONSTRUCTION CL.:	1B
USE GROUP:	2A/17A

Scope of Work:
PROPOSED 5 STORY MIXED USE BUILDING WITH 6 CLASS A DWELLING UNITS.

BPP APP #:
PLUMBING APP:
MECHANICALAPP:
CONST FENCE: Q00423392-I1
GC APP#: Q01019618-I1
ST:

APPROVED PLANS MUST BE ON SITE AT ALL TIMES.
IF WORK DEVIATES FROM APPROVED PLANS, ARCHITECT MUST BE IMMEDIATELY NOTIFIED.

PLAN EXAMINER STAMP & SIGNATURE

Issued:
02-10-25 UPDATED PLANS

Revisions:

CLIENT:
40TH AVENUE LLC
23-06 40TH AVENUE
LONG ISLAND CITY, NY 11101

Drawing Title:
PLOT PLAN & NOTES

Seal & Signature:
REGISTERED ARCHITECT ANGELO SULTANA JR. No. 27357 STATE OF NEW YORK

DATE: 02-10-2025
PROJECT #: 23.064
DRAWING BY: C.R
CHECKED BY: J.S.
DWG No:
Z-100.00

CADD FILE NO: 23.064 YANG/LIU | 1 OF 34

REQUIRED CONTROLLED INSPECTIONS

Y	N	INSPECTIONS & TESTS (TR-1 08)		CODE / SECTION
-	X	STRUCTURAL STEEL - WELDING		BC 1704.3.1
-	X	STRUCTURAL STEEL - DETAILS		BC 1704.3.2
-	X	STRUCTURAL STEEL - HIGH STRENGTH BOLTING		BC 1704.3.3
-	X	STRUCTURAL COLD - FORMED STEEL		BC 1704.3.4
-	X	CONCRETE- CAST-IN-PLACE		BC 1704.4
-	X	CONCRETE- PRECAST		BC 1704.4
-	X	CONCRETE- PRESTRESSED		BC 1704.4
X	-	MASONRY		BC 1704.5
-	X	WOOD- INST. OF HIGH-LOAD DIAPHRAGMS		BC 1704.6.1
-	X	WOOD- INST. OF METAL PLATE CONNECTED TRUSSES		BC 1704.6.3
-	X	WOOD- INST. OF PREFABRICATED I-JOIST		BC 1704.6.4
-	X	SUBGRADE INSPECTION		BC 1704.7.1
-	X	SUBSURFACE CONDITIONS - FILL PLACEMENT & IN-PLACE DENSITY		BC 1704.7.2 BC 1704.7.3
X	-	SUBSURFACE INVESTIGATIONS (BORINGS/TEST PITS)	TR4	BC 1704.7.4
-	X	DEEP FOUNDATION ELEMENTS	TR5	BC 1704.8
-	X	HELICAL PILES (BB # 2014-020)	TR5H	BC 1704.8.5
-	X	VERTICAL MASONRY FOUNDATION ELEMENTS		BC 1704.9
X	-	WALL PANELS, CURTAIN WALLS, AND VENEERS		BC 1704.10
-	X	SPRAYED FIRE-RESISTANT MATERIALS		BC 1704.11
-	X	MASTIC AND INTUMESCENT FIRE-RESISATANT COATINGS		BC 1704.12
X	-	EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS)		BC 1704.13
-	X	ALTERNATIVE MATERIALS-OTCR BUILDINGS BULLETIN # _____		BC 1704.14
-	X	SMOKE CONTROL SYSTEMS		BC 1704.15
-	X	MECHANICAL SYSTEMS		BC 1704.16
-	X	FUEL-OIL STORAGE AND FUEL-OIL PIPING SYSTEMS		BC 1704.17
-	X	HIGH-PRESSURE STEAM PIPING (WELDING)		BC 1704.18
-	X	HIGH TEMPERATURE HOT WATER PIPING (WELDING)		BC 1704.18
-	X	HIGH-PRESSURE FUEL-GAS PIPING (WELDING)		BC 1704.19
X	-	STRUCTURAL STABILITY-EXISTING BUILDINGS		BC 1704.20.1
-	X	EXCAVATIONS-SHEETING, SHORING, AND BRACING		BC 1704.20.2
-	X	UNDERPINNING		BC 1704.20.3 BC 1814
-	X	MECHANICAL DEMOLITION		BC 1704.20.4
-	X	RAISING AND MOVING OF A BUILDING		BC 1704.20.5
X	-	SOIL PERCOLATION TEST-PRIVATE ONSITE STORM WATER DRAINAGE DISPOSAL SYSTEMS, AND DETENTION FACILITIES		BC 1704.21.1.2
-	X	PRIVATE ON-SITE STORM WATER DRAINAGE DISPOSAL SYSTEMS, AND DETENTION FACILITIES INSTALLATION		BC 1704.21.2
-	X	INDIVIDUAL ON-SITE PRIVATE SEWAGE DISPOSAL SYSTEMS INSTALLATION		BC 1704.22
-	X	SOIL PERCOLATION TEST-INDIVIDUAL ONSITE PRIVATE SEWAGE DISPOSAL SYSTEMS		BC 1704.22
-	X	SPRINKLER SYSTEMS		BC 1704.23
-	X	STANDPIPE SYSTEMS		BC 1704.24
-	X	HEATING SYSTEMS		BC 1704.25
-	X	CHIMNEYS		BC 1704.26
X	-	FIRE-RESISANT PENETRATIONS AND JOINTS		BC 1704.27
-	X	ALUMINUM WELDING		BC 1704.28
-	X	FLOOD ZONE COMPLIANCE (ATTACH FEMA ELEVATION/DRY FLOODPROOFING CERTIFICATE WHERE APPLICABLE)		BC 1704.29 BC G105
-	X	LUMINOUS EGRESS PATH MARKINGS	TR7	BC 1704.30 BC 1024.8
-	X	EMERGENCY AND STANDBY POWER SYSTEMS(GENERATORS)		BC 1704.31
-	X	POST-INSTALLED ANCHORS (BB# 2014-018, 2014-019)		BC 1704.32
-	X	SEISMIC ISOLATION SYSTEMS		BC 1707.8
-	X	CONCRETE DESIGN MIX	TR3	BC 1905.3 BC 1913.5
-	X	CONCRETE SAMPLING AND TESTING	TR2	BC 1905.6 BC 1913.10
-	X	STANDPIPE SYSTEMS		BC 1704.24
-	X	PRELIMINARY		28-116.2.1 BC 109.2
-	X	FOOTING AND FOUNDATION		BC 110.3.1
-	X	LOWEST FLOOR ELEVATION		BC 110.3.2
-	X	STRUCTURAL WOOD FRAME		BC 110.3.3
X	-	ENERGY CODE COMPLIANCE INSPECTIONS	TR8	BC 110.3.5
X	-	FIRE-RESISTANCE RATED CONSTRUCTION		BC 110.3.4
-	X	PUBLIC ASSEMBLY EMERGENCY LIGHTING		28-116.2.2
-	X	FINAL		28-116.2.4.2, BC110.5 DIRECTIVE 14 OF 1975 AND 1RCNY §101-10

NOTE: CONTRACTOR IS RESPONSIBLE IN CONTACTING THE ARCHITECT OF RECORD 24 - 48 HOURS PRIOR TO THE INSPECTION REQUIRED BY N.Y.C.B.C.

SPECIAL INSPECTIONS

OWNER AND CONTRACTOR MUST NOTIFY THE SPECIAL CONTROLLED INSPECTION AGENCY 48 HOURS PRIOR TO SIGNOFF OF ANY CONTROLLED INSPECTION ITEM. IF ARCHITECT IS NOT RESPONSIBLE FOR THE CONTROLLED INSPECTION.

ENERGY CODE PROGRESS INSPECTIONS

TR-8 TECHNICAL REPORT - ENERGY CODE PROGRESS INSPECTIONS

Y	N	PROGRESS INSPECTIONS	TABLE REFERENCE IN 1RCNY §5000-01(h) (2)
☐	☒	**PROTECTION OF EXPOSED FOUNDATION INSULATION**	(IIA1)
☒	☐	**INSULATION PLACEMENT AND R-VALUES**	(IIA2)
☒	☐	**FENESTRATION AND DOOR U-FACTOR AND PRODUCT RATINGS**	(IIA3)
☒	☐	**FENESTRATION AIR LEAKAGE:**	(IIA4)
☒	☐	**FENESTRATION AREAS**	(IIA5)
☒	☐	**AIR BARRIER – VISUAL INSPECTION**	(IIA6)
☐	☒	**AIR BARRIER – TESTING**	(IIA7)
☐	☒	**AIR BARRIER - CONTINUITY PLAN TESTING/INSPECTION**	(IIA8)
☒	☐	**VESTIBULES**	(IIA9)
☐	☒	**FIREPLACES**	(IIB1)
☒	☐	**SHUTOFF DAMPERS**	(IIB2)
☐	☒	**HVAC AND SERVICE WATER HEATING EQUIPMENT**	(IIB3)
☐	☒	**HVAC AND SERVICE WATER HEATING SYSTEM CONTROLS**	(IIB4)
☐	☒	**HVAC AND SERVICE WATER PIPING DESIGN AND INSULATION**	(IIB5)
☐	☒	**DUCT LEAKAGE TESTING, INSULATION AND DESIGN**	(1B6)
☒	☐	**METERING**	(IIC1)
☒	☐	**LIGHTING IN DWELLING UNITS**	(IIC2)
☒	☐	**INTERIOR LIGHTING POWER**	(IIC3)
☒	☐	**EXTERIOR LIGHTING POWER**	(IIC4)
☒	☐	**LIGHTING CONTROLS**	(IIC5)
☐	☒	**ELECTRICAL MOTORS AND ELEVATORS**	(IIC6)
☐	☒	**MAINTENANCE INFORMATION**	(IID1)

ENERGY CODE COMPLIANCE

TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT THESE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE OF THE 2020 ENERGY CONSERVATION CODE OF NEW YORK CITY

ZONING COMPUTATION

ADDRESS:	**23-06 40TH AVE, LONG ISLAND CITY ,NY 11101**
APPLICATION #:	
BIN:	-
BLOCK:	408
LOT:	23
ZONNING DISTRICT:	M1-2/R5D DUTCH KILLS SUBDISTRICT/L.I.C SPECIAL DISTRICT
MAP #	9B
USE GROUP:	2A/2B
OCCUPANCY CLASSIFICATION:	R-2/17A
INCLUSIONARY ZONE:	-
CONSTRUCTION CLASSIFICATION:	2B

FLOOR	COM. GROSS	RES. GROSS	TOTAL GROSS	DED	MECH DED	RES F.A.R	TOTAL FAR
CELLAR	1278.90	0.00	1278.90	1278.90	0.00	0.00	**0.00**
FIRST	1972.47	508.33	2480.80	0.00	0.00	508.33	**2480.80**
SECOND	0.00	1600.29	1600.29	0.00	17.46	1582.83	**1582.83**
THIRD	0.00	1600.29	1600.29	0.00	17.46	1582.83	**1582.83**
FOURTH	0.00	1600.29	1600.29	0.00	17.46	1582.84	**1582.84**
TOTAL GROSS	**3251.37**	**5309.21**	**8560.58**	**1278.90**	**52.38**	**5256.83**	**7229.30**

MAXIMUM FLOOR AREA			FAR		LOT AREA	=	**2,504.50**
Z.R. 117-631 (C)	**M1-2/R5D** IN M1-2 DESIGNATED DISTRICTS, THE MAXIMUM FLOOR AREA RATIO SHALL BE INCREASED TO 3.0 WHEN PAIRED WITH AN R5B OR R5D DISTRICT AND 4.0 WHEN PAIRED WITH AN R6A DISTRICT, PROVIDED THAT SUCH ADDITIONAL FLOOR AREA IS LIMITED TH REFERENCED COMMERCIAL AND MANUFACTURING USES						
Z.R. 23-142	R5D	RESIDENTIAL	2	X	2,504.50	=	5009.00
	M1-2	COMMERCIAL	1	X	2,504.50	=	2504.50
AS PER ZR 12-10 (15) 5% BONUS FAR FOR FULLY ELECTRIC BUILDING			0.05	X	5009.00	=	**250.45**
THEREFORE MAX. FAR	=		5009.00	+	250.45	=	**5259.45**
COMMERCIAL TOTAL FLOOR AREA			1972.47	<	2504.50		
RESIDENTIAL FLOOR AREA			5256.83	<	5259.45		
COMMERCIAL FLOOR AREA USED					1972.47		
RESIDENTIAL FLOOR AREA USED					5256.83		
MAXIMUM BUILDING FAR ALLOWED					**7229.30**	<	**7,513.50**

LOT COVERAGE	0.6	MAX					
Z.R. 23-361 (b)		2,504.50	X	0.8	=	2,003.60	
ACTUAL LOT COVERAGE	**2,003.60**	>	**1,600.29**				**OK**

DENSITY CALCULATIONS	**ZR 23-52 (B)**	FAR MAX		FACTOR		
M1-2/R5D						
# OF ALLOWABLE D.U		5256.83	/	**680.00**	=	7.73
# OF D.U PROPOSED			=	**6.00**		OK

FRONT YARD			
ZR 117-632	REQUIRED FRONT YARD	ALIGNED WITH NEIGHBORING PROPERTY ON BOTH SIDES	
	PROPOSED	ALIGNED WITH NEIGHBORING PROPERTY ON BOTH SID	OK

MIN. REQD SIDE YARD			
23-462 Z.R.	NO SIDE YARD REQ'D		

REAR YARD				
23-342 Z.R. (A) (1)	MIN REQUIRED	20'-0"		
	PROPOSED	35'-8"		OK

STREET WALL	MAX PERMITTED	45'- 0"	WITHIN 25' OF A STREET LINE	
117-634 (b)	PROPOSED	45'- 0"	WITH QUALIFYING GROUND FLOOR	

STREET TREE PLANTING							
26-41 Z.R.	LOT WIDTH						
	25.00	/	25.00		=	1.00	REQUIRED

TYPES OF CONSTRUCTION

TABLE 601
FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (HOURS)

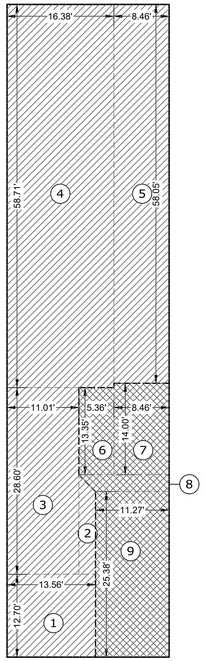
BUILDING ELEMENT	TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
	A	B	A[c]	B	A[c]	B	HT	A[c]	B
PRIMARY STRUCTURAL FRAME [g,k]	3[a]	2[a]	1	0	1	0		1	0
BEARING WALLS EXTERIOR [f,g,k] INTERIOR	3 3[a]	2 2[a]	1 1	0 0	2 1	2 0	2 1/HT	1 1	0 0
NONBEARING WALLS AND PARTITIONS EXTERIOR									
NONBEARING WALLS AND PARTITIONS INTERIOR [e]	0	0	0	0	0	0	See section 602.4.6	0	0
FLOOR CONSTRUCTION [i] AND SECONDARY MEMBERS (SEE SECTION 202)	2	2	1	0	1	0	HT	1	0
ROOF CONSTRUCTION [i] AND SECONDARY MEMBERS (SEE SECTION 202)	1 1/2 [b,c]	1[b,c]	1[b,c]	0[b,c]	1[b,c]	0	HT	1[b,c]	0

FOR SI: 1 FOOT = 304.8 MM.
a. ROOF SUPPORTS: FIRE-RESISTANCE RATINGS OF PRIMARY STRUCTURAL FRAME AND BEARING WALLS ARE PERMITTED TO BE REDUCED BY 1 HOUR WHERE SUPPORTING A ROOF ONLY.
B. 1. EXCEPT IN GROUP F-1,H,M AND S-1 OCCUPANCIES, FIRE PROTECTION OF STRUCTURAL MEMBERS SHALL NOT BE REQUIRED, INCLUDING PROTECTION OF ROOF FRAMING AND DECKING WHERE EVERY PART OF THE ROOF CONSTRUCTION IS 20 FEET OR MORE ABOVE ANY FLOOR IMMEDIATELY BELOW. FIRE-RETARDANT-TREATED WOOD MEMBERS SHALL BE ALLOWED TO BE USED FOR SUCH UNPROTECTED MEMBERS.
2.EXCEPT IN GROUP F OCCUPANCIES SUBJECT TO REGULATION UNDER SECTIONS 264(1) AND 264(2) OF THE NEW YORK STATE LABOR LAW AND IN GROUP I-1, R-1, AND R-2 OCCUPANCIES, IN TYPES I AND II CONSTRUCTION, FIRE-RETARDANT–TREATED WOOD SHALL BE ALLOWED IN BUILDINGS INCLUDING GIRDERS AND TRUSSES AS PART OF THE ROOF CONSTRUCTION WHEN THE BUILDING IS:
I.TYPE II CONSTRUCTION OF ANY HEIGHT; OR
II.TYPE I CONSTRUCTION TWO STORIES OR LESS; OR WHEN OVER TWO STORIES, THE VERTICAL DISTANCE FROM THE UPPER FLOOR TO THE ROOF IS 20 FEET OR MORE.
C.EXCEPT IN GROUP F OCCUPANCIES SUBJECT TO REGULATION UNDER SECTIONS 264(1) AND 264(2) OF THE NEW YORK STATE LABOR LAW, AND IN GROUP I-1, R-1 AND R-2 OCCUPANCIES, HEAVY TIMBER SHALL BE ALLOWED WHEREA 1-HOUR OR LESS FIRE-RESISTANCE RATING IS REQUIRED.
D. AN APPROVED AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION 903.3.1.1 SHALL BE ALLOWED TO BE SUBSTITUTED FOR 1-HOUR FIRE-RESISTANCE-RATED CONSTRUCTION, PROVIDED SUCH SYSTEM IS NOT OTHERWISE REQUIRED BY OTHER PROVISIONS OF THE CODE OR USED FOR AN ALLOWABLE AREA INCREASE IN ACCORDANCE WITH SECTION 506.3 OR AN ALLOWABLE HEIGHT INCREASE IN ACCORDANCE WITH SECTION 504.2. THE 1-HOUR SUBSTITUTION FOR THE FIRE RESISTANCE OF EXTERIOR WALLS SHALL NOT BE PERMITTED.
E. NOT LESS THAN THE FIRE-RESISTANCE RATING REQUIRED BY OTHER SECTIONS OF THIS CODE.
F. NOT LESS THAN THE FIRE-RESISTANCE RATING BASED ON FIRE SEPARATION DISTANCE (SEE TABLE 602).
G. NOT LESS THAN THE FIRE-RESISTANCE RATING AS REFERENCED IN SECTION 704.10.
H. SEE NOTE GOF TABLE 602.
I. SEE SECTION 712.3FOR ADDITIONAL REQUIREMENTS.
J. TYPE V CONSTRUCTION IS NOT PERMITTED INSIDE FIRE DISTRICTS EXCEPT AS PROVIDED FOR IN SECTION D105.1 OF APPENDIX D.
K. SEE SECTION BC 403.2.1 FOR ADDITIONAL REQUIREMENTS FOR HIGH-RISE BUILDINGS.

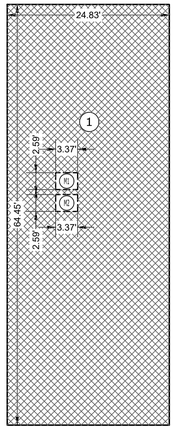
FLOOR AREA BREAKDOWN

LEGEND

COMMERCIAL
RESIDENTIAL
DEDUCTION



1ST FLOOR BREAKDOWN



2ND - 4TH FLOOR BREAKDOWN

LEGEND OF ZONING FLOOR AREA DEDUCTION
A = CORRIDOR DEDUCTION
M1-M2 = CHASES AND PLUMBING

AREAS					
1ST FLOOR GROSS COMMERCIAL AREA					
1	L x W		13.56	12.70	172.21
2	CAD				32.60
3	L x W		11.01	28.60	314.89
4	L x W		16.38	58.71	961.67
5	L x W		8.46	58.05	491.10
SUBTOTAL FIRST FLOOR COMMERCIAL GROSS AREA					**1,972.47**
1ST FLOOR GROSS RESIDENTIAL AREA					
6	L x W		5.36	13.35	71.56
7	L x W		8.46	14.00	118.44
8	CAD				32.30
9	L x W		11.27	25.38	286.03
SUBTOTAL FIRST FLOOR RESIDENTIAL GROSS AREA					**508.33**
TOTAL FIRST FLOOR GROSS AREA					**2,480.80**

RESIDENTIAL AREAS					
2ND - 4TH FLOOR					
NEW					
1	L x W		24.83	64.45	1600.29
TOTAL GROSS					**1600.29**
2ND - 4TH FLOOR MECH DEDUCTIONS					
M1	L x W		3.37	2.59	8.73
M2	L x W		3.37	2.59	8.73
TOTAL DED.					**17.46**
TOTAL FLOOR AREA					**1582.84**

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PROJECT:
40TH AVENUE LLC
23-06 40TH AVENUE
LONG ISLAND CITY, NY 11101

BUILDING CODE:	2022
BLOCK:	0408
LOT:	23
BIN:	4004940
COMMUNITY BOARD:	401
ZONING MAP:	9B
ZONING DISTRICT	M1-2/R5D
OCCUPANCY CLASS:	R-2
CONSTRUCTION CL.:	1B
USE GROUP:	2A/17A

Scope of Work:
PROPOSED 5 STORY MIXED USE BUILDING WITH 6 CLASS A DWELLING UNITS.

BPP APP #:
PLUMBING APP:
MECHANICALAPP:
CONST FENCE: Q00423392-I1
GC APP#: Q01019618-I1
ST:

APPROVED PLANS MUST BE ON SITE AT ALL TIMES.
IF WORK DEVIATES FROM APPROVED PLANS, ARCHITECT MUST BE IMMEDIATELY NOTIFIED.

PLAN EXAMINER STAMP & SIGNATURE

Issued:
02-10-25 UPDATED PLANS

Revisions:

CLIENT:
40TH AVENUE LLC
23-06 40TH AVENUE
LONG ISLAND CITY, NY 11101

Drawing Title:
ZONING COMPUTATIONS, TR INSPECTIONS

Seal & Signature:
REGISTERED ARCHITECT ANGELO SULTANA JR. No. 27357 STATE OF NEW YORK

DATE:	02-10-2025
PROJECT #:	23.064
DRAWING BY:	C.R
CHECKED BY:	J.S.
DWG No:	Z-101.00
CADD FILE NO: 23.064	YANG/LIU
	2 OF 34

FIRE STOPPING NOTES:

CONCEALED SPACES WITHIN PARTITIONS, WALLS, FLOORS, ROOFS, STAIRS, FURRING, PIPE SPACES, COLUMN ENCLOSURES, ETC. THAT WOULD PERMIT PASSAGE OF FLAME, SMOKE, FUMES, OR HOT GASES FROM ONE FLOOR TO ANOTHER FLOOR OR ROOF SPACE, OR FROM ONE CONCEALED AREA TO ANOTHER, SHALL BE FIRSTOPPED TO FORM AN EFFECTIVE DRAFT BARRIER, OR SHALL BE FILLED WITH NONCOMBUSTIBLE MATERIAL. FIRESTOPPING SHALL NOT BE REQUIRED WHERE A CONCEALED SPACE IS SPRINKLERED IN ACCORDANCE WITH THE CONSTRUCTION PROVISIONS OF SUBCHAPTER SEVENTEEN OF THE N.Y.C.B.C.

FIRESTOPPING MATERIAL:

1. IN BUILDING OF CONSTRUCTION GROUP 1, FIRESTOPPING OR FILL SHALL BE OF NONCOMBUSTIBLE MATERIAL THAT CAN BE SHAPED, FITTED AND PERMANENTLY SECURED IN POSITION.
2. IN BUILDINGS OF CONSTRUCTION GROUP II, FIRESTOPPING MAY BE OF COMBUSTIBLE MATERIAL CONSISTING OF WOOD NOT LESS THAN TWO INCHES NOMINAL THICKNESS WITH TIGHT JOINT. NONCOMBUSTIBLE FIRESTOPPING MAY BE MASONRY SET IN MORTAR, CONCRETE, THREE-QUARTER INCH THICK MORTAR OR PLASTER ON NONCOMBUSTIBLE LATH, FIRE-RATED WALLBOARD AT LEAST FIVE-EIGHTS OF AN INCH THICK, SHEET METAL AT LEAST NO. 14U.S. STD. GAGE THICK, SOLID WEB METAL STRUCTURAL MEMBERS, OR EQUIVALENT RIGID NONCOMBUSTIBLE MATERIAL. MINERAL, SLAG, OR ROCKWOOL MAY BE USED FOR FIRESTOPPING WHEN COMPACTED TO A DENSITY OF AT LEAST THREE AND ONE-HALF POUNDS PER CUBIC FOOT INTO A CONFINED SPACE OF LEAST DIMENSION NOT MORE THAN ONE-THIRD ITS SECOND DIMENSION.
3. HOLLOW PARTITIONS AND FURRED SPACES. ALL HOLLOW PARTITIONS AND FURRED OUT SPACES SHALL BE FIRESTOPPED AT EACH FLOOR LEVEL. FIRESTOPS SHALL BE THE FULL THICKNESS OF THE HOLLOW SPACE OR FURRED OUT SPACE
4. STAIRS. CONCEALED SPACES WITHIN STAIR CONSTRUCTION SHALL BE FIRESTOPPED BETWEEN STRINGERS AT THE TOP AND BOTTOM OF EACH FLIGHT OF STAIRS SO AS NOT TO COMMUNICATE WITH CONCEALED SPACES IN THE FLOOR, ROOF OR INTERMEDIATE LANDING CONSTRUCTION.
5. CEILING SPACES. FLOOR OR ROOF ASSEMBLIES REQUIRED TO HAVE A FIRE-RESISTANCE RATING SHALL HAVE ANY CONCEALED SPACES HEREIN FIRESTOPPED IN ACCORDANCE WITH SECTION 27-327 OF THE N.Y.C.B.C.
6. DUCT AND PIPE SPACES. DUCTS AND PIPES ENCLOSED IN CONSTRUCTION THAT DOES NOT MEET THE REQUIREMENTS OF THIS CODE FOR SHALL CONSTRUCTION SHALL BE FIRESTOPPED AT EVERY FLOOR LEVEL.
7. INSPECTION OF FIRESTOPPING. THE INSTALLATION OF ALL REQUIRED FIRESTOPPING SHALL BE SUBJECT TO THE CONTROLLED INSPECTION REQUIREMENTS OF SECTION 27-132 OF ARTICLE SEVEN OF THE N.Y.C.B.C. FIRESTOPPING SHALL NOT BE CONCEALED FROM VIEW UNTIL INSPECTED.
8. 27-346 PARTITIONS AND FURRING. IN BUILDINGS OF CONSTRUCTION GROUP I, PARTITIONS AND FURRING SHALL BE CONSTRUCTED OF NONCOMBUSTIBLE MATERIALS, EXCEPT THAT NONBEARING PARTITIONS THAT ARE NOT REQUIRED TO HAVE A FIRE-RESISTANCE RATING, AND FURRING MAY BE CONSTRUCTED OF FIRE RETARDANT TREATED WOOD AS PROVIDED IN SUBDIVISION (D) OF SECTION 27-328 OF ARTICLE THREE OF THIS SUBCHAPTER, AND EXCEPT THAT SUCH PARTITIONS AND FURRING, MAY BE CONSTRUCTED OF COMBUSTIBLE MATERIALS IN SPACES CLASSIFIED IN OCCUPANCY GROUP E, J-2 OR J-3, PROVIDED THE FOLLOWING CONDITIONS ARE MET:
9. A. THE SPACE CONTAINING THE COMBUSTIBLE PARTITIONS DOES NOT EXCEED FIVE THOUSAND SQUARE FEET IN AREA WITHIN A NONCOMBUSTIBLE ENCLOSURE HAVING A FIRE-RESISTANCE RATING OF AT LEAST ONE HOUR. B. THE SPACE IS IN A SINGLE TENANCY. C. GLASS OR SLOW BURNING PLASTIC IS USED FOR GLAZING.

SMOKE AND CARBON MONOXIDE DETECTOR NOTES:

- EACH DWELLING UNIT SHALL BE EQUIPPED WITH AN APPROVED TYPE SMOKE / CARBON MONOXIDE DETECTOR DEVICES RECEIVING PRIMARY POWER FROM THE BUILDING WIRING WITH NO SWITCHES IN THE CIRCUIT OTHER THAN THE OVERCURRENT DEVICE PROTECTING THE BRANCH CIRCUIT; PROVIDED. HOWEVER THAT DWELLING UNITS IN EXISTING BUILDINGS MAY, IN THE ALTERNATIVE, BE EQUIPPED WITH BATTERY OPERATED DEVICES EXCEPT WHERE SUCH BUILDINGS ARE SUBSTANTIALLY IMPROVED OR ALTERED. AS PER SECT. 27-980.
- ALL SMOKE / CARBON MONOXIDE DETECTOR(S) MUST BE EITHER THE IONIZATION-CHAMBER TYPE OR PHOTO-ELECTRIC DETECTOR TYPE AS PER NYC 2008 CODE, AND INTERCONNECTED
- ALL SMOKE/CARBON MONOXIDE DETECTORS MUST BE INSTALLED WITHIN 15'-0" OF THE ENTRANCE OF ANY SLEEPING ROOM, WALL OR CEILING MOUNTED AND INDICATED ON PLAN AS PER N.F.P.A. #74-1980.
- A CERTIFICATE OF SATISFACTORY INSTALLATION FOR SMOKE / CARBON MONOXIDE DETECTORS MUST BE FILED WITH THE DIVISION OF CODE ENFORCEMENT, HPD 10 DAYS AFTER INSTALLATION.
- EVERY DWELLING UNIT IN A BUILDING WITHIN OCCUPANCY GROUP J-1, J-2 OR J-3 WHERE A FOSSIL FUEL-BURNING FURNACE OR BOILER IS USED, SHALL BE EQUIPPED WITH AN OPERATIONAL SMOKE / CARBON MONOXIDE DETECTING DEVICES APPROVED IN ACCORDANCE WITH THE RULES BY THE COMMISSIONER.

ELECTRICAL

1. ALL ELECTRICAL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR.
2. ALL ELECTRICAL EQUIPMENT & WIRING SHALL BE IN ACCORDANCE WITH THE ELECTRICAL CODE OF THE CITY OF NEW YORK AND AS REQUESTED BY THE OWNER, IN ADDITION TO THESE REQUIREMENTS THE CONTRACTOR SHALL OBTAIN ALL PERMITS, APPROVALS, AFFIDAVITS, CERTIFICATIONS, SIGN-OFFS, ETC. AND PAY ALL FEES AS REQUIRED BY THE LOCAL AUTHORITIES.
3. ALL TEMPORARY ELECTRICAL EQUIPMENT AND WIRING SHALL MEET THE REQUIREMENTS OF THE ELECTRICAL CODE OF NEW YORK CITY, AND SHALL BE MAINTAINED TO MEET SUCH REQUIREMENTS.
4. PORTIONS OF PERMANENT ELECTRICAL INSTALLATIONS MAY BE USED FOR TEMPORARY OPERATIONS PROVIDED THE REQUIREMENTS OF THE ELECTRICAL CODE ARE MET.
5. AT LEAST 72 HOURS BEFORE WORK IS BEGUN THAT MAY AFFECT A POWER LINE, ABOVE OR BELOW GROUND, THE PERSON SUPERINTENDING THE WORK SHALL NOTIFY THE UTILITY COMPANY AFFECTED.

SLABS ON GROUND

SLABS ON GROUND TO BE 6" THICK (UNLESS OTHERWISE INDICATED) REINFORCED WITH 6X6 #10X#10 WELDED WIRE MESH. SLABS TO BE PLACED ON 6" POROUS FILL, UNLESS OTHERWISE INDICATED.

CONCRETE TO BE 2,000 POUND CONCRETE, SLABS TO BE POURED IN CHECKERBOARD FASHION.

MAXIMUM POUR BETWEEN PREMOULDED EXPANSION JOINTS 625 S.F. PROVIDE EXPANSION JOINTS AROUND PERIMETER AT COLUMNS.

REINFORCING BARS

ALL CONTINUOUS REINFORCING BARS TO BE LAPPED 32 X BAR DIAMETER SPLICES AND CORNERS UNLESS OTHERWISE INDICATED. LAP CONTINUOUS BARS AT CENTER BETWEEN SUPPORTS AND AT SUPPORTS. TERMINATE CONTINUOUS BARS AT NON-CONTINUOUS ENDS WITH STANDARD HOOKS.

PROVIDE CORNER BARS AT WALL INTERSECTIONS SAME SIZE AND SPACING AS HORIZONTAL BARS, (MIN. #4 & #12 X 5'-0").

HOUSING MAINTENANCE CODE NOTES:

1. PAINTING OF PUBLIC PARTS AND WITHIN DWELLINGS TO COMPLY WITH SEC. D26-12.01 H.M.C. & SEC. 80 M.D.L..
2. WALLS OF COURTS AND SHAFTS TO BE OF A LIGHT COLORED SURFACE AS PER SEC. D26-12.05 H.M.C. & SEC. 29 M.D.L..
3. PREMISES TO BE MAINTAINED AND KEPT FREE OF RODENT AND INSECT INFESTATION AS PER SEC. D26-13.03 AND D26-13.05 H.M.C..
4. RECEPTACLES FOR COLLECTION OF WASTE MATTER TO BE PROVIDED AS PER SEC. D26-14.03 AND D26-14.05 H.M.C. AND SEC. 81 M.D.L..
5. DRAINAGE OF ROOFS, COURTS AND YARDS TO COMPLY WITH SEC. D26-16.03 H.M.C. AND SEC. 77 SUBD. 3 M.D.L..
6. YEARLY INSPECTIONS OF CENTRAL HEATING PLANT BY QUALIFIED PERSON TO BE MADE AS PER SEC. D26-17.05 H.M.C.. CENTRAL HEAT AND HOT WATER TO BE PROVIDED AS PER SEC. 79 SUBD. 1 M.D.L..
7. YEARLY INSPECTION OF GAS APPLIANCES BY QUALIFIED PERSON TO BE MADE IN "OLD LAW TENEMENTS" OR "ROOMING UNIT" AS PER SEC. D26-18.05 H.M.C..
8. PROPER ELECTRIC LIGHTING EQUIPMENT WITHIN DWELLING TO BE PROVIDED AND MAINTAINED AS PER SEC. D26-19.01, D26-19.03 AND D26-19.05 H.M.C..
9. PROPER ELECTRIC LIGHTS TO BE PROVIDED NEAR ENTRANCE WAYS, YARDS AND COURTS AS PER SEC. D26-19.07 H.M.C., ON SEPARATE CIRCUIT OR CONNECTED TO HOUSE LINE SERVICING PUBLIC HALLS, AND IN ACCORDANCE WITH REQUIREMENTS AND APPROVAL OF THE DEPARTMENT OF WATER SUPPLY, GAS AND ELECTRICITY. AS PER SEC. 35 AND SEC. 26 SUBD. 7A M.D.L. AND DEPARTMENT RULES AND REGULATIONS.
10. BOARD OF STANDARDS AND APPEALS APPROVED TYPE PEEPHOLES APPROXIMATELY 5 FEET ABOVE FINISHED FLOOR TO BE PROVIDED IN ENTRANCE DOORS OF DWELLING UNITS AS PER SEC. D26-20.01 H.M.C. AND DEPARTMENT RULES AND REGULATIONS, AND SEC. 51A M.D.L..
11. PROPERLY MOUNTED AND SECURED POLISHED METAL VIEWING MIRRORS TO BE PROVIDED WITHIN SELF-SERVICE ELEVATORS AS PER SEC. D26-20.05 H.M.C.. AND DEPARTMENT RULES AND REGULATIONS.
12. KEY LOCK IN THE ENTRANCE DOOR TO EACH DWELLING UNIT WITH AT LEAST ONE KEY TO BE PROVIDED BY OWNER AS PER SEC. D26-20.05 H.M.C.. PROVIDE WITH HEAVY DUTY LATCH SET, DEADBOLT THUMBTURN INSIDE, AND DOOR CHAIN GUARD.
13. APPROVED TYPE MAIL RECEPTACLES AND DIRECTORY OF PERSONS LIVING IN DWELLING TO BE PROVIDED AS PER SEC. D26-21.01 H.M.C. AND REGULATIONS OF POST OFFICE DEPARTMENT AND SEC. 57 M.D.L..
14. PROPER FLOOR SIGNS TO BE PROVIDED IN PUBLIC HALL NEAR STAIRS AND ELEVATOR AND WITHIN STAIR ENCLOSURE AS PER SEC. D26-21.03 H.M.C. AND DEPARTMENT RULES AND REGULATIONS.
15. PROPER STREET NUMBERS TO BE PROVIDED IN FRONT OF THE DWELLING AS PER SEC. 82 (3)-1.0 ADMINISTRATIVE CODE, SEC. D26-21.05 H.M.C. AND RULES AND REGULATIONS OF BOROUGH PRESIDENT.
16. YEARLY INSPECTION OF REQUIRED SPRINKLER SYSTEM BY QUALIFIED PERSON TO BE MADE AS PER SEC. D26-21.07 H.M.C.. (NOTE: APPLICABLE ONLY TO S.R.O. TENEMENTS AND CONVERTED DWELLINGS.)
17. A RESIDENT MANAGER RESPONSIBLE FOR OPERATION AND MAINTENANCE OF ROOMING UNITS TO BE PROVIDED AS PER SEC. D26-21.09 H.M.C..
18. PROPER JANITORIAL SERVICES TO BE PROVIDED AS PER SEC. D26-22.03 AND D26-22.05 H.M.C..
19. EVERY KITCHEN AND KITCHENETTE TO BE PROVIDED WITH SINK HAVING MINIMUM 2-INCH WASTE AND TRAP AS PER SEC. D26-32.01 H.M.C..
20. NO KITCHEN SHALL BE OCCUPIED FOR SLEEPING PURPOSES. SEC. D26-33.05 H.M.C.
21. NO ROOMING UNIT TO BE OCCUPIED BY A FAMILY WITH A CHILD UNDER 16 YEARS OF AGE EXCEPT AS PERMITTED UNDER SEC. D26-33.05 H.M.C..
22. MAXIMUM TWO BOARDERS, ROOMERS OR LODGERS PERMITTED TO EACH FAMILY EXCEPT THAT MAXIMUM ONE BOARDER, ROOMER, OR LODGER PERMITTED IF LOCATED IN ZONING DISTRICTS RESTRICTED TO ONE AND TWO FAMILY DWELLINGS. SEC. D26-33.09 H.M.C. AND DEPARTMENT RULES AND REGULATIONS.
23. PROPER REGISTER TO BE PROVIDED AND MAINTAINED AS PER SEC.D26-33.13 H. M.C.. NOTE: APPLICABLE ONLY TO ROOMING HOUSES AND SINGLE ROOM OCCUPANCY DWELLINGS.
24. REGISTRATION STATEMENT TO BE FILED AS PER SEC. D26-41.01 AND D26-41.03 H.M.C..
25. REGISTRATION IDENTIFICATION SIGN CONTAINING DWELLING SERIAL NUMBER TO BE POSTED AS PER SEC. D26-41.L5 H.M.C..
26. ALL BATHROOMS, TOILETS AND BATHING COMPARTMENTS TO HAVE CERAMIC TILE FLOOR AND 6" MIN. CERAMIC TILE BASE, WALLS AND CEILING PLASTER, AS PER SEC. 76 M.D.L. AND SEC. D-26-31.03 E.M.C..
27. ALL DOORS LEADING TO PUBLIC HALL SHALL BE SELF-CLOSING. NO TRANSOMS OR PLAIN GLASS PANEL.
28. BUILDING TO COMPLY WITH SEC. 64 M.D.L.. GAS METERS, GAS APPLIANCES AND ARTIFICIAL LIGHTING.
29. BUILDING TO COMPLY WITH SEC. D26-33.03 H. M. C. MAXIMUM OCCUPANCY, MINIMUM ROOM AREA, ARTICLE 33D-26-33.01 SUBD. B.& E.
30. ENTIRE BUILDING TO COMPLY WITH LOCAL LAWS APPLICABLE TO ART. 6 WITH H.M.C. AND DEPARTMENT RULES AND REGULATIONS.
31. ALL WINDOWS ARE DOUBLE HUNG AND SIZES SHOWN ARE B.S.B. 1/2 OPENABLE.
32. DOORS LEADING TO INTERIOR BATHROOMS TO HAVE 1/2" CLEAR SPACE BETWEEN BOTTOM OF DOORS AND SADDLES.
33. ALL NEWLY CREATED PARTITIONS IN PUBLIC HALLS TO BE FIRE RETARDED ON BOTH SIDES AND FIRE STOPPED AT TOP AND BOTTOM AS PER DEPARTMENT RULES AND REGULATIONS. RULE 1.2.10 AND RULE 1.7.
34. EVERY VESTIBULE, ENTRANCE, PUBLIC AND STAIR HALL TO BE PROVIDED WITH A MINIMUM OF 60 WATT LIGHTS AS PER SEC. 37, SUBD. 1 M.D.L..
35. NEW 8" x 8" KITCHENETTE VENT DUCT TO BE OF 16 GAUGE METAL, FIRE RETARDED WITH WIRE LATH AND 1" P.C. PLASTER, PROVIDED WITH GRAVITY DAMPERS, REGISTERS, FUSIBLE LINKS AND FAN PROVIDING AT LEAST 6 CHANGES OF AIR PER HOUR. FAN TO BE CONNECTED TO LIGHT SWITCH, 150 CFM PER KITCHENETTE. DUCT TO TERMINATE A MINIMUM OF 4'-0" FROM ANY LIVING ROOM WINDOW.
36. INTERIOR BATHROOMS TO BE MECHANICALLY VENTILATED, 8" x 8" G.I. DUCT, 24 GAUGE, FIRE RETARDED WITH WIRE LATH AND 1" P.C. PLASTER, PROPERLY FIRE STOPPED AT CEILING, FLOOR AND ROOF BEAMS. PROVIDED WITH REGISTER, GRAVITY DAMPER WITH FUSIBLE LINK AND FAN PROVIDING 4 CHANGES OF AIR PER HOUR, CONNECTED TO LIGHT SWITCH. DUCT TO TERMINATE 4'-0" FROM ANY LIVING ROOM WINDOW.

