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438 Concord Avenue Rezoning

Environmental Assessment Statement

Address: 430-438 Concord Avenue, Bronx, New York 10455

Block 2577, Lots p/o 6, 7, 8, 9, 14, and p/o 20.

CEQR Reference: 23DCP092X

ULURP Reference: 240104ZMX, N240105ZRX

Lead Agency:
Department of City Planning
120 Broadway, 31st Floor
New York, NY 10271

Prepared for:
BronxCo, LLC

Prepared by:
GZA GeoEnvironmental

Date Submitted:
June 20, 2024

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EAS SHORT FORM

City Environmental Quality Review
ENVIRONMENTAL ASSESSMENT STATEMENT (EAS) SHORT FORM

FOR UNLISTED ACTIONS ONLY • *Please fill out and submit to the appropriate agency* (see instructions)

Part I: GENERAL INFORMATION

1. *Does the Action Exceed Any Type I Threshold in 6 NYCRR Part 617.4 or 43 RCNY §6-15(A) (Executive Order 91 of 1977, as amended)?* ☐ YES ☒ NO

If "yes," **STOP** and **complete the FULL EAS FORM**.

2. *Project Name* 438 Concord Avenue Rezoning

3. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
23DCP092X	
ULURP REFERENCE NUMBER (if applicable)	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)
240104ZMX, N240105ZRX	

4a. *Lead Agency Information*			**4b. *Applicant Information***		
NAME OF LEAD AGENCY			NAME OF APPLICANT		
Department of City Planning (DCP)			BronxCo, LLC		
NAME OF LEAD AGENCY CONTACT PERSON			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON		
Stephanie Shellooe, EARD			Maxim Gladkiy GZA GeoEnvironmental Inc.		
ADDRESS 120 Broadway, 31st Floor			ADDRESS 104 W 29th St, New York		
CITY New York	STATE NY	ZIP 10271	CITY New York	STATE NY	ZIP 10001
TELEPHONE 212-720-3328	EMAIL sshellooe@planning.nyc.gov		TELEPHONE 917-215-2975	EMAIL maxim.gladkiy@gza.com	

5. *Project Description*

The Applicant, BronxCo, LLC, seeks the approval of a zoning map amendment and zoning text amendments (the Proposed Actions). The zoning map amendment would rezone Bronx Block 2577, Lots p/o 6, 7, 8, 9, 14, and p/o 20 (the Affected Area) from an M1-2 zoning district to an M1-4/R7D (MX) zoning district. The zoning text amendments would amend Appendix F of the Zoning Resolution to designate the Affected Area a Mandatory Inclusionary Housing (MIH) area and add R7D to the Special "MX 18 – Community District 1, The Bronx" row in the table within Section 123-63 (Maximum Floor Area Ratio and Lot Coverage Requirements for Zoning Lots Containing Only Residential Buildings in R6, R7, R8 and R9 Districts).

The Proposed Development involves the assemblage of Lots 7, 8, 9, and 14 and the development of a new 174,709 gross square foot ("GSF"), 138,412 zoning square foot ("ZSF"), mixed-use residential, commercial, community facility, and light manufacturing building. The Proposed Development would include 35,256 GSF of commercial space, 7,187 GSF of community facility space, 10,258 GSF of manufacturing space, 113,139 GSF of residential floor area including 87 dwelling units with 24 affordable units at an average of 60% AMI, and 8,869 GSF of parking in the cellar with 43 residential accessory parking spaces. The building would be ten stories tall and rise to 111 feet with a base height of 92 feet.

Under the Proposed Project, Lots 7 and 8 would remain developed as they are under existing conditions with two two-story residential buildings with two dwelling units in each building. Approximately 604 square feet of lot area would be transferred from Lot 9 to lot 8.

For the purposes of a Reasonable Worst Case Development Scenario (RWCDS), two projected development sites were analysed:

Projected Development Site 1 (Lots 9 and 14)
The RWCDS for Projected Development Site 1 is consistent with the Applicant's proposal in terms of the proposed uses and their respective floor areas. For the purposes of a conservative analysis, the RWCDS adopts a dwelling unit factor of 837 GSF/DU, resulting in a total of 120 dwellings units and 48 residential parking spaces. The building height is assumed

to be 115 SF (11 floors), which is the maximum permitted under the proposed zoning regulation.
In the With-Action Condition, Projected Development Site 1 (Lots 9 and 14) is analyzed as a 174,709 GSF building consisting of 7,187 GSF of community facility use, 10,258 GSF of manufacturing use, 4,526 GSF of local retail and 30,730 GSF of office use, 113,139 GSF of residential use with approximately 120 dwelling units, 25-30% (30-36 units) would be affordable pursuant to MIH. For the purposes of Early Childhood Programs analysis, 20% of residential floor area (24 units) is assumed to be affordable at or below 60% AMI. A 8,869-SF below-grade parking lot would contain approximately 48 parking spaces. The building would be 11 stories tall and rise to 115 feet with a base height of 95 feet. A 10-foot mechanical bulkhead would be assumed for the Development Site for a conservative shadows analysis under CEQR.

Projected Development Site 2 (Lots 7 and 8)
Under Future With-Action Condition, it is assumed that Projected Development Site 2 would be developed with a 34,979 GSF (27,648 ZSF, 4.93 FAR) mixed-use building that would contain approximately 13,121 GSF (12,020 ZSF, 2.14 FAR) of residential use and 16,253 GSF (15,628 ZSF, 2.79 FAR) of community facility use. There would be approximately 15 dwelling units (assuming 850 SF per DU on average), 25-30% (4 units) of which would be affordable pursuant to MIH. For the purposes of Early Childhood Programs analysis, 20% of residential floor area (3 units) is assumed to be affordable at or below 60% AMI. The building would be 11 stories tall and rise to 115 feet with a base height of 95 feet. A 10-foot mechanical bulkhead would be assumed for the development site for a conservative shadows analysis under CEQR.

Project Location

BOROUGH Bronx	COMMUNITY DISTRICT(S) 1	STREET ADDRESS 438 Concord Ave
TAX BLOCK(S) AND LOT(S) 2577 Lots p/o 6, 7, 8, 9, 14, and p/o 20		ZIP CODE 10455

DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS The Project Area is located in the Mott Haven neighborhood of Bronx, Community District 1. It is bounded by East 145th Street to the north; Wales Avenue to the east; Lot 5 and the southern portion of lot 20 to the south; and Concord Avenue to the west.

EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY M1-2 | ZONING SECTIONAL MAP NUMBER 6c

6. *Required Actions or Approvals* (check all that apply)

City Planning Commission: ☒ YES ☐ NO ☒ UNIFORM LAND USE REVIEW PROCEDURE (ULURP)

☐ CITY MAP AMENDMENT	☐ ZONING CERTIFICATION	☐ CONCESSION
☒ ZONING MAP AMENDMENT	☐ ZONING AUTHORIZATION	☐ UDAAP
☒ ZONING TEXT AMENDMENT	☐ ACQUISITION—REAL PROPERTY	☐ REVOCABLE CONSENT
☐ SITE SELECTION—PUBLIC FACILITY	☐ DISPOSITION—REAL PROPERTY	☐ FRANCHISE
☐ HOUSING PLAN & PROJECT	☐ OTHER, explain:	

☐ SPECIAL PERMIT (if appropriate, specify type: ☐ modification; ☐ renewal; ☐ other); EXPIRATION DATE:
SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

Board of Standards and Appeals: ☐ YES ☒ NO

☐ VARIANCE (use)
☐ VARIANCE (bulk)
☐ SPECIAL PERMIT (if appropriate, specify type: ☐ modification; ☐ renewal; ☐ other); EXPIRATION DATE:
SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

Department of Environmental Protection: ☐ YES ☒ NO ☐ Cogeneration Facility ☐ Title V Permit

Other City Approvals Subject to CEQR (check all that apply)

☐ LEGISLATION	☐ FUNDING OF CONSTRUCTION, specify:
☐ RULEMAKING	☐ POLICY OR PLAN, specify:
☐ CONSTRUCTION OF PUBLIC FACILITIES	☐ FUNDING OF PROGRAMS, specify:
☐ 384(b)(4) APPROVAL	☐ PERMITS, specify:
☐ OTHER, explain:	

Other City Approvals Not Subject to CEQR (check all that apply)

☐ PERMITS FROM DOT'S OFFICE OF CONSTRUCTION MITIGATION AND COORDINATION (OCMC)	☐ LANDMARKS PRESERVATION COMMISSION APPROVAL
	☐ OTHER, explain:

State or Federal Actions/Approvals/Funding: ☐ YES ☒ NO If "yes," specify:

7. *Site Description:* *The directly affected area consists of the project site and the area subject to any change in regulatory controls. Except where otherwise indicated, provide the following information with regard to the directly affected area.*

***Graphics*:** *The following graphics must be attached and each box must be checked off before the EAS is complete. Each map must clearly depict the boundaries of the directly affected area or areas and indicate a 400-foot radius drawn from the outer boundaries of the project site. Maps may not exceed 11 x 17 inches in size and, for paper filings, must be folded to 8.5 x 11 inches.*

☒ SITE LOCATION MAP ☒ ZONING MAP ☒ SANBORN OR OTHER LAND USE MAP
☒ TAX MAP ☐ FOR LARGE AREAS OR MULTIPLE SITES, A GIS SHAPE FILE THAT DEFINES THE PROJECT SITE(S)
☒ PHOTOGRAPHS OF THE PROJECT SITE TAKEN WITHIN 6 MONTHS OF EAS SUBMISSION AND KEYED TO THE SITE LOCATION MAP

Physical Setting (both developed and undeveloped areas)

Total directly affected area (sq. ft.): 30,548 Waterbody area (sq. ft) and type: 0
Roads, buildings, and other paved surfaces (sq. ft.): 28,848 Other, describe (sq. ft.): 1,700 - back yards

8. *Physical Dimensions and Scale of Project* (if the project affects multiple sites, provide the total development facilitated by the action)

SIZE OF PROJECT TO BE DEVELOPED (gross square feet): 209,688
NUMBER OF BUILDINGS: 2 GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): Site 1 - 174,709; Site 2 - 34,979
HEIGHT OF EACH BUILDING (ft.): Site 1 - 115; Site 2 - 115 NUMBER OF STORIES OF EACH BUILDING: Site 1 - 11; Site 2 - 11

Does the proposed project involve changes in zoning on one or more sites? ☒ YES ☐ NO
If "yes," specify: The total square feet owned or controlled by the applicant: 25,548
The total square feet not owned or controlled by the applicant: 5,000

Does the proposed project involve in-ground excavation or subsurface disturbance, including, but not limited to foundation work, pilings, utility lines, or grading? ☒ YES ☐ NO
If "yes," indicate the estimated area and volume dimensions of subsurface permanent and temporary disturbance (if known):
AREA OF TEMPORARY DISTURBANCE: 25,548 sq. ft. (width x length) VOLUME OF DISTURBANCE: 306,576 cubic ft. (width x length x depth)
AREA OF PERMANENT DISTURBANCE: 25,548 sq. ft. (width x length)

Description of Proposed Uses (please complete the following information as appropriate)

	Residential	***Commercial***	***Community Facility***	***Industrial/Manufacturing***
Size (in gross sq. ft.)	122,821 - increment	35,256 - increment	23,440 - increment	-2,242 - increment
Type (*e.g.,* retail, office, school)	131 units	Retail, Office	Community Facility	(No action automotive, with action workshop)

Does the proposed project increase the population of residents and/or on-site workers? ☒ YES ☐ NO
If "yes," please specify: NUMBER OF ADDITIONAL RESIDENTS: 360 NUMBER OF ADDITIONAL WORKERS: 226
Provide a brief explanation of how these numbers were determined: The number of additional residents was determined based on the number of incremental units in the With-Action Scenario and the average household size (2.75) in Community District 1, Bronx (2020 Census data). The number of additional workers was determined based on the incremental sq. footage of the proposed uses considering the following worker density: 1 employee per 25 dwelling units, 250 GSF of office space, 333.3 GSF of community facility and retail, 1000 GSF of manufacturing uses.

Does the proposed project create new open space? ☐ YES ☒ NO If "yes," specify size of project-created open space: sq. ft.

Has a No-Action scenario been defined for this project that differs from the existing condition? ☐ YES ☒ NO
If "yes," see Chapter 2, "Establishing the Analysis Framework" and describe briefly:

9. *Analysis Year* CEQR Technical Manual Chapter 2

ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2026
ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 20
WOULD THE PROJECT BE IMPLEMENTED IN A SINGLE PHASE? ☒ YES ☐ NO IF MULTIPLE PHASES, HOW MANY?

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE:
The build year for the analysis is anticipated to be 2026 in consideration of an 18-month CEQR review period, a 7-month ULURP process. The proposed construction schedules for each site can be found in Appendix G.

Projected Development Site 1 is anticipated to begin with demolition and site clearance in October 2024, with exterior work anticipated to be completed by October 2025. Major construction-related activities would conclude with elevators, interior shell and core in December 2025. Lastly, Temporary Certificate of Occupancy (TCO) is anticipated by June 2026.

Projected Development Site 2 is anticipated to begin demolition and site clearance on in June 2025, with exterior work anticipated to be completed by April 2026. Major construction-related activities would conclude with elevators, interior shell and core in May 2026. Lastly, Temporary Certificate of Occupancy (TCO) is anticipated by August 2026.

10. ***Predominant Land Use in the Vicinity of the Project*** (check all that apply)

☒ RESIDENTIAL ☒ MANUFACTURING ☒ COMMERCIAL ☒ PARK/FOREST/OPEN SPACE ☒ OTHER, specify: Public Facilities, Parking

Part II: TECHNICAL ANALYSIS

INSTRUCTIONS: For each of the analysis categories listed in this section, assess the proposed project's impacts based on the thresholds and criteria presented in the CEQR Technical Manual. Check each box that applies.

- If the proposed project can be demonstrated not to meet or exceed the threshold, check the "no" box.
- If the proposed project will meet or exceed the threshold, or if this cannot be determined, check the "yes" box.
- For each "yes" response, provide additional analyses (and, if needed, attach supporting information) based on guidance in the CEQR Technical Manual to determine whether the potential for significant impacts exists. Please note that a "yes" answer does not mean that an EIS must be prepared—it means that more information may be required for the lead agency to make a determination of significance.
- The lead agency, upon reviewing Part II, may require an applicant to provide additional information to support the Short EAS Form. For example, if a question is answered "no," an agency may request a short explanation for this response.

	YES	NO
1. *LAND USE, ZONING, AND PUBLIC POLICY*: CEQR Technical Manual Chapter 4		
(a) Would the proposed project result in a change in land use different from surrounding land uses?	☒	☐
(b) Would the proposed project result in a change in zoning different from surrounding zoning?	☒	☐
(c) Is there the potential to affect an applicable public policy?	☒	☐
(d) If "yes," to (a), (b), and/or (c), complete a preliminary assessment and attach. See Section 2.1		
(e) Is the project a large, publicly sponsored project?	☐	☒
○ If "yes," complete a PlaNYC assessment and attach.		
(f) Is any part of the directly affected area within the City's Waterfront Revitalization Program boundaries?	☐	☒
○ If "yes," complete the Consistency Assessment Form.		
2. *SOCIOECONOMIC CONDITIONS*: CEQR Technical Manual Chapter 5		
(a) Would the proposed project:		
○ Generate a net increase of 200 or more residential units?	☐	☒
○ Generate a net increase of 200,000 or more square feet of commercial space?	☐	☒
○ Directly displace more than 500 residents?	☐	☒
○ Directly displace more than 100 employees?	☐	☒
○ Affect conditions in a specific industry?	☐	☒
3. *COMMUNITY FACILITIES*: CEQR Technical Manual Chapter 6		
(a) Direct Effects		
○ Would the project directly eliminate, displace, or alter public or publicly funded community facilities such as educational facilities, libraries, hospitals and other health care facilities, day care centers, police stations, or fire stations?	☐	☒
(b) Indirect Effects		
○ **Early Childhood Programs:** Would the project result in 20 or more eligible children under age 6, based on the number of low or low/moderate income residential units? (See Table 6-1 in Chapter 6)	☐	☒
○ **Public Schools:** Would the project result in 50 or more elementary or middle school students, or 150 or more high school students based on number of residential units? (See Table 6-1 in Chapter 6)	☐	☒
○ **Libraries:** Would the project result in a 5 percent or more increase in the ratio of residential units to library branches? (See Table 6-1 in Chapter 6)	☐	☒
○ **Health Care Facilities and Fire/Police Protection:** Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
4. *OPEN SPACE*: CEQR Technical Manual Chapter 7		
(a) Would the project change or eliminate existing open space?	☐	☒
(b) Would the project generate more than 200 additional residents or 500 additional employees?	☒	☐
5. *SHADOWS*: CEQR Technical Manual Chapter 8		
(a) Would the proposed project result in a net height increase of any structure of 50 feet or more?	☒	☐
(b) Would the proposed project result in any increase in structure height and be located adjacent to or across the street from a sunlight-sensitive resource?	☐	☒
6. *HISTORIC AND CULTURAL RESOURCES*: CEQR Technical Manual Chapter 9		