MULTIPLE DWELLING NOTES:

1. ALL BATHROOMS TO HAVE TILE FLOOR AND 6" MINIMUM TILE BASE. WALLS AND CEILING PLASTERED.

2. 12' x 12' G.I. VENT DUCTS FOR NEW BATHROOMS TO BE OF 24 GAUGE METAL, FIRE RETARDED WITH WIRE LATH AND 1' P.C. MORTOR TO MINIMUM 4'-0" ABOVE ROOF AND FIRE STOPPED WITH 2 LAYERS OF 1/2" PLASTERBOARDS BETWEEN BEAMS AT FLOOR AND ROOF, PROVIDED WITH REGISTER, GRAVITY DAMPER, WITH FUSIBLE LINK AND TO EXTEND 4'-0" ABOVE ROOF WITH APPROVED WIND DRIVEN CAP, 4'-0" APART.

3. DOORS LEADING TO BATHROOMS TO HAVE 1/2" CLEAR SPACE BETWEEN BOTTOM OF DOORS AND SADDLES.

4. BATHROOMS TO HAVE 2'-0" G.I. SKYLIGHT WITH AT LEAST 3 SQ. FT. OF GLAZED SURFACE (WIRE GLASS) 1/2 TO BE OPENABLE WITH OPERATING GEAR AND TO HAVE 30 SQ. IN OF RIDGE VENTS.

5. ALL COMBUSTIBLE UNDER AND WITHIN 1'-0" OF GAS RANGES TO BE FIRE RETARDED WITH 3/16" ASBESTOS AND 24 GAUGE METAL. MAINTAIN 3'-0" MIN. CLEARANCE ABOVE RANGES. PROTECT UNDERSIDE OF CABINETS OVER RANGES IN LIKE MANNER.

6. KITCHENETTE WALLS AND CEILING TO BE FIRE RETARDED WITH 5/8" F.C. 60 SHEETROCK.

7. NEW 8" X 8" KITCHENETTE VENT DUCT TO BE OF 24 GAUGE METAL, FIRE RTARDED WIRE LATH AND 1" P.C. MOTOR 4'-0" MIN. ABOVE ROOF. FIRE STOPPED WITH 2 LAYERS OF 1/2" PLASTERBOARDS BETWEEN BEAMS AT FLOORS AND ROOF. PROVIDED WITH GRAVITY DAMPERS, REGISTER, FUSIBLE LINKS AND FAN PROVIDING AT LEAST 6 CHANGES OF AIR PER HOUR, 150 CFM PER KITCHENETTE. FAN TO BE CONNECTED TO LIGHT SWITCH. DUCT TO EXTEND 4'-0" ABOVE ROOF.

8. A TEST WILL BE CONDUCTED UNDER DIRECTION OF A LICENSED P.C. OR R.A. UPON COMPLETION OF THE VENTILATING SYSTEM.

9. THE LICENSED P.E. OR R.A. WILL FILE A CERTIFICATION THAT THE SYSTEM COMPLIES WITH THE APPLICABLE LAWS.

10. A STATEMENT WILL BE FILED BY THE OWNER THAT THE VENTILATING SYSTEM WILL BE KEPT IN CONTINUOUS OPERATION DURING NORMAL OCCUPANCY OF THE PREMISES. UNDERWRITERS.

11. ALL FIRE DAMPERS ARE TO BE OF TYPE APPROVED BY THE BOARD OF FIRE REMOVED.

12. PARTITIONS SHOWN THUS === AND UNLESS OTHERWISE SPECIFIED SHALL BE

13. PARTITIONS SHOWN THUS === TO BE NEW AND FRAMED WITH 2" X 4"-16" O.C. STUDS COVERED WITH 5/8" F.C. 60 WHEETROCK UNLESS OTHERWISE SPECIFIED.

14. NEW PUBLIC HALL PARTITIONS SHALL BE FIRE RETARDED WITH ROCK LATH AND 3/4" GYPSUM PLASTER ON BOTH SIDES AND PROPERLY FIRESTOPPED.

15. ALL DOORS LEADING TO PUBLIC HALLS SHALL BE SELF-CLOSING.

16. SKYLIGHT OVER PUBLIC HALL TO HAVE AT LEAST 9 SQ. FT. OF PLAIN GLASS 40 SQ. IN. OF FIXED RIDGE VENTS, WIRE SCREEN OVER AND UNDER.

17. BUILDING TO COMPLY WITH SEC. D-26-3.1 OF THE MULTIPLE DWELLING CODE. REGISTERTION OF OWNERSHIP.

18. SIGN IDENTIFYING OWNER OR AGENT AND SUPERINTENDENT AS PER D-26-3.2 MULTIPLE DWELLING CODE. M.D.C.

19. ALL FLOORS TO BE PROPERLY DESIGNATED BY SIGNS AS PER SEC. D26-3.19

20. PROPER HOUSE NUMBER TO BE DISPLAYED AS PER SEC. 885 CHARTER.

21. BUILDING TO COMPLY WITH SEC. 64 M.D.L. GAS METERS, GAS APPLIANCES, AND ARTIFICAL LIGHTINGS.

22. PREMISES TO COMPLY WITH NYC 2008 CODE REFERENCE TO KITCHENETTES.

23. BUILDING TO COMPLY WITH NYC 2008 CODE MAXIMUM OCCUPANCY MINIMUM ROOM AREA SUPPLY.

24. BUILDING TO COMPLY WITH SECT. D26-3.10 REFERENCE TO HEATING AND WATER

25. ENTIRE BUILDING TO COMPLY WITH LOCAL LAWS APPLICABLE TO ART. 3 & 7 WITH M.D.C. AND DEPT. RULES AND REGULATIONS.

26. DRAINS FOR AREA AWAY, YARD AND ROOF TO COMPLY WITH SECT. 77 M.D.L.

27. ALL NEW LUMBER TO BE GRADE MARKED BEFORE DELIVERED TO SITE.

28. ALL NEW STRUCTURAL LUMBER TO BE DOUGLAS FIR #1 COM. F=1450 PSC.

29. ALL WINDOW SIZES GIVEN ARE B.S.B. ALL WINDOWS ARE DOUBLE HUNG.

30. ALL CONC. TO BE 1-2-3- 1/2 MIX 7 1/2 GALLON WATER/SACK CEMENT.

31. ALL MASONRY WORK TO BE LAID IN 1:3 MORTAR.

MASONRY NOTES:

1. ALL PARTY WALLS TO BE 8" APPROVED SOLID LOAD BEARING CONCRETE BLOCK.
2. THE QUALITY OF ALL MASONRY UNITS USED IN THE BUILDINGS SHALL CONFORM TO THE STANDARD AND GRADE SHOWN IN TABLE RS10-1. MANUFACTURER'S CERTIFICATION AS TO SUITABILITY OF THE MATERIALS FOR THE PROPOSED USE SHALL BE SUBMITTED FOR ALL MASONRY UNITS USED IN STRUCTURAL APPLICATIONS. CONTRACTOR TO FILE 10H & 10J FORMS.
3. HOLLOW MASONRY & SOLID BUILDING BLOCKS SHALL BEAR DISTINGUISHING MARK APPROVED BY B.S. OF A.
4. MASONRY WALLS SHALL BE ANCHORED TO C-JOISTS WITH 2"x2"x16 GA. MIN. CLIP ANGLES FASTENED TO THE END OF EACH JOIST AND INBEDED INTO THE MASONRY WALLS PARALLEL TO BEAMS SHALL BE ANCHORED AT MAXIMUM INTERVALS OF 6'-0" WITH METAL ANCHORS 1/4"X1-1/4"X48" ENGAGING 3 BEAMS AS PER RS10-1 SECTION 9-5. ALL ANCHORS SHALL BE IN LINE WITH THE BRIDGING OR BLOCKING.
5. ALL VOIDS IN MASONRY BEARING SHALL BE FILLED SOLIDLY W/ CONCRETE FOR A HORIZONTAL DISTANCE OF 2'-0" AT THE ENDS OF ALL WALLS. ALL STEEL BEARING ON BLOCK TO HAVE 3 COURSES FILLED SOLID UNDER BEARINGS.
6. THERE SHALL BE ONE HEADER COURSE FOR EACH SIX COURSES OF BRICK AND BRICK SHALL BE LAID IN A 50% BOND AS PER 2008 NYC CODE. WALL TIES AS PER NEW YORK CITY BUILDING CODE.
7. LINTELS SUPPORTING MASONRY WALLS OVER 4'-0" SHALL BE FIRE PROTECTED WITH MATERIALS HAVING THE REQUIRED FIRE RESISTIVE RATING OF THE WALL SUPPORTED AS PER SECTION C26-502.4.
8. MORTAR TO COMPLY WITH ASTM C270/1964 AND TABLE R.S.10-1-2.
9. ALL MASONRY TO BE LAID IN "M" TYPE MORTAR: 1 PART PORTLAND CEMENT, 2-1/4 PARTS SAND, AND 1/4 PART HYDRATED LIME MORTAR JOINTS TO BE FULLY BEDDED.
10. ALL ROUGH MASONRY OPENINGS ARE TO BE COORDINATED W/ THE WINDOW & DOOR MANUFACTURERS AND OR SUPPLIERS.

STEEL NOTES

1. UNLESS OTHERWISE NOTED ALL STEEL TO BE A36 22,000 PSI ALLOWABLE BENDING STRESS CONFORMING WITH ASTM A36-67
2. STRUCTURAL STEEL DESIGN, FABRICATION, AND ERECTION SHALL CONFORM TO AS PER 2008 NYC CODE
3. LIGHT GAUGE COLD FORMED STEEL SHALL CONFORM TO AS PER 2008 NYC CODE AND TPPN 2/00.
4. PROVIDE STANDARD BOLTED CONNECTIONS, SEPARATORS, BOLTS FOR STRUCTURAL STEEL MEMBERS, STANDARD BEARING PLATES TO BE PROVIDED UNDER STEEL BEAMS AND COLUMNS AT SUPPORTS.
5. WELDING SHALL BE PERFORMED UNDER THE SUPERVISION OF A STANDARD TESTING AGENCY ACCEPTABLE TO THE BOROUGH COMMIS. UPON COMPLETION OF ALL STRUCTURAL WELDING OPERATIONS, THE P.E. OR R.A. RESPONSIBLE FOR THE DESIGN SHALL CERTIFY TO THE BLDG. DEPT. THAT THE REQUIREMENTS OF B.S.A. RULES (465-44 SR) HAS BEEN FULFILLED.
6. ALL STRUCTURAL STEEL TO BE PROTECTED AS INDICATED BY AS PER 2008 NYC CODE.
7. UNLESS OTHERWISE NOTED ALL STRUCTURAL STEEL SHALL RECEIVE 2 COATS OF RUST-INHIBITIVE PAINT, 1 SHOP & 1 FIELD. UNLESS OTHERWISE NOTED ALL STRUCTURAL STEEL SHALL RECEIVE 2 COATS OF RUST-INHIBITIVE PAINT, 1 SHOP & 1 FIELD.
8. ALL WELDING SHALL BE PERFORMED BY LICENSED WELDERS AND BE INSPECTED IN ACCORDANCE WITH TABLE 10-2. ELECTRODES SHALL BE E-70 ELECTRODES.
9. THE STEEL CONTRACTOR SHALL FURNISH ALL AFFIDAVITS, MILL TEST REPORTS, TESTING LABORATORY REPORTS REQUIRED BY THE BUILDING DEPARTMENT.
10. ALL LOOSE LINTELS SHALL HAVE MINIMUM OF 6" BEARING EACH END OF MASONRY OPENING.
11. STEEL CONTRACTOR SHALL SUBMIT 2 SETS OF SHOP DRAWINGS FOR REVIEW & APPROVAL BY THE ARCHITECT OR ENGINEER OF RECORD PRIOR TO ANY FABRICATION OR INSTALLATION.
12. ALL STRUCTURAL STEEL SHALL CONFORM WITH THE A.I.S.C. 1970 "SPECIFICATIONS FOR THE DESIGN, FABRICATION OF STRUCTURAL STEEL, AND ERECTION FOR BUILDINGS" AS AMENDED BY AS PER 2008 NYC CODE
13.
14. ALL STEEL SHALL BE ASTM A-16 UNLESS OTHERWISE NOTED.
15. ALL SHOP CONNECTIONS ARE TO BE WELDED OR BOLTED WITH HIGH-STRENGTH BOLTS (ASTM A-325).
16. FIELD CONNECTIONS ARE TO BE UNFINISHED BOLTS (ASTM A-307) UNLESS OTHERWISE NOTED THAT WELDING OR HIGH-STRENGTH ARE REQUIRED.
17. ALL REQUIRED WELDING, IF ANY, IS TO BE DONE IN ACCORDANCE WITH SECTION C26-381.0 OF THE N.Y.C. BUILDING CODE BY A LICENSED WELDER.
18. WELDING IS A CONTROLLED INSPECTION ITEM AND IS SUBJECT TO THE REQUIREMENTS AND REGULATIONS AS SET FORTH BY THE N.Y.C. BUILDING CODE.
19. AN AFFIDAVIT CERTIFYING THAT THE STRUCTURAL STEEL MEETS THE PROVISIONS OF THE N.Y.C. BUILDING CODE IS TO BE FURNISHED BY THE FABRICATOR.
20. A SHOP COAT AND FIELD COAT OF AN APPROVED PAINT IS TO BE APPLIED ON ALL STRUCTURAL STEEL.
21. ALL REQUIRED HOLES, OPENINGS, ETC. ARE TO BE PROVIDED IN THE STRUCTURAL STEEL TO ACCOMMODATE WORK OF OTHER TRADES. THEY SHALL BE SHOWN ON STRUCTURAL STEEL SHOP DRAWINGS AND SHALL BE MADE IN SHOP. FIELD BURNING OF HOLES OF CUTS ARE NOT PERMITTED UNLESS APPROVED BY THE ENGINEER.
22. STEEL BEAMS RESTING ON WALLS TO HAVE FULL BEARING ARE TO BE PROVIDED WITH ANCHORS, BEAMS OVER 12'-0" SPAN SHALL BE SUPPORTED ON BEARING PLATES, UNLESS OTHERWISE NOTED. BEARING PLATES SHALL BE OF THE FOLLOWING SIZES:

a.	BP 88	8" X 8" X 1/2"	BP 1414	14" X 14" X 1"
b.	BP 810	8" X 10" X 1/4"	BP 1616	16" X 16" X 1 1/4"
c.	BP 1010	10" X 10" X 1/4"	BP 1818	18" X 18" X 1 1/4"
d.	BP 1012	10" X 12" X 1"	BP 2020	20" X 20" X 1"
e.	BP 1212	12" X 12" X 1"	BP 2222	22" X 22" X 1"
f.	BP 1214	12" X 14" X 1"	BP 2424	24" X 24" X 1 1/4"
g.	BP 1216	12" X 16" X 1/ 3/4"	BP 2626	26" X 26" X 2"

GENERAL NOTES:

1. THESE NOTES ARE PART OF THE PLANS AND SPECIFICATIONS, AND ARE TO BE COMPLETED WITHIN ALL RESPECTS. MORE RESTRICTIVE NOTES MENTIONED ELSEWHERE ARE TO TAKE PRECEDENCE OVER THE FOLLOWING.
2. THE CONTRACTOR SHALL BE HELD TO HAVE VISITED THE SITE SO THAT HE MAY DETERMINE THE DIFFICULTIES HE MAY ENCOUNTER DURING CONSTRUCTION.
3. CONTRACTOR IS TO VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO THE COMMENCEMENT OF ANY WORK AND SHALL REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ARCHITECT.
4. THE CONTRACTOR DOING THE WORK SHALL OBTAIN NECESSARY PERMITS AND APPROVALS OF CONSTRUCTION. HE SHALL ALSO SECURE THE CERTIFICATE OF OCCUPANCY UPON CONCLUSION OF CONSTRUCTION.
5. THE ARCHITECT OF DESIGN HAS NOT BEEN RETAINED FOR ANY FIELD SUPERVISION OR INSPECTION.
6. SOIL ASSUMED TO BE TWO (2) TONS PER SQUARE FOOT SOIL BEARING VALUE. NO FOOTINGS TO BE POURED UNTIL VERIFICATION OF SOIL BY LOCAL AUTHORITIES HAVING JURISDICTION. ANY DISCREPANCIES TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
7. WHERE APPLICABLE, THE CONTRACTOR SHALL PROVIDE ALL REQUIRED SHORING AND BRACING OF WALLS AND FLOORS, BEFORE ANY REMOVAL WORK IS STARTED. UNDERPINNING, WHEN REQUIRED, SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
8. THE OWNER SHALL BE RESPONSIBLE FOR THE SAFE MAINTENANCE OF THE BUILDING AND ITS FACILITIES AS PER C26-105.0.
9. ALL MATERIALS, ASSEMBLIES, FORMS, AND METHODS OF CONSTRUCTION AND SERVICE EQUIPMENT SHALL MEET THE FOLLOWING REQUIREMENTS:
   a. IT SHALL HAVE BEEN ACCEPTABLE PRIOR TO THE EFFECTIVE DATE OF THE CODE BY THE BOARD OR;
   b. SHALL HAVE BEEN ACCEPTED FOR USE UNDER THE PRESCRIBED CODE TEST METHODS BY THE COMMISSIONER OR;
   c. APPROVED BY THE BOARD OF STANDARDS AND APPEALS AS PER C26-106.2.
10. ALL ELEVATIONS SHALL BE REFEREED TO THE U.S. COAST AND GEODETIC SURVEY MEAN SEAL LEVEL DATUM OF 1929 AS PER C26-110.3
11. AT LEAST 24 HOUR WRITTEN NOTICE SHALL BE GIVEN TO THE COMMISSIONER BEFORE COMMENCEMENT OF WORK AS PER C26-118.5
12. FIVE (5) DAYS PRIOR NOTICE SHALL BE GIVEN TO ADJOINING LOT OWNER AFFECTED BY FOUNDATION, EARTHWORK OR DEMOLITION WORK AS PER C26-112.3 & 113.3
13. AN ACCURATE AND COMPLETE LOT SURVEY, MADE BY A LICENSED SURVEYOR SHALL BE SUBMITTED AFTER COMPLETION OF WORK SHOWING THE LOCATION OF ANY NEW BUILDING AND/OR ANY EXTENSION TO AN EXISTING BUILDING SHOWING ELEVATION OF FIRST FLOOR, FINISHED GRADES OF OPEN SPACES, ESTABLISHED CURB LEVEL, LOCATION OF OTHER STRUCTURE ON LOT, LOCATION, AND BOUNDARIES OF LOT AS PER C26-121.7
14. POSTED OCCUPANCY AND USE. ALL BUILDINGS SHALL BE POSTED WITH A SIGN IN A FORM PRESCRIBED BY THE DEPARTMENT, PERMANENTLY AFFIXED, PLACED IN A CONSPICUOUS LOCATION IN PUBLIC HALL OR CORRIDOR, STATING LIVE LOADS AND OCCUPANT LOADS IN BUILDING AND ALL PARTS THEREOF AS PER 2008 NYC CODE.

EXCAVATION & CONC FOUNDATION

WHEN EXCAVATIONS ARE 5'-0" OR GREATER IN DEPTH FROM THE LEVEL OF ADJACENT GROUND, THE SIDES SHALL BE SHORED AS PER 2008 NYC CODE.

PROVIDE GUARD RAILS OR FENCES AT EXCAVATIONS AS PER 2008 NYC CODE.

ALL FOOTINGS HAVE BEEN DESIGNED FOR AN ASSUMED SOIL PRESSURE OF THREE (3) TONS PER SQUARE FOOT (UNLESS OTHERWISE NOTED), SUBJECT TO VERIFICATION BY INSPECTION, BY AN ENGINEER OR ARCHITECT, BEFORE PLACEMENT OF FOOTINGS.

ALL FOOTINGS TO BE CARRIED AT LEAST 4'-0" BELOW ADJACENT FINISHED GROUND LEVEL, BELOW HOUSE DRAIN AND DOWN TO VIRGIN SOIL. NEW FOOTINGS TO GO TO SAME LEVEL AS FOOTINGS OF ADJACENT PROPERTY. IF NEW FOOTINGS ARE LOWER, THE ADJACENT PROPERTY MUST BE UNDERPINNED. SUCH UNDERPINNING TO BE FILED UNDER SEPARATE APPLICATION BY A LICENSED ARCHITECT OR ENGINEER, TO BE RETAINED BY THE CONTRACTOR.

WHEN DIFFERENCES IN ELEVATION OCCUR, FOOTINGS ARE TO BE STEPPED AT A MAXIMUM OF 30 DEGREES TO THE HORIZONTAL.

PRE QUALIFIED MIXES: CONCRETE SHALL BE PRODUCED FROM BATCH APPROVED BY THE SUPERVISION OF AN ARCHITECT OR ENGINEER ENGAGED BY THE CONFORMANCE OF THE QUALITY AND CONDITION OF THE MATERIALS TO ACT 318, AND THAT THE INGREDIENTS ARE THE SAME OR EQUAL TO THOSE USED FOR THE PRE QUALIFYING MIXES. ATTESTATION OF QUALITY CONTROL AND INSPECTION AT THE BATCH PLANT SHALL APPEAR ON THE TICKET ACCOMPANYING EACH LOAD OF CONCRETE.

TEST CYLINDERS: THREE (3) TEST CYLINDERS SHALL BE MOLDED FOR EACH 50 YARDS OR FRACTION THEREOF OF EACH CLASS OF CONCRETE PLACED IN ANY ONE DAY. SAMPLES SHALL BE TAKEN DIRECTLY FROM MIXER AS PER ASTM C172, CURED AS PER ASTM C31, AND TESTED AT THE AGE OF 28 DAYS AS PER ASTM C39. TESTS SHALL BE PERFORMED BY A LICENSING TESTING LABORATORY. TEST CYLINDERS SHALL BE STORED IN AN INSULATED CURING, LOCATED TO MINIMIZE HAZARDS OF DISTURBANCE DURING CURING, FREE FROM VIBRATION, REMOTE FROM TRAFFIC, HEATED TO MAINTAIN PROPER CURING CONDITION. BOX SHALL BE PROVIDED WHEN FIRST LOAD OF CONCRETE IS DELIVERED. CYLINDERS SHALL REMAIN IN CURING BOX AT LEAST 24 HOURS, AND READY FOR DELIVERY TO TESTING LABORATORY.

WHEN EXCAVATIONS ARE 5'-0" OR GREATER IN DEPTH FROM THE LEVEL OF ADJACENT GROUND, THE SIDES SHALL BE SHORED AS PER 2008 NYC CODE.

PROVIDE GUARD RAILS OR FENCE AT EXCAVATIONS AS PER AS PER 2008 NYC CODE.

EXCAVATIONS SHALL BE SUBSTANTIALLY KEPT FREE OF WATER DURING FOUNDATION CONSTRUCTION AS PER 2008 NYC CODE.

ALL CONCRETE USED ON THIS PROJECT TO BE PROPORTIONED ON THE BASIS OF CALCULATED STRESSES LESS THAN 70% OF BASIC ALLOWABLE VALUES.

CONCRETE MATERIALS, DESIGN, AND CONSTRUCTION SHALL MEET THE REQUIREMENTS OF REFERENCE STANDARD AS PER 2008 NYC CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-1971, AS MODIFIED BY THE NEW BUILDING CODE).

CONCRETE IS TO BE PROVIDED ON THE BASIS OF A PREQUALIFIED OR PREVIOUSLY ACCEPTED MIX. (METHOD 1) - THE CONCRETE MIX IS TO EXHIBIT A STRENGTH AT LEAST 25% HIGHER THAN THE SPECIFIED VALUE. MINIMUM CEMENT FACTOR TO COMPLY WITH TABLE 10-3, PRELIMINARY TESTS AS A BASIS FOR A PREQUALIFIED MIX TO COMPLY WITH C26-1004.3 & 3 A. QUALITY CONTROL OF CONCRETE IS TO BE PROVIDED AT THE BATCH PLANT. THE RESULTS OF QUALITY CONTROL AND INSPECTION ARE TO APPEAR ON THE TICKET ACCOMPANYING EACH LOAD OF CONCRETE AS PER C26-1004.3 A (5).

ALL REQUIRED CERTIFICATES AND ATTESTATIONS SHALL BECOME PART OF THE DOCUMENTATION TO BE FILED WITH THE COMMISSIONER AS PER 2008 NYC CODE. SUPPLIERS AFFIDAVITS ATTESTING TO INSPECTION AND TEST REPORTS FOR CONCRETE WILL BE FILED AS AN AMENDMENT.

PLAIN CONCRETE TO HAVE A MINIMUM CEMENT FACTOR OF 5.75 BAGS PER CU.YD. OF CONCRETE AND MAXIMUM WATER CEMENT RATIO OF 7 GALLONS PER 94 LB. SACK OF CEMENT.

CONCRETE TO DEVELOP A MINIMUM STRENGTH OF 3,000 PSI AT 28 DAYS.

CONTRACTOR TO MOLD 3 CONCRETE TEST CYLINDERS FOR EACH 50 CU.YDS. OR FRACTION THEREOF OF CONCRETE POURED IN ANY ONE DAY. TEST CYLINDERS SHALL BE SUBMITTED TO A RECOGNIZED, LICENSED TESTING LAB FOR TESTING IN ACCORDANCE WITH A.S.T.M C39-1966. REPORTS OF TESTS TO BE SUBMITTED FOR FILING WITH THE BUILDING DEPARTMENT.

CONCRETE MATERIALS FOR SHORT SPAN FLOOR CONSTRUCT. TO COMPLY WITH AS PER 2008 NYC CODE.

CONCRETE WHICH IN ITS FINAL STATE WILL BE EXPOSED TO THE ACTION OF FREEZING WEATHER AND ALL CONCRETE FOR GARAGE, FLOORS, ENTRANCE, PLATFORMS., STEPS AND PORCH FLOORS, RETAINING WALLS, SHALL HAVE A MIX DESIGN WITH THE ENTRAINED AIR TO PROVIDE A CONCRETE WITH A MAXIMUM RESISTANCE TO FREEZING AND THAWING WEAR FOR THE AGGREGATE AND CEMENT USED.

FOOTINGS TO BE REINFORCED AND OF PLAIN CONCRETE AS PER PLANS. THEY SHALL BE 1 FOOT THICK & 6" WIDER ON EITHER SIDE OF 12" THICK WALLS ABOVE.

FOUNDATION WALLS TO BE OF 12" PLAIN CONCRETE OR 12" APPROVED SOLID LOAD BEARING REINFORCED CONCRETE BLOCKS TO GRADE, UNLESS OTHERWISE INDICATED.

FIRST FLOOR SLAB SHALL BE 4" CONCRETE SLAB (NATURAL AGGREGATE CONCRETE CONFORMING TO ASTM A-33 WITH A MINIMUM 28 DAY STRENGTH OF 3000 P.S.I.) PLACED OF 4" MINIMUM WELL COMPACTED GRAVEL OR CRUSHED STONE FILL, AND REINFORCED WITH 6X6-W1.4XW1.4 WELDED WIRE FABRIC PLACED 1" BELOW TOP OF SLAB. PROVIDE VAPOR BARRIER BELOW SLAB ON GRADE.

ALL CONCRETE BEAMS AND SLABS SHALL BE POURED MONOLITHICALLY.

ALL BARS MARKED CONT. SHALL BE LAPPED 36 X BAR DIAMETERS AT SPLICES AND CORNERS, AND HOOKED AT NON-CONTINUOUS ENDS. LAP TOP BARS AT CENTER BETWEEN SUPPORTS, AND LAP CONTINUOUS BOTTOM BARS AT SUPPORTS. (C26-1004 & RS10.3)

ALL REINFORCING SHALL CONFORM TO A.S.T.M A615 LATEST EDITION GRADE 60.

ALL REINFORCING SHALL BE WIRED AT EVERY INTERSECTION.
REINFORCING MUST COMPLY AS FOLLOWS: CLEANING AND BENDING, PLACING AND PROTECTION OF METAL REINFORCEMENT WITH C26-1OO4 and RS1O-3 CHAPTER 7.
MESH REINFORCEMENT: AS PER ASTM A185 & A82 - DESIGN STRESS 30,000 PSI.
ROD REINFORCEMENT: HIGH STRENGTH DEFORMED BARS AS PER ASTM A616-GRADE 60 MINIMUM YIELD POINT = 60 KSI.
FORMS AND DETAILS OF CONSTRUCTION MUST COMPLY AS PER 2008 NYC CODE
SLUMP OF CONCRETE TO BE 3" (+-1").
TRANSPORTING, PLACING, CURING AND DEPOSITING OF CONCRETE MUST COMPLY WITH AS PER 2008 NYC CODE.

SITE NOTES

1. ALL EXISTING SITE CONDITIONS BY ANY CONSTRUCTION EQUIPMENT OR CONSTRUCTION SHALL BE REPAIRED TO THEIR EXISTING CONDITION PRIOR TO CONSTRUCTION AT NO COST TO THE OWNER.
2. IT IS THE RESPONSIBILITY OF THE OWNER AND OR CONTRACTOR FOR NOTIFYING ALL UTILITY COMPANIES AND VERIFYING THE LOCATION OF THE SAME UTILITY COMPANY LINES, SERVICES, AND OTHER UTILITY COMPANIES.
3. THE CONTRACTOR IS TO PROTECT THE SIDE OF EXCAVATION BY MEANS OF SHORING AND BRACING AND SHEETING. THE SIDES OF ALL EXCAVATION OPERATION OF 5'-0" OR GREATER IN DEPTH SHALL BE PROTECTED AND MAINTAINED. AS AN ALTERNATIVE EXCAVATED SLOPES MAY INCLINE NOT STEEPER THAN A 45 DEGREE SLOPE IN THAT WHICH WILL NOT ENDANGER ANY ADJACENT STRUCTURES.
4. ALL DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OF RECORD, PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION WORK.
5. BPP IS TO BE FILED UNDER A SEPARATE APPLICATION FOR NEW SIDEWALK PAVEMENT, STREET PAVEMENT AND CURBS AS PER N.Y.C.B.C.
6. SITE CONNECTION IS TO BE FILED WITH D.E.P. FOR SEWER CONNECTION, AS PER N.Y.C.B.C.
7. ALTERNATIVELY, THE G.C. MAY SUBSTITUTE A PLYWOOD FENCE WITH A CHAINLINK FENCE, 8'-0" HIGH, WITH OPAQUE SLATS OR WITH A NYLON DEBRIS SAFETY NET ON THE INTERIOR OF THE FENCE. THE REQUIRED FENCE SHALL BE INSTALLED AROUND THE PERIMETER OF THE ENTIRE PROPERTY.

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PROJECT:
40TH AVENUE LLC
23-06 40TH AVENUE
LONG ISLAND CITY, NY 11101

BUILDING CODE:	2022
BLOCK:	0408
LOT:	23
BIN:	4004940
COMMUNITY BOARD:	401
ZONING MAP:	9B
ZONING DISTRICT	M1-2/R5D
OCCUPANCY CLASS:	R-2
CONSTRUCTION CL.:	1B
USE GROUP:	2A/17A

Scope of Work:
PROPOSED 5 STORY MIXED USE BUILDING WITH 6 CLASS A DWELLING UNITS.
BPP APP #:
PLUMBING APP:
MECHANICALAPP:
CONST FENCE: Q00423392-I1
GC APP#: Q01019618-I1
ST:

APPROVED PLANS MUST BE ON SITE AT ALL TIMES.

IF WORK DEVIATES FROM APPROVED PLANS, ARCHITECT MUST BE IMMEDIATELY NOTIFIED.

PLAN EXAMINER STAMP & SIGNATURE

Issued:
02-10-25 UPDATED PLANS

Revisions:

CLIENT:
40TH AVENUE LLC
23-06 40TH AVENUE
LONG ISLAND CITY, NY 11101

Drawing Title:
NOTES

Seal & Signature:
REGISTERED ARCHITECT
JOSEPH ANGELO SULTANA, JR.
No. 27357
STATE OF NEW YORK

DATE: 02-10-2025
PROJECT #: 23.064
DRAWING BY: C.R
CHECKED BY: J.S.
DWG No:
A-100.00

CADD FILE NO: 23.064 YANG/LIU 3 OF 34

HANDICAPPED DETAILS

SCALE: NONE

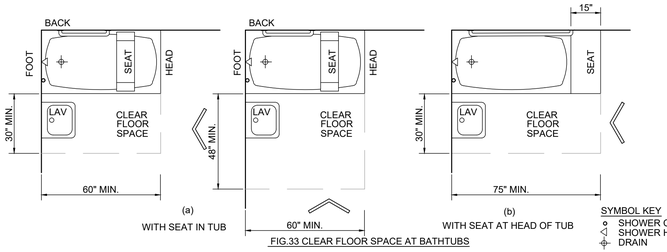


FIG.33 CLEAR FLOOR SPACE AT BATHTUBS

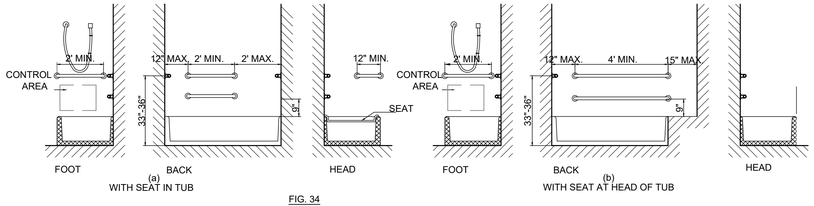
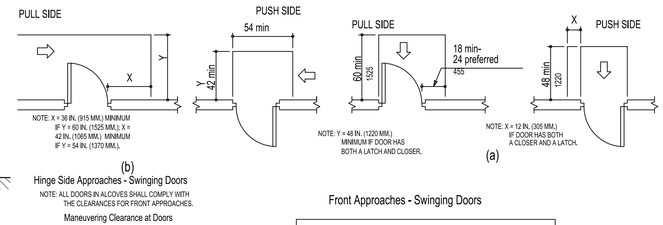
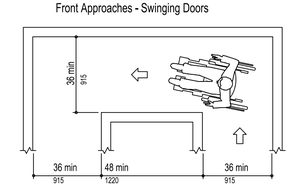
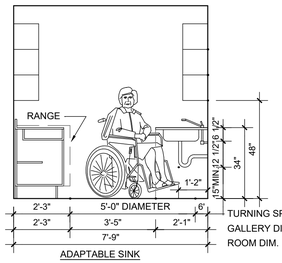
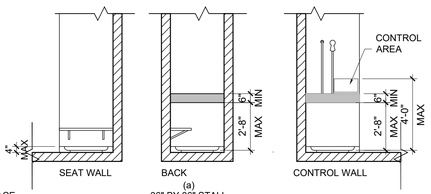


FIG. 34









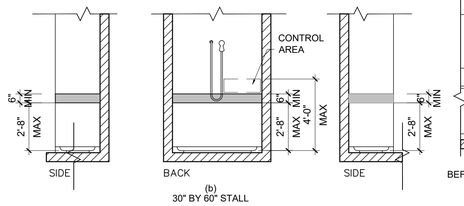


FIG49 LOCATION OF GRAB BAR REINFORCEMENT AND CONTROLS OF ADAPTABLE SHOWERS

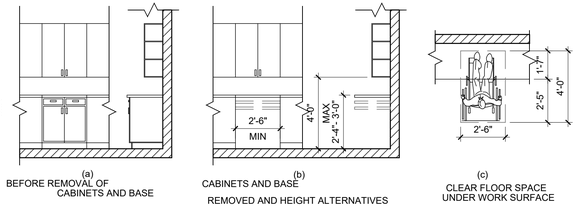
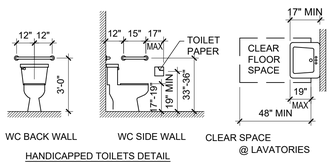
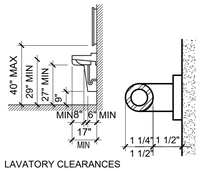


FIG. 50 COUNTER WORK SURFACE

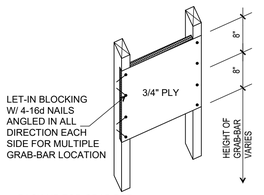


HANDICAPPED TOILETS DETAIL
SCALE: N.T.S.



GRAB-BAR
SCALE: N.T.S.

HANDICAPPED TOILET DETAILS



BACK-UP FOR GRAB-BAR
SCALE: N.T.S.

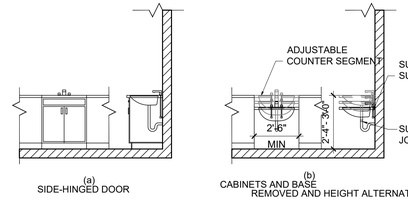
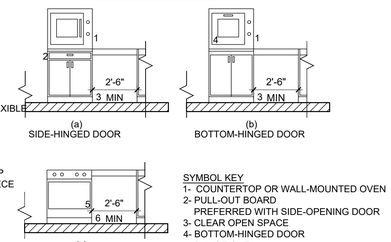
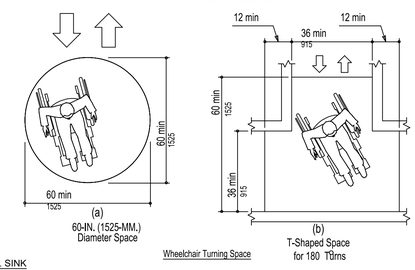


FIG. 51 KITCHEN SINK



SYMBOL KEY
1- COUNTERTOP OR WALL-MOUNTED OVEN
2- PULL-OUT BOARD
PREFERRED WITH SIDE-OPENING DOOR
3- CLEAR OPEN SPACE
4- BOTTOM-HINGED DOOR
5- RANGE OVEN
6- PREFERRED CLEAR OPEN SPACE

FIG. 51 OVENS WITHOUT SELF-CLEANING FEATURE



HANDICAPPED NOTES

THE GENERAL CONTRACTOR IS REQUIRED TO COMPLY WITH R.S. 4-6 & ANSI A117.1-1986, FULLY.

RAMPS:

THE MIN. CLEAR WIDTH OF A RAMP SHALL BE NOT LESS THAN 36" AS PER 4.8.3 A.N.S.I..

RAMPS SHALL HAVE LEVEL LANDINGS AT THE BOTTOM AND TOP OF EACH RUN. LANDINGS SHALL HAVE THE FOLLOWING FEATURES:

A. THE LENDING SHALL BE AT LEAST AS WIDE AS THE WIDEST RAMP RUN LEADING TO IT.
B. THE LANDING LENGTH SHALL BE A MIN. OF 60" CLEAR.
C. IF RAMPS CHANGE DIRECTION AT LANDING, THE MIN. LANDING SIZE SHALL BE 60"x60".
D. IF A DOORWAY IS LOCATED AT A LANDING, THAN THE AREA IN FRONT OF THE DOORWAY SHALL COMPLY WITH 4.13.6 A.N.S.I..

IF A RAMP RUN HAS A RISE GREATER THAN 6" OR A HORIZONTAL PROJECTION GREATER THAN 72", THAN IT SHALL HAVE HANDRAILS ON BOTH SIDES. HANDRAILS SHALL HAVE THE FOLLOWING FEATURES:

A. HANDRAILS SHALL BE PROVIDED ALONG BOTH SIDES OF RAMP SEGMENTS.
B. IF HANDRAILS ARE NOT CONTINUOUS, THEY SHALL EXTEND AT LEAST 12" BEYOND THE TOP AND BOTTOM OF THE RAMP SEGMENT AND SHALL BE PARALLEL WITH THE FLOOR OR GROUND SURFACE.
C. THE CLEAR SPACE BETWEEN THE HANDRAIL AND THE WALL SHALL BE 1.5". HANDRAILS MAYBE LOCATED IN A RECESS IF THE RECESS IS A MAX. 3" DEEP AND EXTENDS AT LEAST 18" ABOVE THE TOP OF THE RAIL.
D. GRIPPING SURFACES SHALL BE CONTINUOUS, WITHOUT INTERRUPTIONS BY NEWEL POST, OTHER CONSTRUCTION ELEMENTS OR OBSTRUCTIONS.
E. THE DIAMETER OF THE GRIPPING SURFACES OF THE HANDRAIL SHALL BE 1.5", OR THE SHAPE SHALL PROVIDE AN EQUIVALENT GRIPPING SURFACE.
F. A HANDRAIL AND ANY WALL OR OTHER SURFACE ADJACENT TO IT SHALL BE FREE OF ANY SHARP OR ABRASIVE ELEMENTS. EDGES SHALL HAVE A MIN. RADIUS OF 1/8"Ø

DOORS:

DOORS TO ACCESSIBLE SPACES & ELEMENTS & ALONG ACCESSIBLE ROUTES SHALL COMPLY WITH 4.13..

DOORWAYS INTENDED FOR USER PASSAGE SHALL HAVE A MIN. CLEAR WIDTH OF 32" WITH THE DOOR OPEN 90 , MEASURED BETWEEN THE FACE OF THE DOOR AND THE STOP. OPENINGS MORE THAN 24" IN DEPTH SHALL COMPLY WITH SECTION 4.2.1 & 4.3.3 OF THE A.N.S.I. STANDARD.

THRESHOLDS AT DOORWAYS SHALL NOT EXCEED 1/2" IN HEIGHT. RAISED THRESHOLDS AND FLOOR LEVEL CHANGES AT ACCESSIBLE DOORWAYS SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2.

HANDLES, PULL, LATCHES, LOCKS, AND OTHER OPERATING DEVICES ON ACCESSIBLE DOORS SHALL HAVE A SHAPE THAT IS EASY TO GRASP WITH ONE HAND & DOES NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING, OR TWISTING OF THE WRIST TO OPERATE. THEY SHALL BE MOUNTED WITHIN REACH RANGES SPECIFIED IN SECTION 4.2 OF THE A.N.S.I. STANDARDS.

IF A DOOR HAS A CLOSER, THEN THE SWEEP PERIOD OF THE CLOSER SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 70 , THE DOOR WILL TAKE AT LEAST 3 SECONDS TO MOVE TO A POINT 3" FROM THE LATCH, MEASURED TO THE LEADING EDGE OF THE DOOR.