	YES	NO
(a) Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; that is listed or eligible for listing on the New York State or National Register of Historic Places; or that is within a designated or eligible New York City, New York State or National Register Historic District? (See the GIS System for Archaeology and National Register to confirm)	☒	☐
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	☒	☐
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting information on whether the proposed project would potentially affect any architectural or archeological resources. See Section 2.4 and Appendix A		
7. *URBAN DESIGN AND VISUAL RESOURCES*: CEQR Technical Manual Chapter 10		
(a) Would the proposed project introduce a new building, a new building height, or result in any substantial physical alteration to the streetscape or public space in the vicinity of the proposed project that is not currently allowed by existing zoning?	☒	☐
(b) Would the proposed project result in obstruction of publicly accessible views to visual resources not currently allowed by existing zoning?	☐	☒
8. *NATURAL RESOURCES*: CEQR Technical Manual Chapter 11		
(a) Does the proposed project site or a site adjacent to the project contain natural resources as defined in Section 100 of Chapter 11?	☐	☒
○ If "yes," list the resources and attach supporting information on whether the proposed project would affect any of these resources.		
(b) Is any part of the directly affected area within the Jamaica Bay Watershed?	☐	☒
○ If "yes," complete the Jamaica Bay Watershed Protection Plan Project Tracking Form, and submit according to its instructions.		
9. *HAZARDOUS MATERIALS*: CEQR Technical Manual Chapter 12		
(a) Would the proposed project allow commercial or residential uses in an area that is currently, or was historically, a manufacturing area that involved hazardous materials?	☒	☐
(b) Would the proposed project introduce new activities or processes using hazardous materials and increase the risk of human or environmental exposure?	☐	☒
(c) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to hazardous materials that preclude the potential for significant adverse impacts?	☐	☒
(d) Would the project require soil disturbance in a manufacturing area or any development on or near a manufacturing area or existing/historic facilities listed in the Hazardous Materials Appendix (including nonconforming uses)?	☒	☐
(e) Would the project result in the development of a site where there is reason to suspect the presence of hazardous materials, contamination, illegal dumping or fill, or fill material of unknown origin?	☐	☒
(f) Would the project result in development on or near a site that has or had underground and/or aboveground storage tanks (*e.g.*, gas stations, oil storage facilities, heating oil storage)?	☐	☒
(g) Would the project result in renovation of interior existing space on a site with the potential for compromised air quality; vapor intrusion from either on-site or off-site sources; or the presence of asbestos, PCBs, mercury or lead-based paint?	☐	☒
(h) Would the project result in development on or near a site with potential hazardous materials issues such as government-listed voluntary cleanup/brownfield site, current or former power generation/transmission facilities, coal gasification or gas storage sites, railroad tracks or rights-of-way, or municipal incinerators?	☐	☒
(i) Has a Phase I Environmental Site Assessment been performed for the site?	☒	☐
○ If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: VECs couldn't be ruled out	☒	☐
(j) Based on the Phase I Assessment, is a Phase II Investigation needed? See Section 2.6 and Appendix D	☒	☐
10. *WATER AND SEWER INFRASTRUCTURE*: CEQR Technical Manual Chapter 13		
(a) Would the project result in water demand of more than one million gallons per day?	☐	☒
(b) If the proposed project located in a combined sewer area, would it result in at least 1,000 residential units or 250,000 square feet or more of commercial space in Manhattan, or at least 400 residential units or 150,000 square feet or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens?	☐	☒
(c) If the proposed project located in a separately sewered area, would it result in the same or greater development than the amounts listed in Table 13-1 in Chapter 13?	☐	☐
(d) Would the proposed project involve development on a site that is 5 acres or larger where the amount of impervious surface would increase?	☐	☒
(e) If the project is located within the Jamaica Bay Watershed or in certain specific drainage areas, including Bronx River, Coney Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, or Westchester Creek, would it involve development on a site that is 1 acre or larger where the amount of impervious surface would increase?	☐	☐
(f) Would the proposed project be located in an area that is partially sewered or currently unsewered?	☐	☒
(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or generate contaminated stormwater in a separate storm sewer system?	☐	☒

	YES	NO
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	☐	☒
11. *SOLID WASTE AND SANITATION SERVICES*: CEQR Technical Manual Chapter 14		
(a) Using Table 14-1 in Chapter 14, the project's projected operational solid waste generation is estimated to be (pounds per week): Residential: 5,535, Industrial: 1,250, CF: 703, Office: 1,599, Retail: 1,106, Total: 10,193		
○ Would the proposed project have the potential to generate 100,000 pounds (50 tons) or more of solid waste per week?	☐	☒
(b) Would the proposed project involve a reduction in capacity at a solid waste management facility used for refuse or recyclables generated within the City?	☐	☒
12. *ENERGY*: CEQR Technical Manual Chapter 15		
(a) Using energy modeling or Table 15-1 in Chapter 15, the project's projected energy use is estimated to be (annual BTUs): Residential: 15,997,269, Industrial: 5,686,009, CF: 5,876,408, Commercial: 7,625,873, Total: 35,185,559		
(b) Would the proposed project affect the transmission or generation of energy?	☐	☒
13. *TRANSPORTATION*: CEQR Technical Manual Chapter 16		
(a) Would the proposed project exceed any threshold identified in Table 16-1 in Chapter 16?	☒	☐
(b) If "yes," conduct the screening analyses, attach appropriate back up data as needed for each stage and answer the following questions:		
○ Would the proposed project result in 50 or more Passenger Car Equivalents (PCEs) per project peak hour?	☒	☐
If "yes," would the proposed project result in 50 or more vehicle trips per project peak hour at any given intersection? ***It should be noted that the lead agency may require further analysis of intersections of concern even when a project generates fewer than 50 vehicles in the peak hour. See Subsection 313 of Chapter 16 for more information.*	☒	☐
○ Would the proposed project result in more than 200 subway/rail, bus trips, or 50 Citywide Ferry Service ferry trips per project peak hour?	☐	☒
If "yes," would the proposed project result, per project peak hour, in 50 or more bus trips on a single line (in one direction), 200 subway/rail trips per station or line, or 25 or more Citywide Ferry Service ferry trips on a single route (in one direction), or 50 or more passengers at a Citywide Ferry Service landing?	☐	☐
○ Would the proposed project result in more than 200 pedestrian trips per project peak hour?	☒	☐
If "yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, or bus stop, or Citywide Ferry Service landing?	☐	☒
14. *AIR QUALITY*: CEQR Technical Manual Chapter 17		
(a) *Mobile Sources*: Would the proposed project result in the conditions outlined in Section 210 in Chapter 17?	☒	☐
(b) *Stationary Sources*: Would the proposed project result in the conditions outlined in Section 220 in Chapter 17?	☒	☐
○ If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in Chapter 17? (Attach graph as needed) see Section 2.8	☒	☐
(c) Does the proposed project involve multiple buildings on the project site?	☒	☐
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?	☐	☒
(e) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts?	☐	☒
15. *GREENHOUSE GAS EMISSIONS*: CEQR Technical Manual Chapter 18		
(a) Is the proposed project a city capital project or a power generation plant?	☐	☒
(b) Would the proposed project fundamentally change the City's solid waste management system?	☐	☒
(c) If "yes" to any of the above, would the project require a GHG emissions assessment based on the guidance in Chapter 18?	☐	☐
16. *NOISE*: CEQR Technical Manual Chapter 19		
(a) Would the proposed project generate or reroute vehicular traffic?	☒	☐
(b) Would the proposed project introduce new or additional receptors (see Section 114 in Chapter 19) near heavily trafficked roadways, within one horizontal mile of an existing or proposed flight path, or within 1,500 feet of an existing or proposed rail line with a direct line of site to that rail line?	☒	☐
(c) Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise?	☐	☒
(d) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?	☐	☒
17. *PUBLIC HEALTH*: CEQR Technical Manual Chapter 20		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality;	☒	☐

	YES	NO
Hazardous Materials; Noise?		
(b) If "yes," explain why an assessment of public health is or is not warranted based on the guidance in Chapter 20, "Public Health." Attach a preliminary analysis, if necessary. No significant adverse impacts were identified in other CEQR chapters, therefore a Public Health assessment is not warranted.		
18. *NEIGHBORHOOD CHARACTER*: CEQR Technical Manual Chapter 21		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Open Space; Historic and Cultural Resources; Urban Design and Visual Resources; Shadows; Transportation; Noise?	☒	☐
(b) If "yes," explain why an assessment of neighborhood character is or is not warranted based on the guidance in Chapter 21, "Neighborhood Character." Attach a preliminary analysis, if necessary. No significant adverse impacts were identified in other CEQR chapters, therefore a Neighborhood Character assessment is not warranted.		
19. *CONSTRUCTION*: CEQR Technical Manual Chapter 22		
(a) Would the project's construction activities involve:		
○ Construction activities lasting longer than two years?	☐	☒
○ Construction activities within a Central Business District or along an arterial highway or major thoroughfare?	☐	☒
○ Closing, narrowing, or otherwise impeding traffic, transit, or pedestrian elements (roadways, parking spaces, bicycle routes, sidewalks, crosswalks, corners, *etc.*)?	☒	☐
○ Construction of multiple buildings where there is a potential for on-site receptors on buildings completed before the final build-out?	☒	☐
○ The operation of several pieces of diesel equipment in a single location at peak construction?	☐	☒
○ Closure of a community facility or disruption in its services?	☐	☒
○ Activities within 400 feet of a historic or cultural resource?	☒	☐
○ Disturbance of a site containing or adjacent to a site containing natural resources?	☐	☒
○ Construction on multiple development sites in the same geographic area, such that there is the potential for several construction timelines to overlap or last for more than two years overall?	☐	☒
(b) If any boxes are checked "yes," explain why a preliminary construction assessment is or is not warranted based on the guidance in Chapter 22, "Construction." It should be noted that the nature and extent of any commitment to use the Best Available Technology for construction equipment or Best Management Practices for construction activities should be considered when making this determination. A construction assessment is provided in Section 2.11		

20. *APPLICANT'S CERTIFICATION*

I swear or affirm under oath and subject to the penalties for perjury that the information provided in this Environmental Assessment Statement (EAS) is true and accurate to the best of my knowledge and belief, based upon my personal knowledge and familiarity with the information described herein and after examination of the pertinent books and records and/or after inquiry of persons who have personal knowledge of such information or who have examined pertinent books and records.

Still under oath, I further swear or affirm that I make this statement in my capacity as the applicant or representative of the entity that seeks the permits, approvals, funding, or other governmental action(s) described in this EAS.

APPLICANT/REPRESENTATIVE NAME	DATE
Maxim Gladkiy	6/20/2024

SIGNATURE

PLEASE NOTE THAT APPLICANTS MAY BE REQUIRED TO SUBSTANTIATE RESPONSES IN THIS FORM AT THE DISCRETION OF THE LEAD AGENCY SO THAT IT MAY SUPPORT ITS DETERMINATION OF SIGNIFICANCE.

Part III: DETERMINATION OF SIGNIFICANCE (To Be Completed by Lead Agency)

INSTRUCTIONS: In completing Part III, the lead agency should consult 6 NYCRR 617.7 and 43 RCNY § 6-06 (Executive Order 91 or 1977, as amended), which contain the State and City criteria for determining significance.

1. For each of the impact categories listed below, consider whether the project may have a significant adverse effect on the environment, taking into account its (a) location; (b) probability of occurring; (c) duration; (d) irreversibility; (e) geographic scope; and (f) magnitude.

IMPACT CATEGORY	Potentially Significant Adverse Impact YES	NO
Land Use, Zoning, and Public Policy	☐	☒
Socioeconomic Conditions	☐	☒
Community Facilities and Services	☐	☒
Open Space	☐	☒
Shadows	☐	☒
Historic and Cultural Resources	☐	☒
Urban Design/Visual Resources	☐	☒
Natural Resources	☐	☒
Hazardous Materials	☐	☒
Water and Sewer Infrastructure	☐	☒
Solid Waste and Sanitation Services	☐	☒
Energy	☐	☒
Transportation	☐	☒
Air Quality	☐	☒
Greenhouse Gas Emissions	☐	☒
Noise	☐	☒
Public Health	☐	☒
Neighborhood Character	☐	☒
Construction	☐	☒

2. Are there any aspects of the project relevant to the determination of whether the project may have a significant impact on the environment, such as combined or cumulative impacts, that were not fully covered by other responses and supporting materials? ☐ YES ☒ NO

If there are such impacts, attach an explanation stating whether, as a result of them, the project may have a significant impact on the environment.

3. Check determination to be issued by the lead agency:

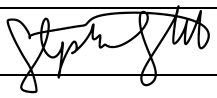
☐ **Positive Declaration**: If the lead agency has determined that the project may have a significant impact on the environment, and if a Conditional Negative Declaration is not appropriate, then the lead agency issues a *Positive Declaration* and prepares a draft Scope of Work for the Environmental Impact Statement (EIS).

☐ **Conditional Negative Declaration:** A *Conditional Negative Declaration* (CND) may be appropriate if there is a private applicant for an Unlisted action AND when conditions imposed by the lead agency will modify the proposed project so that no significant adverse environmental impacts would result. The CND is prepared as a separate document and is subject to the requirements of 6 NYCRR Part 617.

☒ **Negative Declaration:** If the lead agency has determined that the project would not result in potentially significant adverse environmental impacts, then the lead agency issues a *Negative Declaration*. The *Negative Declaration* may be prepared as a separate document (see template) or using the embedded Negative Declaration on the next page.

4. ***LEAD AGENCY'S CERTIFICATION***

TITLE	LEAD AGENCY
Director, Environmental Assessment and Review Division	City Planning Commission
NAME	DATE
Stephanie Shellooe	June 21, 2024

SIGNATURE 

NEGATIVE DECLARATION

Statement of No Significant Effect

Pursuant to Executive Order 91 of 1977, as amended, and the Rules of Procedure for City Environmental Quality Review, found at Title 62, Chapter 5 of the Rules of the City of New York and 6 NYCRR, Part 617, State Environmental Quality Review, the Department of City Planning acting on behalf of the City Planning Commission assumed the role of lead agency for the environmental review of the proposed actions. Based on a review of information about the project contained in this environmental assessment statement (EAS) and any attachments hereto, which are incorporated by reference herein, the lead agency has determined that the proposed actions would not have a significant adverse impact on the environment.

Reasons Supporting this Determination

The above determination is based on information contained in this EAS, which finds the proposed actions sought before the City Planning Commission would not have a significant adverse impact on the environment. Reasons supporting this determination are noted below.

Land Use, Zoning, and Public Policy

A detailed analysis of land use, zoning, and public policy is included in the EAS. The applicant, BronxCo LLC, seeks a zoning map amendment to rezone Bronx Block 2577 Lots 7, 8, 9, 14 and portions of (p/o) 6 and 20 (the "Affected Area") from an existing M1-2 district to an R7D/M1-4 (MX) district and a zoning map amendment to Appendix F of the Zoning Resolution (ZR) to designate the Affected Area a Mandatory Inclusionary Housing (MIH) area (the "Proposed Actions"). The Proposed Actions would facilitate the development of a new 10-story, 111-foot-tall, 174,709 gross square foot (gsf) mixed-use building consisting of 87 dwelling units, including 24 income-restricted units pursuant to MIH, 35,256 gsf of commercial space, 10,258 gsf of light manufacturing space, and 7,187 gsf of community facility space (the "Proposed Project") at 438 Concord Avenue (Projected Development Site 1, Lots 9 and 14) within the Mott Haven neighborhood of Bronx Community District 1. For the purpose of presenting a conservative analysis under CEQR, a Reasonable Worst-Case Development Scenario (RWCDS) was identified that differed from the Proposed Project on the applicant-controlled Projected Development Site 1 and identified a second Projected Development Site (Lots 7 and 8). The EAS presents the analysis of Projected Development Site 1 as a development consistent with the Proposed Project but with a total of 120 dwelling units and a maximum building height of 125 feet. Projected Development Site 2 is assumed to be redeveloped with a 125-foot-tall, 34,979 gsf mixed-use building consisting of 15 dwelling units, including 4 income-restricted units pursuant to MIH, and 16,253 gsf of community facility space.

The Proposed Actions would not result in significant adverse impacts to Land Use, Zoning, and Public Policy. The development and uses facilitated by the Proposed Actions would be compatible with the residential, community facility, and light industrial uses found within the medium-density residential districts to the north and west of the Affected Area and the residential, commercial, and light manufacturing uses found within the light manufacturing district to the south and east of the Affected Area. The Proposed Actions would not result in any existing uses within the Affected Area to become non-conforming. The Proposed Actions would be supportive of applicable public policies including *Housing New York 2.0* by facilitating the development of income-restricted dwelling units pursuant to MIH and *Rebuild, Renew, Reinvent: A Blueprint for New York City's Economic Recovery* by facilitating the development of new commercial and light manufacturing floor area. Therefore, the analysis concludes that the Proposed Actions would not result in significant adverse impacts related to Land Use, Zoning, and Public Policy.