THE MAX. FORCE FOR PUSHING OR PULLING OPEN A DOOR SHALL BE AS FOLLOW:

A. FIRE DOORS SHALL HAVE THE MIN. OPENING FORCE ALLOWABLE BY THE APPROPRIATE ADMINISTRATIVE AUTHORITIES.
B. OTHER DOORS:
1. EXTERIOR HINGED DOOR.....8.5 lbf
2. INTERIOR HINGED DOOR.....5 lbf
3. SLIDING OR FOLDING DOOR.....5 lbf

THESE FORCES DO NOT APPLY TO THE FORCE REQUIRED TO RETRACT LATCH BOLTS OR DISENGAGE OTHER DEVICES THAT MAY THE DOOR IN A CLOSED POSITION.

IF AN AUTOMATIC DOOR IS USED, IT SHALL COMPLY WITH A.N.S.I./B.H.M.A. A156.10-1985.

LIGHT SWITCHES, CONTROLS, FIRE ALARMS, ETC.., SHALL BE LOCATED NOT MORE THAN 48" A.F.F. AND CONVENIECE OULETS SHALL BE LOCATED NOT LESS THAN 18" A.F.F..

WATER CLOSETS:

THE HEIGHT OF A WATER CLOSET SHALL BE 17" TO 19" MEASURED FROM THE FINISHED FLOOR TO THE TOP OF THE TOILET SEAT. SEATS SHALL NOT BE SPRUNG TO RETURN TO A LIFTED POSITION.

FLUSH CONTROLS SHALL BE HAND OPERATED OR AUTOMATIC AND SHALL COMPLY WITH 4.25.4 A.N.S.I. CONTROLS FOR FLUSH VALVES SHALL BE MOUNTED FOR USE FROM THE WIDE SIDE OF THE TOILET STALL AND SHALL NO MORE THAN 44" A.F.F..

TOILET PAPER DISPENSERS SHALL COMPLY WITH 4.25.4 & SHALL BE INSTALLED WITHIN REACH.

LAVATORIES and SINKS:

LAVATORIES SHALL BE MOUNTED WITH A CLEARANCE OF AT LEAST 29" FROM THE FLOOR TO THE BOTTOM OF THE APRON. KNEE & TOE CLEARANCES SHALL COMPLY WITH THE A.N.S.I. STANDARDS.

SINKS SHALL BE MOUNTED WITH THE COUNTER OR RIM NOT MORE 34" FROM THE FLOOR. EACH SINK SHALL BE A MAX. OF 6 1/2" DEEP.

FAUCETS SHALL COMPLY WITH 4.25.4. CONVENTIONAL ONE-QUARTER TURN, LEVER OPERATED, PUSH-TYPE AND AUTOMATICALLY CONTROLLED MECHANISM ARE EXAMPLES OF ACCEPTABLE DESIGNS. SELF-CLOSING VALVES ARE ALLOWED IF THE FAUCET REMAINS OPEN FOR AT LEAST 10 SECONDS.

MIRRORS SHALL BE MOUNTED WITH THE BOTTOM EDGE OF THE REFLECTING SURFACE NO HIGHER THAN 40" ABOVE FINISHED FLOOR.

4.32.4.4. BATHTUBS

IF A BATHTUB IS PROVIDED, IT SHALL HAVE THE FOLLOWING FEATURES:

1- FLOOR SPACE= CLEAR FLOOR SPACE AT BATHTUBS SHALL BE AS SHOWN IN FIG. 33.
2- SEAT= AN IN-TUB SEAT OR A SEAT AT THE HEAD END OF THE TUB SHALL BE PROVIDED AS SHOWN IN FIG. 33 AND 34. THE STRUCTURAL STRENGTH OF SEATS AND THEIR ATTACHMENTS SHALL COMPLY WITH 4.24.3. OF LL 58. SEATS SHALL BE MOUNTED SECURELY AND SHALL NOT SLIP DURING USE.
3- GRAB BARS= GRAB BARS SHALL BE INSTALLED WITHIN THE RANGE OF HEIGHTS SHOWN IN FIG. 34 AND SHALL COMPLY WITH 4.24, OR STRUCTURAL REINFORCEMENT OR OTHER PROVISIONS, SHALL BE MADE THAT WILL ALLOW INSTALLATION OF GRAB BARS MEETING THESE REQUIREMENTS.
4- CONTROLS= FAUCETS AND OTHER CONTROLS SHALL BE LOCATED AS SHOWN IN FIG. 34 AND SHALL COMPLY WITH 4.25.4. OF LL 58.
5- SHOWER UNIT= A SHOWER APPRAY UNIT SHALL BE PROVIDED WITH A HOSE AT LEAST 60" LONG THAT CAN BE USED AS A FIXED SHOWER HEAD OR AS A HAND-HELD SHOWER. IF AN ADJUSTABLE-HEIGHT SHOWER HEAD MOUNTED ON A VERTICAL BAR IS USED, THE BAR SHALL BE INSTALLED SO AS NOT TO OBSTRUCT THE USE OF GRAB BARS.

4.32.4.5. SHOWERS

IF A SHOWER IS PROVIDED, IT SHALL HAVE THE FOLLOWING FEATURES:

1- SIZE AND CLEARANCES= SHOWER STALL SIZES AND CLEAR FLOOR SPACE SHALL COMPLY WITH EITHER FIG. 35(a) OR (b). THE SHOWER STALL IN FIG. 359a) SHALL BE 36" BY 36".
THE SHOWER STALL IN FIG. 35(b) WILL FIT INTO THE SAME SPACE AS A STANDARD BATHTUB, 60" LONG.
2-SEAT= A SEAT SHALL BE PROVIDED IN THE SHOWER STALL IN FIG. 35(a) AS SHOWN IN FIG. 36. THE SEAT SHALL BE 17" TO 19" HIGH MEASURED FROM THE BATHROOM FLOOR AND SHALL EXTEND
THE FULL DEPTH OF THE STALL. THE SEAT SHALL BE ON THE WALL OPPOSITE THE CONTROLS. THE STRUCTURAL STRENGTH OF SEATS AND THEIR ATTACHMENTS SHALL COMPLY WITH 4.24.3. OF LL58.
SEATS SHALL BE MOUNTED SECURELY AND SHALL NOT SLIP DURING USE.
3-GRAB BARS= GRAB BARS SHALL BE INSTALLED WITHIN THE RANGE OF HEIGHTS
AND SHALL COMPLY WITH 4.24 OF LL 58, OR STRUCTURAL REINFORCEMENT OR OTHER PROVISIONS, AS SHOWN IN FIG. 49, SHALL BE MADE THAT WILL ALLOW INSTALLATION OF GRAB BARS MEETING THESE REQUIREMENTS.
4-CONTROLS= FAUCETS AND OTHER CONTROLS SHALL BE LOCATED AS SHOWN IN FIG. 37 AND SHALL COMPLY WITH 4.25.4 OF LL 58. IN THE SHOWER STALL IN FIG. 35 (a), ALL CONTROLS, FAUCETS, AND THE SHOWER UNIT SHALL BE MOUNTED ON THE SIDE WALL OPPOSITE THE SEAT.
5-SHOWER UNIT= A SHOWER SPRAY UNIT SHALL BE PROVIDED WITH A HOSE AT LEAST 60" LONG THAT CAN BE USED AS A FIXED SHOWER HEAD AT VARIOUS HEIGHTS OR AS A HAND-HELD SHOWER. IF ADJUSTABLE-HEIGHT SHOWER HEAD MOUNTED ON A VERTICAL BAR IS USED, THE BAR SHALL BE INSTALLED SO AS NOT TO OBSTRUCT THE USE OF GRAB BARS.

4.32.4.6. BATHTUB AND SHOWER ENCLOSURE

ENCLOSURES FOR BATHTUBS OR SHOWER STALLS SHALL NOT OBSTRUCT CONTROLS OR TRANSFER FROM WHEELCHAIRS ONTO SHOWER OR BATHTUB SEATS. ENCLOSURES ON BATHTUBS SHALL NOT HAVE TRACKS MOUNTED ON THEIR RIMS.

4.32.5. KITCHENS

ACCESSIBLE KITCHENS AND THEIR COMPONENTS SHALL BE ON AN ACCESSIBLE ROUTE AND SHALL COMPLY WITH THE REQUIREMENTS OF 4.32.5 LL 58.

4.32.5.1. CLEARANCE

WHERE COUNTERS PROVIDE THE KNEE CLEARANCES SPECIFIED IN 4.19.2 LL 58, CLEARANCES BETWEEN THOSE COUNTERS AND ALL OPPOSING BASE CABINETS, COUNTERTOPS, APPLIANCES, OR WALLS IN KITCHENS SHALL BE 40" MINIMUM, EXCEPT IN U-SHAPED KITCHENS, WHERE SUCH CLEARANCES SHALL BE 60" MINIMUM.

4.32.5.2. CLEAR FLOOR SPACE

A CLEAR FLOOR SPACE AT LEAST 30" BY 48" COMPLYING WITH 4.2.4 LL 58 THAT ALLOWS EITHER A FORWARD OR A PARALLEL APPROACH BY A PERSON IN A WHEELCHAIR SHALL BE PROVIDED AT ALL APPLIANCES IN THE KITCHEN, INCLUDING THE RANGE OF COOKTOP, OVEN, REFRIDGERATOR/FREEZER, DISHWASHER, AND TRASH COMPACTOR.
LAUNDRY EQUIPMENT LOCATED IN THE KITCHEN SHALL COMPLY WITH 4.32.6. LL 58.

4.32.5.3. CONTROLS

ALL CONTROLS IN KITCHENS SHALL COMPLY WITH 4.25. LL 58.

4.32.5.4. WORK SURFACES

AT LEAST ONE 30" SECTION OF COUNTER SHALL PROVIDE A WORK SURFACE THAT COMPLIES WITH THE FOLLOWING REQUIREMENTS (SEE FIG. 50):

1- THE COUNTER SHALL BE ADJUSTABLE OR REPLACABLE AS A UNIT AT VARIABLE HEIGHTS BETWEEN 28" AND 36", MEASURED FROM THE FLOOR TO THE TOP OF THE COUNTER SURFACE, OR SHALL BE MOUNTED AT A FIXED HEIGHT NO GREATER THAN 34", MEASURED FROM THE FLOOR TO THE TOP OF THE COUNTER SURFACE.
2- BASE CABINETS, IF PROVIDED, SHALL BE REMOVABLE UNDER THE FULL 30" MINIMUM FRONTAGE OF THE COUNTER. THE FINISHED FLOOR SHALL EXTEND UNDER THE COUNTER TO THE WALL.
3- COUNTER THICKNESS AND SUPPORTING STRUCTURE SHALL BE 2" MAXIMUM OVER THE REQUIRED CLEAR AREA.
4- A CLEAR FLOOR SPACE OF 30" BY 48" SHALL ALLOW A FORWARD APPROACH TO THE COUNTER. THE KNEE SPACE SHALL HAVE A MINIMUM CLEAR WIDTH OF 30",
5- THERE SHALL BE SHARP OR ABRASIVE SURFACES UNDER SUCH COUNTERS.

4.32.5.5. SINK

THE SINK AND SURROUNDING COUNTER SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS (SEE FIG. 51):

1- THE SINK AND SURROUNDING COUNTER SHALL BE ADJUSTABLE OR REPLACABLE AS A UNIT AT VARIABLE HEIGHTS BETWEEN 28" AND 36", MEASURED FROM THE FINISHED FLOOR TO THE TOP OF THE COUNTER SURFACE OR SINK RIM, OR SHALL BE MOUNTED AT A FIXED HEIGHT NO GREATER THAN 34", MEASURED FROM THE FINISHED FLOOR TO THE TOP OF THE COUNTER SURFACE OR SINK RIM.
2- WHERE SINKS ARE INSTALLED TO BE ADJUSTABLE IN HEIGHT, ROUGH-IN PLUMBING SHALL BE LOCATED TO ACCEPT CONNECTIONS OF SUPPLY AND DRAIN PIPES FOR SINKS MOUNTED AT THE HEIGHT OF 28".
3- THE DEPTH OF A SINK BOWL SHALL BE NO GREATER THAN 6 1/2". ONLY ONE BOWL OF DOUBLE-BOWL OR TRIPLE-BOWL SINKS NEEDS TO MEET THIS REQUIREMENT.
4- FAUCETS SHALL COMPLY WITH 4.25.4 LL 58. LEVER-OPERATED OR PUSH-TYPE MECHANISMS ARE TWO ACCEPTABLE DESIGNS.
5- BASE CABINETS, IF PROVIDED, SHALL BE REMOVABLE UNDER THE FULL 30" MINIMUM FRONTAGE OF THE SINK AND SURROUNDING COUNTER. THE FINISHED FLOORING SHALL EXTEND UNDER THE COUNTER TO THE WALL.
6- COUNTER THICKNESS AND SUPPORTING STRUCTURE SHALL BE 2" MAXIMUM OVER THE REQUIRED CLEAR SPACE.
7- A CLEAR FLOOR SPACE OF 30" BY 48" SHALL ALLOW FORWARD APPROACH TO THE SINK. THE KNEE SPACE SHALL HAVE A MINIMUM CLEAR WIDTH OF 30".
8- THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER SINKS. HOT-WATER AND DRAIN PIPES UNDER SINKS SHALL BE INSULATED OR OTHERWISE COVERED.

4.32.5.6. RANGES AND COOKTOPS

RANGES AND COOKTOPS SHALL COMPLY WITH 4.32.5.2. AND 4.32.5.3. LL 58. IF OVENS AND COOKTOPS HAVE KNEE SPACES UNDERNEATH,THEN THEY SHALL BE INSULATED OR OTHERWISE PROTECTED ON THE EXPOSED CONTACT SURFACES TO PREVENT BURNS, ABRASIONS, OR ELECTRICAL SHOCK. THE CLEAR FLOOR SPACE MAY OVERLAP THE KNEE SPACE, IF PROVIDED , BY 19" MAXIMUM. THE LOCATION FOR CONTROLS FOR RANGES AND COOKTOPS SHALL NOT REQUIRE REACHING ACROSS BURNERS.

4.32.5.6. RANGES AND COOKTOPS

RANGES AND COOKTOPS SHALL COMPLY WITH 4.32.5.2. AND 4.32.5.3. LL 58. IF OVENS AND COOKTOPS HAVE KNEE SPACES UNDERNEATH, THEN THEY SHALL BE INSULATED OR OTHERWISE PROTECTED ON THE EXPOSED CONTACT SURFACES TO PREVENT BURNS, ABRASIONS, OR ELECTRICAL SHOCK. THE CLEAR FLOOR SPACE MAY OVERLAP THE KNEE SPACE, IF PROVIDED , BY 19" MAXIMUM. THE LOCATION FOR CONTROLS FOR RANGES AND COOKTOPS SHALL NOT REQUIRE REACHING ACROSS BURNERS.

4.32.4.7. OVENS

OVENS SHALL COMPLY WITH 4.32.5.2. AND 4.32.5.3. LL58. OVENS SHALL BE OF THE SELF-CLEANING TYPE OR BE LOCATED ADJACENT TO AN ADJUSTABLE HEIGHT COUNTER WITH KNEE SPACE BELOW (SEE FIG. 52). FOR SIDE-OPENING OVENS, THE DOOR LATCH SIDE SHALL BE NEXT TO THE OPEN COUNTER SPACE, AND THERE SHALL BE A PULL-OUT SHELF UNDER THE OVEN AND PULLING OUT NOT LESS THAN 10" WHEN FULLY EXTENDED. OVENS SHALL HAVE CONTROLS ON FRONT PANELS; THEY MAY BE LOCATED ON EITHER SIDE OF THE DOOR.

4.32.4.8. REFRIDGERATOR/ FREEZERS

REFRIDGERATOR/ FREEZERS SHALL COMPLY WITH 4.32.5.3. LL 58. PROVISION SHALL BE MADE FOR REFRIDGERATOR/ FREEZERS THAT ARE:

1- OF THE VERTICAL SIDE-BY-SIDE REFRIDGERATOR/ FREEZER TYPE; OR
2- OF THE OVER-AND UNDER TYPE AND MEET THE FOLLOWING REQUIREMENTS:
A- HAVE AT LEAST 50 PERCENT OF THE FREEZER SPACE BELOW 54"
B- HAVE 100 PERCENT OF THE REFRIDGERATOR SPACE AND CONTROLS BELOW 54 ".
FREEZERS WITH LESS THAN 100 PERCENT OF THE STORAGE VOLUME WITHIN THE LIMITS SPECIFIED IN 4.2.5. OR 4.2.6 LL 58 SHALL BE THE SELF-DEFROSTING TYPE.

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Drawing Title:
HANDICAP NOTES

Seal & Signature:
REGISTERED ARCHITECT JOSEPH ANGELO SULTANA No. 027357 STATE OF NEW YORK

DATE: 02-10-2025
PROJECT #: 23.064
DRAWING BY: C.R.
CHECKED BY: J.S.
DWG No:
A-101.00

CADD FILE NO: 23.064 YANG/LIU | 4 OF 34

THERMAL & MOISTURE PROTECTION NOTES

1. ALL VENT PIPES OR OTHER PROTRUSIONS IN ROOF ARE TO BE PROPERLY FLASHED WITH BASE AND CAP FLASHING OR EQUAL AS APPROVER BY THE OWNER/ARCHITECT.
2. ALL ROOF INSTALLATIONS, INCLUDING BUILT UP ROOFING AND BUILT UP FLASHING SHALL BE FURNISHED WITH A WRITTEN GUARANTEE STATING THAT IT WILL REMAIN IN A WATER TIGHT CONDITION FOR FIVE (5) YEARS AFTER FINAL ACCEPTANCE.
3. ASPHALT SHINGLE ROOF WHERE INDICATED ON DRAWINGS SHALL BE STANDARD SELF SEALING 235 LBS PER SQUARE AS MANUFACTURED BY GAF CORPORATION, AND IS TO BE INSTALLED OVER #15 ASPHALT FELT UNDERLAYMENT AND AS RECOMMENDED BY MANUFACTURE. SUBMIT SAMPLES FOR COLOR SELECTION.
4. PROVIDE ALL FLASHING AND SHEET METAL NOT SPECIFICALLY DESCRIBED BUT REQUIRED TO PREVENT PENETRATION OF WATER THROUGH EXTERIOR SHELL OF BUILDING.
5. USE ONLY GALVANIZED NAILS AND FASTENERS FOR ALL ROOFING AND FLASHING APPLICATIONS.
6. CAULK AND SEAL ALL JOINTS WITH SILICONE CAULK WHERE SHOWN ON THE DRAWINGS AND ELSEWHERE AS REQUIRED TO PROVIDE A POSITIVE BARRIER AGAINST PASSAGE OF AIR AND PASSAGE OF MOISTURE.
7. ALL GUTTERS ARE TO BE 0.032 INCHES THICK STOCK ALUMINUM, 3¾"HX5"W FORMED CONTINUOS AT THE JOB SITE FROM GIRTH WIDTH NOT EXCEEDING 16". FINISH TO BE SELECTED BY ARCHITECT. PROVIDE EXPANSION JOINTS ON LENGTH EXCEEDING 30'.
8. ALL LEADERS (DOWNSPOUTS) ARE TO BE 3"X4" STOCK CORRUGATED RECTANGULAR COMPLETE WITH ALL FITTINGS AND SPECIAL SHAPES REQUIRED. PROVIDE 45 DEGREE ELBOW AT TERMINATION OF LEADERS OR AS OTHERWISE NOTED ON THE DRAWINGS.
9. BATT-TYPE INSULATION SHALL BE INSTALLED WITH OVERLAPPING INSIDE FOIL BACKED VAPOR-BARRIER COVERINGS IN STRICT ACCORD WITH MANUFACTURER'S DIRECTIONS TO ACHIEVE MAXIMUM INSULATING AND VAPOR-BARRIER CONTINUITY. IN WALLS, BATTS SHALL BE SECURED TO STUDS. IN CEILINGS, BATTS SHALL BE LAID IN OVER CEILING MATERIAL, EXCEPT THAT FOR INCLINED PLANES, THE TOP OF EACH ROLL SECTION SHALL BE CAREFULLY SECURED TO PREVENT ANY SLIPPAGE OR BREAK IN INSULATING AND VAPOR-BARRIER CONTINUITY.
10. FOUNDATION AND MASONRY WALLS INSULATION - 2' X 8' X 1 ½" THICK PANELS OF "STYROFOAM" TYPE "SM" AS MANUFACTURED BY DOW CHEMICAL COMPANY, OR THE APPROVED EQUIVALENT; TO BE INSTALLED WITH BONDING ADHESIVE DOW GENERAL PURPOSE MASTIC NO.11.
11. ALL INSULATION SHALL BE AS TIGHT FITTING AND CONTINUOUS AS POSSIBLE WITH NO OPEN JOINTS OR UNFILLED SPACES.
12. INSULATION MATERIAL SHALL BE SCRIBED AND FITTED TO ALL OTHER SURFACES THAT MAY INTERRUPT OR PROJECT THROUGH THE INSULATION LAYER.

SMOKE AND CARBON MONOXIDE DETECTOR NOTES:

- EACH DWELLING UNIT SHALL BE EQUIPPED WITH AN APPROVED TYPE SMOKE / CARBON MONOXIDE DETECTOR DEVICES RECEIVING PRIMARY POWER FROM THE BUILDING WIRING WITH NO SWITCHES IN THE CIRCUIT OTHER THAN THE OVERCURRENT DEVICE PROTECTING THE BRANCH CIRCUIT; PROVIDED.
- ALL SMOKE / CARBON MONOXIDE DETECTOR(S) MUST BE EITHER THE IONIZATION-CHAMBER TYPE OR PHOTO-ELECTRIC DETECTOR TYPE.
- ALL SMOKE/CARBON MONOXIDE DETECTORS MUST BE INSTALLED WITHIN 15'-0" OF THE ENTRANCE OF ANY SLEEPING ROOM, WALL OR CEILING MOUNTED AND INDICATED ON PLAN.
- ALL SMOKE DETECTORS MUST BE INTERCONNECTED.

FIRE STOPPING NOTES:

- DUCT AND PIPE SPACES AND CONCEALED SPACES WITHIN PARTITIONS, WALLS, FLOORS, 1. ROOFS, STAIRS, FURRING, PIPE SPACES, COLUMN ENCLOSURES, ETC. THAT WOULD PERMIT PASSAGE OF FLAME, SMOKE, FUMES, OR HOT GASES FROM ONE FLOOR TO ANOTHER FLOOR OR ROOF SPACES, OR FROM ONE CONCEALED AREA TO ANOTHER, SHALL BE FILLED WITH NON-COMBUSTIBLE MATERIAL.
- FIRE STOPPING MAY BE OF COMBUSTIBLE MATERIALS CONSISTING OF WOOD NOT LESS 2. THAN 2" NOMINAL THICKNESS WITH TIGHT JOINTS, EXCEPT THAT NON-COMBUSTIBLE FIRE STOPPING SHALL BE USED IN CONCEALED SPACES OF FIRE DIVISIONS AND WHERE IN CONTACT WITH FIREPLACES, FLUES, AND CHIMNEYS .
- ALL HOLLOW PARTITIONS AND FURRED OUT SPACES SHALL BE FIRE STOPPED AT EACH 3. FLOOR LEVEL. FIRESTOPS SHALL BE THE FULL THICKNESS OF THE HOLLOW FURRED OUT SPACES.
- CONCEALED SPACES WITHIN STAIRS CONSTRUCTION SHALL BE FIRE STOPPED BETWEEN 4. STRINGERS AT THE TOP AND BOTTOM OF EACH FLIGHT OF STAIRS SO AS NOT TO COMMUNICATE WITH SPACES IN THE FLOOR, ROOF, OR INTERMEDIATE LANDING CONSTRUCTION.
- CEILINGS THAT CONTRIBUTE TO THE REQUIRED FIRE-RESISTANCE RATING OF A FLOOR 5. OR ROOF ASSEMBLY SHALL BE CONTINUOUS BETWEEN EXTERIOR WALLS, VERTICAL FIRE DIVISIONS, FIRE SEPARATIONS, CORRIDOR PARTITIONS OR ANY OTHER PARTITIONS HAVING AT LEAST THE SAME FIRE RESISTANCE RATING AS THE CEILING. THE CONCEALED SPACE ABOVE SUCH CEILING SHALL BE FIRE STOPPED INTO AREAS NOT EXCEEDING 3,000 S.F. FOR THE FULL HEIGHT OF THE CONCEALED SPACE.

GENERAL BUILDING ENVELOPE AIR LEAKAGE NOTES

1. A CONTINUOUS AIR BARRIER TO BE PROVIDED THROUGHOUT THE BUILDING THERMAL ENVELOPE. THE FOLLOWING AREAS OF THE CONTINUOUS AIR BARRIER IN THE BUILDING ENVELOPE SHALL BE WRAPPED, SEALED, CAULKED, GASKETED, OR TAPED IN AN APPROVED MANNER TO MINIMIZE AIR LEAKAGE:
   a. JOINTS AROUND FENESTRATION AND DOOR FRAMES (BOTH MANUFACTURED AND SITE-BUILT)
   b. JUNCTIONS BETWEEN WALLS AND FLOORS, BETWEEN WALLS AT BUILDING CORNERS, AND BETWEEN WALLS AND ROOFS OR CEILINGS
   c. PENETRATIONS THROUGH THE AIR BARRIER IN BUILDING ENVELOPE ROOFS,WALLS, AND FLOORS
   d. BUILDING ASSEMBLIES USED AS DUCTS OR PLENUMS
   e. JOINTS, SEAMS, CONNECTIONS BETWEEN PLANES, AND OTHER CHANGES IN AIR BARRIER MATERIALS
   f. ALL RECESSED EQUIPMENT PENETRATING THE AIR BARRIER
2. ALL RECESSED EQUIPMENT PENETRATING THE AIR BARRIER SHALL BE WRAPPED, SEALED, CAULKED, GASKETED, OR TAPED IN AN APPROVED MANNER TO MINIMIZE AIR LEAKAGE
3. ALL VENT DAMPERS AND AIR INTAKES AND EXHAUSTS ARE TO BE PROVIDED WITH GRAVITY DAMPERS OR CLASS I MOTORIZED DAMPERS IF ABOVE 300 CFM.
4. AIR BARRIER TESTING IS REQUIRED FOR BUILDINGS 25,000 SQUARE FEET AND GREATER, BUT LESS THAN 50,000 SQUARE FEET AND LESS THAN OR EQUAL TO 75 FEET IN HEIGHT IN ACCORDANCE WITH ASTM E 779 AND DEPARTMENT RULES.

CLEAR FIELD THERMAL BRIDGES

CFTB #	ASSEMBLY/THERMAL BRIDGE DESCRIPTION	ASSEMBLY ID IN ENERGY ANALYSIS	SECTION DETAIL LOCATION
CFTB.1	METAL PANEL CLADDING	WD-1 - WD-8	A-500-501

POINT THERMAL BRIDGES (>12 IN² AND NOT ASSOCIATED WITH HVAC OR ELECTRICAL SYSTEMS)

PTB #	TYPE OF THERMAL BRIDGE	SIZE [SQ. INCHES]	ASSEMBLY ID IN ENERGY ANALYSIS	SECTION DETAIL LOCATION
-	N/A	N/A	N/A	N/A

LINEAR THERMAL BRIDGES

LTB #	TYPE OF THERMAL BRIDGE	Ψ-VALUE [BTU/HR•FT•°F]	Ψ-VALUE SOURCE/CALCULATION	TOTAL LENGTH (FT)	ASSEMBLY ID IN ENERGY ANALYSIS	SECTION DETAIL LOCATION
LTB.1	FENESTRATION PEREMETER TRANSITION	0.32	DEFAULT VALUE FROM TABLE C402.6	627.67	A,B1,B2,C (WINDOWS) 1,2,3,4,5 (DOORS)	A-101 (WINDOW AND DOOR SCHEDULES), A-300, A-301
LTB.2	BALCONY	0.50	DEFAULT VALUE FROM TABLE C402.6	59.33	WD-7	DETAIL 7 SHEET A-500
LTB.3	SLAB EDGE	0.44	DEFAULT VALUE FROM TABLE C402.6	1137.63	WD-5 -6 -10 -11	SHEET A-500-501
LTB.4	PARAPET	0.42	DEFAULT VALUE FROM TABLE C402.6	236.19	WD-1 -2 -3 -8 -9	SHEET A-500-501

WINDOW SCHEDULE FIRST FLOOR

No	QTY	LOCATION	STYLE	FRAME SIZE	ROUGH OPENING	MANUFACTURER	ASSEMBLY U-VALUE	AIR LEAKAGE	SHGC	FRAME TYPE	REMARKS
K	1	1ST FLOOR	FIXED	6'-0" X 6'-0"	6'-2" X 6'-2"	BY OWNER	≤ 0.40	0.2 CFM/SF	≤ 0.36	METAL	COLOR BY OWNER

WINDOW SCHEDULE SECOND FLOOR

No	QTY	LOCATION	STYLE	FRAME SIZE	ROUGH OPENING	MANUFACTURER	ASSEMBLY U-VALUE	AIR LEAKAGE	SHGC	FRAME TYPE	REMARKS
A	1	LIVING ROOM/DINING	FIXED	4'-0" X 6'-2"	-	BY OWNER	≤ 0.40	0.2 CFM/SF	≤ 0.36	METAL	COLOR BY OWNER
B	2	LIVING ROOM/DINING	CASEMENT+FIXED	3'-0" X 6'-2"	-	BY OWNER	≤ 0.40	0.2 CFM/SF	≤ 0.36	METAL	COLOR BY OWNER
C	1	BEDROOM 1	FIXED	5'-6" X 6'-2"	-	BY OWNER	≤ 0.40	0.2 CFM/SF	≤ 0.36	METAL	COLOR BY OWNER
D	2	BEDROOM 1	CASEMENT+FIXED	2'-6" X 6'-2"	-	BY OWNER	≤ 0.40	0.2 CFM/SF	≤ 0.36	METAL	COLOR BY OWNER
G	1	BEDROOM 2	FIXED	3'-0" X 6'-2"	-	BY OWNER	≤ 0.40	0.2 CFM/SF	≤ 0.36	METAL	COLOR BY OWNER
H	2	BEDROOM 2	CASEMENT	2'-6" X 6'-2"	-	BY OWNER	≤ 0.40	0.2 CFM/SF	≤ 0.36	METAL	COLOR BY OWNER
I	2	LIVING ROOM/DINING	CASEMENT	2'-0" X 6'-2"	-	BY OWNER	≤ 0.40	0.2 CFM/SF	≤ 0.36	METAL	COLOR BY OWNER

WINDOW SCHEDULE THIRD & FOURTH FLOOR

No	QTY	LOCATION	STYLE	FRAME SIZE	ROUGH OPENING	MANUFACTURER	ASSEMBLY U-VALUE	AIR LEAKAGE	SHGC	FRAME TYPE	REMARKS
A	1	LIVING ROOM/DINING	FIXED	4'-0" X 6'-2"	-	BY OWNER	≤ 0.40	0.2 CFM/SF	≤ 0.36	METAL	COLOR BY OWNER
B	2	LIVING ROOM/DINING	CASEMENT+FIXED	3'-0" X 6'-2"	-	BY OWNER	≤ 0.40	0.2 CFM/SF	≤ 0.36	METAL	COLOR BY OWNER
C	1	BEDROOM 1	FIXED	5'-6" X 6'-2"	-	BY OWNER	≤ 0.40	0.2 CFM/SF	≤ 0.36	METAL	COLOR BY OWNER
D	2	BEDROOM 1	CASEMENT+FIXED	2'-6" X 6'-2"	-	BY OWNER	≤ 0.40	0.2 CFM/SF	≤ 0.36	METAL	COLOR BY OWNER
G	1	BEDROOM 2	FIXED	3'-0" X 6'-2"	-	BY OWNER	≤ 0.40	0.2 CFM/SF	≤ 0.36	METAL	COLOR BY OWNER
H	2	BEDROOM 2	CASEMENT	2'-6" X 6'-2"	-	BY OWNER	≤ 0.40	0.2 CFM/SF	≤ 0.36	METAL	COLOR BY OWNER
A	1	LIVING ROOM/DINING 2	FIXED	4'-0" X 6'-2"	-	BY OWNER	≤ 0.40	0.2 CFM/SF	≤ 0.36	METAL	COLOR BY OWNER
J	2	LIVING ROOM/DINING 2	CASEMENT	3'-0" X 6'-2"	-	BY OWNER	≤ 0.40	0.2 CFM/SF	≤ 0.36	METAL	COLOR BY OWNER

WINDOW SCHEDULE THIRD & FOURTH FLOOR

No	QTY	LOCATION	STYLE	FRAME SIZE	ROUGH OPENING	MANUFACTURER	ASSEMBLY U-VALUE	AIR LEAKAGE	SHGC	FRAME TYPE	REMARKS
A	1	LIVING ROOM/DINING	FIXED	4'-0" X 6'-2"	-	BY OWNER	≤ 0.40	0.2 CFM/SF	≤ 0.36	METAL	COLOR BY OWNER
B	2	LIVING ROOM/DINING	CASEMENT+FIXED	3'-0" X 6'-2"	-	BY OWNER	≤ 0.40	0.2 CFM/SF	≤ 0.36	METAL	COLOR BY OWNER
C	1	BEDROOM 1	FIXED	5'-6" X 6'-2"	-	BY OWNER	≤ 0.40	0.2 CFM/SF	≤ 0.36	METAL	COLOR BY OWNER
D	2	BEDROOM 1	CASEMENT+FIXED	2'-6" X 6'-2"	-	BY OWNER	≤ 0.40	0.2 CFM/SF	≤ 0.36	METAL	COLOR BY OWNER
G	1	BEDROOM 2	FIXED	3'-0" X 6'-2"	-	BY OWNER	≤ 0.40	0.2 CFM/SF	≤ 0.36	METAL	COLOR BY OWNER
H	2	BEDROOM 2	CASEMENT	2'-6" X 6'-2"	-	BY OWNER	≤ 0.40	0.2 CFM/SF	≤ 0.36	METAL	COLOR BY OWNER
A	1	LIVING ROOM/DINING 2	FIXED	4'-0" X 6'-2"	-	BY OWNER	≤ 0.40	0.2 CFM/SF	≤ 0.36	METAL	COLOR BY OWNER
J	2	LIVING ROOM/DINING 2	CASEMENT	3'-0" X 6'-2"	-	BY OWNER	≤ 0.40	0.2 CFM/SF	≤ 0.36	METAL	COLOR BY OWNER

WINDOW SCHEDULE FIFTH FLOOR

No	QTY	LOCATION	STYLE	FRAME SIZE	ROUGH OPENING	MANUFACTURER	ASSEMBLY U-VALUE	AIR LEAKAGE	SHGC	FRAME TYPE	REMARKS
E	1	BEDROOM 1	FIXED	3'-0" X 4'-6"	-	BY OWNER	≤ 0.40	0.2 CFM/SF	≤ 0.36	METAL	COLOR BY OWNER
F	2	BEDROOM 1	CASEMENT	2'-0" X 4'-6"	-	BY OWNER	≤ 0.40	0.2 CFM/SF	≤ 0.36	METAL	COLOR BY OWNER
A	1	PRIMARY BEDROOM	FIXED	4'-0" X 6'-2"	-	BY OWNER	≤ 0.40	0.2 CFM/SF	≤ 0.36	METAL	COLOR BY OWNER
J	3	PRIMARY BEDROOM	CASEMENT	3'-0" X 6'-2"	-	BY OWNER	≤ 0.40	0.2 CFM/SF	≤ 0.36	METAL	COLOR BY OWNER

WALL CONSTRUCTION LEGEND

	NO:	SYMBOL	WALL TYPE	DESIGN NUMBER	DESCRIPTION	FIRE TEST NUMBER	STC RATING
EXTERIOR WALL	1A / 1B	LOAD BEARING	1C, 1A, 1B	UL 902 4 HR	1A 12" CONCRETE FOUNDATION WALL MIN 3,000 P. 1B INTERIOR SIDE - 3 ⅝" 20GA. METAL FRAMING STUDS WITH R-13 OPEN CELL INSULATION WITH ⅝" MOISTURE AND MOLD RESISTANT DRYWALL. 1C EXTERIOR SIDE - WATERPROOF MEMBRANE W/ 2" R-10 CONTINUOUS RIGID INSULATION ON TOP		
EXTERIOR WALL	2A / 2B	LOAD BEARING	2A, 2B	UL 902 4 HR	STUCCO WITH R-10 CONTINUOUS RIGID INSULATION ATTACHED TO CONCRETE MASONARY UNIT WITH LADDER TYPE, HORIZONTAL JOINT RE-INFORCED AT EVERY OTHER BLOCK COURSE. 2B INTERIOR SIDE - CONSTRUCTED WITH ½" TYPE "X" GYPSUM BOARD SCREW ATTACHED TO 1⅝" METAL STUDS AT 16" O.C. SEE WALL DETAILS FOR REQUIRED WALL RE-ENFORCING TO COMPLY WITH L.L. 17/95		
EXTERIOR WALL	4A / 4B	LOAD BEARING	4B	LOAD BEARING	8" CONCRETE MASONARY UNIT WITH LADDER TYPE, HORIZONTAL JOINT RE-INFORCED AT EVERY OTHER BLOCK COURSE. 4B INTERIOR WALL CONSTRUCTED WITH ½" TYPE "X" GYPSUM BOARD SCREW ATTACHED TO 1⅝" METAL STUDS AT 16" O.C.		
INTERIOR WALL	5			NON BEARING 1 HR UL DES 419	ONE LAYER OF ⅝" TYPE "X" GYP. BD, OR ⅝" SHEETROCK ULTRALIGHT FIRECODE X PANELS. ON EACH SIDE APPLIED ON 3-5/8" 20GA. METAL STUDS AT 16" O.C. -OPTIONAL INSULATION -OPTIONAL RC-1 CHANNEL	USG-860808 **RAL-TL-11-068** BASED ON ⅝" SHEETROCK FIRECODE CORE PANELS OR ⅝" SHEETROCK ULTRA LIGHT FIRECODE X PANELS, R-11 FIBERGLASS SOUND BATT **RAL-TL-11-076** BASED ON 5/8" SHEETROCK FIRECODE PANELS, R-11 FIBERGLASS SOUND BAT, RC-1 CHANNEL	40 48 53
INTERIOR WALL	6			NON BEARING 2 HR UL DES 419	2 LAYER 5/8" SHEETROCK FIRECODE CORE GYPSUM PANELS, OR FIBEROCK PANELS ON EACH SIDE, ON 4" 20 GAUGE STEEL STUDS 16" O.C. -OPTIONAL INSULATION	**RAL-TL-11-176** BASED ON ⅝" SHEETROCK FIRECODE PANELS, R-11 FIBERGLASS SOUND BAT **STC-120309** BASED ON ⅝" SHEEROCK FIRECODE CORE PANELS, 4" 20 GUAGE STEEL STUDS 16" O.C., 3" MINERAL FIBER INSULATION	53 51
PLUMBING CHASE	7			UL DES U493 1 HOUR	5/8" SHEETROCK FIRECODE CORE GYPSUM PANELS -2-1/2" 20 GAUGE STEEL STUDS 24" O.C. MIN. 1" APART, ON SEPARATE RUNNERS -LATERAL BRACING -OPTIONAL INSULATION	**USG-020241** BASED ON 3-1/2" GLASS FIBER INSULATION IN ONR ROW OF STUDS	59
PLUMBING CHASE	8			UL DES U493 2 HOUR	5/8" SHEETROCK FIRECODE CORE GYPSUM PANELS -2-1/2" 20 GAUGE STEEL STUDS 24" O.C. MIN. 1" APART, ON SEPARATE RUNNERS -BRACING ALONG SAME ROW OF STUDS -OPTIONAL INSULATION	**STC-050819** BASED ON 3-1/2" GLASS FIBER INSULATION IN BOTH ROW OF STUDS	66
SHAFT WALL	9			NON BEARING 2 HR UL DES 415	1/2" SHEETROCK FIRECODE C CORE GYPSUM PANELS, FACE LAYER JOINTS FINISHED -2-1/2" USG C-H STUDS 20 GUAGE 24" O.C. -1" SHEETROCK GYPSUM LINER PANELS	**USG-040917** **USG-040912** BASED ON 4" C-H STUDS 25 GUAGE **RAL-OT-04-022** BASED ON 1" SOUND BATTS IN CAVITY	38 43 48
EXTERIOR WALL	10			UL V434 2 HR	EXTERIOR WALL: 2" METAL PANELS, 2" R-10 CONTINUOUS INSULATION AND ⅝" SHEATHING FASTENED TO 4" METAL STUD AT 16" O.C. (SEE STRUCTURAL DRAWINGS) INTERIOR WALL: CONSTRUCTED OF 2 LAYERS OF ⅝" TYPE "X" GYP. B.D SCREWED ATTACHED TO 4" METAL STUDS AT 16" O.C. PROVIDE (R-13) OPEN CELL SPRAY INSULATION WITHIN STUD CAVITY.		N/A

CELLAR DOOR SCHEDULE

NO	QTY	THK	LOCATION/ ROOM#	DOOR SIZE	REMARKS	ASSEMBLY U-VALUE	AIR LEAKAGE	SHGC
5	3		CELLAR	3'-0" X 8'-0"	SINGLE HINGED INTERIOR F.P.S.C	-	-	-
6	1		CELLAR	6'-0" X 8'-0"	SINGLE HINGED INTERIOR DOOR	-	-	-

FIRST FLOOR DOOR SCHEDULE

NO	QTY	THK	LOCATION/ ROOM#	DOOR SIZE	REMARKS	ASSEMBLY U-VALUE	AIR LEAKAGE	SHGC
1	2		ENTRANCE	3'-0" X 8'-0"	SINGLE HINGED EXTERIOR	≤ 0.77	20 CFM	≤ 0.36
2	1		EGRESS	3'-0" X 8'-0"	SINGLE HINGED EXTERIOR SOLID	-	20 CFM	-
3	4		1ST FLOOR	3'-0" X 8'-0"	SINGLE HINGED INTERIOR F.P.S.C	-	-	-
4	1		1ST FLOOR	2'-10" X 8'-0"	SINGLE HINGED INTERIOR DOOR	-	-	-

SECOND FLOOR DOOR SCHEDULE

NO	QTY	THK	LOCATION/ ROOM#	DOOR SIZE	REMARKS	ASSEMBLY U-VALUE	AIR LEAKAGE	SHGC
5	1		HALLWAY EGRESS	3'-0" X 7'-0"	SINGLE HINGED INTERIOR F.P.S.C WITH GLASS PANEL	-	-	-
7	2		UNIT ENTRY	3'-0" X 7'-0"	SINGLE HINGED INTERIOR DOOR F.P.S.C UNIT ENTRY DOOR	-	-	-
8	4		SECOND FLOOR	2'-10" X 7'-0"	SINGLE HINGED INTERIOR DOOR	-	-	-
9	2		CLOSETS	2'-8" X 7'-0"	SINGLE HINGED INTERIOR DOOR	-	-	-
10	2		LAUNDRY/UTILITY	2'-8" X 7'-0"	SINGLE HINGED INTERIOR F.P.S.C	-	-	-
11	2		CLOSETS	4'-0" X 7'-0"	DOUBLE HINGED INTERIOR	-	-	-
12	1		UNIT ENTRY	3'-0" X 7'-0"	DOUBLE HINGED EXTERIOR	≤ 0.40	20 CFM	≤ 0.36

THIRD FLOOR DOOR SCHEDULE

NO	QTY	THK	LOCATION/ ROOM#	DOOR SIZE	REMARKS	ASSEMBLY U-VALUE	AIR LEAKAGE	SHGC
5	1		HALLWAY EGRESS	3'-0" X 7'-0"	SINGLE HINGED INTERIOR F.P.S.C WITH GLASS PANEL	-	-	-
7	2		UNIT ENTRY	3'-0" X 7'-0"	SINGLE HINGED INTERIOR DOOR F.P.S.C UNIT ENTRY DOOR	≤ 0.40	20 CFM	≤ 0.36
8	4		SECOND FLOOR	2'-10" X 7'-0"	SINGLE HINGED INTERIOR DOOR	-	-	-
9	2		CLOSETS	2'-8" X 7'-0"	SINGLE HINGED INTERIOR DOOR	-	-	-
10	2		LAUNDRY/UTILITY	2'-8" X 7'-0"	SINGLE HINGED INTERIOR F.P.S.C	-	-	-
11	2		CLOSETS	4'-0" X 7'-0"	DOUBLE HINGED INTERIOR	-	-	-

FOURTH FLOOR DOOR SCHEDULE

NO	QTY	THK	LOCATION/ ROOM#	DOOR SIZE	REMARKS	ASSEMBLY U-VALUE	AIR LEAKAGE	SHGC
5	1		HALLWAY EGRESS	3'-0" X 7'-0"	SINGLE HINGED INTERIOR F.P.S.C WITH GLASS PANEL	-	-	-
7	2		UNIT ENTRY	3'-0" X 7'-0"	SINGLE HINGED INTERIOR DOOR F.P.S.C UNIT ENTRY DOOR	≤ 0.40	20 CFM	≤ 0.36
8	3		FOURTH FLOOR	2'-10" X 7'-0"	SINGLE HINGED INTERIOR DOOR	-	-	-
9	1		CLOSETS	2'-8" X 7'-0"	SINGLE HINGED INTERIOR DOOR	-	-	-
10	2		LAUNDRY/UTILITY	2'-8" X 7'-0"	SINGLE HINGED INTERIOR F.P.S.C	-	-	-
11	1		CLOSETS	4'-0" X 7'-0"	DOUBLE HINGED INTERIOR	-	-	-

FIFTH FLOOR DOOR SCHEDULE

NO	QTY	THK	LOCATION/ ROOM#	DOOR SIZE	REMARKS	ASSEMBLY U-VALUE	AIR LEAKAGE	SHGC
5	1		HALLWAY EGRESS	3'-0" X 7'-0"	SINGLE HINGED INTERIOR F.P.S.C WITH GLASS PANEL	-	-	-
7	1		UNIT ENTRY	3'-0" X 7'-0"	SINGLE HINGED INTERIOR DOOR F.P.S.C UNIT ENTRY DOOR	-	-	-
8	4		BEDROOM/BATH	2'-10" X 7'-0"	SINGLE HINGED INTERIOR DOOR	-	-	-
9	1		CLOSETS	2'-8" X 7'-0"	SINGLE HINGED INTERIOR DOOR	-	-	-
11	1		CLOSETS	4'-0" X 7'-0"	DOUBLE HINGED INTERIOR	-	-	-
12	1		HALLWAY	3'-0" X 7'-0"	SINGLE HINGED EXTERIOR DOOR	≤ 0.40	20 CFM	≤ 0.36

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PROJECT:

40TH AVENUE LLC

23-06 40TH AVENUE
LONG ISLAND CITY, NY 11101

BUILDING CODE:	2022
BLOCK:	0408
LOT:	23
BIN:	4004940
COMMUNITY BOARD:	401
ZONING MAP:	9B
ZONING DISTRICT	M1-2/R5D
OCCUPANCY CLASS:	R-2
CONSTRUCTION CL.:	1B
USE GROUP:	2A/17A

Scope of Work:

PROPOSED 5 STORY MIXED USE BUILDING WITH 6 CLASS A DWELLING UNITS.

BPP APP #:
PLUMBING APP:
MECHANICALAPP:
CONST FENCE: Q00423392-I1
GC APP#: Q01019618-I1
ST:

APPROVED PLANS MUST BE ON SITE AT ALL TIMES.

IF WORK DEVIATES FROM APPROVED PLANS, ARCHITECT MUST BE IMMEDIATELY NOTIFIED.

PLAN EXAMINER STAMP & SIGNATURE

Issued:
02-10-25 UPDATED PLANS

Revisions:

CLIENT:

40TH AVENUE LLC
23-06 40TH AVENUE
LONG ISLAND CITY, NY 11101

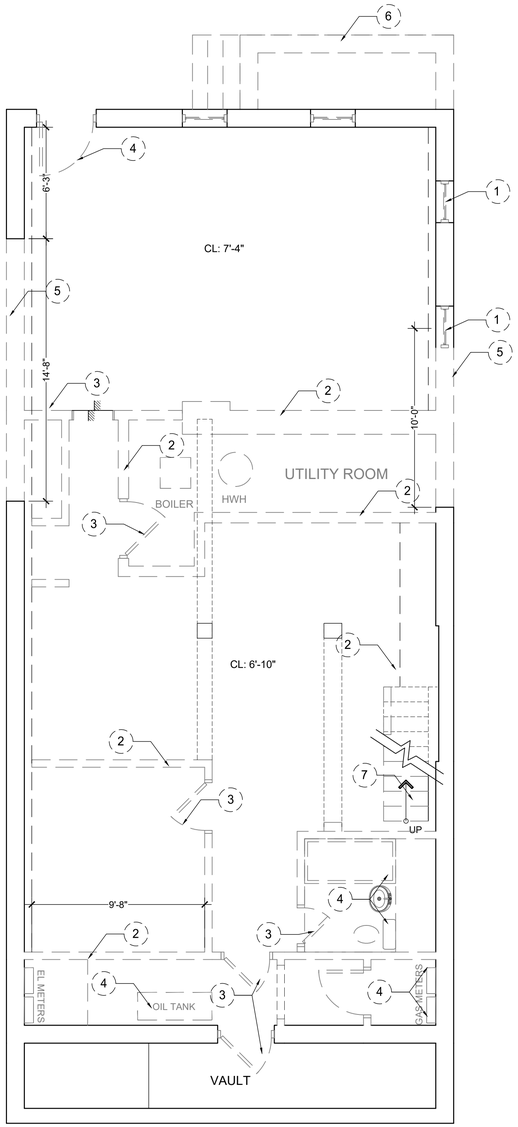
Drawing Title:

SCHEDULES, WALL TYPES, NOTES & TABLES

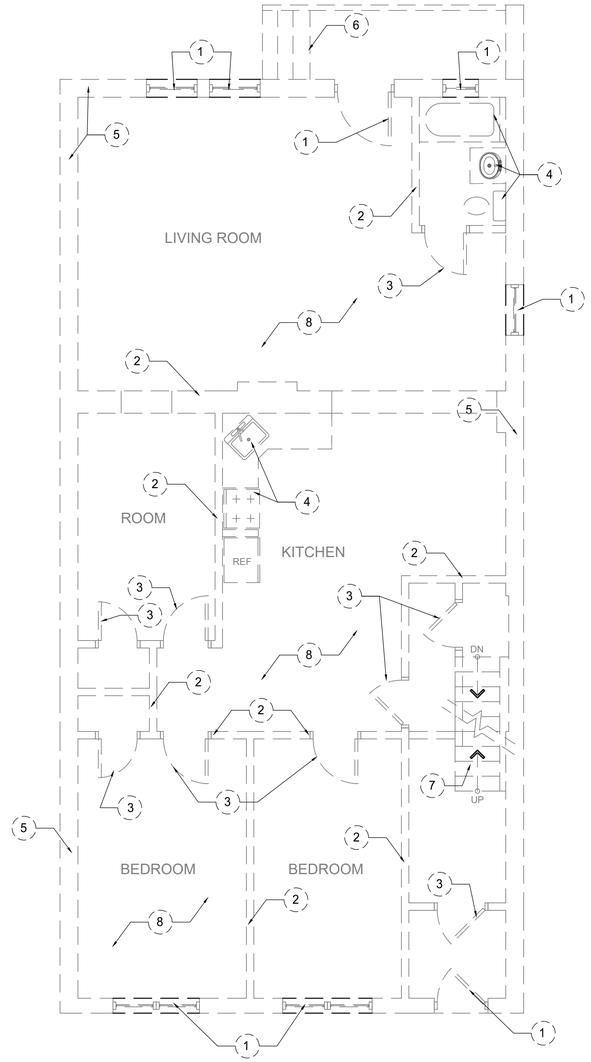
Seal & Signature:

REGISTERED ARCHITECT — ANGELO SULTANA — No. 027357 — STATE OF NEW YORK

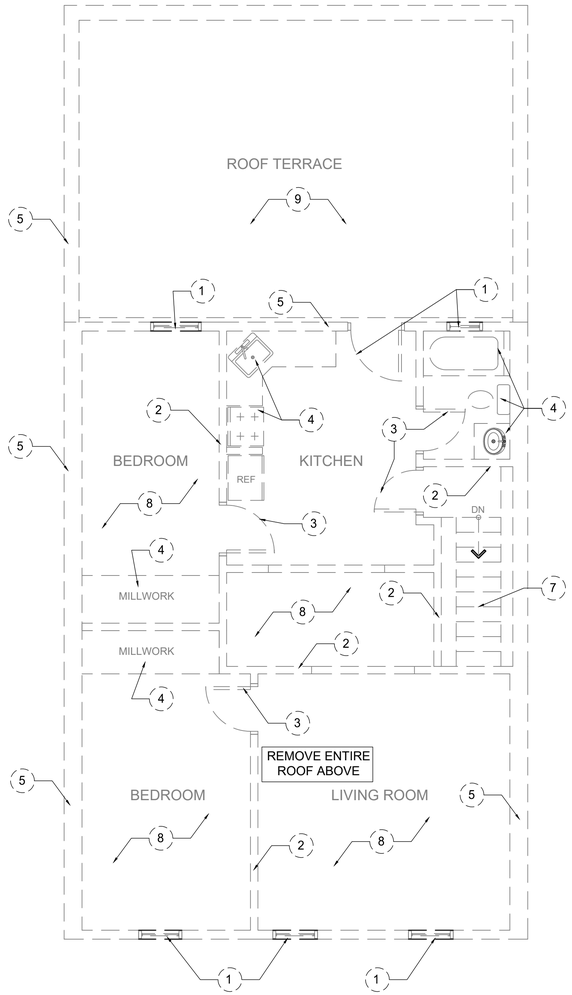
DATE:	02-10-2025
PROJECT #:	23.064
DRAWING BY:	C.R
CHECKED BY:	J.S.
DWG No:	A-102.00
CADD FILE NO: 23.064	YANG/LIU
	5 OF 34



1 EXISTING CELLAR
- SCALE: 3/16"=1'-0"



2 EXISTING 1ST FLOOR PLAN
- SCALE: 3/16"=1'-0"



3 EXISTING 2ND FLOOR PLAN
- SCALE: 3/16"=1'-0"

DEMOLITION KEYNOTES

NOTE:
1. REMOVE EXTERIOR DOORS AND WINDOWS, AND WOOD MOLDINGS
2. REMOVE INTERIOR PARTITIONS
3. REMOVE INTERIOR DOORS
4. REMOVE AND CAP ALL KITCHEN AND BATHROOM FIXTURES TOGETHER WITH CABINETS
5. REMOVE EXTERIOR WALL
6. REMOVE EXTERIOR STAIRS
7. REMOVE INTERIOR STAIRS
8. REMOVE FLOOR
9. REMOVE ROOF

WALL LEGEND

WALLS TO REMAIN

WALLS TO BE REMOVED

DEMOLITION NOTES:
- GC MUST NOT REMOVE MORE OF 50% THE EXISTING EXTERIOR THAN WHAT IS REFLECTED ON THESE PLANS
- NO MECHANICAL EQUIPMENT TO BE USED DURING DEMOLITION

DEMOLITION NOTES:

1. THE GENERAL CONTRACTOR SHALL FURNISH ALL LABOR AND MATERIALS AS REQUIRED TO COMPLETE DEMOLITION AND REMOVAL OF ALL ITEMS AS SHOWN OR NOTED ON JLS DESIGNS
2. THE GENERAL CONTRACTOR SHALL AT ALL TIMES PROTECT THE PROPERTY OF THE TENANT AND THE BUILDING OWNER INCLUDING BUT NOT LIMITED TO WINDOW, FLOOR AND CEILING TILE, PUBLIC TOILETS, ELEVATORS, DOORS, BUCKS, ELECTRICAL, FIRE ALARM SYSTEM AND
3. THE GENERAL CONTRACTOR SHALL FURNISH A SYSTEM OF TEMPORARY LIGHTS THROUGH OUT
4. BUILDING STANDARD LIGHTING FIXTURES, DOORS BUCKS, HARDWARE, PLUMBING FIXTURES, PIPES, SWITCHES AND OTHER ITEMS WHICH ARE NOT TO BE REUSED BY TENANT IN THE NEW CONSTRUCTION AND ARE SALVAGEABLE, SHALL BE RETURNED TO THE BUILDING UPON REQUEST. ALL ITEMS NOT REUSED OR RETURNED TO THE BUILDING SHALL BE REMOVED FROM
5. THE GENERAL CONTRACTOR SHALL REMOVE ALL WALL CONDUITS LEFT AFTER WALL DEMOLITION, INCLUDING SWITCH BOXES, ELECTRICAL OUTLETS, TELEPHONE/SIGNAL OUTLETS, CEILING TILES, PLATES, BRIDGES, OR ANY OTHER TELEPHONE, OR ELECTRICAL WIRING AND EQUIPMENT BACK TO THE ELECTRICAL AND TELEPHONE CLOSETS.
6. THE GENERAL CONTRACTOR SHALL REMOVE ALL EXISTING FLOORING AND BASE, U.O.N.
7. IN ALL AREAS WHERE DEMOLITION (REMOVAL OF CARPETING, TACKLESS, PARTITIONS, ETC.) CAUSES AN UNEVENNESS IN SLAB, THE CONTRACTOR SHALL PATCH TO LEVEL THE SLAB.
8. THE GENERAL CONTRACTOR SHALL CAP AND REMOVE BACK TO SOURCE ALL PROJECTING FLOOR ELECTRICAL OUTLETS/TELEPHONE OUTLETS, AND ALL OTHERS, ETC.
10. ALL EXISTING OUTLETS TO BE REMOVED UNLESS OTHERWISE NOTED. ALL ELECTRICAL AND TELECOMMUNICATIONS WIRING SHALL BE REMOVED BY GENERAL CONTRACTOR: TO PERMIT
11. ALL WORK SHALL BE UNDER THE COMPLETE SUPERVISION OF A GENERAL CONTRACTOR.
12. NO CONTRACTOR OR SUBCONTRACTOR WILL BE ALLOWED TO ENTER THE BUILDING UNTIL A CLEARANCE IS OBTAINED FROM THE BUILDING MANAGER.
13. ALL ITEMS NOTED FOR REMOVAL AND REUSED ARE TO BE STORED IN A SAFE, SECURED
14. A COPY OF THE PLANS, STAMPED AND APPROVED BY THE REQUIRED AGENCY SHALL BE ON THE PREMISES AT ALL TIMES, AND AVAILABLE FOR INSPECTORS.
15. THE CONSTRUCTION AREA AND HALLWAYS WILL BE KEPT BROOM CLEAN AT ALL TIMES.
16. ALL UNUSED PIPING, DUCTWORK, HANGERS, SUPPORTS SHALL BE COMPLETELY REMOVED ALL THE WAY BACK TO THE CLOSEST RISER CLOSET, OR BACK TO THE NEAREST ACTIVE BRANCH MAIN AND CAPPED, SEALED WATERTIGHT, OR AIRTIGHT. ALL THE OPENINGS RESULTING SHALL BE PROPERLY PATCHED, SEALED, AND FIRESTOPPED TO MAINTAIN THE ORIGINAL INTEGRITY OF THE PARTITION'S FIRE RATING.
17. ALL EXISTING LIGHTS AND CEILING TO BE REMOVED UNLESS OTHERWISE NOTED.
18. THE CONTRACTOR SHALL PERFORM ALL OPERATIONS OF DEMOLITION AND REMOVAL INDICATED ON THE DRAWINGS AND AS MAY BE REQUIRED BY THE WORK. THE CONTRACTOR SHALL KEEP THE AREA CLEAR AND CLEAN. ALL DEMOLISHED MATERIAL OR EQUIPMENT SHALL BE REMOVED FROM THE SITE AND DISPOSED OF DAILY IN A LEGAL MANNER. THE SITE SHALL BE LEFT BROOM CLEAN AT THE COMPLETION OF DEMOLITION.
19. BEFORE THE START OF DEMOLITION WORK, THE CONTRACTOR SHALL VERIFY THE SCOPE OF THE WORK AT THE SITE, INCLUDING ITEMS TO BE PRESERVED, AND SHALL NOTIFY THE ARCHITECT IF THERE ARE ANY DISCREPANCIES BETWEEN THE CONTRACT DOCUMENTS AND THE FIELD CONDITIONS.
20. THE CONTRACTOR SHALL NOT LOAD OR PERMIT ANY PART OF THE EXISTING BUILDING TO BE LOADED WITH ANY MATERIALS OR EQUIPMENT THAT MAY ENDANGER ITS SAFETY, AND THAT OF THE PUBLIC.
21. THE CONTRACTOR SHALL PROTECT AND BE RESPONSIBLE FOR THE EXISTING BUILDING FACILITIES WITHIN THE AREA OF HIS OPERATIONS UNDER THIS CONTRACT. ANY DISTURBANCE OR DAMAGE TO ADJOINING NEIGHBOR RESULTING DIRECTLY OR INDIRECTLY FROM THE CONTRACTOR'S OPERATIONS SHALL BE PROMPTLY RESTORED, REPAIRED, OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
22. ALL ADJOINING PROPERTY AFFECTED BY ANY OPERATION OF DEMOLITION SHALL BE PROTECTED. ALL EXISTING SERVICES SUCH AS WATER, SPRINKLER, AND THE ELECTRICITY SHALL BE PROPERLY DISCONNECTED AND CAPPED BEFORE DEMOLITION WORK BEGINS.
23. REMOVE AND RELOCATE ALL WIRING, PLUMBING, AND MECHANICAL EQUIPMENT AFFECTED BY REMOVAL OF PARTITIONS. REMOVED PIPES AND/OR LINES SHALL BE CUT TO A POINT OF CONCEALMENT BEHIND OR BELOW FINISH SURFACES, AND SHALL BE PROPERLY CAPPED OR PLUGGED.
24. THE CONTRACTOR SHALL PROVIDE, ERECT, AND MAINTAIN ALL TEMPORARY BARRIERS AND GUARDS AND ALL TEMPORARY SHORING AND BRACING. THE CONTRACTOR SHALL PROVIDE ADEQUATE WEATHER PROTECTION FOR THE BUILDING AND ITS CONTENTS DURING THE COURSE OF THE WORK.
25. THE CONTRACTOR SHALL FILE ALL NECESSARY CERTIFICATES OF INSURANCE WITH THE DEPARTMENT OF BUILDINGS, PAY ALL FEES, OBTAIN ALL PERMITS.
26. THE CONTRACTOR SHALL USE ALL MEANS NECESSARY TO PROTECT FINISHES AND OTHER ITEMS SHOWN TO REMAIN.
27. REMOVE ALL SURFACE-MOUNTED WIRING, CONDUIT, AND FIXTURES IN THE AREA OF THE WORK, EXCEPT WHERE SHOWN TO REMAIN.
28. REMOVE ALL EXISTING WALL COVERINGS FROM ALL SURFACES IN THE AREA OF THE WORK.
29. REMOVE ALL CARPET, PADDING, AND TACKLES'S STRIPS IN THE AREA OF WORK. PATCH AND FINISH ANY DAMAGE TO THE EXISTING FLOORS AS REQUIRED. (THOSE WHICH ARE TO REMAIN). REMOVE ALL FIXTURES, SHELVES, AND CLEATS FROM CLOSETS. REMOVE ALL BATHROOM ACCESSORIES. REMOVE ALL WINDOW TREATMENTS AND FASTENERS IN THE AREA OF WORK.

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PROJECT:
40TH AVENUE LLC
23-06 40TH AVENUE
LONG ISLAND CITY, NY 11101

BUILDING CODE:	2022
BLOCK:	0408
LOT:	23
BIN:	4004940
COMMUNITY BOARD:	401
ZONING MAP:	9B
ZONING DISTRICT	M1-2/R5D
OCCUPANCY CLASS:	R-2
CONSTRUCTION CL.:	1B
USE GROUP:	2A/17A

Scope of Work:
PROPOSED 5 STORY MIXED USE BUILDING WITH 6 CLASS A DWELLING UNITS.

BPP APP #:
PLUMBING APP:
MECHANICALAPP:
CONST FENCE: Q00423392-I1
GC APP#: Q01019618-I1
ST:

APPROVED PLANS MUST BE ON SITE AT ALL TIMES.
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PLAN EXAMINER STAMP & SIGNATURE

Issued:
02-10-25 UPDATED PLANS

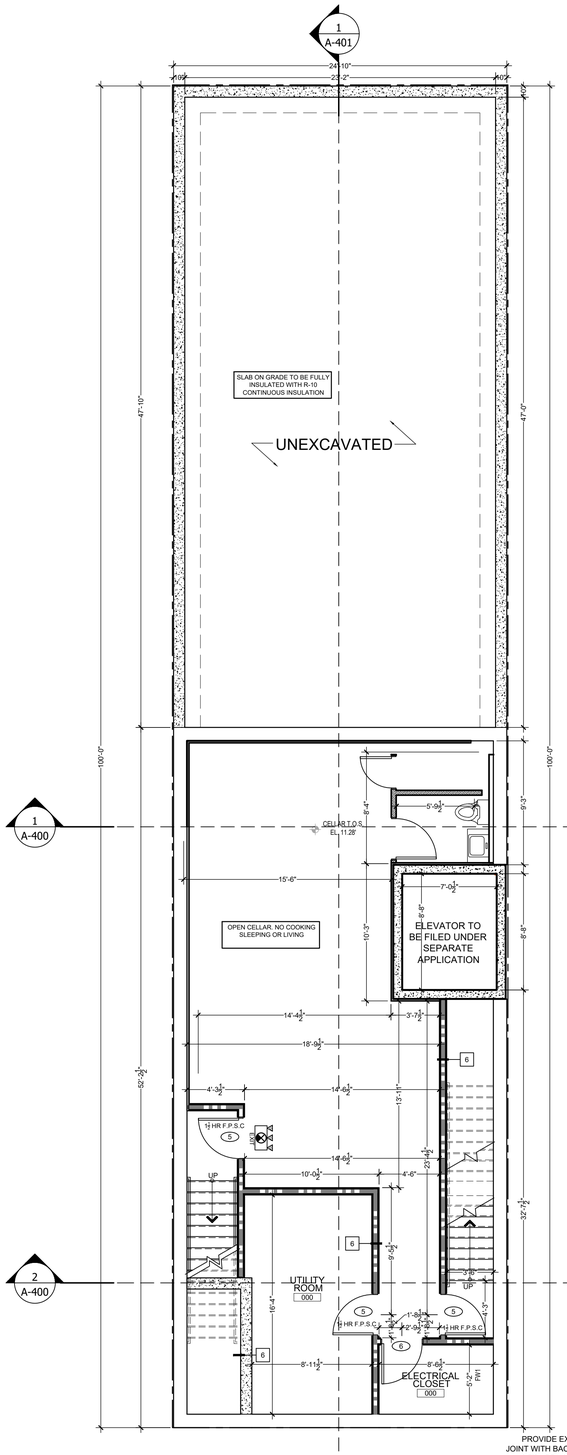
Revisions:

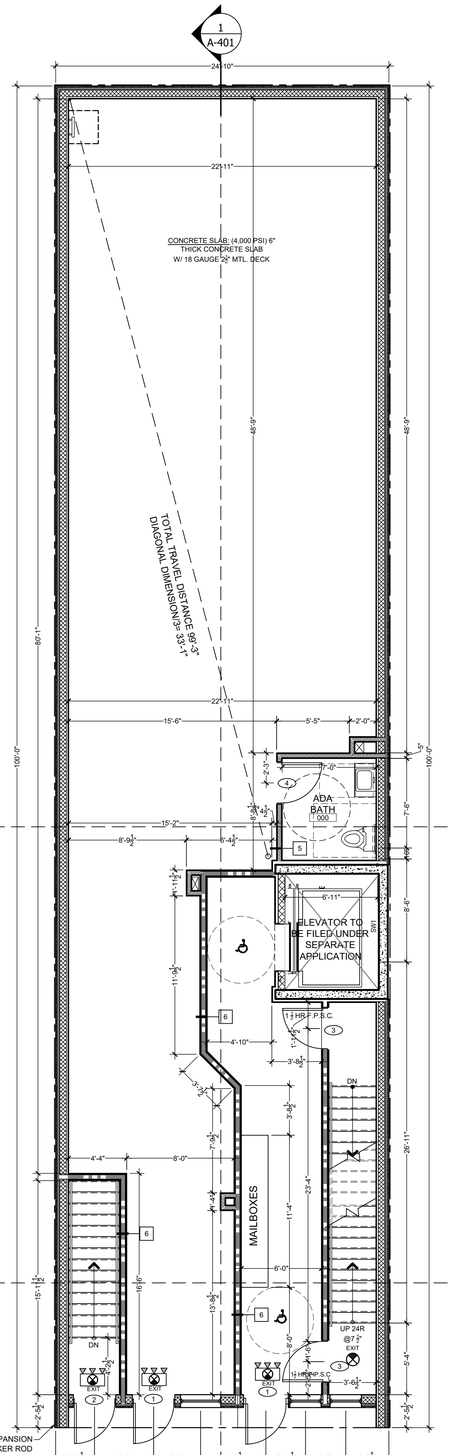
CLIENT:
40TH AVENUE LLC
23-06 40TH AVENUE
LONG ISLAND CITY, NY 11101

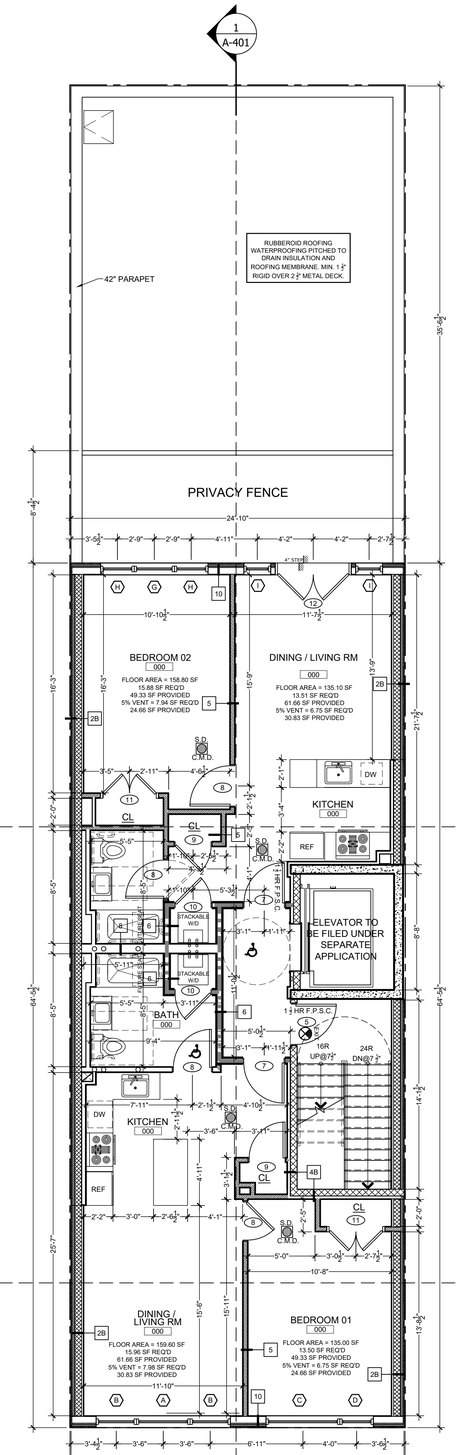
Drawing Title:
DEMOLITION PLANS

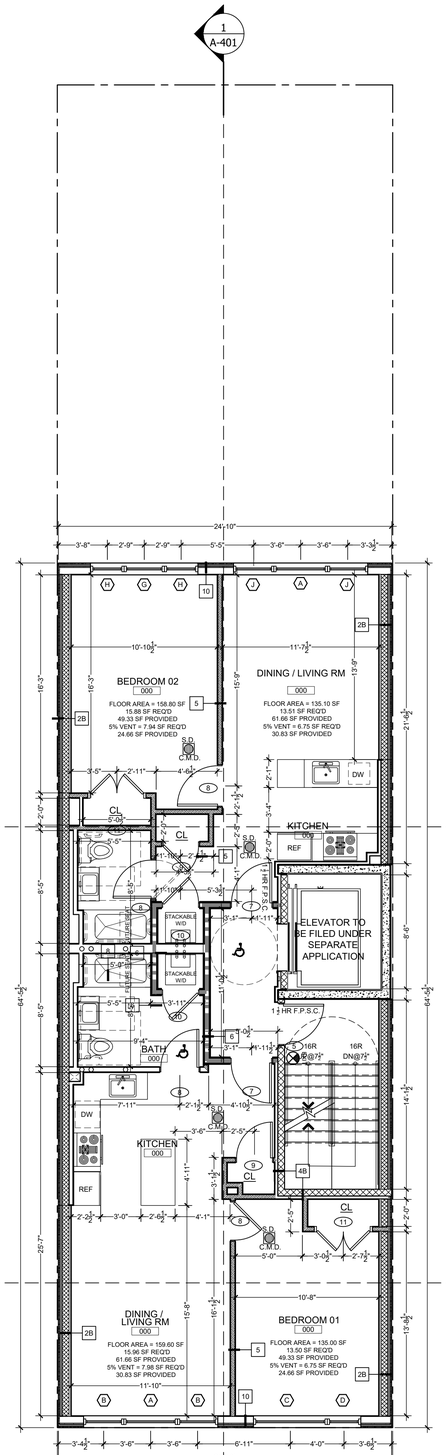
Seal & Signature:
REGISTERED ARCHITECT JOSEPH ANGELO SULTANA No. 027357 STATE OF NEW YORK

DATE:	02-10-2025
PROJECT #:	23.064
DRAWING BY:	C.R
CHECKED BY:	J.S.
DWG No:	DM-100.00
CADD FILE NO: 23.064	YANG/LIU
	6 OF 34









LEGEND

- EXIT — ILLUMINATED EXIT SIGN W/ BATTERY BACK-UP
- EMERGENCY LIGHTING W/ BATTERY BACK-UP
- EXIT — EMERGENCY LIGHTING W/ EXIT SIGN
- CLEAR FLOOR SPACE REQ'D (VARIES)
- F.P.S.C: FIRE PROOF SELF CLOSING 90 MIN. RATED DOORS
- 2 HOUR FIRE RATING ASSEMBLY

NOTE:
ALL FIRE RATED PARTITIONS AND COLUMN PROTECTION MUST EXTEND TO UNDERSIDE OF SLAB

NOTE:
ALL SMOKE DETECTORS TO BE HARDWIRED INTERCONNECTED

FDNY ACCESS ROUTE

1 / - CELLAR PLAN
SCALE: 3/16"=1'-0"

2 / - 1ST FLOOR PLAN
SCALE: 3/16"=1'-0"

3 / - 2ND FLOOR PLAN
SCALE: 3/16"=1'-0"

4 / - 3RD FLOOR PLAN
SCALE: 3/16"=1'-0"

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PROJECT:
40TH AVENUE LLC
23-06 40TH AVENUE
LONG ISLAND CITY, NY 11101

BUILDING CODE:	2022
BLOCK:	0408
LOT:	23
BIN:	4004940
COMMUNITY BOARD:	401
ZONING MAP:	9B
ZONING DISTRICT	M1-2/R5D
OCCUPANCY CLASS:	R-2
CONSTRUCTION CL.:	1B
USE GROUP:	2A/17A

Scope of Work:
PROPOSED 5 STORY MIXED USE BUILDING WITH 6 CLASS A DWELLING UNITS.

BPP APP #:
PLUMBING APP:
MECHANICALAPP:
CONST FENCE: Q00423392-I1
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ST:

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PLAN EXAMINER STAMP & SIGNATURE

Issued:
02-10-25 UPDATED PLANS

Revisions:

CLIENT:
40TH AVENUE LLC
23-06 40TH AVENUE
LONG ISLAND CITY, NY 11101

Drawing Title:
CELLAR PLAN

Seal & Signature:
REGISTERED ARCHITECT ANGELO SULTANA No. 027357 STATE OF NEW YORK

DATE:	02-10-2025
PROJECT #:	23.064
DRAWING BY:	C.R
CHECKED BY:	J.S.
DWG No:	A-200.00
CADD FILE NO: 23.064	YANG/LIU
	6 OF 34

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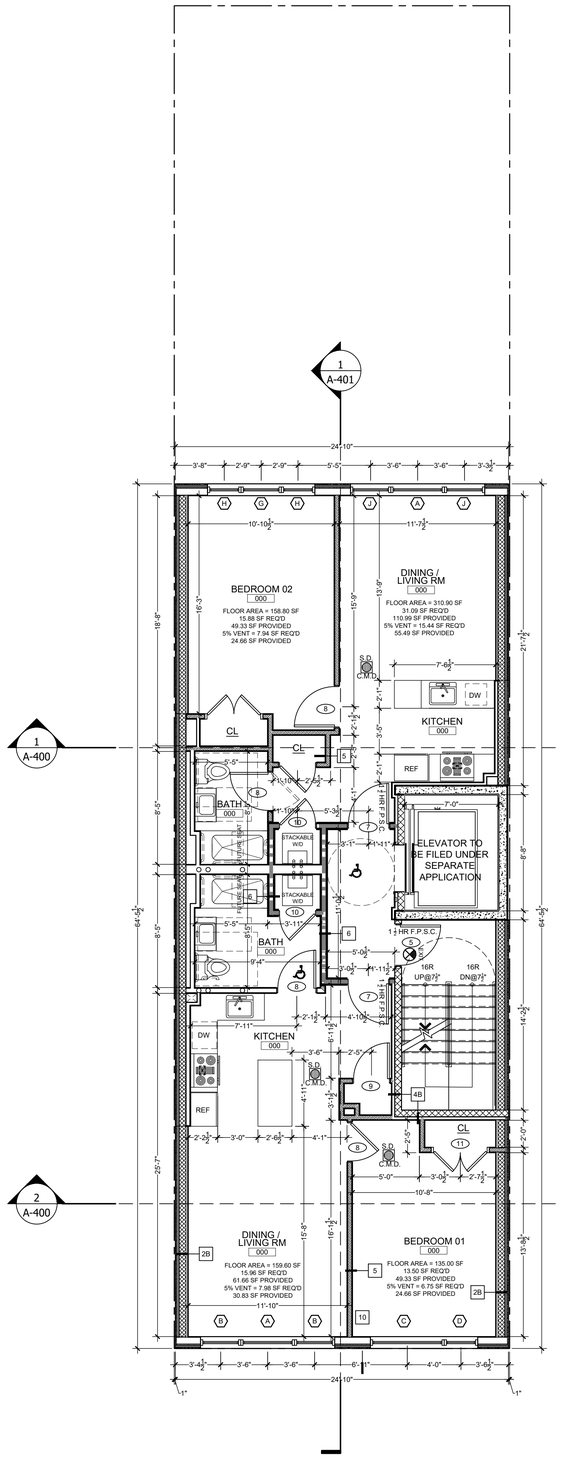
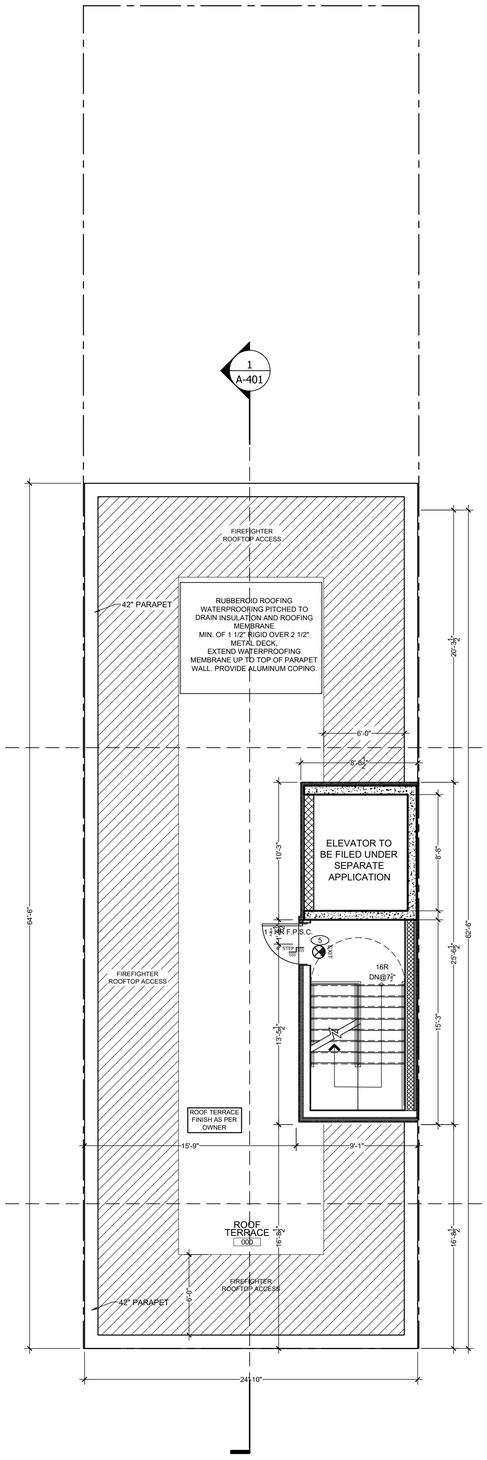
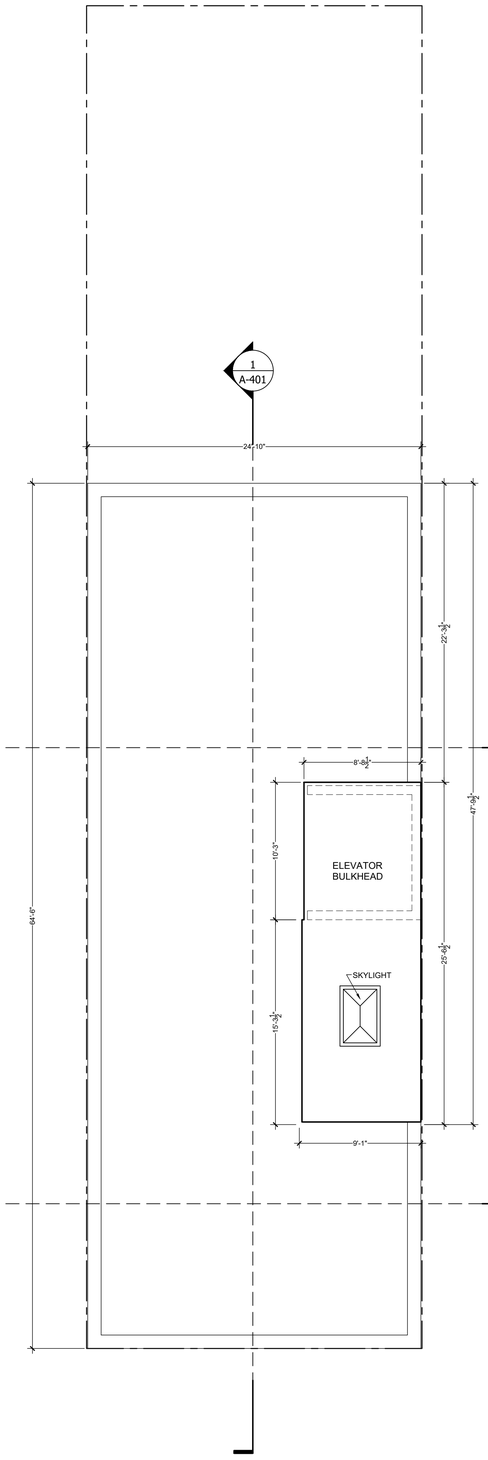


1 / A-400 — 1 4TH FLOOR PLAN
SCALE: 3/16"=1'-0"



2 / A-400 — 2 ROOF PLAN
SCALE: 3/16"=1'-0"



3 / - — 3 BULKHEAD PLAN
SCALE: 3/16"=1'-0"

LEGEND

- ILLUMINATED EXIT SIGN W/ BATTERY BACK-UP
- EMERGENCY LIGHTING W/ BATTERY BACK-UP
- EMERGENCY LIGHTING W/ EXIT SIGN
- CLEAR FLOOR SPACE REQ'ED (VARIES)

F.P.S.C: FIRE PROOF SELF CLOSING 90 MIN. RATED DOORS

2 HOUR FIRE RATING ASSEMBLY

NOTE:
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NOTE:
ALL SMOKE DETECTORS TO BE HARDWIRED INTERCONNECTED

FDNY ACCESS ROUTE

PARAPET WALL NOT MORE THAN 3'-6" IN HEIGHT IS PERMITTED OBSTRUCTION TO HEIGHT AND SETBACK REGS. PER Z.R. 23-62(f) - TYPICAL

NOTE: PROVIDE AN UNOBSTRUCTED SPACE ON ROOFTOP SUFFICIENT TO ALLOW FIREFIGHTING OPERATIONS. A CLEAR PATH NOT LESS THAN 6 FEET WIDE AND 9 FEET HIGH TO BE PROVIDED FROM FRONT OF BUILDING TO REAR OF BUILDING AND FROM ONE SIDE OF THE BUILDING TO THE OTHER SIDE OF THE BUILDING.