Shadows

A detailed analysis related to Shadows is included in this EAS. Utilizing a Reasonable Worst-Case Development Scenario, a building height of 125 feet was analyzed for both Projected Development Sites 1 and 2. The analysis indicates that Projected Development Sites 1 and 2 would cast incremental shadows on two sunlight-sensitive resources to the west of the Affected Area: St. Mary's Park and I-Am-Park. Incremental shadows facilitated by the Proposed Actions would reach St. Mary's Park for 30 minutes on the March 21st/September 21st analysis day, for 23 minutes on the May 6th/August 6th analysis day, and for 23 minutes on the June 21st analysis day. Incremental shadows would reach basketball courts and playgrounds within the eastern portion of St. Mary's Park on the March 21st/September 21st analysis day and portions of a baseball field and walking paths within the eastern portion of the park on the May 6th/August 6th and June 21st analysis days. The incremental shadows would be brief and would reach portions of St. Mary's Park in the early morning. The incremental shadows would not significantly reduce the amount of sunlight this portion of the park would receive nor affect the public's usability or enjoyment of these portions of St. Mary's Park. Incremental shadows facilitated by the Proposed Actions would reach I-Am-Park for 34 minutes on the December 21st analysis day. I-Am-Park consists of two basketball courts and a playground. Shadows facilitated by the Proposed Actions would occur briefly in the early morning during the winter and would not result in a substantial reduction in the public's usability of I-Am-Park. Therefore, the analysis concludes that the Proposed Actions would not result in significant adverse impacts related to Shadows.

Transportation

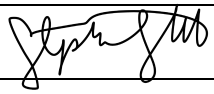
A detailed analysis related to Transportation is included in this EAS. The transportation assessment determined that the Proposed Actions would introduce less than 200 transit trip-ends and therefore would not result in conditions that would exceed Level 1 screening thresholds for subway and bus analyses. A Level 2 Screening Assessment of pedestrian trips determined that the Proposed Actions would not result in pedestrian volumes on sidewalks, crosswalks, and intersection corners that would exceed Level 2 screening thresholds. A detailed analysis of traffic facilitated by the Proposed Actions determined that all vehicular approaches and movements would continue to operate at the same Level at Service (LOS) as would occur in the No-Action Condition. The Proposed Actions would result in pedestrian, transit, and traffic conditions that would continue to be considered clearly acceptable as defined by the CEQR Technical Manual. Therefore, the Proposed Actions would not result in significant adverse impacts to Transportation.

Hazardous Materials, Air Quality, and Noise

An (E) designation (E-756) related to hazardous materials, air quality, and noise would be established as part of the approval of the proposed actions. Refer to "Determination of Significance Appendix: (E) designation" for the applicable (E) designation requirements. The hazardous materials, air quality, and noise analyses conclude that with the (E) designation in place, the proposed actions would not result in a significant adverse impact related to hazardous materials, air quality, or noise.

No other significant effects upon the environment that would require the preparation of a Draft Environmental Impact Statement are foreseeable. This Negative Declaration has been prepared in accordance with Article 8 of the New York State Environmental Conservation Law (SEQRA). Should you have any questions pertaining to this Negative Declaration, you may contact Sean O'Rourke at sorourke@planning.nyc.gov.

Project Name: 438 Concord Avenue Rezoning
CEQR # 23DCP092X
SEQRA Classification: Unlisted

TITLE Director, Environmental Assessment and Review Division	LEAD AGENCY Department of City Planning on behalf of the City Planning Commission 120 Broadway, 31st Fl. New York, NY 10271 | 212.720.3328
NAME Stephanie Shellooe, AICP	DATE 6/21/2024
SIGNATURE 	
TITLE Chair, City Planning Commission	
NAME Daniel R. Garodnick	DATE 6/24/2024
SIGNATURE	

Project Name: 438 Concord Avenue Rezoning
CEQR # 23DCP092X
SEQRA Classification: Unlisted

Determination of Significance Appendix

The Proposed Action(s) were determined to have the potential to result in changes to development on the following site(s):

Development Site	Borough	Block and Lot
Projected Development Site 1	Bronx	Block 2577 Lots 9 and 14
Projected Development Site 2	Bronx	Block 2577 Lots 7 and 8

(E) Designation Requirements

To ensure that the proposed actions would not result in significant adverse impacts related to hazardous materials, air quality, and noise an (E) designation (**E-756**) would be established as part of approval of the proposed actions on **Projected Development Site X** as described below:

Development Site	Hazardous Materials	Air Quality	Noise
Projected Development Site 1	X	X	X
Projected Development Site 2	X	X	

Hazardous Materials

The (E) designation requirements applicable to **Projected Development Sites 1 and 2** for hazardous materials would apply as follows:

Task 1-Sampling Protocol

The applicant submits to OER, for review and approval, a Phase I of the site along with a soil, groundwater and soil vapor testing protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented. If site sampling is necessary, no sampling should begin until written approval of a protocol is received from OER. The number and location of samples should be selected to adequately characterize the site, specific sources of suspected contamination (i.e., petroleum based contamination and non-petroleum based contamination), and the remainder of the site's condition. The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.

Task 2-Remediation Determination and Protocol

A written report with findings and a summary of the data must he submitted to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such results, a determination is made by OER if the results indicate that remediation is necessary. If OER determines that no remediation is necessary, written notice shall be given by OER.

If remediation is indicated from test results, a proposed remediation plan must be submitted to OER for review and approval. The applicant must complete such remediation as determined necessary by OER. The applicant should then provide proper documentation that the work has been satisfactorily completed.

A construction-related health and safety plan should be submitted to OER and would be implemented during excavation and construction activities to protect workers and the community from potentially significant adverse impacts associated with contaminated soil, groundwater and/or soil vapor. This plan would be submitted to OER prior to implementation.

Project Name: 438 Concord Avenue Rezoning
CEQR # 23DCP092X
SEQRA Classification: Unlisted

Air Quality

The (E) designation requirements for air quality would apply as follows:

Projected Development Site 1: *Any new residential, commercial, community facility, or light industrial and manufacturing use development on the above referenced property must exclusively use natural gas as the type of fuel for heating, ventilating and air conditioning (HVAC) system and hot water equipment and must be fitted with low NOx (15 ppm) burners, ensure the HVAC system and hot water equipment stack is located at the building's highest level and at a minimum of 121 feet above grade, and that the stack is located at least 145 feet from the western lot line of Block 2577, Lot 9 facing Concord Avenue to avoid any potential significant adverse air quality impacts.*

To preclude any potential significant adverse air quality impacts from light industrial uses, special features that go beyond the normal construction practices must be installed at this site.

a. *A licensed architect or engineer must certify with the Department of Buildings, and provide proof of filing to OER, that the manufacturing use on the above-referenced property will adhere to the following restrictions:*

   (i) *The manufacturing use in the building does not have a New York City or New York State environmental rating of "A", "B" or "C" under Section 24–153 of the New York City Administrative Code for any process equipment requiring a New York City Department of Environmental Protection C of O or New York State Department of Environmental Conservation state facility air permit;*
   (ii) *and is not required, under the City Right-to-Know Law, to file a Risk Management Plan for Extremely Hazardous Substances.*

b. *The emission stack of the proposed light industrial/manufacturing uses developed pursuant to Section 74-962 of the Zoning Resolution of the City of New York must be located at the building's highest tier and at least 123 feet above grade.*

c. *Install an odor/vapor barrier and a modified mechanical ventilation system.*

   (i) *The mechanical ventilation prevention system will be comprised of a mechanical ventilation system designed to operate in parallel and separate from the mechanical ventilation system of the residential, community facility and commercial uses, providing fresh air to, and exhaust from, the light industrial floors (cellar and first floors), with vents running above the roof line of the highest floor.*
   (ii) *(ii) An odor/vapor barrier will be installed at the structural slab and/or partition walls separating the manufacturing and residential/community facility/commercial spaces eliminating vapor exchange across interior partitions. Any other permitted processes must provide an air quality analysis to OER in order to demonstrate that such process would not cause a significant adverse air quality impact.*

Projected Development Site 2: *Any new residential or community facility development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating and air conditioning (HVAC) system and hot water equipment and must be fitted with low NOx (30 ppm) burners, ensure the HVAC system and hot water equipment stack is located at the building's highest level and at a minimum of 118 feet above grade, and that the stack is located at least 20 feet from the eastern lot line of Block 2577, Lot 8 facing Wales Avenue and at least 20 feet from the northern lot line of Block 2577, Lot 8 facing 145th Street to avoid any potential significant adverse air quality impacts.*

Project Name: 438 Concord Avenue Rezoning
CEQR # 23DCP092X
SEQRA Classification: Unlisted

Noise

The (E) designation requirements for noise would apply as follows:

> ***Projected Development Site 1:*** *In order to ensure an acceptable interior noise environment, future community facility and commercial office spaces must provide a closed-window condition with a minimum attenuation of 28 dB(A) on facades facing Wales Avenue and facades facing East 145th Street within 50 feet of Wales Avenue in order to maintain an interior L10 noise level not greater than 45 dB(A) for community facility uses and not greater than 50 dB(A) for commercial office uses as illustrated in the EAS. In order to maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning.*

Figure 1.1-1: Site Location Map

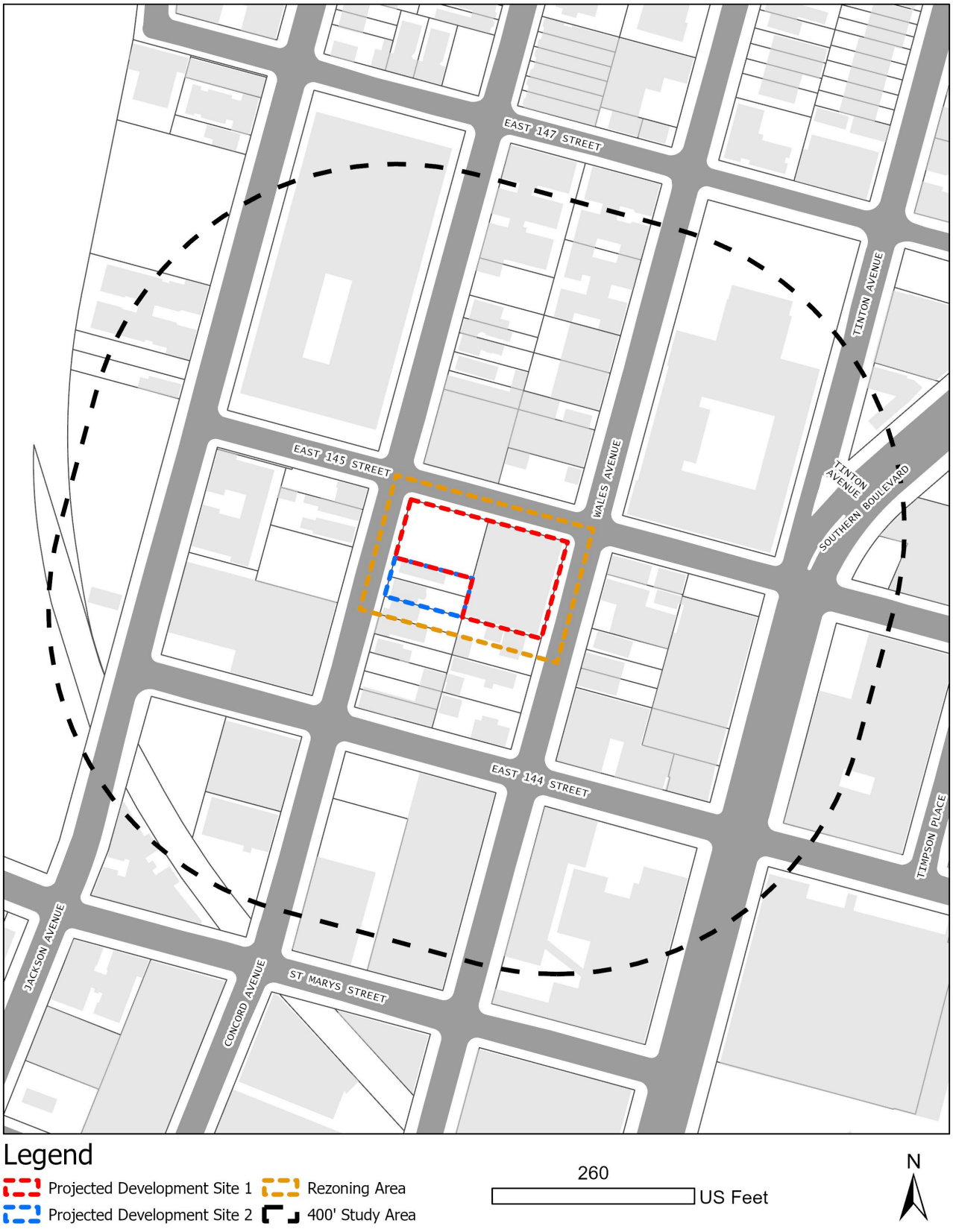


Figure 1.1-2: Existing Land Use Map

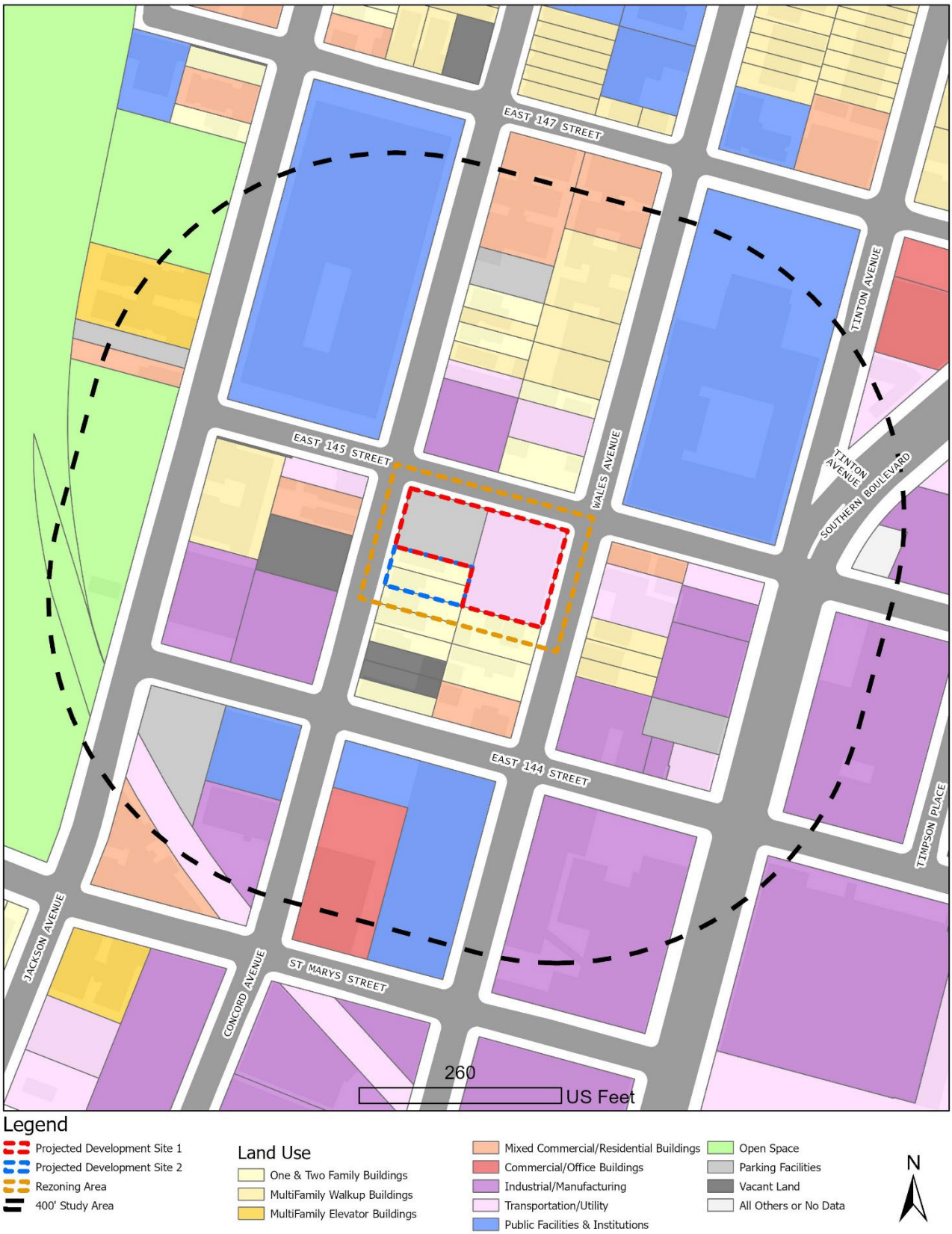


Figure 1.1-3: Zoning Sectional Map

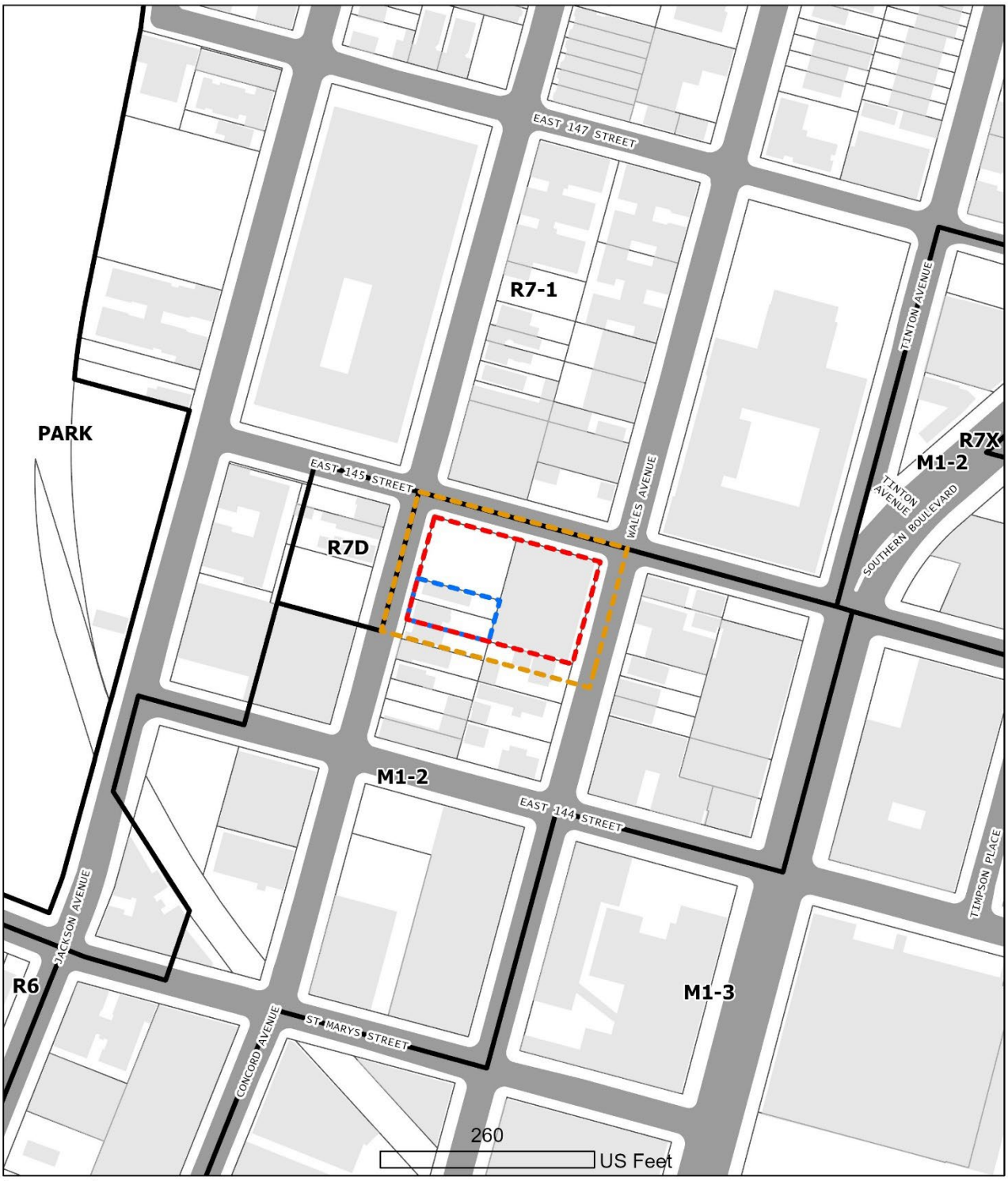
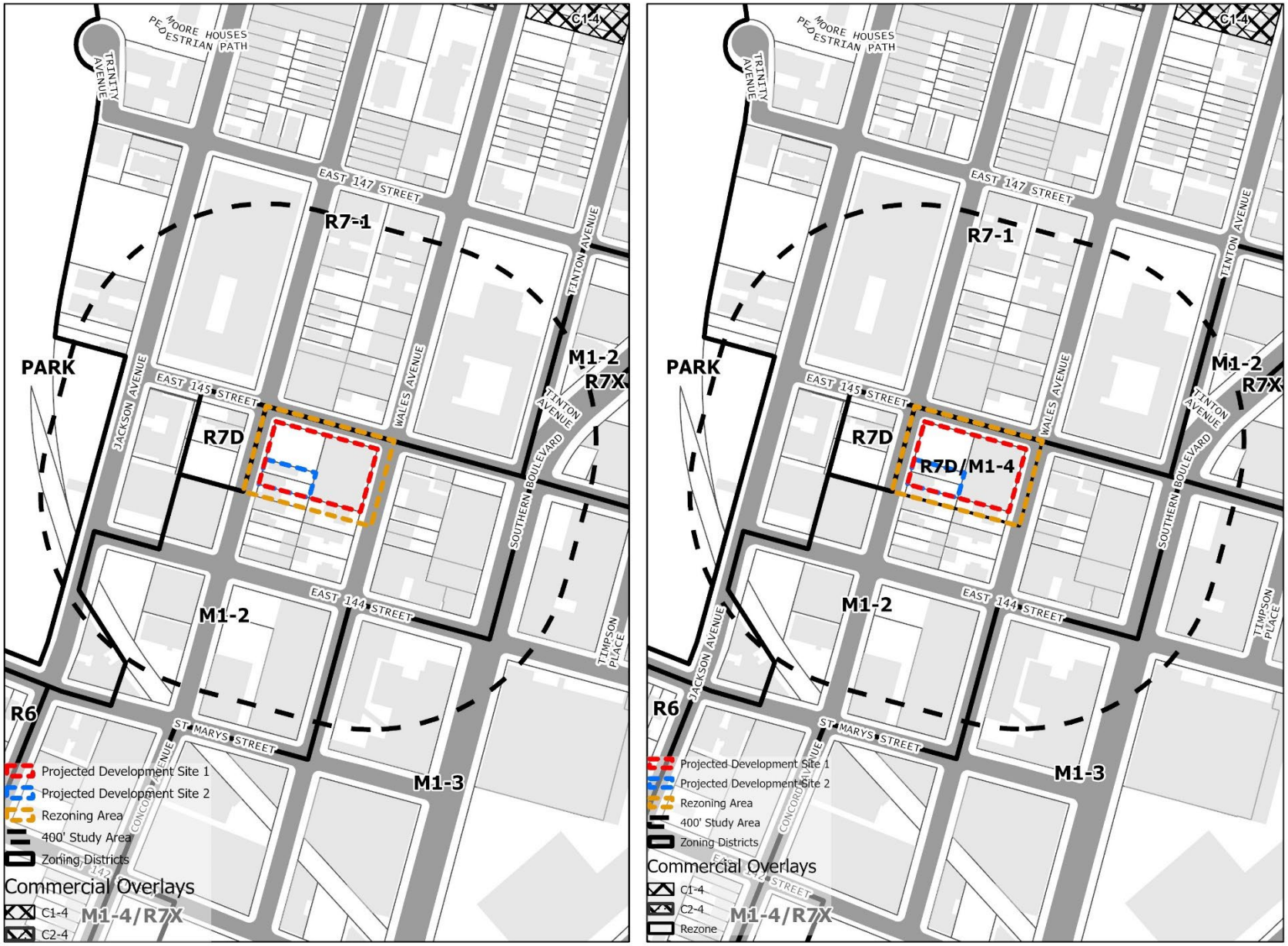