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40TH AVENUE LLC
23-06 40TH AVENUE
LONG ISLAND CITY, NY 11101

BUILDING CODE:	2022
BLOCK:	0408
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COMMUNITY BOARD:	401
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PLAN EXAMINER STAMP & SIGNATURE

Issued:
02-10-25 UPDATED PLANS

Revisions:

CLIENT:
40TH AVENUE LLC
23-06 40TH AVENUE
LONG ISLAND CITY, NY 11101

Drawing Title:
FIRST FLOOR PLAN

Seal & Signature:
REGISTERED ARCHITECT ANGELO SULTANA JR. No. 027357 STATE OF NEW YORK

DATE: 02-10-2025
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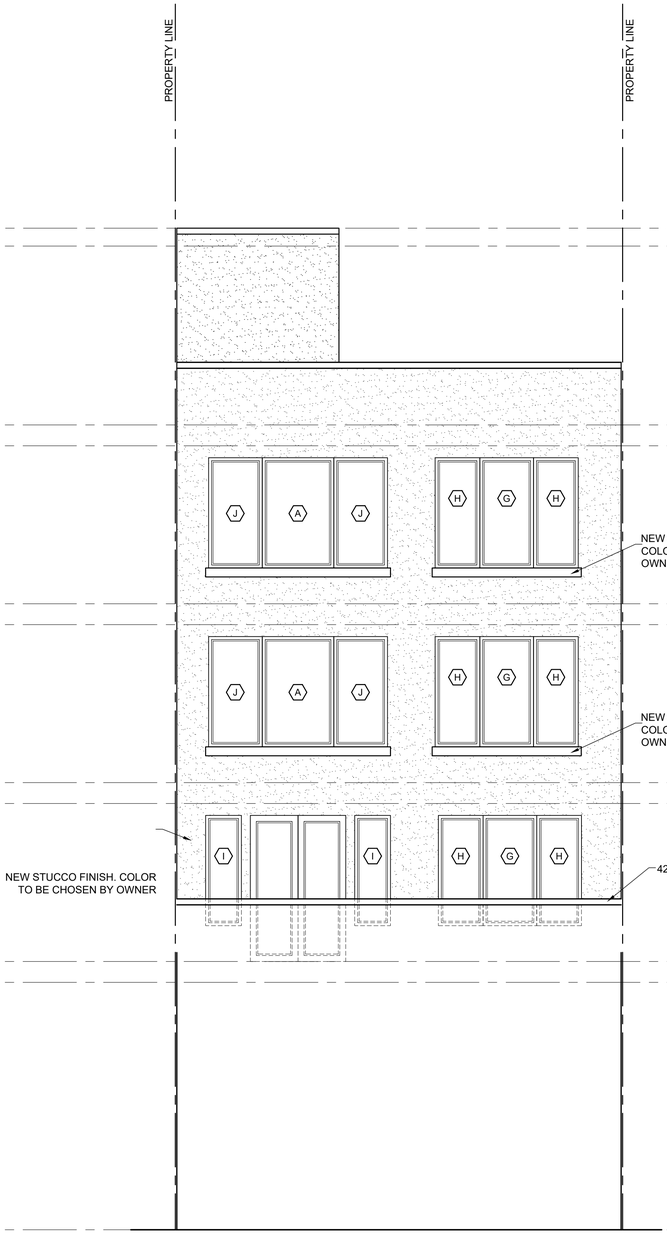
DRAWING BY: C.R
CHECKED BY: J.S.
DWG No:
A-201.00

CADD FILE NO: 23.064 YANG/LIU | 7 OF 34

1 - FRONT ELEVATION
SCALE: 1/4"=1'-0"



2 - REAR ELEVATION
SCALE: 1/4"=1'-0"

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40TH AVENUE LLC
23-06 40TH AVENUE
LONG ISLAND CITY, NY 11101

Drawing Title:
ELEVATION

Seal & Signature:
REGISTERED ARCHITECT JOSEPH ANGELO SULTANA JR. No. 27357 STATE OF NEW YORK

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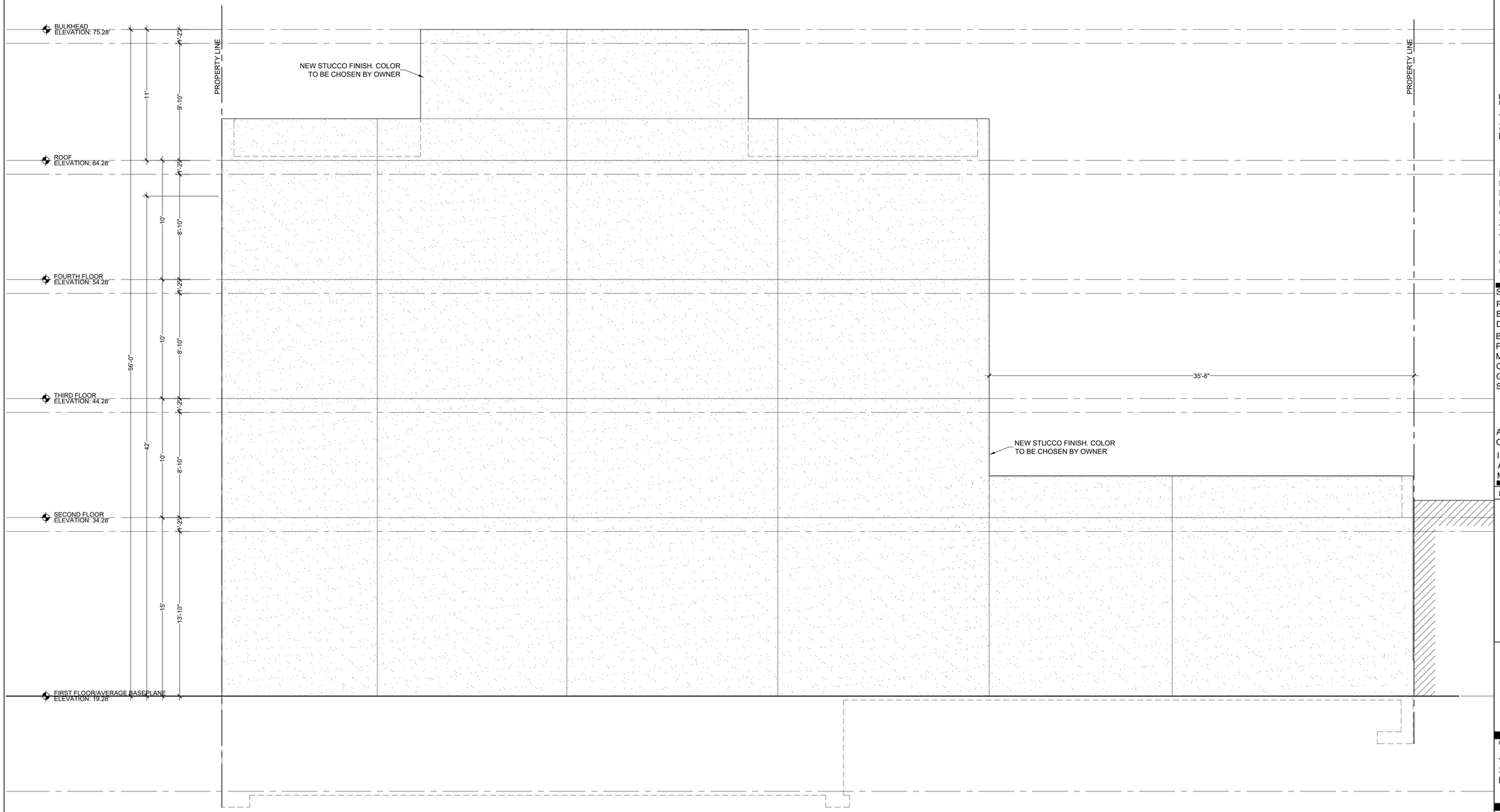

1 - RIGHT ELEVATION

SCALE: 1/4"=1'-0"

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LONG ISLAND CITY, NY 11101

BUILDING CODE:	2022
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40TH AVENUE LLC
23-06 40TH AVENUE
LONG ISLAND CITY, NY 11101

Drawing Title:

ELEVATION

Seal & Signature:

REGISTERED ARCHITECT JOSEPH ANGELO SULTANA JR. No. 27357 STATE OF NEW YORK

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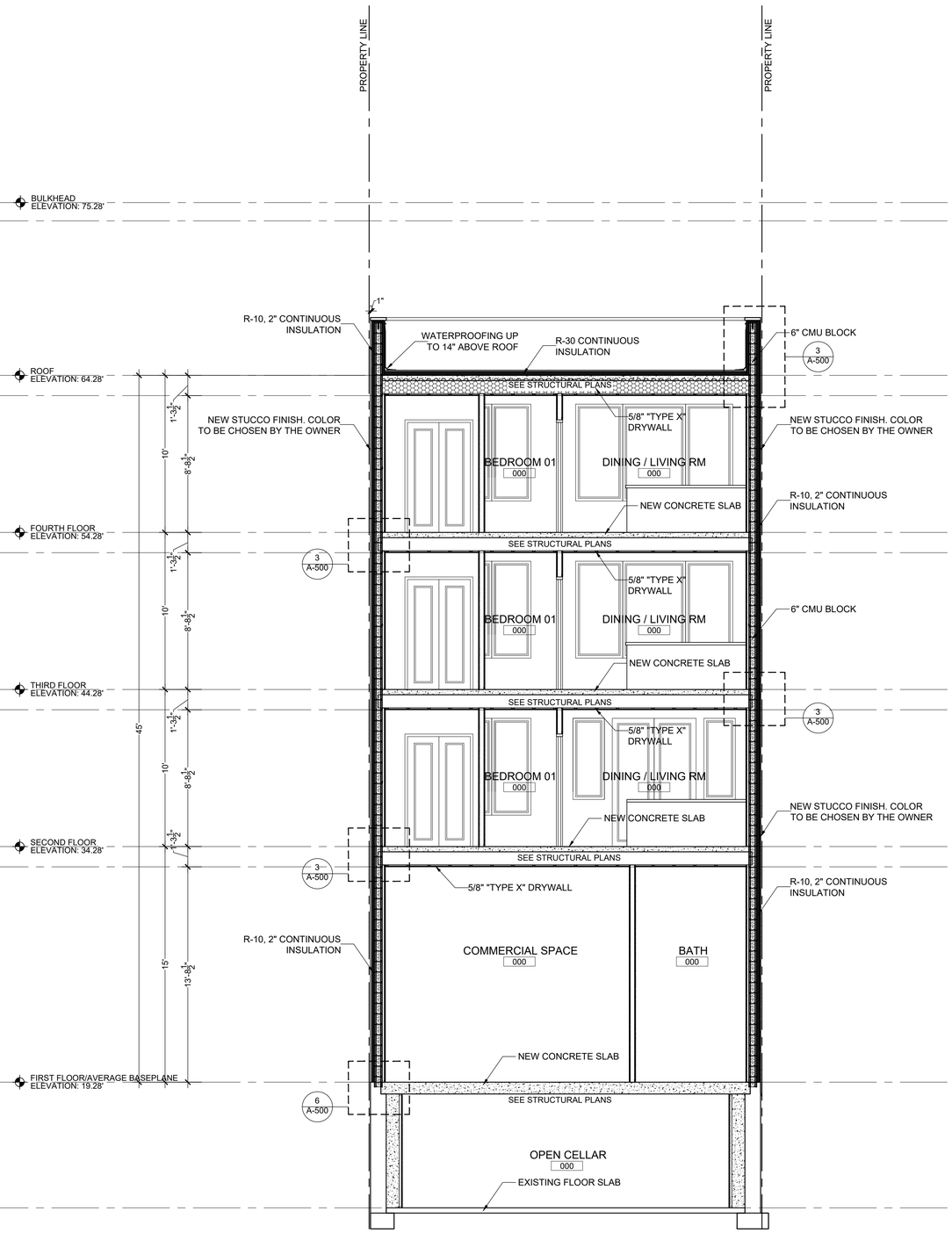
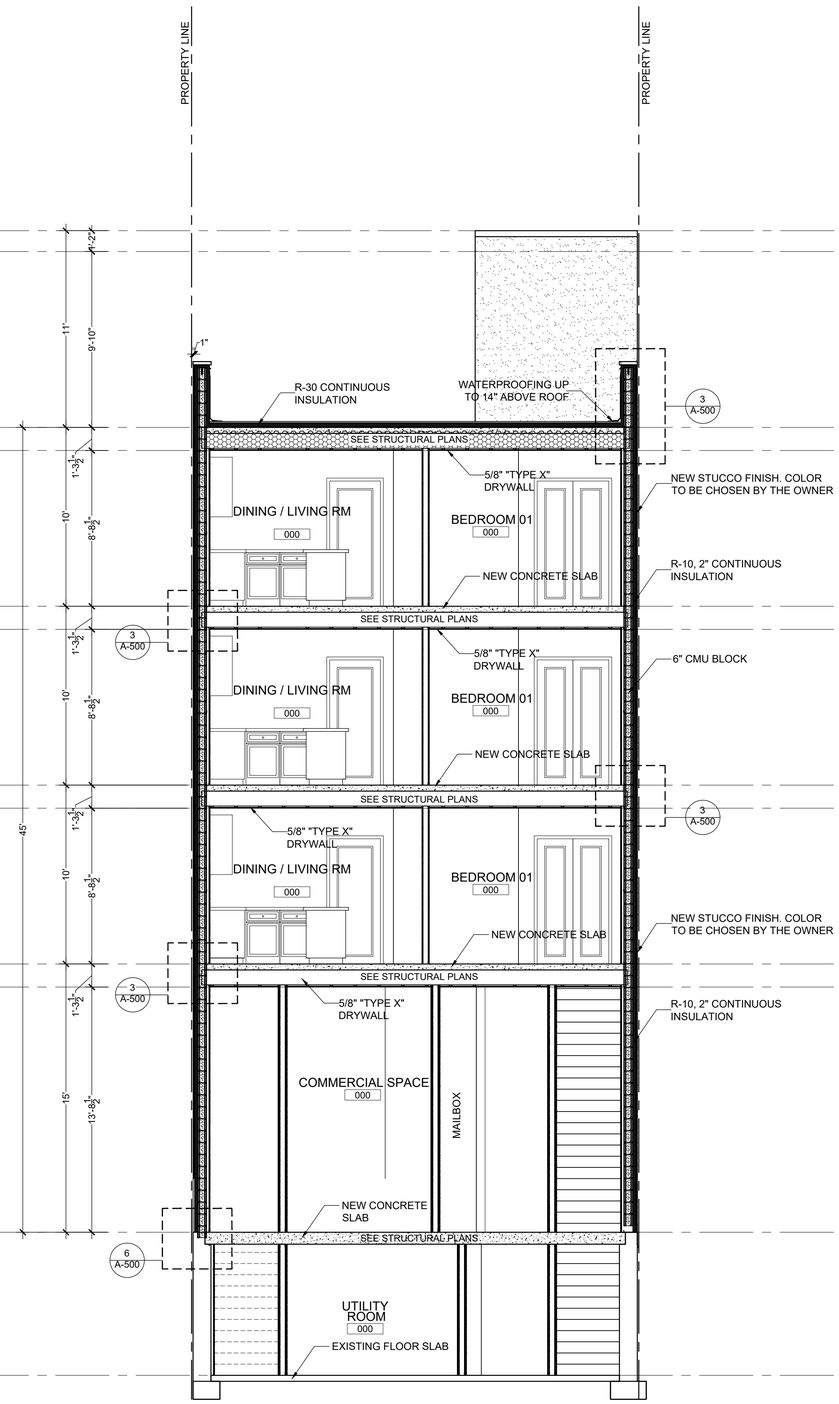
CADD FILE NO: 23.064 YANG/LIU 9 OF 34



1 - SECTION A
SCALE: 1/4"=1'-0"



2 - SECTION B
SCALE: 1/4"=1'-0"

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23-06 40TH AVENUE
LONG ISLAND CITY, NY 11101

Drawing Title:
SECTION

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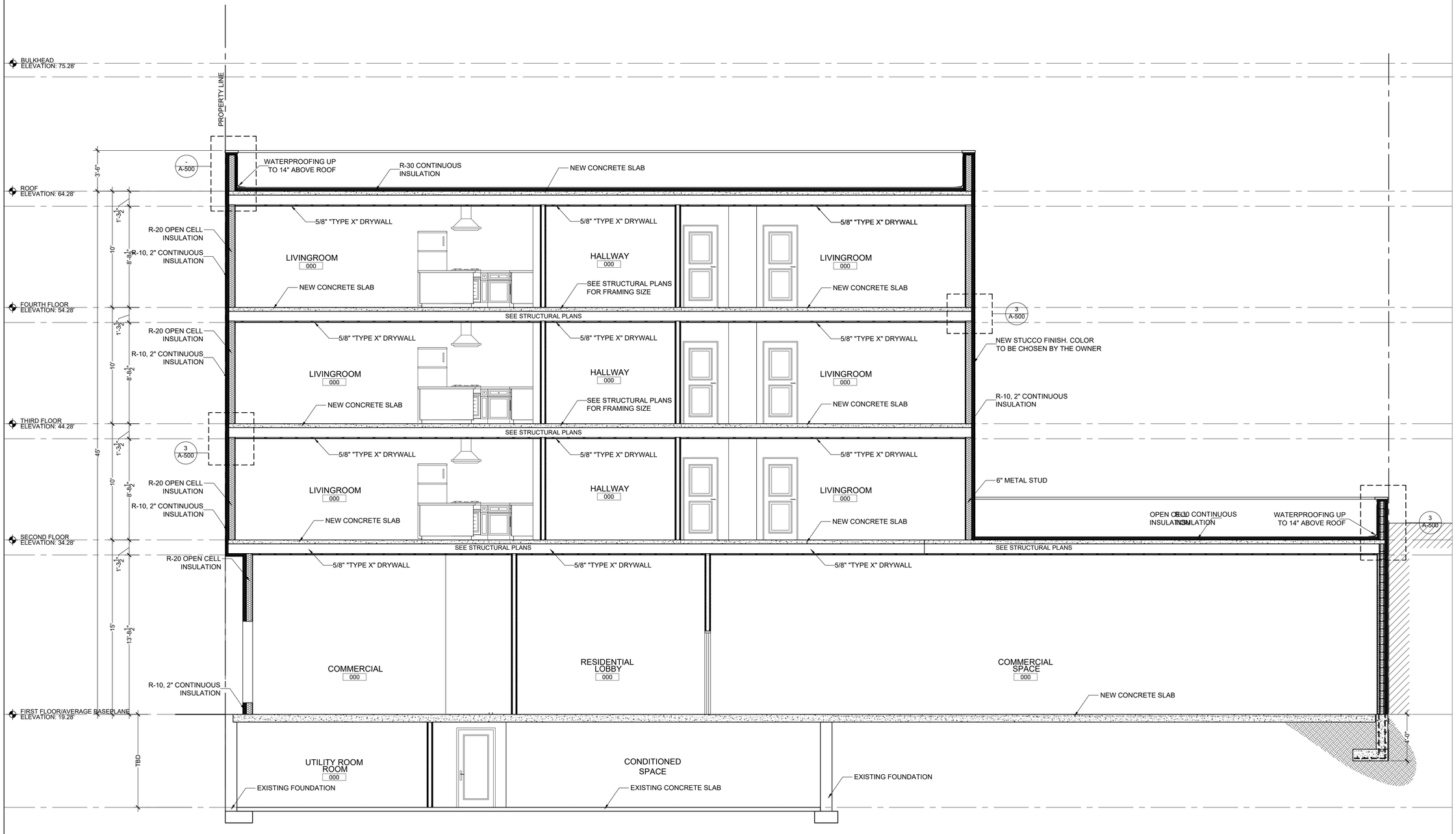
A-400.00

CADD FILE NO: 23.064 YANG/LIU 10 OF 34



1 - SECTION C

SCALE: 1/4"=1'-0"

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PROJECT:

40TH AVENUE LLC
23-06 40TH AVENUE
LONG ISLAND CITY, NY 11101

BUILDING CODE:	2022
BLOCK:	0408
LOT:	23
BIN:	4004940
COMMUNITY BOARD:	401
ZONING MAP:	9B
ZONING DISTRICT	M1-2/R5D
OCCUPANCY CLASS:	R-2
CONSTRUCTION CL.:	1B
USE GROUP:	2A/17A

Scope of Work:

PROPOSED 5 STORY MIXED USE BUILDING WITH 6 CLASS A DWELLING UNITS.

BPP APP #:
PLUMBING APP:
MECHANICALAPP:
CONST FENCE: Q00423392-I1
GC APP#: Q01019618-I1
ST:

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PLAN EXAMINER STAMP & SIGNATURE

Issued:
02-10-25 UPDATED PLANS

Revisions:

CLIENT:

40TH AVENUE LLC
23-06 40TH AVENUE
LONG ISLAND CITY, NY 11101

Drawing Title:

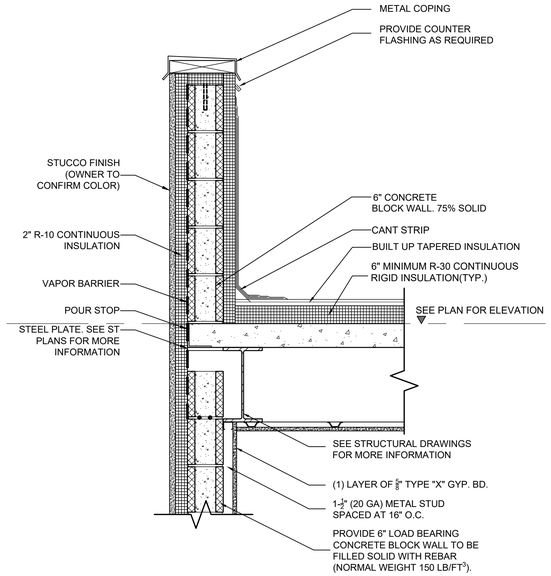
SECTION

Seal & Signature:

REGISTERED ARCHITECT JOSEPH ANGELO SULTANA JR. No. 27357 STATE OF NEW YORK

DATE: 02-10-2025
PROJECT #: 23.064
DRAWING BY: C.R
CHECKED BY: J.S.
DWG No:
A-401.00

CADD FILE NO: 23.064 YANG/LIU 11 OF 34



1 WD-1 PARAPET DETAIL
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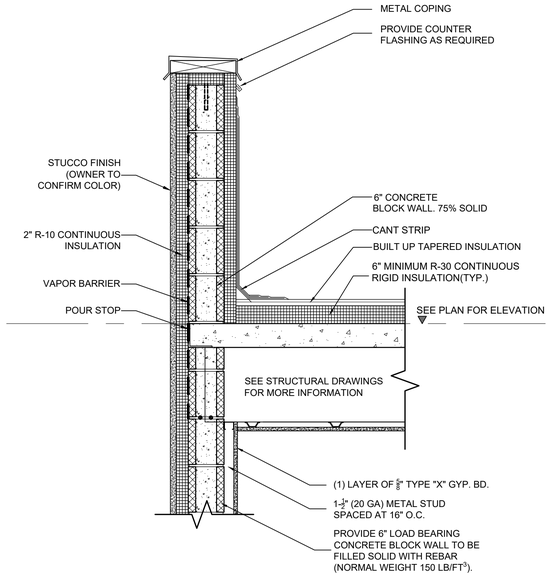
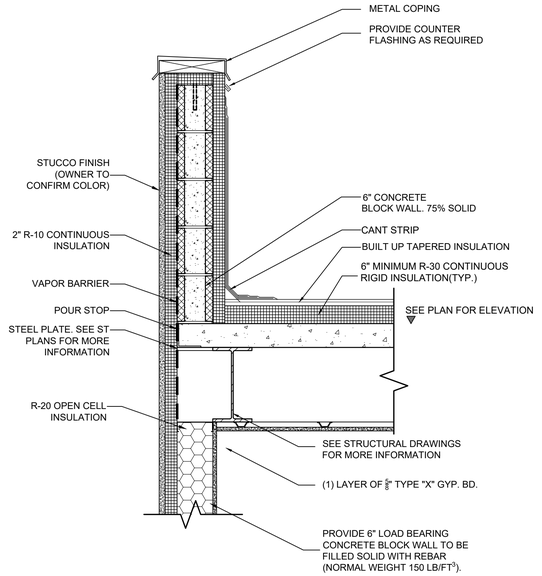
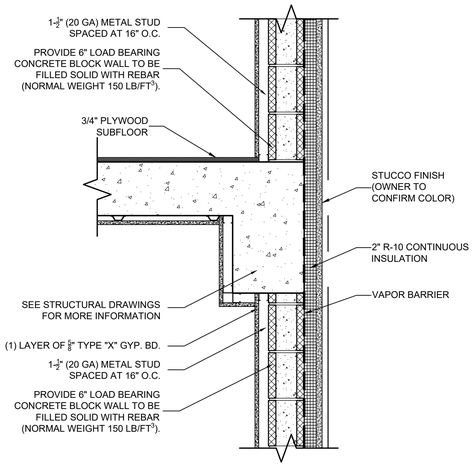


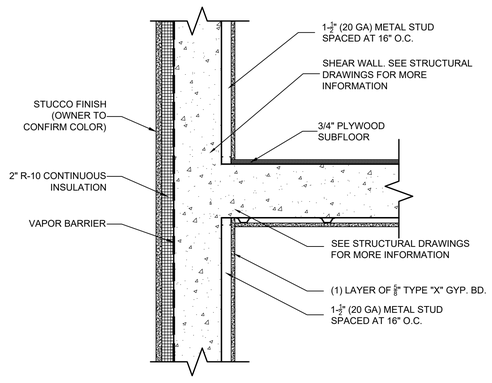


3 WD-3 ROOF/PARAPET DETAIL
SCALE: 1"= 1'-0"

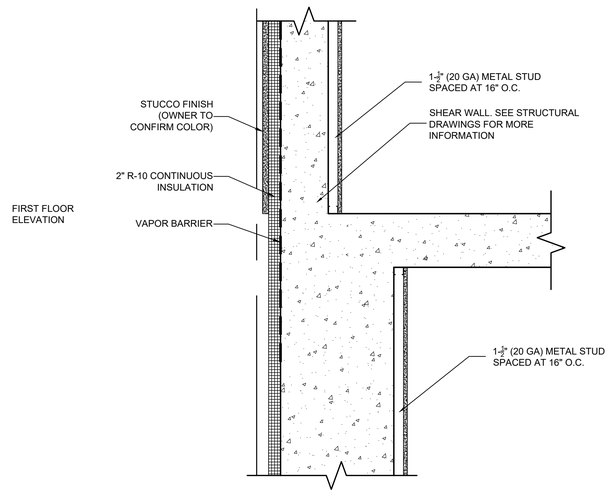
4 WD-4 WALL/FLOOR DETAIL
SCALE: 1"= 1'-0"



5 WD-5 EXTERIOR WALL DETAIL
SCALE: 1"= 1'-0"



6 WD-6 EXTERIOR WALL DETAIL
SCALE: 1"= 1'-0"



7 WD-7 EXTERIOR/FOUNDATION WALL DETAIL
SCALE: 1"= 1'-0"

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PROJECT:
40TH AVENUE LLC
23-06 40TH AVENUE
LONG ISLAND CITY, NY 11101

BUILDING CODE:	2022
BLOCK:	0408
LOT:	23
BIN:	4004940
COMMUNITY BOARD:	401
ZONING MAP:	9B
ZONING DISTRICT	M1-2/R5D
OCCUPANCY CLASS:	R-2
CONSTRUCTION CL.:	1B
USE GROUP:	2A/17A

Scope of Work:
PROPOSED 5 STORY MIXED USE BUILDING WITH 6 CLASS A DWELLING UNITS.

BPP APP #:
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PLAN EXAMINER STAMP & SIGNATURE

Issued:
02-10-25 UPDATED PLANS

Revisions:

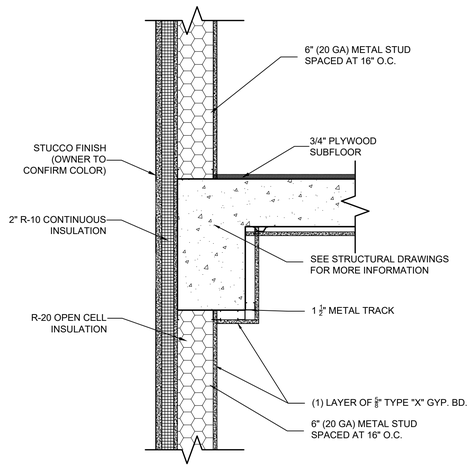
CLIENT:
40TH AVENUE LLC
23-06 40TH AVENUE
LONG ISLAND CITY, NY 11101

Drawing Title:
DETAIL

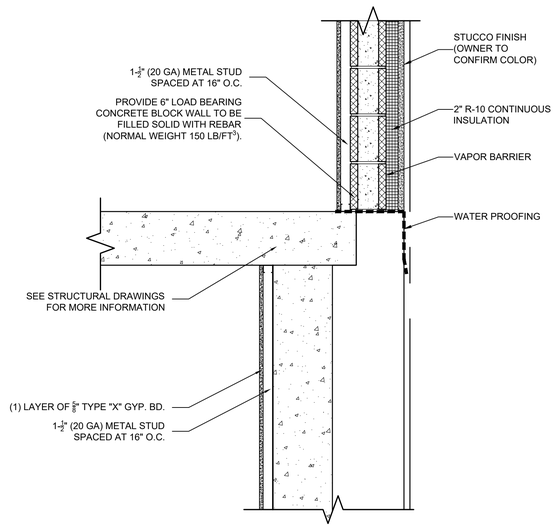
Seal & Signature:
REGISTERED ARCHITECT ANGELO SULTANA JR. No. 27257 STATE OF NEW YORK

DATE:	02-10-2025
PROJECT #:	23.064
DRAWING BY:	C.R
CHECKED BY:	J.S.
DWG No:	A-500.00

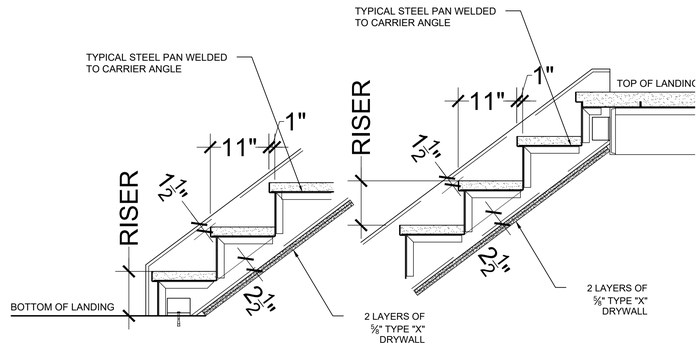
CADD FILE NO: 23.064 YANG/LIU 12 OF 34



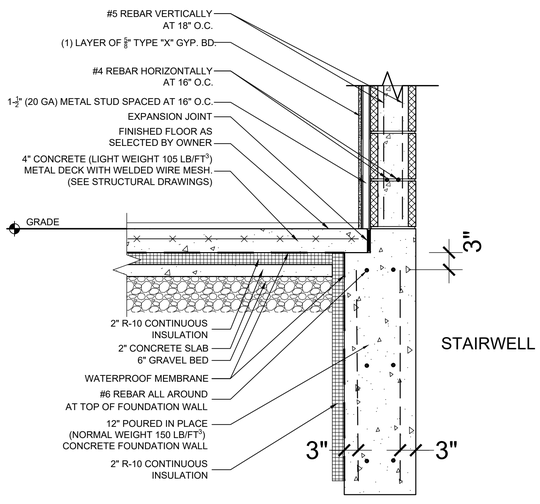
8 EXTERIOR WALL DETAIL
WD-8 SCALE: 1"= 1'-0"



9 EXTERIOR WALL DETAIL
WD-9 SCALE: 1"= 1'-0"



12 INTERIOR STAIR DETAIL
WD-12 SCALE: 1"= 1'-0"



10 EXTERIOR/FOUNDATION WALL DETAIL
WD-10 SCALE: 1"= 1'-0"

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LONG ISLAND CITY, NY 11101

BUILDING CODE:	2022
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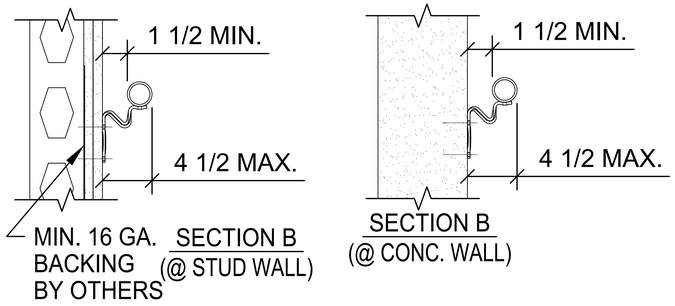
23-06 40TH AVENUE
LONG ISLAND CITY, NY 11101

Drawing Title:
DETAIL

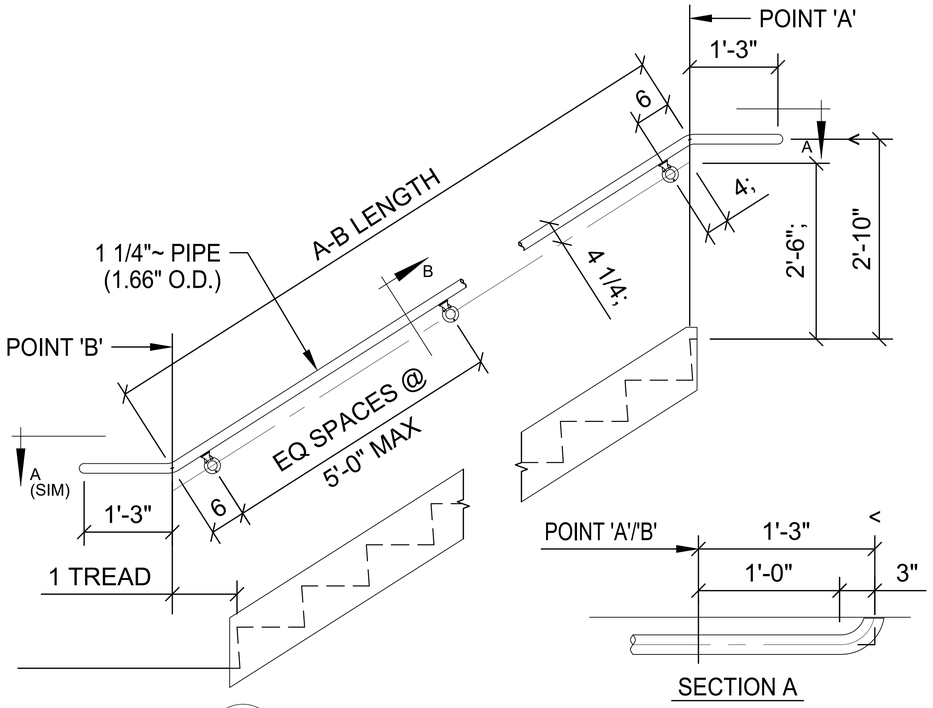
Seal & Signature:
REGISTERED ARCHITECT JOSEPH ANGELO SULTANA JR. No. 21257 STATE OF NEW YORK

DATE:	02-10-2025
PROJECT #:	23.064
DRAWING BY:	C.R
CHECKED BY:	J.S.
DWG No:	A-501.00

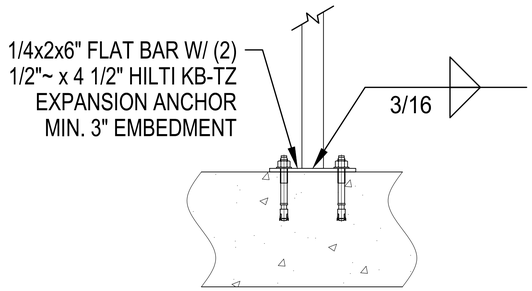
CADD FILE NO: 23.064 YANG/LIU 13 OF 34



1 / - RAILING SECTIONS
NTS

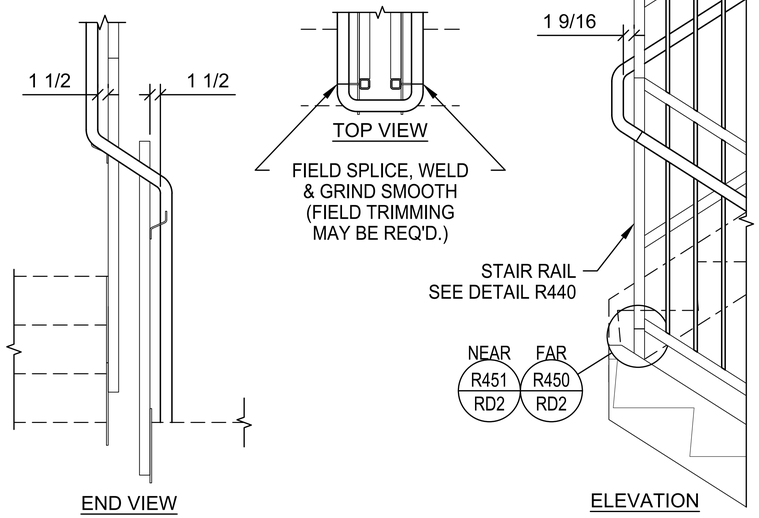


2 / - WALL RAIL W/ BOTTOM LEVEL OFF
NTS



3 / - RAIL POST CONNECTION
NTS

NOTE: POSTS AND TOP LINE MATERIAL TO BE HSS 1 1/2" x 1 1/2" x 0.120"
HANDRAIL MATERIAL TO BE 1 1/4"~ (1.66" O.D.) PIPE
PICKET MATERIAL TO BE 1/2" SQ BAR



CONTINUOS HANDRAIL AT STANDARD TOP - STANDARD BOTTOM

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40TH AVENUE LLC
23-06 40TH AVENUE
LONG ISLAND CITY, NY 11101

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Revisions:

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40TH AVENUE LLC
23-06 40TH AVENUE
LONG ISLAND CITY, NY 11101

Drawing Title:
STAIR & RAILING DETAIL

Seal & Signature:
REGISTERED ARCHITECT JOSEPH ANGELO SULTANA JR. No. 27357 STATE OF NEW YORK

DATE: 02-10-2025
PROJECT #: 23.064
DRAWING BY: C.R
CHECKED BY: J.S.
DWG No:
A-503.00

CADD FILE NO: 23.064 YANG/LIU 24 OF 34

ENERGY CODE COMPLIANCE:

TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT THESE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE OF THE 2020 ENERGY CONSERVATI0N CODE OF NEW YORK CITY CHAPTER C4

AS PER R404.1 LIGHTING EQUIPMENT WILL HAVE A MINIMUM OF 90 PERCENT OF THE PERMANENTLY INSTALLED INTERIOR LIGHT FIXTURES FITTED WITH HIGH-EFFICIENCY LAMPS.

LIGHTING NOTES:

1. C405.1 - AS PER R404.1, MINIMUM 90% OF THE PERMANENTLY INSTALLED LIGHTING FIXTURES TO HAVE LAMPS WITH A MINIMUM EFFICACY OF 65 LUMENS PER WATT.
2. C405.1.1 - INTERNALLY ILLUMINATED EXIT SIGNS TO NOT EXCEED 5 WATTS PER SIDE
3. C405.3/ C406.3 - TOTAL INTERIOR LIGHTING POWER SHALL NOT EXCEED 90% OF THE TOTAL LIGHTING POWER CALCULATED FROM TABLE C405.3.2(1)
4. C405.4 - TOTAL EXTERIOR LIGHTING POWER SHALL NOT EXCEED THE TOTAL LIGHTING POWER CALCULATED FROM TABLE C405.4.2
2. C408.3.2 - CONTRACTOR TO PROVIDE DOCUMENTS TO THE BUILDING OWNER CERTIFYING THAT THE INSTALLED LIGHTING CONTROLS MEET DOCUMENTED PERFORMANCE CRITERIA OF SECTION C405 WITHIN 90 DAYS FROM THE DATE OF RECEIPT OF THE CERTIFICATE OF OCCUPANCY.

LIGHTING TESTING NOTE:

FUNCTIONAL TESTING OF LIGHTING CONTROLS ARE REQUIRED PRIOR TO PASSING FINAL INSPECTION BY THE APPROVED AGENCY.

ELECTRICAL NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR.
2. ALL ELECTRICAL EQUIPMENT & WIRING SHALL BE IN ACCORDANCE WITH THE ELECTRICAL CODE OF THE CITY OF NEW YORK AND AS REQUESTED BY THE OWNER, IN ADDITION TO THESE REQUIREMENTS THE CONTRACTOR SHALL OBTAIN ALL PERMITS, APPROVALS, AFFIDAVITS, CERTIFICATIONS, SIGN-OFFS, ETC. AND PAY ALL FEES AS REQUIRED BY THE LOCAL AUTHORITIES.
3. ALL TEMPORARY ELECTRICAL EQUIPMENT AND WIRING SHALL MEET THE REQUIREMENTS OF THE ELECTRICAL CODE OF NEW YORK CITY, AND SHALL BE MAINTAINED TO MEET SUCH REQUIREMENTS.
4. PORTIONS OF PERMANENT ELECTRICAL INSTALLATIONS MAY BE USED FOR TEMPORARY OPERATIONS PROVIDED THE REQUIREMENTS OF THE ELECTRICAL CODE ARE MET.
5. AT LEAST 72 HOURS BEFORE WORK IS BEGUN THAT MAY AFFECT A POWER LINE, ABOVE OR BELOW GROUND, THE PERSON SUPERINTENDING THE WORK SHALL NOTIFY THE UTILITY COMPANY AFFECTED.

ELEVATOR EQUIPMENT CABS NOTES:

1. LUMINAIRES IN EACH ELEVATOR CAB, NOT INCLUDING SIGNALS AND DISPLAYS, THE SUM OF THE LUMENS DIVIDED BY THE SUM OF THE WATTS IS PROPOSED TO BE A MINIMUM 35 LUMENS PER WATT.
2. VENTILATION FANS IN ELEVATORS THAT DO NOT HAVE THEIR OWN AIR-CONDITIONING SYSTEM ARE PROPOSED WITH A MAXIMUM OF 0.33 WATTS/CFM WHEN AT THE MAXIMUM RATED SPEED OF THE FAN.
3. PROPOSED CONTROLS WILL DE-ENERGIZE VENTILATION FANS AND LIGHTING SYSTEMS WHEN THE ELEVATOR IS STOPPED, UNOCCUPIED AND WITH ITS DOORS CLOSED FOR OVER 15 MINUTES.

LIGHTING FIXTURE SCHEDULE

	SYMBOLS /ID	FIXTURE DESCRIPTION	LAMPS/ FIXTURE						LAMP TYPE	LUMENS	FIXTURE WATT.	TOTAL # OF FIXTURES	EFFICACY = LUMENS/ WATT.	TOTAL WATT.
			CELLAR	1ST FLOOR	2ND FLOOR	3RD FLOOR	4TH FLOOR	5TH FLOOR						
EXTERIOR	B1 (OS, PC)	LITHONIA LIGHTING MODEL #OLLWU LED P1 40K MVOLT WH (OR APPROVED EQUAL) LED WALL MOUNTED MOTION SENSOR AND PHOTOCELL (SEE PLANS FOR LOCATION)	0	2	2	0	0	2	LED	1140	15.0	6	76.00%	90.0
INTERIOR	A1 (OS)	LITHONIA LIGHTING MODEL #SBL4 LP835 (OR APPROVED EQUAL) LED LINEAR FLUSH MOUNT MOTION SENSOR (SEE PLANS FOR LOCATION)	9	17	3	3	3	3	LED	1140	15.0	38	76.00%	570.0
	A2 (FU)	LITHONIA LIGHTING MODEL #FMSATL 13 (OR APPROVED EQUAL) LED FLUSH MOUNT	0	1	6	6	6	6	LED	1900	19.2	25	98.96%	480.0
	A3 (DL)	LITHONIA LIGHTING MODEL #4BEMW LED 40K 90CRI M6 (OR APPROVED EQUAL) LED RECESSED DOWNLIGHT	0	0	32	32	29	11	LED	650	8.5	104	76.47%	884.0
	A6	LITHONIA LIGHTING MODEL#	2	1	0	0	0	1	LED	1200	14.0	4	85.71%	56.0
													TOTAL EXTERIOR LIGHTING WATT.:	90.0
													TOTAL INTERIOR LIGHTING WATT.:	1934.0

100% LIGHTING FIXTURES PROVIDED WITH LED HIGH EFFICIENT LAMPS WITH MINIMUM 65 LUMENS PER WATT.

INTERIOR LIGHTING SCHEDULE

AREA TYPE	LIGHT FIXTURE	# OF FIXTURES	FIXTURE WATT.	TOTAL WATT
(PROPOSED 2ND FL - 5TH FL) MULTIFAMILY (DWELLING UNITS)	1. 19.2W LED FLUSH MOUNT 2. 8.5W LED RECESSED DOWNLIGHT	25 104	19.2 8.5	480.0 884.0
			TOTAL PROPOSED WATTAGE =	1,364.0
(PROPOSED CEL - 5TH FL) MULTIFAMILY (COMMON AREAS)	1. 15W LED LINEAR FLUSH MOUNT 1. 19.2W LED FLUSH MOUNT	18 0	15 19.2	270.0 0.0
			TOTAL PROPOSED WATTAGE =	270.0
CELLAR - 1ST FL) RETAIL	1. 15W LED LINEAR FLUSH MOUNT 1. 19.2W LED FLUSH MOUNT	20 1	15 19.2	300.0 19.2
			TOTAL PROPOSED WATTAGE =	319.2
			TOTAL PROPOSED WATTAGE =	1953.2

INTERIOR LIGHTING POWER ALLOWANCES

SPACE TYPE	AREA (S.F.)	DESIGN WATTAGE	MAX WATTAGE ALLOWED	DESIGN LPD [W/SF]	INTERIOR LIGHTING POWER ALLOWANCES NYCECC TABLE C405.3.2(1)
(CELLAR - 5TH FL) MULTIFAMILY (COMMON AREAS)	1,970.10 S.F.	526.6	965.35	0.27	MULTIFAMILY (EXCLUDES DWELLING UNITS AS PER C405.3.2(1)(c))) 0.49
(NEW CELLAR- 1ST FL) RETAIL	2,860.10 S.F.	349.2	2,602.69	0.12	RETAIL 0.91

REDUCED INTERIOR LIGHTING POWER DENSITY

SPACE TYPE	AREA (S.F.)	DESIGN WATTAGE	MAX WATTAGE ALLOWED	DESIGN LPD [W/SF]	REDUCED LIGHTING POWER DENSITY SECTION C406.3 (90% OF TABLE C405.3.2(1))
(PROPOSED CELLAR - 5TH FL) MULTIFAMILY (COMMON AREAS)	1,970.10 S.F.	526.6	868.81	0.27	MULTIFAMILY (EXCLUDES DWELLING UNITS AS PER C405.3.2(1)(c))) 0.90* 0.49 =0.441
(PROPOSED CELLAR-1ST FL) RETAIL	2,860.10 S.F.	349.2	2,342.42	0.12	RETAIL 0.90* 0.91 =0.819

REDUCED EXTERIOR LIGHTING POWER DENSITY

SPACE TYPE	AREA (FOOT)	INDIVIDUAL LIGHTING POWER ALLOWANCES	ALLOWED WATTS	TOTAL SUPPLEMENTAL WATTS (ZONE 2)	DESIGN WATTAGE
ENTRANCES AND EXITS	3.0 LINEAR FOOT	12.6W/ LINEAR FOOT OF OPENING	37.8 (TRADABLE)	400W	28.00
				TOTAL ALLOWED TRADABLE WATTS: 37.8 > TOTAL TRADABLE DESIGN WATTAGE =	28.0

LIGHTING CONTROL NARRATIVES

RESIDENTIAL INTERIOR LIGHTING CONTROLS

LOCATION/ LIGHTING ID	CONTROL TYPE	CONTROL DESCRIPTION	DRAWING REFERENCE
ROOF			
STAIR BULKHEAD: B1	OCCUPANCY SENSOR	AUTOMATICALLY TURN OFF LIGHTS AFTER 15 MINUTES OF ALL OCCUPANTS LEAVING THE SPACE.	E-105
4TH FLOOR			
STAIRWAY: A1	OCCUPANCY SENSOR	AUTOMATICALLY REDUCE LIGHTING POWER BY 50 PERCENT AFTER 15 MINUTES OF ALL OCCUPANTS LEAVING THE SPACE.	E-104
CORRIDOR: A1	OCCUPANCY SENSOR	AUTOMATICALLY REDUCE LIGHTING POWER BY 50 PERCENT AFTER 15 MINUTES OF ALL OCCUPANTS LEAVING THE SPACE.	E-104
APARTMENT ENTRY/HALLWAY: A3	MANUAL SWITCH	MANUALLY ON/OFF.	E-104
BEDROOM: A2	MANUAL SWITCH	MANUALLY ON/OFF.	E-104
BEDROOM: A3	MANUAL SWITCH	MANUALLY ON/OFF.	E-104
LIVING/DINING: A2	MANUAL SWITCH	MANUALLY ON/OFF.	E-104
LIVING/DINING: A3	MANUAL SWITCH	MANUALLY ON/OFF.	E-104
KITCHEN: A2	MANUAL SWITCH	MANUALLY ON/OFF.	E-104
KITCHEN: A3	MANUAL SWITCH	MANUALLY ON/OFF.	E-104
BATHROOM: A2	MANUAL SWITCH	MANUALLY ON/OFF.	E-104
BATHROOM: A3	MANUAL SWITCH	MANUALLY ON/OFF.	E-104
3RD FLOOR			
STAIRWAY: A1	OCCUPANCY SENSOR	AUTOMATICALLY REDUCE LIGHTING POWER BY 50 PERCENT AFTER 15 MINUTES OF ALL OCCUPANTS LEAVING THE SPACE.	E-103
CORRIDOR: A1	OCCUPANCY SENSOR	AUTOMATICALLY REDUCE LIGHTING POWER BY 50 PERCENT AFTER 15 MINUTES OF ALL OCCUPANTS LEAVING THE SPACE.	E-103
APARTMENT ENTRY/HALLWAY: A3	MANUAL SWITCH	MANUALLY ON/OFF.	E-103
BEDROOM: A2	MANUAL SWITCH	MANUALLY ON/OFF.	E-103
BEDROOM: A3	MANUAL SWITCH	MANUALLY ON/OFF.	E-103
LIVING/DINING: A2	MANUAL SWITCH	MANUALLY ON/OFF.	E-103
LIVING/DINING: A3	MANUAL SWITCH	MANUALLY ON/OFF.	E-103
KITCHEN: A2	MANUAL SWITCH	MANUALLY ON/OFF.	E-103
KITCHEN: A3	MANUAL SWITCH	MANUALLY ON/OFF.	E-103
BATHROOM: A2	MANUAL SWITCH	MANUALLY ON/OFF.	E-103
BATHROOM: A3	MANUAL SWITCH	MANUALLY ON/OFF.	E-103
2ND FLOOR			
STAIRWAY: A1	OCCUPANCY SENSOR	AUTOMATICALLY REDUCE LIGHTING POWER BY 50 PERCENT AFTER 15 MINUTES OF ALL OCCUPANTS LEAVING THE SPACE.	E-102
CORRIDOR: A1	OCCUPANCY SENSOR	AUTOMATICALLY REDUCE LIGHTING POWER BY 50 PERCENT AFTER 15 MINUTES OF ALL OCCUPANTS LEAVING THE SPACE.	E-102
APARTMENT ENTRY/HALLWAY: A3	MANUAL SWITCH	MANUALLY ON/OFF.	E-102
BEDROOM: A2	MANUAL SWITCH	MANUALLY ON/OFF.	E-102
BEDROOM: A3	MANUAL SWITCH	MANUALLY ON/OFF.	E-102
LIVING/DINING: A2	MANUAL SWITCH	MANUALLY ON/OFF.	E-102
LIVING/DINING: A3	MANUAL SWITCH	MANUALLY ON/OFF.	E-102
KITCHEN: A2	MANUAL SWITCH	MANUALLY ON/OFF.	E-102
KITCHEN: A3	MANUAL SWITCH	MANUALLY ON/OFF.	E-102
BATHROOM: A2	MANUAL SWITCH	MANUALLY ON/OFF.	E-102
BATHROOM: A3	MANUAL SWITCH	MANUALLY ON/OFF.	E-102
1ST FLOOR			
STAIRWAYS: A1	OCCUPANCY SENSOR	AUTOMATICALLY REDUCE LIGHTING POWER BY 50 PERCENT AFTER 15 MINUTES OF ALL OCCUPANTS LEAVING THE SPACE.	E-101
VESTIBULE: A1	OCCUPANCY SENSOR	AUTOMATICALLY REDUCE LIGHTING POWER BY 50 PERCENT AFTER 15 MINUTES OF ALL OCCUPANTS LEAVING THE SPACE.	E-101
CORRIDOR: A1	OCCUPANCY SENSOR	AUTOMATICALLY REDUCE LIGHTING POWER BY 50 PERCENT AFTER 15 MINUTES OF ALL OCCUPANTS LEAVING THE SPACE.	E-101
ELEVATOR MACHINE ROOM: A1	MANUAL SWITCH	MANUALLY ON/OFF.	E-101
CELLAR			
WATER METER ROOM: A1	OCCUPANCY SENSOR	AUTOMATICALLY REDUCE LIGHTING POWER BY 50 PERCENT AFTER 15 MINUTES OF ALL OCCUPANTS LEAVING THE SPACE.	E-101
ELECTRIC METER ROOM: A1	MANUAL SWITCH	MANUALLY ON/OFF.	E-101
ELEVATOR MACHINE ROOM: A1	MANUAL SWITCH	MANUALLY ON/OFF.	E-101
RESIDENTIAL EXTERIOR LIGHTING CONTROLS			
BUILDING ENTRANCE/ EXITS: B1	PHOTO SENSOR/ OCCUPANCY SENSOR	AUTOMATICALLY TURN OFF WHEN DAYLIGHT IS AVAILABLE. AUTOMATICALLY TURN OFF LIGHTS AFTER 15 MINUTES OF ALL OCCUPANTS LEAVING THE SPACE.	E-101
TERRACE: B1	MANUAL SWITCH	MANUALLY ON/OFF.	E-101-105

LIGHTING CONTROL NARRATIVES

COMMERCIAL INTERIOR LIGHTING CONTROLS

LOCATION/ LIGHTING ID	CONTROL TYPE	CONTROL DESCRIPTION	DRAWING REFERENCE
1ST FLOOR			
RETAIL: A1	OCCUPANCY SENSOR	AUTOMATICALLY REDUCE LIGHTING POWER BY 50 PERCENT AFTER 15 MINUTES OF ALL OCCUPANTS LEAVING THE SPACE.	E-101
BATHROOM: A2	MANUAL SWITCH	MANUALLY ON/OFF.	E-101
STORAGE: A1	MANUAL SWITCH	MANUALLY ON/OFF.	E-101

ECC SCOPE REVIEW AND APPROVAL ONLY

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BUILDING CODE:	2022
BLOCK:	0408
LOT:	23
BIN:	4004940
COMMUNITY BOARD:	401
ZONING MAP:	9B
ZONING DISTRICT	M1-2/R5D
OCCUPANCY CLASS:	R-2
CONSTRUCTION CL.:	1B
USE GROUP:	2A/17A

Scope of Work:
PROPOSED 5 STORY MIXED USE BUILDING WITH 6 CLASS A DWELLING UNITS.
BPP APP #:
PLUMBING APP:
MECHANICALAPP:
CONST FENCE: Q00423392-I1
GC APP#: Q01019618-I1
ST:

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PLAN EXAMINER STAMP & SIGNATURE

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40TH AVENUE LLC
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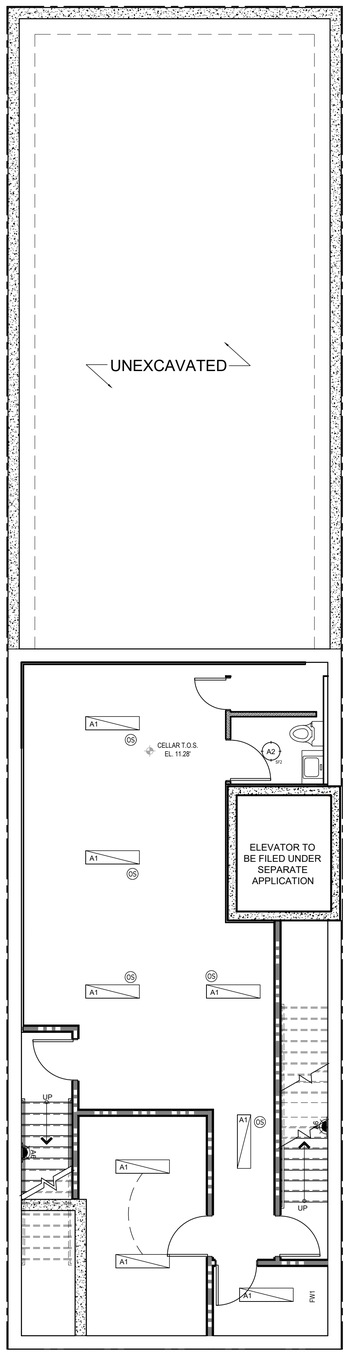
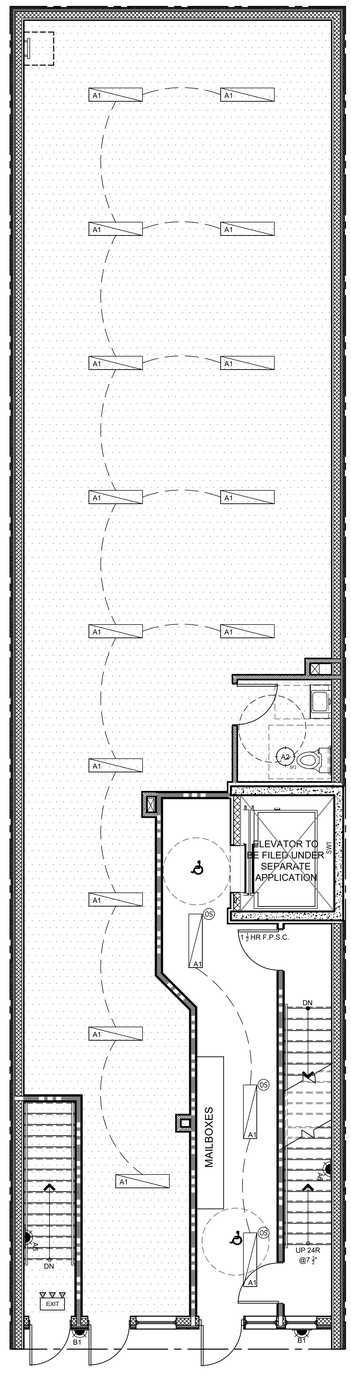
Drawing Title:
NYCECC NOTES

Seal & Signature:
REGISTERED ARCHITECT ANGELO SULTANA No. 027957 STATE OF NEW YORK

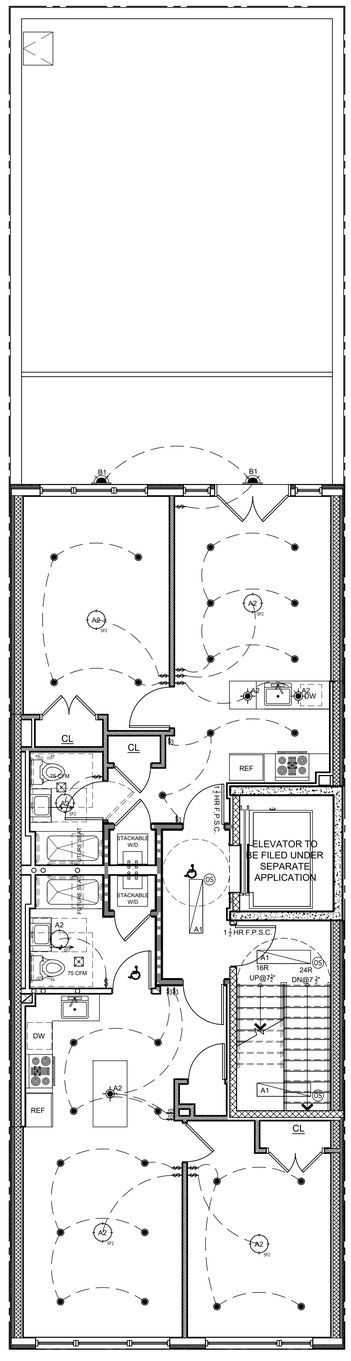
DATE:	02-10-2025
PROJECT #:	23.064
DRAWING BY:	C.R
CHECKED BY:	J.S.
DWG No:	E-100.00
CADD FILE NO: 23.064	YANG/LIU
	15 OF 34



1 - CELLAR ELECTRICAL PLAN
SCALE: 1/4" = 1'-0"



2 - FIRST FLOOR ELECTRICAL PLAN
SCALE: 1/4" = 1'-0"



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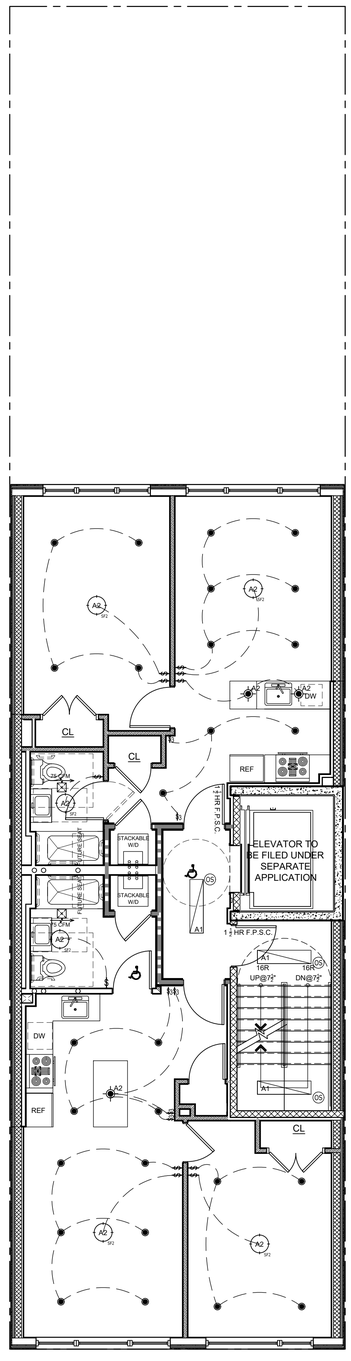
SCALE: 1/4" = 1'-0"



4 - THIRD FLOOR ELECTRICAL PLAN
SCALE: 1/4" = 1'-0"

COMMERCIAL PROPOSED ELECTRICAL

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LOT:	23
BIN:	4004940
COMMUNITY BOARD:	401
ZONING MAP:	9B
ZONING DISTRICT	M1-2/R5D
OCCUPANCY CLASS:	R-2
CONSTRUCTION CL.:	1B
USE GROUP:	2A/17A

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23-06 40TH AVENUE
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REFLECTED CEILING PLANS AND NOTES

Seal & Signature:
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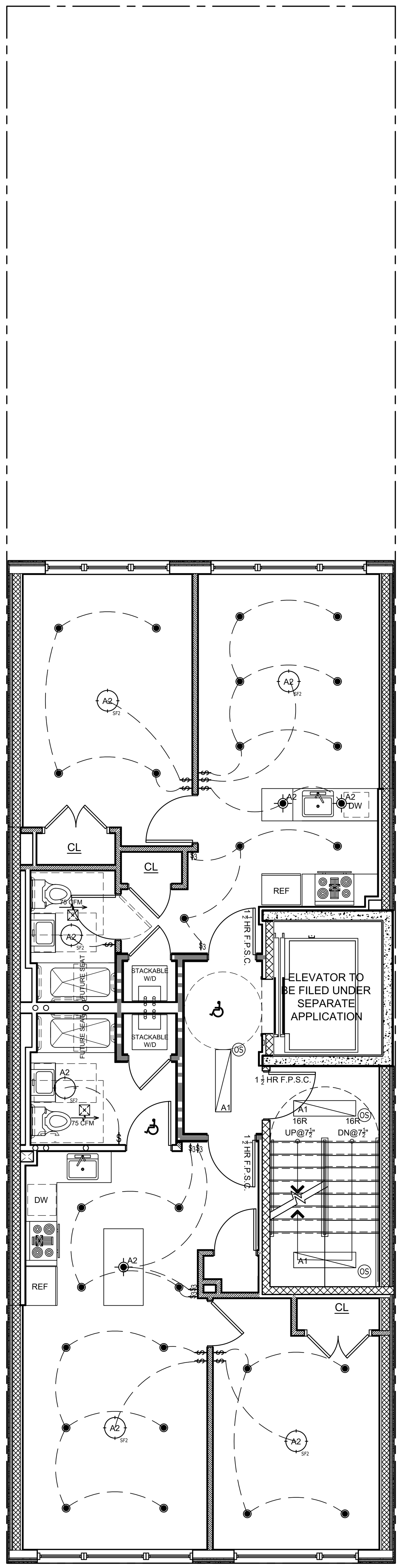
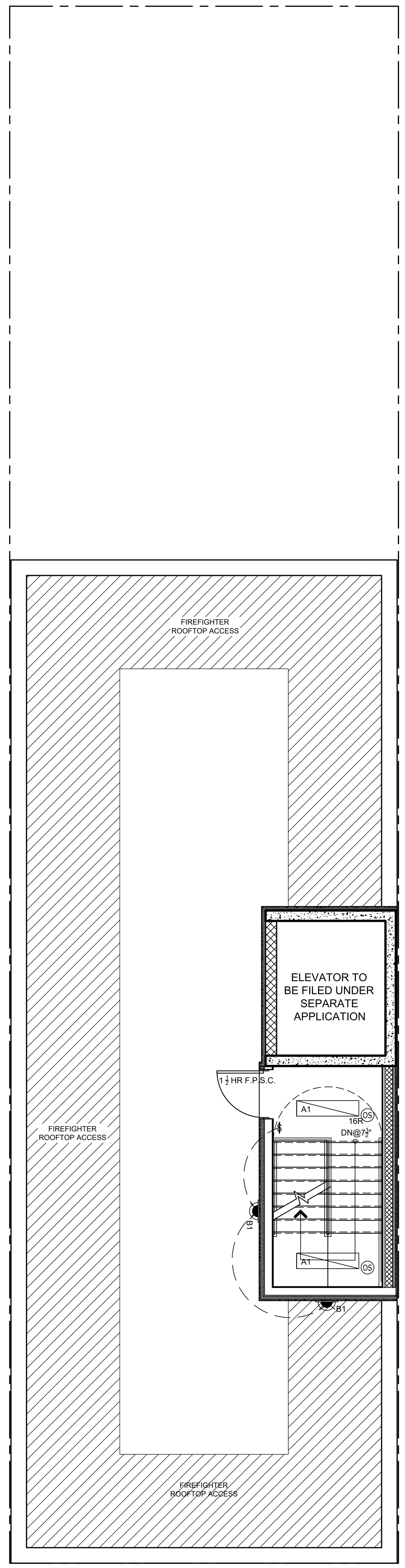
DATE: 02-10-2025
PROJECT #: 23.064
DRAWING BY: C.R
CHECKED BY: J.S.
DWG No: E-101.00

CADD FILE NO: 23.064 YANG/LIU 16 OF 34



1 FOURTH FLOOR ELECTRICAL PLAN

SCALE: 1/4" = 1'-0"



2 ROOF ELECTRICAL PLAN

SCALE: 1/4" = 1'-0"

CELLAR LIGHT FIXTURE SCHEDULE

FIXTURE ID	LOCATION	SYMBOLS	DESCRIPTION	# OF FIXTURE	FIXTURE WATTAGE (watts)	LAMP EFFICACY (Lumens/Watt)	TOTAL WATTS	NOTES
A1	COM/RES		FLUORESCENT LAMP	8	15w	1140lm	120	2700K
A2	STORAGE		LED CEILING FIXTURE	1	19.2w	1900lm	19.2	2700K
A3	STAIRWAY		INDOOR WALL SCONCE LIGHT	2	14w	1200lm		4000K

1ST FLOOR LIGHT FIXTURE SCHEDULE

FIXTURE ID	LOCATION	SYMBOLS	DESCRIPTION	# OF FIXTURE	FIXTURE WATTAGE (watts)	LAMP EFFICACY (Lumens/Watt)	TOTAL WATTS	NOTES
A1	COM/RES		FLUORESCENT LAMP	14	15w	1140lm	210	2700K
A2	1ST FLOOR		LED CEILING FIXTURE	1	19.2w	1900lm	96	2700K
A6	STAIRWAY		INDOOR WALL SCONCE LIGHT	2	14w	1200lm	11	4000K
B1	OUTDOOR		OUTDOOR WALL SCONCE	2	15w	1140lm	30	2700K

2ND FLOOR LIGHT FIXTURE SCHEDULE

FIXTURE ID	LOCATION	SYMBOLS	DESCRIPTION	# OF FIXTURE	FIXTURE WATTAGE (watts)	LAMP EFFICACY (Lumens/Watt)	TOTAL WATTS	NOTES
A3	2ND FLOOR		4" LED FIXTURE	32	8.5w	650lm	272	2700K
A2	2ND FLOOR		LED CEILING FIXTURE	6	19.2w	1900lm	115.2	2700K
A6	STAIRWAY		INDOOR WALL SCONCE LIGHT	-	14w	1200lm	-	4000K
A4	KITCHEN		PENDANT	3	10.5w	1100lm	31.5	2200-6500K
A5	FAMILY RM		CHANDELIER	-	9.5w	800lm	-	2000-6500K
A1	HALLWAY		FLUORESCENT LAMP	3	15w	1140lm	45	2700K
B1	OUTDOOR		OUTDOOR WALL SCONCE	2	15w	1140lm	30	2700K

3RD FLOOR LIGHT FIXTURE SCHEDULE

FIXTURE ID	LOCATION	SYMBOLS	DESCRIPTION	# OF FIXTURE	FIXTURE WATTAGE (watts)	LAMP EFFICACY (Lumens/Watt)	TOTAL WATTS	NOTES
A3	3RD FLOOR		4" LED FIXTURE	32	8.5w	650lm	272	2700K
A2	3RD FLOOR		LED CEILING FIXTURE	6	19.2w	1900lm	115.2	2700K
A6	STAIRWAY		INDOOR WALL SCONCE LIGHT	-	14w	1200lm	-	4000K
A4	KITCHEN		PENDANT	3	10.5w	1100lm	31.5	2200-6500K
A5	FAMILY RM		CHANDELIER	-	9.5w	800lm	-	2000-6500K
A1	HALLWAY		FLUORESCENT LAMP	3	15w	1140lm	45	2700K
B1	OUTDOOR		OUTDOOR WALL SCONCE	-	15w	1140lm	-	2700K

4TH FLOOR LIGHT FIXTURE SCHEDULE

FIXTURE ID	LOCATION	SYMBOLS	DESCRIPTION	# OF FIXTURE	FIXTURE WATTAGE (watts)	LAMP EFFICACY (Lumens/Watt)	TOTAL WATTS	NOTES
A3	4TH FLOOR		4" LED FIXTURE	29	8.5w	650lm	246.5	2700K
A2	4TH FLOOR		LED CEILING FIXTURE	6	19.2w	1900lm	115.2	2700K
A6	STAIRWAY		INDOOR WALL SCONCE LIGHT	-	14w	1200lm	-	4000K
A4	KITCHEN		PENDANT	1	10.5w	1100lm	10.5	2200-6500K
A5	FAMILY RM		CHANDELIER	-	9.5w	800lm	-	2000-6500K
A1	HALLWAY		FLUORESCENT LAMP	3	15w	1140lm	45	2700K
B1	OUTDOOR		OUTDOOR WALL SCONCE	-	15w	1140lm	-	2700K

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PROJECT:

40TH AVENUE LLC

23-06 40TH AVENUE
LONG ISLAND CITY, NY 11101

BUILDING CODE:	2022
BLOCK:	0408
LOT:	23
BIN:	4004940
COMMUNITY BOARD:	401
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ZONING DISTRICT	M1-2/R5D
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USE GROUP:	2A/17A

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BPP APP #:
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PLAN EXAMINER STAMP & SIGNATURE

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Revisions:

CLIENT:

40TH AVENUE LLC

23-06 40TH AVENUE
LONG ISLAND CITY, NY 11101

Drawing Title:

REFLECTED CEILING PLANS AND NOTES

Seal & Signature:

REGISTERED ARCHITECT JOSEPH ANGELO SULTANA, JR. No. 27357 STATE OF NEW YORK

DATE: 02-10-2025
PROJECT #: 23.064
DRAWING BY: C.R
CHECKED BY: J.S.
DWG No:

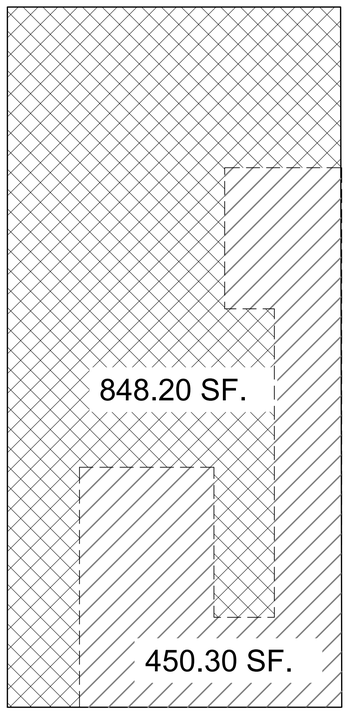
E-102.00

CADD FILE NO: 23.064 YANG/LIU

	MULTIFAMILY - NON-DWELLING UNIT AREA
EXISTING CELLAR	450.30 SF.
NEW FIRST FLOOR	491.62 SF.
NEW SECOND FLOOR	255.60 SF.
NEW THIRD FLOOR	255.60 SF.
NEW FOURTH FLOOR	255.60 SF.
	TOTAL = 1708.72 SF.

COMMON COMMERCIAL

COMMON RESIDENTIAL



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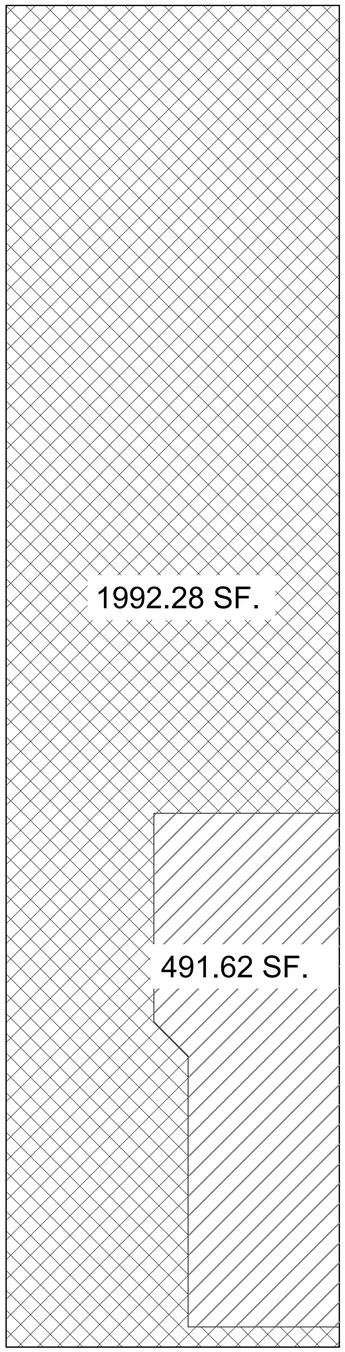
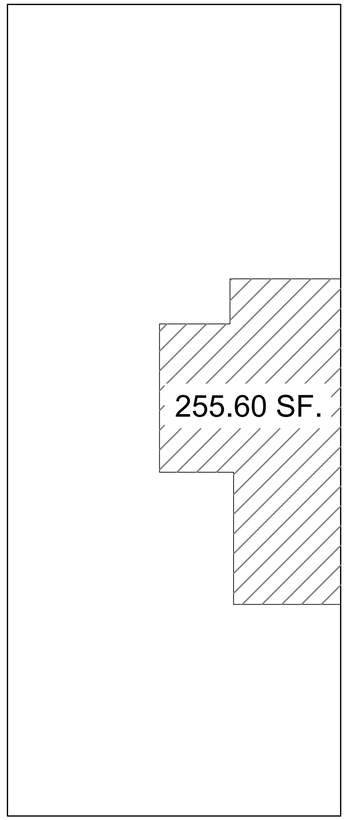


2 / - FIRST FLOOR
SCALE:NTS



3 / - SECOND-FOURTH FLOOR
SCALE:NTS

ECC SCOPE REVIEW AND APPROVAL ONLY

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BUILDING CODE:	2022
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CLIENT:
40TH AVENUE LLC
23-06 40TH AVENUE
LONG ISLAND CITY, NY 11101

Drawing Title:
LIGHTINNG AREA

Seal & Signature:
REGISTERED ARCHITECT ANGELO SULTANA JR. No. 21357 STATE OF NEW YORK

DATE: 02-10-2025
PROJECT #: 23.064
DRAWING BY: C.R
CHECKED BY: J.S.
DWG No:
E-103.00

CADD FILE NO: 23.064 YANG/LIU | 18 OF 34

APPENDIX 2

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.

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 RCR.

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 Closure Report (RCR). 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 or electricity 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 RCR.

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.

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

An estimate of the enhanced stormwater retention capability of the redevelopment project will be included in the RCR.

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 RCR. 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 E-Designation Program: Tina Yang is participating in OER's Paperless E-Designation 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: Tina Yang 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.

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 RCR.

APPENDIX 3

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., hotspots, 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 RAP;
- 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 Enrollee 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 Enrollee. 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 Closure 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).

Disposal characterization will be performed for off-Site disposal in a manner required by the receiving facility and in conformance with its applicable permits. Disposal 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 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 and backfilled areas, including the two hotspot areas, 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 RCR.

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 Unrestricted Use remedial action projects will not exceed Unrestricted Use 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 4

Construction Health and Safety Plan

CONSTRUCTION HEALTH & SAFETY PLAN

23-06 40TH AVENUE
QUEENS, NEW YORK 11101

PREPARED FOR:

TINA YANG
60-36 84TH STREET
QUEENS, NEW YORK 11379

PREPARED BY:

ATHENICA ENVIRONMENTAL SERVICES, INC.
Environmental Consultants

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1.0 *GLOSSARY OF TERMS*

AHA	Activity Hazard Analysis
BZ	Breathing Zone
C	Ceiling Limit
CNS	Central Nervous System
CTPV	Coal tar pitch volatiles
CRZ	Contamination Reduction Zone
CSP	Construction Superintendent
CZ	Clean Zone
dBA	Decibels Adjusted
ERCP	Emergency Response and Contingency Plan
EZ	Exclusion Zone
FDNY	New York City Fire Department
GI	Gastrointestinal
HSO	Health & Safety Officer
IP	Ionization Potential
Mg/m^3	Micrograms per cubic meter
MPH	Miles per hour
NIOSH	National Institute for Occupational Safety and Health
OSHA	Occupational Health and Safety Administration
Owner	Street Five 116 LLC
PAHs	Poly aromatic hydrocarbons
PEL	Permissible Exposure Limit
PM	Project Manager
PPE	Personal Protective Equipment
PPM	Parts per Million
PSM	Project Safety Manager
SHASP	Site-Specific Health and Safety Plan
Site	23-06 40^{th} Avenue, Long Island City, New York
STEL	Short-term exposure limit (15 minutes)
SZ	Support Zone
TLV	Threshold Limit Value
TWA	Time-weighted average (8 hours)
USEPA	United States Environmental Protection Agency
VP	Vapor Pressure at approximately 68 F^o in mm Hg

2.0 *INTRODUCTION*

The Site is located at 23-06 40th Avenue in the Long Island City section in Queens, New York and is identified as Block 408 and Lot 23 on the New York City Tax Map. The Site parcel is 2,521 square feet in area and is bordered by 40th Avenue to the north, a 2-story warehouse building to the south, a 2-story mixed-use commercial and residential building to the east, and a 2-story residential building to the west. Currently, the Site is occupied by a vacant 2-story residential building with a full basement, and a mostly paved rear yard.

This Site-Specific Construction Health and Safety Plan (CHASP) has been developed by Athenica Environmental Services, Inc. ("Athenica") for specific activities associated with the construction of a new commercial building at the Site.

This CHASP documents the policies and procedures which will protect workers from potential chemical hazards associated with the soils and/or fill at this Site. Other plans and documentation will establish the policies and procedures that will protect workers from potential physical hazards associated with traditional demolition and construction activities at the Site. Forms that will be used to document

This plan assigns responsibilities, establishes standard operating procedures, and provides for contingencies that may arise during the disturbance of soil/fill at the Site. This CHASP was prepared by the general contractor's Environmental Consultant, Athenica Environmental Services (Athenica). The general contractor and its subcontractors will be required to utilize this plan when working at the Site, and will certify such utilizing the form in Appendix A.

Although this plan focuses on the specific work activities planned for this Site, it must remain flexible because of the nature of this work. Conditions may change and unforeseen situations may arise that require modifications from the original plan. Therefore, Athenica only makes representations or warranties as to the adequacy of this CHASP for currently anticipated activities and conditions. This flexibility allows modification by authorized personnel (e.g., Project Manager, Project Safety Manager). All changes to procedures in this plan will be documented in writing using the form provided in Appendix B.

Refusal or failure to comply with this CHASP or violation of any safety procedures by field personnel and/or subcontractors may result in immediate removal from the Site following consultation with the Project Safety Manager (PSM) and the Project Manager (PM).

It is expected that this CHASP will be implemented at a multi-employer work site. Information and references within this plan shall in no way imply or alleviate any other Site contractor from their responsibility to comply with any and all applicable State or Federal statutes or regulations

regarding the completion of this project. It is the responsibility of each employer to communicate and coordinate work planning so as to prevent their work activities from becoming a potential hazard to other workers at the project site. Failure to communicate will not alter an employer's responsibilities or obligations for any resulting injuries to their employees.

2.1 SITE HISTORY

According to Athenica's October 2023 Phase I ESA Report, the Site was first developed by at least 1898 with a 1-story residential building, and has maintained the current building since at least 1915.

The areas of concern (AOCs) identified for this Site include:

1. Potential presence of historic fill materials at the Site outside of the footprint of the building, at depths up to two feet bgs.

2. Potential vapor encroachment conditions at the Site due to historic uses of surrounding properties.

2.2 SCOPE OF WORK

The scope of work for redevelopment plan for the Site consists of construction of a new 4-story mixed-use residential and commercial building with a partial cellar that will be approximately 53 feet in height and have a total gross area of approximately 8,215 square feet. The planned use of the cellar includes a utility room, electrical closet, and an open cellar area. The first floor will be occupied by a commercial tenant and residential lobby and the second through fourth floors that will maintain six residential units (two per floor). The building footprint will encompass the entire parcel. The existing foundation and concrete slab of the cellar from the current on-site structure will be reused during redevelopment. The only proposed excavation for the planned building will be to approximately 4 feet below ground surface (bgs) around the perimeter of the rear yard for installation of the first-floor foundation footing. Approximately 55 cubic yards of soil are estimated to be removed from the Site as part of the proposed redevelopment.

The principal tasks covered in this HASP include the following:

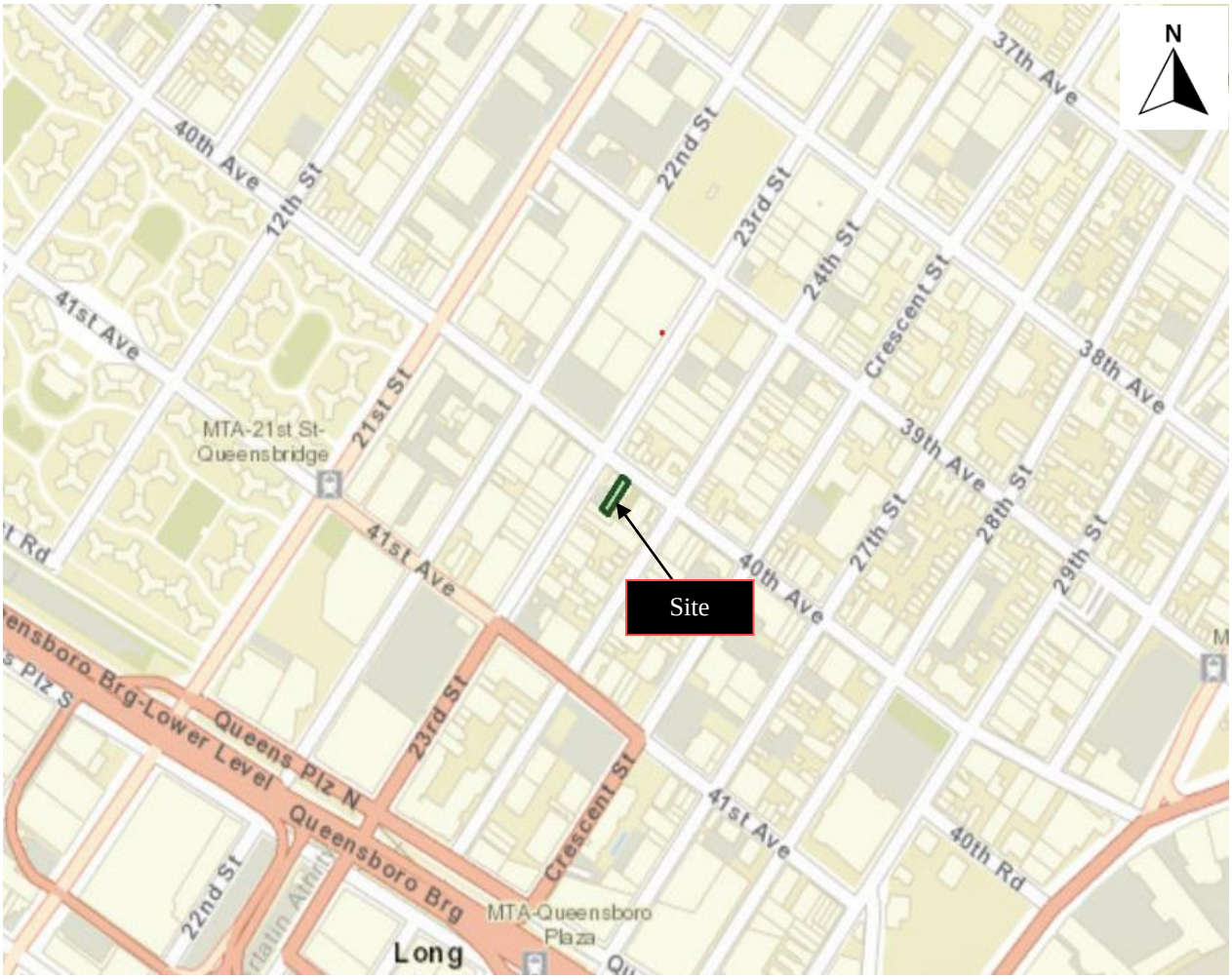
- Mobilization/demobilization,
- Excavation of urban fill and/or soil,
- Loading of urban fill and/or soil into trucks for disposal,

- Installation of footings and walls for new building,
- Heavy equipment decontamination.

Activity Hazard Analyses for these tasks are provided in Section 4.5.

This CHASP has been prepared and approved for the above scope of work. In order to remain approved, any changes to the scope of work will require amendment of the plan. The Site Health and Safety Amendment Documentation form (Appendix B) will be used for all revisions/amendments to this plan

FIGURE 2-1
SITE LOCATION MAP



3.0 *KEY PERSONNEL*

The Project Manager (PM), Construction Superintendent (CS), Health & Safety Officer (HSO), and Project Safety Manager (PSM) all share responsibilities for formulating and enforcing health and safety requirements, and assuring that the CHASP is implemented as intended. This section outlines the responsibilities for each of these positions. Responsibilities for Site employees and subcontractor personnel are also outlined in this section. The General Contractor and/or other authorized personnel may also be involved and identified in future CHASP documents, as appropriate.

3.1 PROJECT MANAGER (PM)

The PM has the overall responsibility for the project and to assure that the requirements of the contract are attained in a manner consistent with the CHASP requirements. The PM will coordinate with the CS and the HSO to assure that the work is completed in a manner consistent with the HASP. The PM will supervise the allocation of resources and staffing to implement specific aspects of the HASP and may delegate authority to expedite and facilitate any application of the program. This role will be filled by the General Contractor or Excavation Subcontractor. OER will be notified in the future who the PM will be for this project.

3.2 CONSTRUCTION SUPERINTENDENT (CS)

The CS is responsible for field implementation of the CHASP and Site Emergency Response and Contingency Plan and will act as the HSO in his/her absence. This role will be filled by the general contractor or primary subcontractor. OER will be notified in the future who the CS will be for this project.

Specific responsibilities for the CS include:

- Ensures that the CHASP is implemented;
- Ensures that field work is scheduled with adequate equipment to complete the job safely;
- Enforces site health and safety rules;
- Ensures that proper personal protective equipment is utilized;
- Ensures that the PSM is informed of project changes which require modifications to the CHASP;
- Ensures that the procedure modifications are implemented;
- Investigates incidents;
- Conducts the daily site safety briefing;
- Reports to PSM to provide summaries of field operations and progress; and

- Acts as Emergency Coordinator.

3.3 HEALTH AND SAFETY OFFICER (HSO)

The HSO is authorized to administer the HASP. The HSO's primary operational responsibilities include personal and environmental monitoring, selection and monitoring of personal protective equipment, assignment of protection levels, coordination/review of work permits and observation of work activities. The HSO is authorized to stop work when an imminent health or safety risk exists. The HSO will review the essential safety requirements with all on-site personnel and will facilitate the daily safety meetings. OER will be notified in the future who the HSO will be for this project.

Specific responsibilities for HSO performance include:

- Monitoring workers for signs of stress, such as cold stress, heat stress, and fatigue. Reevaluating site conditions on an on-going basis.
- Coordinating protective measures including engineering controls, work practices and personal protective equipment.
- Assisting the CS in the preparation, presentation and documentation of daily safety meetings.
- Conducting and preparing reports of daily safety inspections of work processes, site conditions, and equipment conditions. Discussing any necessary corrective actions with the CS and reviewing new procedures.
- Initiating revisions of the CHASP as necessary for new tasks or modifications of existing operations and submitting to the Project Safety Manager for approval (see Appendix B).
- Performing air monitoring as required by the CHASP.
- Assisting the PM and CS in incident investigations.
- Preparing permits for special operations, e.g., hot work, confined spaces, line breaking, etc.
- Maintaining site safety records.
- Conducting inspections of all fire extinguishers, first-aid kits and eye washes on a regular basis.
- Informing subcontractors of the elements of the CHASP.

3.4 PROJECT SAFETY MANAGER (PSM)

The Project Safety Manager (PSM) is responsible for developing/reviewing the CHASP and ensuring that it is complete and accurate. The PSM provides technical and administrative support and will be available for consultation when required. If necessary, the PSM will direct modifications (Appendix B) to specific aspects of the HASP to adjust for on-site changes that

affect safety. The HSO will coordinate with the PSM on necessary modifications to the HASP. The PSM may make periodic visits to the project site to review implementation of this HASP. This role is role will be filled by the General Contractor's representative.

3.5 EMPLOYEE SAFETY RESPONSIBILITIES

Each employee is responsible for personal safety as well as the safety of others in the work area and is expected to participate fully in the site safety and health program. Employees will use all equipment provided in a safe and responsible manner as directed by the CS. Employees shall report any hazardous conditions which might affect the health and safety of site personnel to the CS and/or HSO. To protect the health and safety of all personnel, site employees that knowingly disregard safety policies/procedures will be subject to removal.

Specific requirements include:

- Reading the CHASP and any amendments prior to the start of on-site work.
- Providing documentation of any applicable medical surveillance and training to the CS/HSO prior to the start of work.
- Attending the pre-entry briefing prior to beginning on-site work as well as other scheduled safety meetings.
- Asking any questions or reporting concerns regarding the content of the CHASP to the CS/HSO prior to the start of work.
- Reporting all potentially dangerous situations, incidents, injuries, and illnesses, regardless of their severity, to the CS/HSO.
- Complying with the requirements of this CHASP and the requests of the CS/HSO.

4.0 *ACTIVITY HAZARD ANALYSIS*

This section outlines the potential chemical and physical hazards which workers may be exposed to during work on this project. The assessment of chemical hazards in this section is based on the results of samples collected at the Site by Athenica as part of the Remedial Investigation, as documented in the Remedial Investigation Report. This is a representative list of contaminants that have been identified through extensive soil and groundwater testing at this site.

4.1 CHEMICAL HAZARDS

Based on review of the Remedial Investigation Report, workers at this Site have the potential to be exposed to chemicals in soil including common polycyclic aromatic hydrocarbons (PAHs) associated with historic fill material, metals such as lead, barium, and mercury, as well as pesticides such as 4,4'-DDD, and 4,4'-DDT. All listed compounds will be considered as potential contaminants of concern.

Potential exposure to the contaminants of concern may occur during intrusive soil activities or where direct contact with the contaminated soil takes place. PAHs, metals, and pesticides are primarily inhalation hazards and exposure can be minimized with simple dust control measures. A summary of hazard information is listed in Table 4-1.

The following general symptoms may indicate exposure to a hazardous material. Personnel will be removed from the work site and provided immediate medical attention should any of the following symptoms occur:

- Dizziness or stupor
- Nausea, headaches, or cramps
- Irritation of the eyes, nose, or throat
- Euphoria
- Chest pains and coughing
- Rashes or burns

TABLE 4-1
CHEMICAL DATA

COMPOUND	ACGIH TLV	OSHA PEL	ROUTE OF EXPOSURE	SYMPTOMS OF EXPOSURE	TARGET ORGANS	PHYSICAL DATA
PAHs	0.2 mg/m^3	0.2 mg/m^3	Inhalation Ingestion Skin contact	Headache, nausea, vomiting, and diaphoresis	Genitourinary system, hematopoietic system, GI tract, respiratory system, eyes, skin	Liquid, gas and solid, can be combustible
Lead	0.05 mg/m^3	0.05 mg/m^3	Inhalation Ingestion Skin contact	Weakness, lassitude, insomnia; facial pallor; eye irritation, anorexia, low-weight, malnutrition; constipation; abdominal pain; colic; hypertension, anemia; gingival lead line; tremors; paralysis of wrist, ankles; encephalopathy; neuropathy	GI tract, CNS, kidneys, blood, gingival tissue	Non-combustible solid
Barium	0.5 mg/m^3	0.5 mg/m^3	Inhalation Ingestion Skin contract	Irritation of eyes and skin; coughing; shortness of breath	Respiratory system, kidneys	Silver to white solid
Mercury	0.25 g/m^3	0.1 mg/m^3	Inhalation Ingestion Skin contact	Inflammation of eyes and skin; coughing; choking; shortness of breath; death	Blood, kidneys, liver, brain, peripheral nervous system, CNS	Non-combustible liquid
4,4'-DDD	262 mg/m^3	260 mg/m^3	Inhalation Ingestion Skin Contact	Irritation of nose, throat, and eyes; dizziness, headaches, and vomiting	Nervous system, liver, and reproductive system,	Colorless, alcohol-like (odor) fluid; highly flammable liquid and vapor
4,4'-DDT	1,401 mg/m^3	2,350 mg/m^3	Inhalation Ingestion Skin Contact	Irritation/paresthesia of nose, throat, and eyes; anxiety, dizziness, headaches, and vomiting	Nervous system, liver, and reproductive system,	Colorless and nearly odorless liquid and vapor

Abbreviations
ACGIH = American Conference of Governmental Industrial Hygienists
C = Ceiling Unit
mg/m^3= milligrams per cubic meter
OSHA = Occupational Safety and Health Administration

CNS = Central Nervous System
CVS = Cardiovascular System
GI = Gastrointestinal
TLV = Threshold Level Value
PNS = Peripheral Nervous System
ppm = parts per million
PEL = Permissible Exposure Level

4.2 PHYSICAL HAZARDS

To minimize physical hazards, standard safety protocols will be followed at all times. Failure to follow safety protocols may result in removal of the employee from the site. All personnel shall be familiar with the physical hazards presented by each of the tasks they perform. Task specific hazard analyses are provided in Section 4.5. These hazard analyses shall be reviewed prior to beginning each task and periodically throughout the task. It must be noted that these activity hazard analyses are general in nature. It is the responsibility of the CS to revise and adapt them as necessary to reflect site-specific conditions.

The CS and HSO will observe the general work practices of each crew member and enforce safe procedures. Work areas will be inspected by the crew leaders, CS and HSO. All hazards will be corrected in a timely manner. A variety of physical hazards may be encountered during work activities at this site. Activity Hazard Analyses will be developed for each principal activity and will identify all major hazards to which employees may be exposed. Hard hats, safety glasses, and steel-toe safety boots are required in all work areas of the site. Site-specific hazards and all necessary precautions will be discussed at the daily safety meetings. The General Contractor's Safety Manual will be maintained at the project site as a reference document.

4.3 ENVIRONMENTAL HAZARDS

Environmental factors such as weather, wild animals, insects, and irritant plants may pose a hazard when performing outdoor tasks. The HSO and CS will take necessary actions to alleviate these hazards should they arise.

4.3.1 *Heat Stress*

The combination of warm ambient temperature and protective clothing increases the potential for heat stress. Heat stress disorders include:

- Heat rash
- Heat cramps
- Heat exhaustion
- Heat stroke

This information will be reviewed during safety meetings. Workers are encouraged to increase consumption of water and electrolyte-containing beverages, e.g., Gatorade™. Heat stress can be prevented by assuring an adequate work/rest schedule. Guidelines are presented below.

The CS and HSO will determine the specific work-rest schedule based on project specific conditions. In addition, workers are encouraged to take rests and report symptoms whenever they feel any adverse effects that may be heat-related. The frequency of breaks may need to be

increased based on worker recommendation to the HSO and CS. The CS and HSO will determine the specific work-rest schedule based on project specific conditions. In addition, workers are encouraged to take rests and report symptoms whenever they feel any adverse effects that may be heat-related. The frequency of breaks may need to be increased based on worker recommendation to the HSO and CS.

Heat stress can be prevented by assuring an adequate work/rest schedule and adequate fluid consumption. A guide for work-rest schedules for various protection levels (defined in Section 5.0) is given below. The number of hours before a work-rest period is based on experience with similar work. The time periods should be considered maximum. It must also be remembered that individual physical variability and differences in physical work activities may require revisions to site plans. This table should be used as a guide. Professional judgment (evaluation of individual work load, ambient weather conditions, worker acclimatization and PPE levels) of the CS and HSO is necessary to assure a fully protective plan to prevent heat stress disorders.

GUIDELINES FOR WORK-REST PERIODS FOR VARIOUS PROTECTION LEVELS (A-D) NUMBER OF HOURS BEFORE REST PERIOD				
Temperature	**Level D**	**Level C**	**Level B**	**Level A**
90+ F*	2.0	1.5	1.0	0.5
87.5 F	2.5	2.0	1.5	1.0
82.5 F	3.0	2.5	2.0	1.5
77.5 F	3.5	3.0	2.5	1.5
72.5	4.0	3.5	2.5	1.5

**Work above 100 F will be reviewed with the Project Safety Manager to determine specific requirements.*

Alternately the work/rest schedule can be calculated based on heat stress monitoring results. Monitoring consists of taking the radial pulse of a worker for 30 seconds immediately after exiting the work area. The frequency of monitoring is described below.

If the heart rate exceeds 110 beats per minute at the beginning of the rest period, shorten the next work cycle by 1/3 and keep the rest period the same. If the heart rate still exceeds 110 beats per minute at the next rest period, increase the following rest period by 1/3. The initial rest period should be at least 5 minutes.

Body temperature, measured orally or through the ear canal, may also be monitored to assess heat stress. Workers should not be permitted to continue work when their body temperature exceeds 100.4 F (38C). Monitoring should be conducted at the beginning of each break period as noted above.

Monitoring for heat stress will begin when the ambient temperature reaches or exceeds 72.5 degrees Fahrenheit when wearing chemical protective clothing (Level C, B, A), or 80 degrees Fahrenheit for site activities performed with no chemical protective clothing (Level D). Monitoring should include pulse rate, weight loss, oral/ or ear canal temperature, signs and symptoms of heat stress and fluid intake.

An additional measure that can be employed to minimize heat stress is through the utilization of Heat Stress Relief Stations. A Heat Stress Relief Station (HSRS) is a location inside the exclusion zone where workers can partially remove their personal protective equipment, rest and take in fluids. Since the HSRS is established inside the exclusion zone, it is imperative that its use be closely monitored and controlled to ensure that workers do not ingest contamination during use.

The following is a detailed description of the Heat Stress Relief Station:

- Location- The HSRS should be located in an area of the exclusion zone where it will be predominantly upwind of site activities. This can typically be adjacent to the contamination reduction zone.
- Delineation- The HSRS must be separated from the exclusion zone by temporary fencing and must be labeled as “Heat Stress Relief Station”.
- Elements- The HSRS contains several elements:
    - A tarp or tent for shade;
    - A bench or chairs for workers to sit on;
    - A wash station;
    - A table for fluids, cups and clean personal protective equipment (PPE); and
    - A trash can for contaminated PPE.
- Set-Up- Proper set up of the HSRS is imperative its successful use.
    - In the Support Zone, prepare the water cooler with ice and water or Gatorade.
    - The person bringing the items to the HSRS must don the appropriate PPE required for the Exclusion Zone.
    - Bring the following items to the HSRS:
        - Cooler;
        - Clean disposable cups;
        - Disinfectant wipes;
        - A clean trash bag;
        - Surgical gloves; and
        - Duct tape.

    - Ensure the wash station has clean water and paper towels for drying hands/face.

- Procedure for Use- In order for the HSRS to be effective, it must be properly used. It is imperative that workers decontaminate properly before drinking fluids so that ingestion of site contaminants does not take place. The following are the steps to properly use the HSRS:
    - Upon entering the HSRS:
        - If wearing a Tyvek, remove duct tape on wrists and unzip and tie around waist;
        - Remove your outer gloves and surgical gloves; set outer gloves aside and throw surgical gloves into trash;
        - Wash hands and/or face at Wash Station;
        - Use disinfectant wipe on hands;
        - Get drink and/or rest on bench/chair.
    - Before re-entering the Exclusion Zone:
        - Dispose of cups in trash;
        - Put on a clean pair of surgical gloves;
        - If wearing a Tyvek, pull up and rezip;
        - Re-apply duct tape to wrists;
        - Put on outer gloves.
- Monitoring- The CS and HSO are both responsible for monitoring the use of the Heat Stress Relief Station. The HSO should review the procedures for use of the HSRS with the workers before its use begins to ensure that everyone understands the parameters for proper use.

4.3.2 *Exposure to Cold*

With outdoor work in the winter months, the potential exists for hypothermia and frostbite. Several forms of cold stress as well as preventative measures are described in this section of the HASP.

4.3.2.1 *Cold Stress Conditions and Symptoms*

Typical cold stress conditions are included in the tables below, including symptoms and first aid precautions. If cold stress conditions develop, professional medical attention will be sought.

TABLE 4.3.2A COLD WEATHER INJURIES		
Cause	**Symptoms**	**First Aid**
Frostbite		
Freezing of tissue, normally due to exposure below 32°F	Numbness in affected area. Tingling, blistered, swollen or tender areas. Pale, yellowish waxy-looking skin.	Warm affected area with direct body heat. Consult with medical personnel ASAP. **Do not** thaw frozen area if treatment will be delayed. **Do not** massage or rub affected area. **Do not** wet area or rub with snow or ice.
Chilblain		
Repeated exposure of bare skin for prolonged periods to temperatures 20° to 60°F (for those not acclimated to cold weather).	Swollen, red skin. Tender, hot skin, usually accompanied by itching.	Warm affected area with direct body heat. **Do not** massage or rub. **Do not** wet area or rub with snow or ice. **Do not** expose affected area to open fire, stove or any other intense heat source.
Immersion Foot (Trench Foot)		
Prolonged exposure of the feet to wet conditions at temperatures between 32° to 50°F. Inactivity and damp socks (or tightly laced boots that impair circulation) speed onset and severity.	Cold numb feet may progress to hot with shooting pains. Swelling redness and bleeding.	Rewarm feet by exposing them to warm air. Evacuate victim to a medical facility. **Do not** massage, rub, moisten or expose affected area to extreme heat source.
Dehydration		
Depletion of body fluids.	Dizziness. Weakness.	Replace lost water. Water should be sipped not gulped. Get medical treatment.
Hypothermia		
Prolonged cold exposure and body heat loss. May occur at well above freezing, especially when a person is immersed in water.	Lack of shivering. Drowsiness, mental slowness, lack of coordination. Can progress to unconsciousness, irregular heartbeat and death.	Strip off clothing and wrap victim in blankets or a sleeping bag. Get victim to a heated location and medical treatment as soon as possible.

In cold weather, the potential for frostbite exists, especially in body extremities. Personnel will be instructed to pay particular attention to hands, feet, and any exposed skin when dressing. Personnel will be advised to obtain more clothing if they begin to experience loss of sensation due to cold exposure.

4.3.2.2 *Monitoring and Preventative Actions*

Typical cold stress monitoring procedures are included in the tables below, including temperatures to initiate monitoring, protective clothing uses and administrative practices to prevent or reduce the potential for cold stress related injury/illness. For weather conditions below -43 °C or -45 °F with no wind and/or similar conditions (see Work/Warm-up Table) all work will cease.

TABLE 4.3.2B
COLD STRESS PREVENTION*

	Temperature	Preventative Action
1	<61°F	Use thermometer to measure ambient temperature.
2	<40°F	Cold weather protective clothing available; check core body temperature at breaks using oral or ear canal thermometer. Maintain core body temperature above 96.8°F to avoid hypothermia.
3	<30°F	Record ambient temperature and wind speed every 4 hours; compare to wind chill chart when below 19.4°F.
4	<19°F	Provide and use heated warming shelters for work breaks and when cold stress symptoms appear.
5	<10°F	Constant observation of workers, i.e., "buddy system"; rest in heated shelters (see work-rest schedule); dry clothing available for change-out; acclimate new workers.
6	<0°F/ >5 mph winds	Obtain medical certification for workers subject to hypothermia risk.

** Based on "2009 ACGIH Threshold Limit Values... for Physical Agents."*
Note: refer to wind-chill and work-warmup charts in Table 4.3.2E

TABLE 4.3.2C
COLD WEATHER CLOTHING REQUIREMENTS

1	If wind chill is a factor at a work location, the cooling effect of the wind shall be reduced by shielding the work area or providing employees an outer windbreak layer garment.
2	Extremities, ears, toes, and nose shall be protected from extreme cold by protective clothing.
3	Employees performing light work whose clothing may become wet shall wear an outer layer of clothing which is impermeable to water.
4	Employees performing moderate to heavy work whose clothing may become wet shall wear an outer layer of clothing which is impermeable to water.
5	Outer garments must provide for ventilation to prevent wetting of inner clothing by sweat, or if not possible, a heated shelter for warming/drying clothing, or a change of clothing, shall be provided prior to returning to work in a cold environment.

Protective clothing greatly reduces the possibility of hypothermia in workers. However, personnel will be instructed to wear warm clothing and to stop work to obtain more clothing if they become too cold. Employees will also be advised to change into dry clothes if their clothing becomes wet from perspiration or from exposure to precipitation.

Employees will be instructed to use heated shelters on site, at regular intervals, depending upon the severity of ambient temperatures. Symptoms of cold stress, including heavy shivering, excessive fatigue, drowsiness, irritability, or euphoria necessitate immediate return to the shelter.

TABLE 4.3.2D
COOLING POWER OF WIND ON EXPOSED FLESH EXPRESSED AS EQUIVALENT TEMPERATURE *(under calm conditions) **

	Actual Temperature Reading (F)											
Estimated Wind Speed (in MPH)	50	40	30	20	10	0	-10	-20	-30	-40	-50	-60
	Equivalent Chill Temperature (F)											
Calm	50	40	30	20	10	0	-10	-20	-30	-40	-50	-60
5	48	37	27	16	6	-5	-15	-26	-36	-47	-57	-68
10	40	28	16	4	-9	-24	-33	-46	-58	-70	-83	-95
15	36	22	9	-5	-18	-32	-45	-58	-72	-85	-99	-112
20	32	18	4	-10	-25	-39	-53	-67	-82	-96	-110	-121
25	30	16	0	-15	-29	-44	-59	-74	-88	-104	-118	-133
30	28	13	-2	-18	-33	-48	-63	-79	-94	-109	-125	-140
35	27	11	-4	-20	-35	-51	-67	-82	-98	-113	-129	-145
40	26	10	-6	-21	-37	-53	-69	-85	-100	-116	-132	-148
(Wind Speeds greater than 40 mph have little additional effect.)	***Little Danger*** In < hr with dry skin. Maximum danger of false sense of security				***Increasing Danger*** Danger of freezing of exposed flesh within one minute**.**				***Great Danger*** Flesh may freeze within 30 seconds.			
	Trench foot and immersion foot may occur at any point on this chart.											

**Developed by U.S. Army Research Institute of Environmental Medicine, Natick, MA. (Shaded area) Equivalent chill temperature requiring dry clothing to maintain core body temperature above 36 C (98.6 F) per cold stress TLV.*

TABLE 4.3.2E
TLV WORK/WARM-UP SCHEDULE FOR FOUR-HOUR SHIFT*

Air Temperature – Sunny Sky		No Noticeable Wind		5 mph wind		10 mph wind		15 mph wind		20 mph wind	
C (appx.)	F (appx.)	Max. Work Period	No. of Breaks	Max. Work Period	No. of Breaks	Max. Work Period	No. of Breaks	Max. Work Period	No. of Breaks	Max. Work Period	No. of Breaks
-26 to -28	-15 to -19	Normal	1	Normal	1	75 min	2	55 min	3	40 min	4
-29 to -31	-20 to -24	Normal	1	75 min	2	55 min	3	40 min	4	30 min	5
-32 to -34	-25 to -29	75 min	2	55 min	3	40 min	4	30 min	5	Non-Emergency work should cease	
-35 to -37	-30 to -34	55 min	3	40 min	4	30 min	5	Non-emergency work should cease			
-38 to -39	-35 to -39	40 min	4	30 min	5	Non-emergency work should cease					
-40 to -42	-40 to -44	30 min	5	Non-emergency work should cease							
< -43	< -45	Non-emergency work should cease									

** Adapted from Occupational Health and Safety Division, Saskatchewan Department of Labor*

4.3.3 *Biological Hazards*

The contractor will be required to monitor and control insects, rodents, and other pests identified on site. Standing water will not be allowed on-site, in an effort to control insects. Pest control procedures used by the contractor will include bait, trap, spray, or other means to abate pest problems that develop on site during disruption activities.

4.3.4 *Noise*

Hearing protection is required for workers operating or working near heavy equipment, where the noise level is greater than 85 dbA (Time Weighted Average). The HSO will determine the need and appropriate testing procedures, (i.e., sound level meter and/or dosimeter) for noise measurement. The provisions for noise protection for workers are presented in other safety-related documents for the Site.

4.4 VEHICLE AND HEAVY EQUIPMENT SAFETY

4.4.1 *Vehicle Safety*

Motor vehicle incidents are the number one cause of occupational fatalities, accounting for one in three deaths. The safety provisions for vehicle use at the Site are presented in other safety-related documents for the Site.

4.4.2 *Heavy Equipment Safety*

The use of backhoes, front-end loaders, etc. for excavation and other material handling equipment will present various physical hazards. The safety provisions for heavy equipment use at the Site are presented on other safety-related documents for the Site.

4.5 TASK-SPECIFIC ACTIVITY HAZARD ANALYSES (AHA)

This section of the HASP provides a breakdown of the hazards and control measures for each principal task. These Activity Hazard Analyses (AHAs) are general in nature and must be made project specific by the Construction Superintendent prior to each task. The AHAs will be field checked by the supervisor on an ongoing basis and revised as necessary. All revisions will be communicated to the work crew.

Project Identification 23-06 40th Avenue	**Location** Queens, NY	**Estimated Dates** March 2025 – July 2025
Phase of Work Mobilization/ Demobilization		**Analysis Approved by** Spiro Dongaris
TASKS	**HAZARDS**	**CONTROL MEASURES**
1. Mobilization and demobilization of equipment site tools, personnel. 2. Set up/remove staging and decontamination areas.	Slips/trips/falls	• Maintain alertness to slip/trip/fall hazards • Maintain good housekeeping • Walk, do not run • Wear footwear with soles that grip
	Manual lifting/ material handling	• Observe proper lifting techniques • Obey sensible lifting limits (50 lb. maximum per person manual lifting) • Use mechanical lifting equipment (hand carts, trucks) to move large, awkward loads
	Temperature extremes	• Drink plenty of fluids • Train personnel of signs/symptoms of cold/heat stress • Monitor air temperatures when extreme weather conditions are present • Stay in visual and verbal contact with your buddy
	Hand tool usage	• Daily inspections will be performed • Remove broken or damaged tools from service • Use the tool for its intended purpose • Use in accordance with manufacturer instructions.
	Biological hazards	• Be alert to the presence of biological hazards • Wear insect repellent • CS/HSO should be aware of on-site personnel with allergic reactions in insect bites and stings.

Project Identification 23-06 40th Avenue	**Location** Queens, NY	**Estimated Dates** March 2025 – July 2025
Phase of Work Excavation of Urban Fill/Soil, Installation of Vapor Barrier System		**Analysis Approved by** Spiro Dongaris
TASKS	**HAZARDS**	**CONTROL MEASURES**
1. Site excavation. 2. Install vapor barrier system.	Chemical hazards	• Wear appropriate PPE per Section 5.1 • Practice contamination avoidance • Conduct real-time air monitoring per section 7.1.1 • Follow proper decontamination procedures • Wash hands/face before eating, drinking, smoking
	Cave-in	• Do not allow entry into excavation/trench unless approved protective system is in place and has been inspected by the competent person. • Follow OSHA excavation regulations • Place ladder or entry device every 25 feet of lateral travel
	Struck By/Against Motor Vehicles/ Operating Equipment	• Wear reflective warning vests when exposed to vehicular traffic • Isolate potential equipment swings areas • Make eye contact with vehicle operators before approaching/crossing high traffic areas • Understand and review hand signals • Use a spotter to direct equipment movement in high traffic areas • Audible back-up alarms on equipment • Operator inspects equipment daily for safety defects, including the braking system
	Slips/trips/falls	• Clear walkways, work areas of equipment and tools • Mark, identify, or barricade other obstructions • Use barricades or fencing for trenches greater than 6 feet deep • Maintain alertness to slip/trip/fall hazards • Maintain good housekeeping • Walk, do not run • Wear footwear with soles that grip
	Electrical hazards	• Maintain 10-foot minimum clearance to any overhead power lines • Call for Utility mark out prior to digging

Project Identification 23-06 40th Avenue	**Location** Queens, NY	**Estimated Dates** March 2025 – July 2025
Phase of Work Excavation of Urban Fill/Soil, Installation of Vapor Barrier System		**Analysis Approved by** Spiro Dongaris
TASKS	**HAZARDS**	**CONTROL MEASURES**
1. Site excavation. 2. Install vapor barrier system.	Hand and power tool usage	• Daily inspections will be performed on tools and cords • Ensure all guards are in place • Remove broken or damaged tools from service • Use the tool for its intended purpose • Use in accordance with manufacturer instructions
	Noise	• Hearing protection mandatory at or above 85 dBA. • Instruct personnel how to properly wear hearing protective devices. • Disposable ear plugs or other hearing protection required while around noisy equipment.
	Manual lifting/ Material handling	• Observe proper lifting techniques • Obey sensible lifting limits (50 lb. maximum per person manual lifting) • Use mechanical lifting equipment (hand carts, trucks) to move large, awkward loads
	Temperature extremes.	• Drink plenty of fluids: • Train personnel of signs/symptoms of cold/heat stress; • Monitor air temperatures when extreme weather conditions are present; • Stay in visual and verbal contact with your buddy; and • Use procedures in Sections 3.3.1 and 3.3.2

Project Identification 23-06 40th Avenue	**Location** Queens, NY ~~Brooklyn, NY~~	**Estimated Dates** ~~March 2025 – July 2025~~ September 2024 – March 2025
Phase of Work Loading of Trucks		**Analysis Approved by** Spiro Dongaris

TASKS	HAZARDS	CONTROL MEASURES
1. Load trucks with contaminated soils. 2. Cover and clean trucks.	Chemical hazards	• Wear appropriate PPE per Section 6.1 • Practice contamination avoidance • Conduct real-time air monitoring per section 8.1.1 • Follow proper decontamination procedures • Wash hands/face before eating, drinking, smoking
	Struck By/Against Motor Vehicles/ Operating Equipment	• Wear reflective warning vests when exposed to vehicular traffic • Isolate potential equipment swings areas • Make eye contact with vehicle operators before approaching/crossing high traffic areas • Understand and review hand signals • Use a spotter to direct equipment movement in high traffic areas • Audible back-up alarms on equipment • Operator inspects equipment daily for safety defects, including the braking system
	Slips/trips/falls	• Maintain alertness to slip/trip/fall hazards • Maintain good housekeeping • Walk, do not run • Wear footwear with soles that grip
	Manual lifting/ material handling	• Observe proper lifting techniques • Obey sensible lifting limits (50 lb. maximum per person manual lifting) • Use mechanical lifting equipment (hand carts, trucks) to move large, awkward loads
	Temperature extremes	• Drink plenty of fluids • Train personnel of signs/symptoms of cold/heat stress • Monitor air temperatures when extreme weather conditions are present • Stay in visual and verbal contact with your buddy • Use procedures in Sections 4.3.1 and 4.3.2
	Noise	• Hearing protection mandatory at or above 85 dBA. • Instruct personnel how to properly wear hearing protective devices. • Disposable ear plugs or other hearing protection required while around noisy equipment.

Project Identification 23-06 40th Avenue	**Location** Queens, NY	**Estimated Dates** March 2025 – July 2025
Phase of Work Installation of Footers, Building Walls, Active SSDS, Vapor Barrier and Composite Cover Systems		**Analysis Approved by** Spiro Dongaris
TASKS	**HAZARDS**	**CONTROL MEASURES**
1. Build forms. 2. Pour concrete. 3. Remove forms.	Chemical hazards	• Wear appropriate PPE per Section 6.1 • Practice contamination avoidance • Conduct real-time air monitoring per section 8.1.1 • Follow proper decontamination procedures • Wash hands/face before eating, drinking, smoking
	Struck By/Against Motor Vehicles/ Operating Equipment	• Wear reflective warning vests when exposed to vehicular traffic • Isolate potential equipment swings areas • Make eye contact with vehicle operators before approaching/crossing high traffic areas • Understand and review hand signals • Use a spotter to direct equipment movement in high traffic areas • Audible back-up alarms on equipment • Operator inspects equipment daily for safety defects, including the braking system
	Concrete pumper	• Make sure nozzle man has eye contact with pump truck operator. • Ensure steady control over nozzle
	Splashing concrete	• Ensure eye protection is worn and other PPE as required by Section 6.1 • A portable eyewash will be maintained in the work area
	Falls from heights	• Fall protection is required over 6 feet when removing forms • Use PFAS where needed • OSHA required training before use of PFAS, scaffold or lift • Competent person inspects PFAS and scaffold
	Sharp Objects	• Wear cut resistant work gloves when the possibility of lacerations or other injury may be caused by sharp edges or objects being handled • Maintain all hand and power tools in a safe condition • Keep guards in place during use

Project Identification 23-06 40th Avenue	**Location** Queens, NY	**Estimated Dates** March 2025 – July 2025
Phase of Work Installation of Footers, Building Walls, Active SSDS, Vapor Barrier and Composite Cover Systems		**Analysis Approved by** Spiro Dongaris
TASKS	**HAZARDS**	**CONTROL MEASURES**
1. Build forms. 2. Pour concrete. 3. Remove forms.	Hand and power tool usage	• Daily inspections will be performed on tools and cords • Ensure all guards are in place • Remove broken or damaged tools from service • Use the tool for its intended purpose • Use in accordance with manufacturer instructions
	Noise	• Hearing protection mandatory at or above 85 dBA. • Instruct personnel how to properly wear hearing protective devices. • Disposable ear plugs or other hearing protection required while around noisy equipment.
	Manual lifting/ material handling	• Observe proper lifting techniques • Obey sensible lifting limits (50 lb. maximum per person manual lifting) • Use mechanical lifting equipment (hand carts, trucks) to move large, awkward loads
	Slips/trips/falls	• Maintain alertness to slip/trip/fall hazards • Maintain good housekeeping • Walk, do not run • Wear footwear with soles that grip
	Temperature extremes.	• Drink plenty of fluids: • Train personnel of signs/symptoms of cold/heat stress; • Monitor air temperatures when extreme weather conditions are present; • Stay in visual and verbal contact with your buddy; and • Use procedures in Sections 4.3.1 and 4.3.2

Project Identification 23-06 40th Avenue	**Location** Queens, NY	**Estimated Dates** March 2025 – July 2025
Phase of Work Heavy Equipment Decontamination		**Analysis Approved by** Spiro Dongaris
TASKS	**HAZARDS**	**CONTROL MEASURES**
1. Pressure wash or steam clean heavy equipment and vehicles.	Chemical hazards	• Wear appropriate PPE per Section 6.1 • Practice contamination avoidance • Conduct real-time air monitoring per section 8.1.1 • Follow proper decontamination procedures • Wash hands/face before eating, drinking, smoking
	Struck By/Against Motor Vehicles/ Operating Equipment	• Wear reflective warning vests when exposed to vehicular traffic • Isolate potential equipment swings areas • Make eye contact with vehicle operators before approaching/crossing high traffic areas • Understand and review hand signals • Use a spotter to direct equipment movement in high traffic areas • Audible back-up alarms on equipment • Operator inspects equipment daily for safety defects, including the braking system
	Steam/heat/splashing	• Wear face shield + safety glasses • Stay out of splash radius to minimize exposure • Do not direct steam/spray at anyone
	Hand and power tool usage	• Daily inspections will be performed on tools and cords • Ensure all guards are in place • Remove broken or damaged tools from service • Use the tool for its intended purpose • Use in accordance with manufacturer's instructions
	Slips/trips/falls	• Maintain alertness to slip/trip/fall hazards • Maintain good housekeeping • Walk, do not run • Wear footwear with soles that grip
	Temperature extremes	• Drink plenty of fluids • Train personnel of signs/symptoms of cold/heat stress • Monitor air temperatures when extreme weather conditions are present • Stay in visual and verbal contact with your buddy • Use procedures in Sections 4.3.1 and 4.3.2

5.0 *WORK AND SUPPORT AREAS*

To prevent migration of contamination from personnel and equipment, work areas will be clearly specified as designated below prior to beginning operations. Each work area will be clearly identified using signs or physical barriers.

5.1 EXCLUSION ZONE (EZ)

The EZ is the area suspected of contamination and presents the greatest potential for worker exposure. Personnel entering the area must wear the mandated level of protection for that area. In certain instances, different levels of protection will be required depending on the tasks and monitoring performed within that zone. The EZ for this project will include the excavation areas, any stockpiling/staging areas, and areas where disturbance of urban fill is likely occurring.

5.2 CONTAMINATION - REDUCTION ZONE (CRZ)

The CRZ or transition zone will be established between the EZ and support zone (SZ). In this area, personnel will begin the sequential decontamination process required to exit the EZ. To prevent off-site migration of contamination and for personnel accountability, all personnel will enter and exit the EZ through the CRZ. The CRZ for this project will be the access/egress routes to/from the EZ and the personnel and equipment decontamination stations.

5.3 SUPPORT ZONE (SZ)

The SZ serves as a clean, control area. Operational support facilities are located within the SZ. Normal work clothing and support equipment are appropriate in this zone. Contaminated equipment or clothing will not be allowed in the SZ. There will be a clearly marked controlled access point from the SZ into the CRZ and EZ that is monitored closely by the HSO and the CS to ensure proper safety protocols are followed. The SZ will be any office areas/trailers and the parking and visitor access ways to the project site.

5.4 SITE CONTROL LOG

A log of all personnel visiting, entering or working on the site shall be maintained in the main office location. The log will record the date, name, company or agency, and time entering or exiting the site.

No visitor will be allowed in the EZ without showing proof of training and compliance with applicable medical monitoring requirements. Visitors will supply their own protective equipment, including hard hat, boots and respiratory equipment, if required. Visitors will attend a site orientation given by the HSO and sign the HASP.

5.5 GENERAL

The following items are requirements to protect the health and safety of workers and will be discussed in the safety briefing prior to initiating work on the site.

- Eating, drinking, chewing gum or tobacco, smoking, or any practice that increases the probability of hand to mouth transfer and ingestion of contamination is prohibited in the EZ and CRZs.
- Hands and face must be washed upon leaving the EZ and before eating, drinking, chewing gum or tobacco and smoking or other activities which may result in ingestion of contamination.
- During site operations, each worker will consider himself as a safety backup to his/her partner. All personnel will be aware of dangerous situations that may develop.
- Visual contact will be maintained between workers on site when performing hazardous duties.
- No personnel will be admitted to the site without the proper safety equipment, training, and medical surveillance certification.
- All personnel must comply with established safety procedures. Any site personnel who do not comply with safety policy, as established by the HSO or the CS, will be dismissed from the site.
- Proper decontamination procedures must be followed before leaving the site.
- All site workers are authorized to stop work if they observe unsafe actions of workers or other unsafe conditions on site which may cause an imminent danger.
- All workers and visitors must sign in and out of the site.

6.0 *PROTECTIVE EQUIPMENT*

This section specifies the levels of personal protective equipment (PPE) which are or may be required for each principal activity performed at this site. All site personnel must be trained in the use of all PPE utilized.

6.1 ANTICIPATED PROTECTION LEVELS

The following protection levels have been established for the site work activities based on site information concerning the levels of contaminants and the scope of work. Results of site air monitoring and visual inspection of the work activities may indicate the need for changes in final PPE level(s). Changes in the initial PPE levels prescribed in the table below require completion of the HASP amendment form in Appendix B.

Task	Initial PPE Level	Upgrade/ Downgrade PPE Level	Skin Protection	Respiratory Protection	Other PPE
General Support Zone Activities	Level D	—	Generally, none	None	Hard-hat, steel-toe work boots, safety glasses, safety vests. Leather work gloves as needed. Hearing protection when >85 dBA.
Mobilization/ Demobilization	Level D	—	Generally, none	None	Hard-hat, steel-toe work boots, safety glasses, safety vests. Leather work gloves as needed. Hearing protection when >85 dBA.
Excavation, Loading of Trucks with Contaminated Soil/Fill, Equipment Decontamination	Level D		Generally, none	Initial: None (See Section 7)	Hard-hat, steel-toe work boots, safety glasses, leather work gloves for material handling, hearing protection >85 dBA
Installation of Active SSDS, Vapor Barrier and Composite Cover Systems, Footings, and Building Walls	Level D		Generally, none	Initial: None (See Section 7)	Hard-hat, steel-toe work boots, safety glasses, leather work gloves for material handling, hearing protection >85 dBA

6.2 PROTECTION LEVEL DESCRIPTIONS

This section lists the minimum requirements for each protection level. Modification to these requirements may have been noted in the table shown above.

6.2.1 *Level D*

Level D consists of the following:

- Safety glasses with side shields
- Hard hat
- Steel-toed work boots
- Work clothing as prescribed by weather
- Leather work gloves when material handling

7.0 *DECONTAMINATION PROCEDURES*

This section describes the procedures necessary to ensure that both personnel and equipment are free from contamination when they leave the work site.

7.1 PERSONNEL DECONTAMINATION

Decontamination procedures will ensure that material which workers may have contacted in the EZ does not result in personal exposure and is not spread to clean areas of the site. This sequence describes the general decontamination procedures for Level D. The specific stages will vary depending on the site, the task, the protection level, etc. Dry decontamination may be used if there is insufficient space to support a full decontamination station as delineated with the steps below and approved by the HSO. The CS and the HSO will ensure that the decontamination procedures are adequate.

Level D Decontamination

1. Go to end of EZ
2. Cross into CRZ
3. Wash face and hands

7.1.1 *Suspected Contamination*

Any employee suspected of sustaining skin contact with chemical materials will first use the emergency shower. Following a thorough drenching, the worker will proceed to the decontamination area. Here the worker will remove clothing and don clean clothing. Medical attention will be provided as determined by the degree of injury.

7.1.2 *Personal Hygiene*

Personnel will wash hands, arms, neck and face, following decontamination and before any eating, smoking, or drinking.

7.2 EQUIPMENT DECONTAMINATION

Heavy equipment and other vehicles operated within the EZ will be decontaminated before being removed from the site. Workers operating the equipment/vehicles will move the equipment to a gross decontamination location near the exit of the EZ. Following gross decontamination, the equipment/vehicle will be moved to the decontamination pad. Equipment decontamination will be performed on the pad until the equipment is visually clean. Following decontamination activities equipment will be inspected by the HSO or CS prior to leaving the site. Once the equipment is inspected it will be removed from the site.

Heavy Equipment / Vehicle Decontamination

1. Equipment operator will move the heavy equipment / vehicle to a position near the EZ / CRZ interchange
2. Worker will use manual equipment (shovel, track spade) to remove gross contamination from tracks, bucket, dump box, and vehicle undercarriage (as required)
3. Following removal of gross decontamination equipment will be moved onto the decontamination pad and pressure washed / steam cleaned until equipment / vehicle is visually clean.
4. Equipment / vehicle decontaminated for removal from the site will be moved to a clean area for the HSO / CS inspection.
5. Once the equipment / vehicle is inspected and approved it will be removed from the site. Vehicles that fail inspection will be returned to the decontamination pad for further cleaning and re-inspected.

7.3 DISPOSAL OF WASTES

Wastes will be disposed according to applicable Local, State and Federal regulations.

7.4 DUST /EROSION CONTROL

The contractor will control dust and implement erosion control measures to be protective of nearby ecologically sensitive areas and sensitive receptors.

8.0 *AIR MONITORING*

Air monitoring will be conducted in order to characterize personnel exposures and fugitive emissions from site contaminants. Principal contaminants of concern are listed in Section 4.0 of this HASP. The target compounds selected for air monitoring purposes for this site include particulates. Results of air monitoring will be used to ensure the proper selection of protective clothing and equipment, including respiratory protection, to protect on-site personnel and off-site receptors from exposure to unacceptable levels of site contaminants. Descriptions of air monitoring strategies, procedures and equipment are provided below. Modification of this plan, including additional monitoring, may be considered as judged necessary by the PSM, in conjunction with the HSO.

8.1 WORK AREA AIR MONITORING

Work area air monitoring will include direct reading methods and personal exposure monitoring. Air monitoring will be conducted during soil/waste excavation, transportation, relocation and/or staging, and any other intrusive activities.

8.1.1 *Direct Reading Air Monitoring*

During active sifting operations, direct reading air monitoring will be performed to determine the potential for worker exposure to airborne hazards. A summary of air monitoring information is provided in section 8.1.5. Real-time air samples will be taken at least four times each 8-hour worker shift in the workers breathing zone (BZ).

8.1.2 *Instrumentation*

The following is a description of the air monitoring equipment to be used:

- MIE PDR-1000 Personal DataRAM, Dust trak or equivalent unit for real-time measuring particulates.

8.1.3 *Use and Maintenance of Survey Equipment*

All personnel using field survey equipment must have training in its operation, limitations, and maintenance. Maintenance and internal or electronic calibration will be performed in accordance with manufacturer recommendations by individuals familiar with the devices before their use on site. Repairs, maintenance, and internal or electronic calibration of these devices will be recorded in an equipment maintenance logbook. The equipment maintenance logbook for each instrument will be kept in that instrument's case. For rented monitoring equipment, repairs and maintenance

will be conducted by the rental company. Daily calibration records will be documented on a log sheet found in Appendix D.

Air monitoring equipment will be calibrated before work begins. Only basic maintenance (such as changing batteries) will be performed by on-site personnel. Any additional maintenance or repairs will be performed by a trained service technician.

8.1.4 *Air Monitoring Recordkeeping*

The HSO will ensure that all air-monitoring data is recorded on a data sheet found in Appendix D. The PSM may periodically review this data.

8.1.5 *Action Levels*

During soil/waste excavation, transportation, relocation and/or staging or any intrusive activities, direct reading air monitoring will be performed in the EZ to determine exposure to workers. A summary of air monitoring information is provided in the table below.

Monitoring Device	Monitoring Location/Personnel	Monitoring Frequency	Action Level	Action
pDr-1000, or equivalent (Dust)	Soil excavation areas/laborers, technicians, equipment operators	Four times every 8-hour shift during soil disturbance activities	<5.0 mg/m^3 *	Level D
			≥5.0 mg/m^3 *	Stop work; notify PSM
				Implement dust suppression measures and resume work after dust levels are below action level

** Sustained levels in the breathing zone for 5 minutes*

As indicated by the below calculations, the action level for the PAHs and metals of concern was selecting based on the OSHA PEL for respirable dust, which was found to be significantly lower than the calculated actions levels for PAHs and barium, lead, and mercury, based on utilizing the highest concentrations of these contaminants found in soil.

- OSHA PEL for respirable dust: 5 mg/m^3.
- Maximum concentration of PAHs found in soil is 34.0 ppm or 0.0034%.
    - 5.0 mg/m^3 multiplied by 0.0034% = 0.017 mg/m^3.
    - OSHA PEL for PAHs is 0.2 mg/m^3.
- Maximum concentration of lead found in soil is 738 ppm or 0.0738%.
    - 5.0 mg/m^3 multiplied by 0.0738% = 0.369 mg/m^3.
    - OSHA PEL for lead is 0.05 mg/m^3.

- Maximum concentration of barium found in soil is 670 ppm or 0.0670%.
    - 5.0 mg/m^3 multiplied by 0.0670% = 0.335 mg/m^3.
    - OSHA PEL for barium is 0.5 mg/m^3.
- Maximum concentration of mercury found in soil is 67.0 ppm or 0.0067%.
    - 5.0 mg/m^3 multiplied by 0.0067% = 0.0335 mg/m^3.
    - OSHA PEL for mercury is 0.1 mg/m^3

9.0 *EMERGENCY RESPONSE AND CONTINGENCY PLAN (ERCP)*

9.1 PRE-EMERGENCY PLANNING

Prior to engaging in construction/remediation activities at the site, the CS will plan for possible emergency situations and have adequate supplies and manpower to respond. In addition, site personnel will be briefed on proper emergency response procedures during the site orientation.

The following situations would warrant implementation of the emergency plan:

Fire/Explosion	• The potential for human injury exists. • Toxic fumes or vapors are released. • The fire could spread on site or off site and possibly ignite other flammable materials or cause heat-induced explosions. • The use of water and/or chemical fire suppressants could result in contaminated run-off. • An imminent danger of explosion exists.
Spill or Release of Hazardous Materials	• The spill could result in the release of flammable liquids or vapors, thus causing a fire or gas explosion hazard. • The spill could cause the release of toxic liquids or fumes in sufficient quantities or in a manner that is hazardous to or could endanger human health.
Natural Disaster	• A rain storm exceeds the flash flood level. • The facility is in a projected tornado path or a tornado has damaged facility property. • Severe wind gusts are forecasted or have occurred and have caused damage to the facility.
Medical Emergency	• Overexposure to hazardous materials. • Trauma injuries (broken bones, severe lacerations/ bleeding, burns). • Eye/skin contact with hazardous materials. • Medical Conditions e.g., loss of consciousness, heat stress (heat stroke), heart attack, respiratory failure, allergic reaction.

The following measures will be taken to assure the availability of adequate equipment and manpower resources:

- Sufficient equipment and materials will be kept on site and dedicated for emergencies only. The inventory will be replenished after each use.

- It will be the responsibility of the CS/HSO to brief on site personnel on anticipated hazards at the site. The CS/HSO shall also be responsible for anticipating and requesting equipment that will be needed for response activities.

Communications will be established prior to commencement of any activities at the remediation site. Communication will be established so that all responders on site have availability to all pertinent information to allow them to conduct their activities in a safe and healthful manner. A telephone will be available to summon assistance in an emergency.

Primary communication with local responders in the event of an emergency will be accomplished using commercial telephone lines.

9.2 EMERGENCY RECOGNITION AND PREVENTION

Because unrecognized hazards may result in emergency incidents, it will be the responsibility of the CS and Health & Safety Officer (HSO), through daily site inspections and employee feedback to recognize and identify hazards that are found at the site. These may include:

Chemical Hazards	• Materials at the site • Materials brought to the site	
Physical Hazards	• Fire/explosion • Slip/trip/fall • Electrocution	• Confined space • IDLH atmospheres • Excessive noise
Mechanical Hazards	• Heavy equipment • Stored energy system • Pinch points	• Electrical equipment • Vehicle traffic
Environmental Hazards	• Electrical Storms • High winds • Heavy Rain/Snow	• Heat Stress • Vehicle traffic

9.3 EMERGENCY TELEPHONE NUMBERS

Emergency telephone numbers can be found in Table 9-1. The emergency numbers will be posted in all site trailers.

Figure 9-1 is the Hospital Route Map with directions to the nearest hospital. Only in a non-emergency situation are personnel to be transported to the hospital by site representatives.

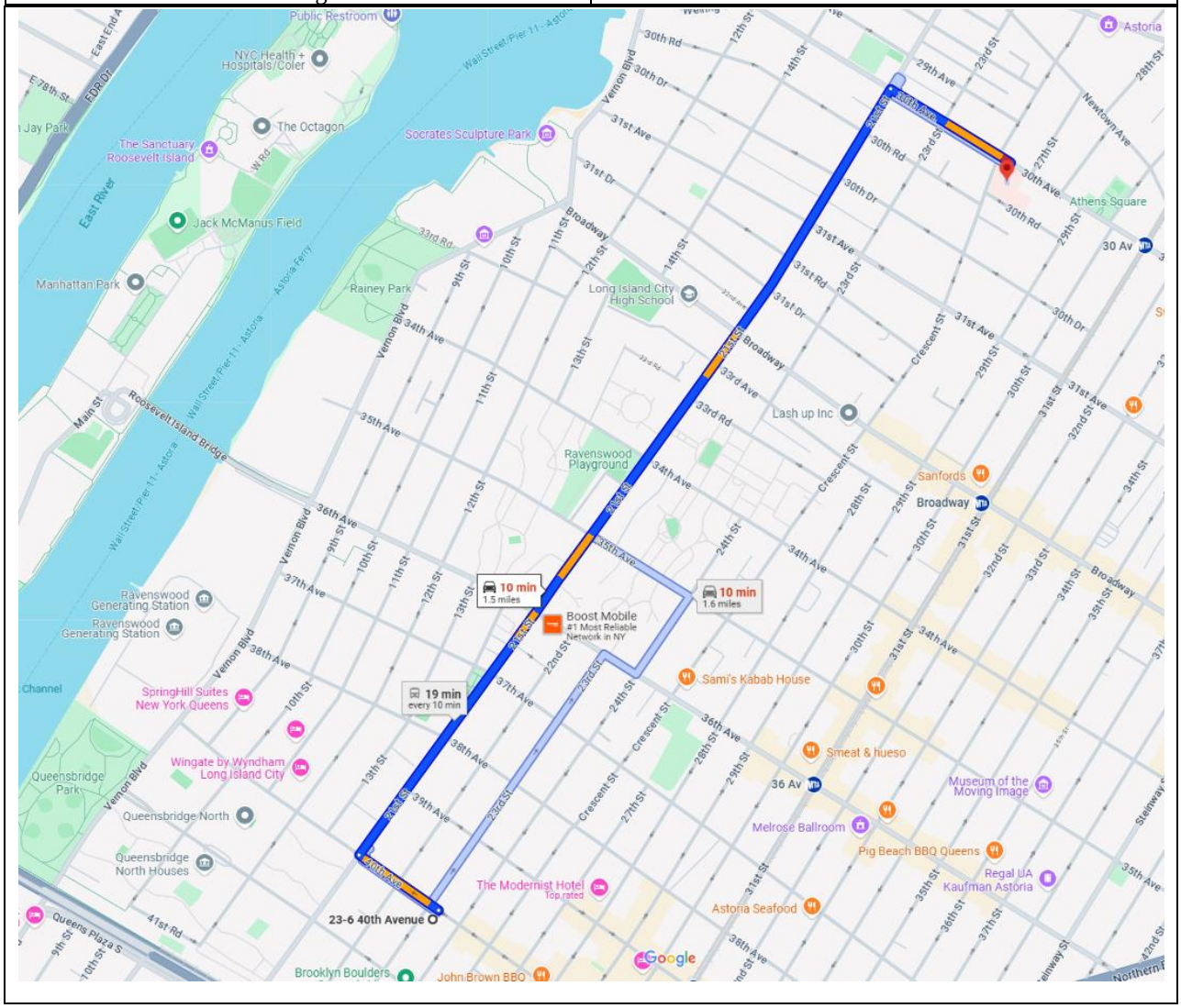
TABLE 9-1
EMERGENCY TELEPHONE NUMBERS

Emergency Medical Service……..	911
Police: New York City Police Department (NYPD)	911
Hospital: St. John's Episcopal Hospital	(718) 334-3054
Fire: New York City Fire Department (FDNY)	911
New York City Office of Emergency Management	911
National Response Center	(800) 424-8802
Poison Control Center	(800) 222-1222
Chemtrec	(800) 262-8200
Center for Disease Control	(800) 311-3435
USEPA (Region II)	(212) 637-5000
NYSDEC Emergency Spill Response	(800) 457-7362

FIGURE 9-1
DIRECTIONS AND HOSPITAL ROUTE MAP

Site Location: 23-06 40th Avenue, Queens, New York 11101
Hospital Location: 25-10 30th Avenue, Long Island City, New York 11102
Main Telephone: (718) 932-1000

Direction	Distance
Turn left onto 40th Ave.	--- mile
Head northwest on 40th Ave. toward 23rd St.	0.1 mile
Turn right at the 3rd cross street onto 21st St.	--- mile
Continue on 21st St.	1.2 miles
Turn right onto 30th Ave.	--- mile
Continue on 30th Ave.	0.2 mile
Destination is on the right side of the road	--- mile



Once a hazard has been recognized, the CS and/or the HSO will take immediate action to prevent the hazard from becoming an emergency. This may be accomplished by the following:

- Daily safety meeting
- Task-specific training prior to commencement of activity
- Personal Protective Equipment (PPE) selection/use
- Written and approved permits for hot work, confined space
- Trenching/shoring procedure
- Air monitoring
- Following all standard operating procedures

9.4 PERSONNEL ROLES, LINES OF AUTHORITY, AND COMMUNICATIONS

This section of the ERCP describes the various roles, responsibilities, and communication procedures that will be followed by personnel involved in emergency responses.

The primary emergency coordinator for this site is the CS. In the event an emergency occurs and the emergency coordinator is not on site, the HSO will serve as the emergency coordinator until the CS arrives. The emergency coordinator will determine the nature of the emergency and take appropriate action as defined by this ERCP.

The emergency coordinator will implement the ERCP immediately as required. The decision to implement the plan will depend upon whether the actual incident threatens human health or the environment.

Immediately after being notified of an emergency incident, the emergency coordinator or designee will evaluate the situation to determine the appropriate action.

9.4.1 *Responsibilities and Duties*

This section describes the responsibilities and duties assigned to the emergency coordinator.

It is recognized that the structure of the "Incident Command System" will change as additional response organizations are added. Personnel will follow procedures as directed by the fire department, LEPC, State and Federal Agencies as required.

9.4.2 *On-Site Emergency Coordinator Duties*

The on-site emergency coordinator is responsible for implementing and directing the emergency procedures. All emergency personnel and their communications will be coordinated through the emergency coordinator. Specific duties are as follows:

- Identify the source and character of the incident, type and quantity of any release. Assess possible hazards to human health or the environment that may result directly from the problem or its control.
- Discontinue operations in the vicinity of the incident if necessary to ensure that fires, explosions, or spills do not recur or spread to other parts of the site. While operations are dormant, monitor for leaks, pressure build-up, gas generation, or ruptures in valves, pipes, or other equipment, where safe and appropriate.
- Notify the Client Representative and local Emergency Response Teams if their help is necessary to control the incident. Table 9-1 provides telephone numbers for emergency assistance.
- Direct on-site personnel to control the incident until, if necessary, outside help arrives. Specifically: Ensure that the building or area where the incident occurred and the surrounding area are evacuated and shut off possible ignition sources, if safe and appropriate. The Emergency Response Coordinator is responsible for directing site personnel such that they avoid the area of the incident and leave emergency control procedures unobstructed.
- If fire or explosion is involved, notify local Fire Department.
- Have protected personnel, in appropriate PPE, on standby for rescue.

If the incident may threaten human health or the environment outside of the site, the emergency coordinator should immediately determine whether evacuation of area outside of the site may be necessary and, if so, notify the Police Department and the Office of Emergency Management.

When required, notify the National Response Center. The following information should be provided to the National Response Center:

- Name and telephone number
- Name and address of facility
- Time and type of incident
- Name and quantity of materials involved, if known
- Extent of injuries
- Possible hazards to human health or the environment outside of the facility.

The emergency telephone number for the National Response Center is 800-424-8802.

If hazardous waste has been released or produced through control of the incident, ensure that:

- Waste is collected and contained.
- Containers of waste are removed or isolated from the immediate site of the emergency.
- Treatment or storage of the recovered waste, contaminated soil or surface water, or any other material that results from the incident or its control is provided.
- Ensure that no waste that is incompatible with released material is treated or stored in the facility until cleanup procedures are completed.
- Ensure that all emergency equipment used is decontaminated, recharged, and fit for its intended use before operations are resumed.
- Notify the USEPA Regional Administrator that cleanup procedures have been completed and that all emergency equipment is fit for its intended use before resuming operations in the affected area of the facility. The USEPA Regional Administrator's telephone number is included in the Emergency Contacts.
- Record date, time, details of the incident, and submit a written report to the USEPA Regional Administrator. The report is due to the USEPA within 15 days of the incident.

9.5 SAFE DISTANCES AND PLACES OF REFUGE

The emergency coordinator for all activities will be the CS. No single recommendation can be made for evacuation or safe distances because of the wide variety of emergencies which could occur. Safe distances can only be determined at the time of an emergency based on a combination of site and incident-specific criteria. However, the following measures are established to serve as general guidelines.

In the event of minor hazardous materials releases (small spills of low toxicity), workers in the affected area will report initially to the contamination reduction zone. Small spills or leaks (generally less than 55 gallons) will require initial evacuation of at least 50 feet in all directions to allow for cleanup and to prevent exposure. After initial assessment of the extent of the release and potential hazards, the emergency coordinator or designee will determine the specific boundaries for evacuation. Appropriate steps such as caution tape, rope, traffic cones, barricades, or personal monitors will be used to secure the boundaries.

If a major incident may threaten the health or safety of the surrounding community, the public will be informed and, if necessary, evacuated from the area. The emergency coordinator, or designee will inform the proper agencies in the event that this is necessary. Telephone numbers are listed in Table 9-1.

Places of refuge will be established prior to the commencement of activities. These areas must be identified for the following incidents:

- Chemical release.
- Fire/explosion.
- Power loss.
- Medical emergency.
- Hazardous weather.

In general, evacuation will be made to the site entrance, unless the emergency coordinator determines otherwise. It is the responsibility of the emergency coordinator to determine when it is necessary to evacuate personnel to off-site locations.

In the event of an emergency evacuation, all the employees will gather at the entrance to the site until a head count establishes that all are present and accounted for. No one is to leave the site without notifying the emergency coordinator.

9.6 EVACUATION ROUTES AND PROCEDURES

All emergencies require prompt and deliberate action. In the event of an emergency, it will be necessary to follow an established set of procedures. Such established procedures will be followed as closely as possible. However, in specific emergency situations, the emergency coordinator may deviate from the procedures to provide a more effective plan for bringing the situation under control. The emergency coordinator is responsible for determining which situations require site evacuation.

9.6.1 *Evacuation Signals and Routes*

Two-way radio communication or equivalent will be used to notify employees of the necessity to evacuate an area or building involved in a release/spill of a hazardous material. As necessary, each crew supervisor will have a two-way radio. Total site evacuation will be initiated only by the emergency coordinator, however, in his/her absence, decision to preserve the health and safety of employees will take precedence.

9.6.2 *Evacuation Procedures*

In the event evacuation is necessary the following actions will be taken:

- The emergency signal will be activated.
- No further entry of visitors, contractors, or trucks will be permitted. Vehicle traffic within the site will cease in order to allow safe exit of personnel and movement of emergency equipment.
- Shut off all machinery if safe to do so.

- ALL on-site personnel, visitors, and contractors in the support zone will assemble at the entrance to the site for a head count and await further instruction from the emergency coordinator.
- ALL persons in the exclusion zone and contamination reduction zone will be accounted for by their immediate crew leaders. Leaders will determine the safest exits for employees and will also choose an alternate exit if the first choice is inaccessible.
- During exit, the crew leader should try to keep the group together. Immediately upon exit, the crew leader will account for all employees in crew.
- Upon completion of the head count, the crew leader will provide the information to the emergency coordinator.
- Contract personnel and visitors will also be accounted for.
- The names of emergency response team members involved will be reported to the emergency coordinator.
- A final tally of persons will be made by the emergency coordinator or designee. No attempt to find persons not accounted for will involve endangering lives of site personnel by re-entry into emergency areas.
- In all questions of accountability, immediate crew leaders will be held responsible for those persons reporting to them. Visitors will be the responsibility of those employees they are seeing. Contractors and truck drivers are the responsibility of the Construction Superintendent.
- Personnel will be assigned by the emergency coordinator to be available at the main gate to direct and brief emergency responders.
- Re-entry into the site will be made only after clearance is given by the emergency coordinator. At his/her direction, a signal or other notification will be given for re-entry into the facility.

9.7 EMERGENCY SPILL RESPONSE PROCEDURES AND EQUIPMENT

In the event of an emergency involving a hazardous material spill or release, the following general procedures will be used for rapid and safe response and control of the situation. Emergency contacts found in Table 9-1 provide a quick reference guide to follow in the event of a major spill.

9.7.1 *Notification Procedures*

If an employee discovers a chemical spill or process upset resulting in a vapor or material release, he or she will immediately notify the on-site emergency coordinator.

On-site Emergency Coordinator will obtain information pertaining to the following:

- The material spilled or released.

- Location of the release or spillage of hazardous material.
- An estimate of quantity released and the rate at which it is being released.
- The direction in which the spill, vapor or smoke release is heading.
- Any injuries involved.
- Fire and/or explosion or possibility of these events.
- The area and materials involved and the intensity of the fire or explosion.

This information will help the on-site emergency coordinator to assess the magnitude and potential seriousness of the spill or release.

9.7.2 *Procedure for Containing/Collecting Spills*

The initial response to any spill or discharge will be to protect human health and safety, and then the environment. Identification, containment, treatment, and disposal assessment will be the secondary response.

If for some reason a chemical spill is not contained within a dike or sump area, an area of isolation will be established around the spill. The size of the area will generally depend on the size of the spill and the materials involved. If the spill is large (greater than 55 gallons) and involves a tank or a pipeline rupture, an initial isolation of at least 100 ft. in all directions will be used. Small spills (less than or equal to 55 gallons) or leaks from a tank or pipe will require evacuation of at least 50 ft. in all directions to allow cleanup and repair and to prevent exposure. When any spill occurs, only those persons involved in overseeing or performing emergency operations will be allowed within the designated hazard area. If possible, the area will be roped or otherwise blocked off.

If the spill results in the formation of a toxic vapor cloud (by reaction with surrounding materials or by outbreak of fire) and its release (due to high vapor pressures under ambient conditions), further evacuation will be necessary. In general, an area at least 500 feet wide and 1,000 feet long will be evacuated downwind if volatile materials are spilled. Consult the DOT Emergency Response Guide for isolation distances for listed hazardous materials.

If an incident may threaten the health or safety of the surrounding community, the public will be informed and possibly evacuated from the area. The on-site emergency coordinator will inform the proper agencies in the event this is necessary (refer to Table 9-1).

As called for in regulations developed under the Comprehensive Environmental Response Compensation Liability Act of 1980 (Superfund), a spill of a pound or more of any hazardous material for which a reportable quantity has not been established and which is listed under the Solid Waste Disposal Act, Clean Air Act, Clean Water Act, or TSCA shall be reported.

Clean up personnel will take the following measures:

- Make sure all unnecessary persons are removed from the hazard area.
- Put on protective clothing and equipment.
- If a flammable material is involved, remove all ignition sources, and use spark and explosion proof equipment for recovery of material.
- Remove all surrounding materials that could be especially reactive with materials in the waste. Determine the major components in the waste at the time of the spill.
- If wastes reach a storm sewer, try to dam the outfall by using sand, earth, sandbags, etc. If this is done, pump this material out into a temporary holding tank or drums as soon as possible.
- Place all small quantities of recovered liquid wastes (55 gallons or less) and contaminated soil into drums for incineration or removal to an approved disposal site.
- Spray the spill area with foam, if available, if volatile emissions may occur.
- Apply appropriate spill control media (e.g., clay, sand, lime, etc.) to absorb discharged liquids.

For large spills, establish diking around leading edge of spill using booms, sand, clay or other appropriate material. If possible, use diaphragm pump to transfer discharged liquid to drums or holding tank.

9.7.3 *Emergency Response Equipment*

The following equipment will be staged in the support zone and throughout the site, as needed, to provide for safety and first aid during emergency responses.

- ABC-type fire extinguisher.
- First-aid kit, industrial size.
- Portable eyewash.

9.7.4 *Emergency Spill Response Clean-Up Materials and Equipment*

A sufficient supply of appropriate emergency response clean-up and personal protective equipment will be available as needed.

The materials listed below may be kept on-site for spill control, depending on the types of hazardous materials present on-site. The majority of this material will be located in the support zone, in a supply trailer or storage area. Small amounts, as necessary, will be placed on pallets and located in the active work areas.

- Sand or clay to solidify/absorb liquid spills.
- Sorbent pads or booms to contain and absorb liquid spills.

All contaminated soils, absorbent materials, solvents, and other materials resulting from the clean-up of spilled or discharged substances shall be properly stored, labeled, and characterized for off-site disposal.

9.8 EMERGENCY CONTINGENCY PLAN

This section of the ERCP details the contingency measures the Site Contractor will take to prepare for and respond to fires, explosions, spills and releases of hazardous materials, hazardous weather, and medical emergencies.

9.9 MEDICAL EMERGENCY CONTINGENCY MEASURES

The procedures listed below will be used to respond to medical emergencies. A minimum of one First-Aid/CPR trained personnel should be available on site.

9.9.1 *Response*

The nearest workers will immediately assist a person who shows signs of medical distress or who is involved in an accident. The work crew supervisor will be summoned.

The work crew supervisor will immediately make radio contact with the on-site emergency coordinator to alert him of a medical emergency situation. The supervisor will advise the following information:

- Location of the victim at the work site
- Nature of the emergency
- Whether the victim is conscious
- Specific conditions contributing to the emergency, if known

The Emergency Coordinator will notify the Health & Safety Officer. The following actions will then be taken depending on the severity of the incident:

- *Life-Threatening Incident* – If an apparent life-threatening condition exists, the crew supervisor will inform the emergency coordinator by radio, and the local Emergency Response Services (EMS) will be immediately called. An on-site person will be appointed who will meet the EMS and have him/her quickly taken to the victim. Any injury within the EZ will be evacuated by personnel to a clean area for treatment by EMS

personnel. No one will be able to enter the EZ without showing proof of training, medical surveillance and site orientation.

- *Non-Life-Threatening Incident* – If it is determined that no threat to life is present, the Health & Safety Officer will direct the injured person through decontamination procedures (see below) appropriate to the nature of the illness or accident. Appropriate first aid or medical attention will then be administered.

*** Note: The area surrounding an accident site must not be disturbed until the scene has been cleared by the Health & Safety Officer.**

Any personnel requiring emergency medical attention will be evacuated from exclusion and contamination reduction zones if doing so would not endanger the life of the injured person or otherwise aggravate the injury. Personnel will not enter the area to attempt a rescue if their own lives would be threatened. The decision whether or not to decontaminate a victim prior to evacuation is based on the type and severity of the illness or injury and the nature of the contaminant. For some emergency victims, immediate decontamination may be an essential part of life-saving first aid. For others, decontamination may aggravate the injury or delay life-saving first aid. Decontamination will be performed if it does not interfere with essential treatment.

If decontamination can be performed, observe the following procedures:

- Wash external clothing and cut it away.

If decontamination cannot be performed, observe the following procedures:

- Wrap the victim in blankets or plastic to reduce contamination of other personnel.
- Alert emergency and off-site medical personnel to potential contamination, instruct them about specific decontamination procedures.
- Send site personnel familiar with the incident and chemical safety information, e.g., MSDS, with the affected person.

All injuries, no matter how small, will be reported to the HSO or the CS. An accident/injury/illness report will be completely and properly filled out and submitted to the Corporate Health and Safety Manager.

A list of emergency telephone numbers is provided in Table 9.1.

9.9.2 *Notification*

The following personnel/agencies will be notified in the event of a medical emergency:

- Local Fire Department or EMS.

- On-site Emergency Coordinator.
- Workers in the affected areas.
- Client Representative.

9.10 FIRE CONTINGENCY MEASURES

Because flammable/combustible materials are present at this site, fire is an ever-present hazard. Safety personnel are not trained professional firefighters. Therefore, if there is any doubt that a fire can be quickly contained and extinguished, personnel will notify the emergency coordinator by radio and vacate the structure or area. The emergency coordinator will immediately notify the local Fire Department.

The following procedures will be used to prevent the possibility of fires and resulting injuries:

- Sources of ignition will be kept away from where flammable materials are handled or stored.
- The air will be monitored for explosivity before and during hot work and periodically where flammable materials are present. Hot work permits will be required for all such work.
- "No smoking" signs will be conspicuously posted in areas where flammable materials are present.
- Fire extinguishers will be placed in all areas where a fire hazard may exist.
- Before workers begin operations in an area the foreman will give instruction on egress procedures and assembly points. Egress routes will be posted in work areas and exit points clearly marked.

9.10.1 *Response*

The following procedures will be used in the event of a fire:

- Anyone who sees a fire will notify their supervisor who will then contact the Emergency Coordinator by radio. The emergency coordinator will activate the emergency air horns and contact the local Fire Department.
- When the emergency siren sounds, workers will disconnect electrical equipment in use (if possible) and proceed to the nearest fire exit.
- Work crews will be comprised of pairs of workers (buddy system) who join each other immediately after hearing the fire alarm and remain together throughout the emergency. Workers will assemble at a predetermined rally point for a head count.
- When a small fire has been extinguished by a worker, the emergency coordinator will be notified.

9.11 HAZARDOUS WEATHER CONTINGENCY MEASURES

Operations outside will not be started or continued when the following hazardous weather conditions are present:

- Lightning.
- Heavy Rains/Snow.
- High Winds.

9.11.1 *Response*

- Excavation/soil stock piles will be covered with plastic liner.
- All equipment will be shut down and secured to prevent damage.
- Personnel will be moved to safe refuge. The emergency coordinator will determine when it is necessary to evacuate personnel to off-site locations and will coordinate efforts with fire, police and other agencies.

9.11.2 *Notification*

The emergency coordinator will be responsible for assessing hazardous weather conditions and notifying personnel of specific contingency measures. Notifications will include:

- Site workers and subcontractors
- Client Representative
- Local Emergency Management Agency

9.12 SPILL/RELEASE CONTINGENCY MEASURES

In the event of release or spill of a hazardous material the following measures will be taken:

9.12.1 *Response*

Any person observing a spill or release will act to remove and/or protect injured/contaminated persons from any life-threatening situation. First aid and/or decontamination procedures will be implemented as appropriate.

First aid will be administered to injured/contaminated personnel. All personnel will act to prevent any unsuspecting persons from coming in contact with spilled materials by alerting other nearby persons. Attempt to stop the spill at the source, if possible. Without taking unnecessary risks, personnel will attempt to stop the spill at the source. This may involve activities such as uprighting a drum, closing a valve or temporarily sealing a hole with a plug.

The emergency coordinator will be notified of the spill/release, including information on material spilled, quantity, personnel injuries and immediate life-threatening hazards. Air monitoring will be implemented by the emergency coordinator and HSO to determine the potential impact on the surrounding community. Notification procedures will be followed to inform on-site personnel and off-site agencies. The emergency coordinator will make a rapid assessment of the spill/release and direct confinement, containment and control measures. Depending upon the nature of the spill, measures may include:

- Construction of a temporary containment berm utilizing on-site clay absorbent earth
- Digging a sump, installing a polyethylene liner and
- Diverting the spill material into the sump placing drums under the leak to collect the spilling material before it flows over the ground
- Transferring the material from its original container to another container

The emergency coordinator will notify the Client Representative of the spill and steps taken to institute clean-up. Emergency response personnel will clean-up all spills following the spill clean-up plan developed by the emergency coordinator. Supplies necessary to clean up a spill may include, but are not limited to:

- Shovel, rake.
- Clay or sand absorbent.
- Polyethylene liner.
- Personal safety equipment.
- Steel drums.
- Pumps and miscellaneous hand tools.

The emergency coordinator will inspect the spill site to determine that the spill has been cleaned up to the satisfaction of the Client Representative. If necessary, soil, water or air samples may be taken and analyzed to demonstrate the effectiveness of the spill clean-up effort. The emergency coordinator will determine the cause of the spill and determine remedial steps to ensure that recurrence is prevented. The emergency coordinator will review the cause with the Client Representative and obtain his/her concurrence with the remedial action plan.

10.0 *TRAINING REQUIREMENTS*

All personnel entering the exclusion zone will be trained in the provisions of this site safety plan and be required to sign the CHASP Acknowledgment form in Appendix A.

10.1 SITE-SPECIFIC TRAINING ORIENTATION

Outlines of the orientation for site workers, subcontractor personnel and visitors are presented below:

CONTRACTOR WORKERS	VISITORS

• HASP sign off
• Sign in/out procedures
• Site background/characterization
• Chain of command
• Rules and regulations
• Hours of work
• Absences
• Personal Protective Equipment/respirator fit test (if applicable)
• Emergency Information
  • Emergency signal
  • Gathering point
  • Responsibilities/roles
  • Emergency phone numbers
• Site Control/Work Zones
• Hazards/AHAs
• Air Monitoring Program
• Forms, site-specific
• Incident Reporting
• Lead Awareness (Appendix C)
	• Sign in/out procedures
	• Site Background/ Characterization
	• Review of Site map
	• Work Zones in progress
	• Emergency plan/signals
	• Training/medical requirements
	• Zones/areas open to visitors

10.2 DAILY SAFETY MEETINGS

A safety meeting will be conducted by the CS and the HSO 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.

APPENDIX A

- ***HEALTH AND SAFETY PLAN CERTIFICATION***
- ***GENERAL/SUB-CONTRACTOR HEALTH & SAFETY PLAN ACKNOWLEDGEMENT***
- ***NOTICE OF SAFETY VIOLATION***
- ***PRE-JOB SAFETY CHECKLIST***

HEALTH AND SAFETY PLAN CERTIFICATION

By signing this document, I am stating that I have read and understand the site health and safety plan for ________________________ (Contractor) personnel, subcontractors and visitors entering the site.

COMPANY NAME	NAME (PRINT)	SIGNATURE	DATE

NOTICE OF SAFETY VIOLATION

TO: _____(Name of Contractor/Subcontractor Supervisor)
FROM: _____(Name of Owner/Contractor's Project Manager)
DATE: _____
SUBJECT: ***Notice of Safety Violations***

The following Safety Violations were observed at the Name of Site/Project on Date.

1. _____
2. _____
3. _____
4. _____
5. _____

You are requested to take the necessary corrective action to alleviate these safety violations by _____ (Date).

Please notify _____(Name of Contractor/Subcontractor's Project Manager) when you have completed this corrective action.

Thank you in advance for your cooperation in this effort.

CONTRACTOR/SUBCONTRACTOR
PRE-JOB SAFETY CHECKLIST

JOB: SUBCONTRACTOR:

LOCATION: PROJECT NO.:

		Yes	No
1.	Standard emergency signals fully understood?	☐	☐
2.	Subcontractor responsibility in time of emergency understood?	☐	☐
3.	Fire and ambulance telephone numbers known?	☐	☐
4.	Areas for possible evacuation designated?	☐	☐
5.	Special safety rules for the plant or area known?	☐	☐
6.	Nature of Chemical or special hazards for area reviewed with safety officer?	☐	☐
7.	Special safety equipment for the area of job known?	☐	☐
8.	Safety shower and eye wash locations known?	☐	☐
9.	Smoking area designated?	☐	☐
10.	Have you been advised of potential hazards, protective Measures and availability of hazard information? e.g., Health & Safety Plan	☐	☐
11.	Do you understand you are required to provide your employees with the information in (10) above?	☐	☐
12.	Have you provided MSDSs to Athenica for any hazardous material you intend to bring on site?	☐	☐
13.	Have you submitted training/medical certification records?	☐	☐
14.	Are your subcontractors aware of the above rules?	☐	☐

Remarks: (Explain all No Answers)

_____

_____

_____

_____

_____ _____

Subcontractor's Supervisor Date

_____ _____

Contractor's Project Manager Date

_____ _____

Contractor's Project Supervisor Date

_____ _____

Health & Safety Officer Date

APPENDIX B

HEALTH AND SAFETY PLAN AMENDMENTS AND DOCUMENTATION FORM

SITE-SPECIFIC HEALTH AND SAFETY PLAN
AMENDMENT DOCUMENTATION

Project Name: _____ **Project No.:** _____

Amendment No.: _____ **Date:** _____

Amendment Page(s): **Revises:** _____ **Section(s):** _____

Task(s) Amendment Affects: * _____

_____

**(Attach new/revised Job Safety Analyses)*

Reason For Amendment:

_____

_____

_____

Amendment: *(Attach separate sheet(s) as necessary)*

_____

_____

_____

_____

_____

_____

Completed by: _____ **Approved by:** _____

APPENDIX C

DAILY SAFETY REPORT FORM

AIR MONITORING RECORD FORM

EQUIPMENT CALIBRATION RECORD FORM

DAILY SAFETY REPORT

Date:	Site Name:	Site Location:

Time	Temp.	Wind Dir	Wind Spd	Conditions

Activity	PPE Worn

Time	Observations/Actions

Notes Taken By: _____

AIR MONITORING RECORD				
Site Name:		**Site Location:**		**Date:**
Time	**Respirable Particulates (mg/m^3)**	**Location**	**Activity**	**Initials**

EQUIPMENT CALIBRATION RECORD							
Site Name:					**Site Location:**		
Date	**Instrument**	**S/N**	**Battery**	**Zero**	**Init. Rdg.**	**Adjustments**	**Initials**
	pDR-1500, Dusttrack or equivalent			Filter			
	Mini-RAE 3000 PID, or equivelant			100 ppm isobutylene			
	pDR-1500, Dusttrack or equivalent			Filter			
	Mini-RAE 3000 PID, or equivelant			100 ppm isobutylene			
	pDR-1500, Dusttrack or equivalent			Filter			
	Mini-RAE 3000 PID, or equivelant			100 ppm isobutylene			
	pDR-1500, Dusttrack or equivalent			Filter			
	Mini-RAE 3000 PID, or equivelant			100 ppm isobutylene			
	pDR-1500, Dusttrack or equivalent			Filter			
	Mini-RAE 3000 PID, or equivelant			100 ppm isobutylene			
	pDR-1500, Dusttrack or equivalent			Filter			
	Mini-RAE 3000 PID, or equivelant			100 ppm isobutylene			
	pDR-1500, Dusttrack or equivalent			Filter			
	Mini-RAE 3000 PID, or equivelant			100 ppm isobutylene			

Calibration gases: 1. 100 ppm isobutylene, 2. 50% LEL methane, 3. 50 ppm CO, 4. 25 ppm H_2

APPENDIX D

TAILGATE SAFETY MEETING FORM

Daily Safety Meeting Report

Project Name:
Location:
Date:

Today's Tasks/Activities:

Potential Chemical/Physical Hazards:

Personal Protective Equipment:

Attendees:

HSO: _____ Const. Supt: _____

(Signature) **(Signature)**