Figure 1.1-4: Zoning Change Map



Existing Zoning District - M1-2

Proposed Zoning District - R7D/M1-4

Figure 1.1-5: Tax Map

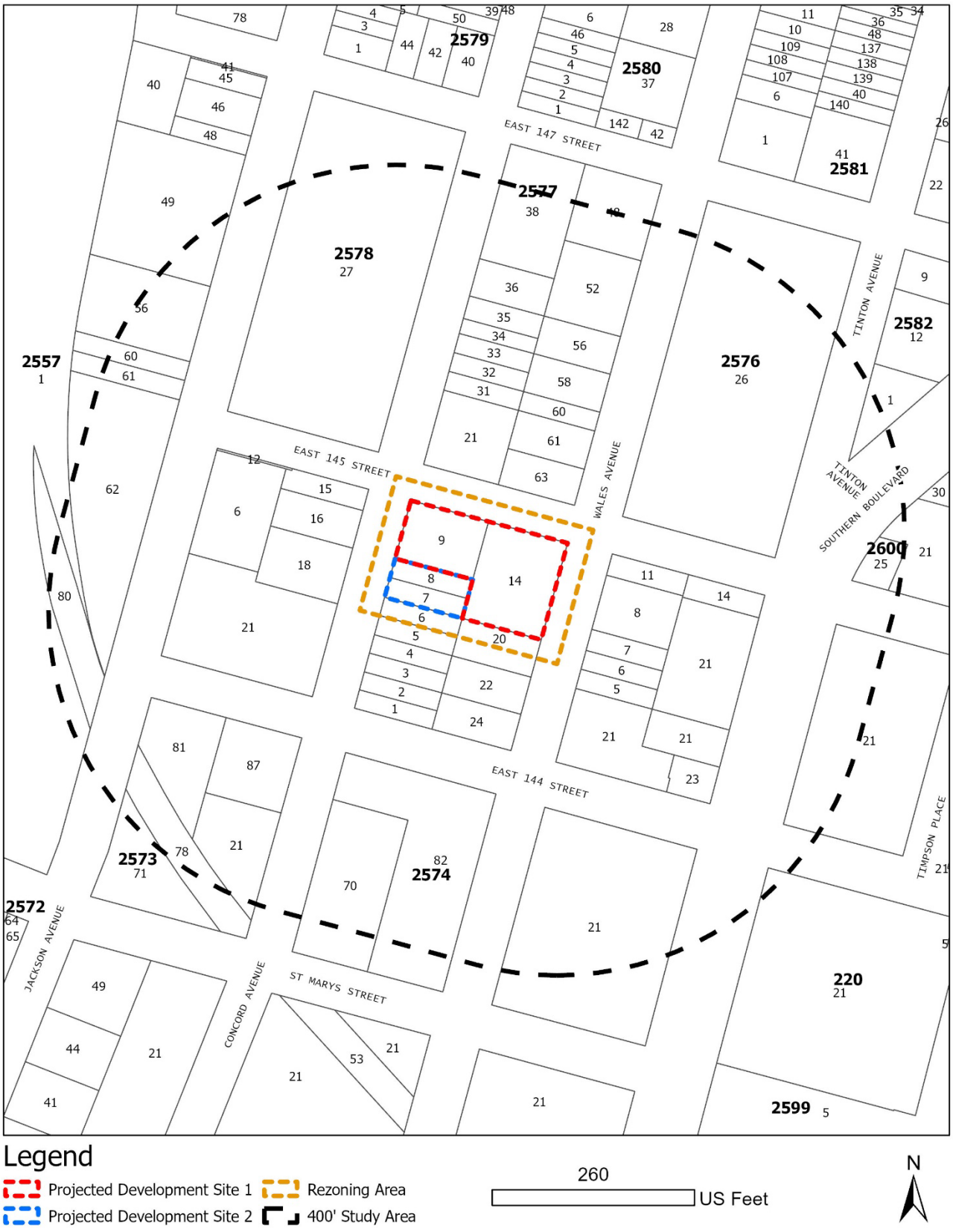
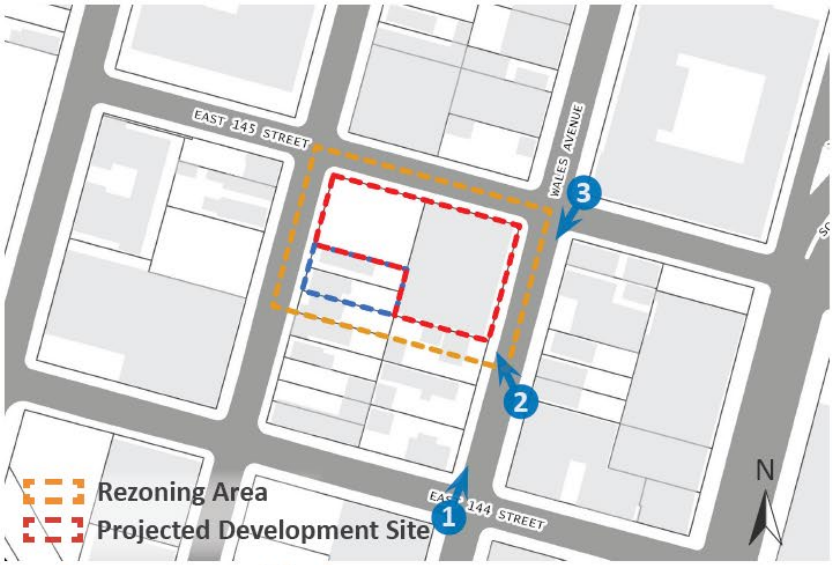


Figure 1.1-6: Site Photos (1)

1 View of Wales Ave from the intersection of East 144 St and Wales Ave facing north



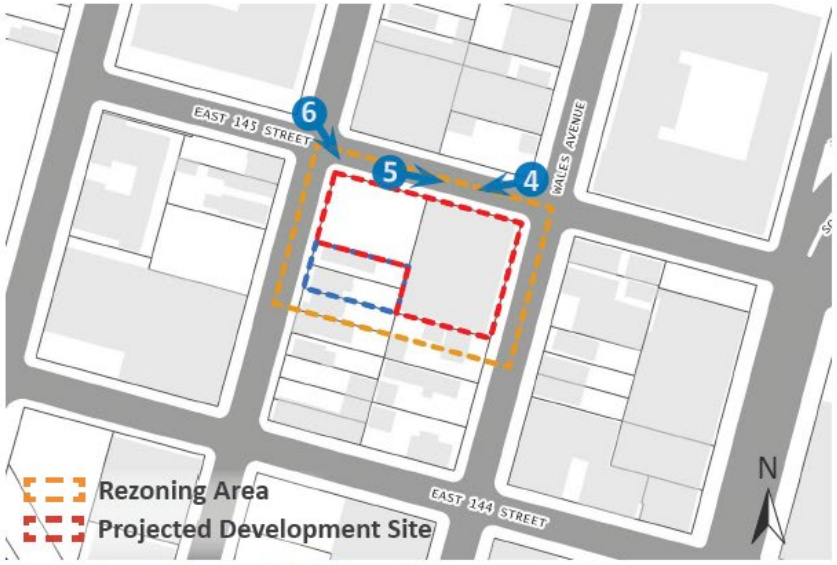
Study Area Map with Photo Key

2 View of Projected Development Site from Wales Ave facing northwest

3 View of rojected Development Site from the intersection of East 145 St and Wales Ave facing southwest

Figure 1.1-7: Site Photos (2)

4 View of Projected Development Site from the intersection of East 145 St and Wales Ave facing west



Study Area Map with Photo Key

5 View of Mott Haven Community High School from East 145 St facing east

6 View of Projected Development Site from the intersection of East 145 St and Concord Ave facing southeast

Figure 1.1-8: Site Photos (3)

7 View of JM Rapport School for Career Development from the intersection of East 145 St and Concord Ave

Study Area Map with Photo Key

8 View of Projected Development Site from Concord Ave facing northeast

9 View of Concord Ave from the intersection of East 144 St and Concord Ave facing north

1 Project Description

1.1 Introduction

The "Applicant," BronxCo, LLC, seeks a Zoning Map Amendment that would affect a portion of Block 2577 in the Mott Haven neighborhood of Bronx Community District ("CD") 1. The "Affected Area" consists of Block 2577, Lots p/o 6, 7, 8, 9, 14, and the northern portion of Lot 20. The Zoning Map Amendment would rezone Block 2577, Lots p/o 6, 7, 8, 9, 14, and p/o 20 (a 150-foot-deep rectangular area of approximately 30,548 SF bounded in part by East 145th Street, Wales Avenue, and Concord Avenue) from an M1-2 to an R7D/M1-4 (MX) zoning district, extending the application of the existing MX-18 Special Mixed-Use District (Mott Haven) to the rezoned area. The Applicant also proposes a Zoning Text Amendment to Appendix F (Inclusionary Housing designated areas and Mandatory Inclusionary Housing areas) to add a Mandatory Inclusionary Housing (MIH) area coterminous with the Affected Area, and the addition of R7D to the Special "MX 18 – Community District 1, The Bronx" row in the table within Section 123-63 (Maximum Floor Area Ratio and Lot Coverage Requirements for Zoning Lots Containing Only Residential Buildings in R6, R7, R8 and R9 Districts). The Zoning Map Amendment and Zoning Text Amendment constitute the "Proposed Actions."

The proposed text amendment of ZR Appendix F is necessary to establish an MIH Area, which would require new developments to set aside 25-30 percent of the residential floor area for affordable housing. MIH Option 1 requires an affordable housing set aside of 25 percent of the residential floor area at an average of 60 percent of AMI with 10 percent at 40 percent AMI. MIH Option 2 requires an affordable housing set aside of 30 percent of the residential floor area at an average of 80 percent AMI. The Applicant proposes mapping both MIH Option 1 and Option 2 within the Affected Area to provide maximum flexibility for both Applicant-controlled and non-Applicant-controlled sites.

The Proposed Actions are sought to facilitate the Applicant's development ("The Proposed Development") at 438 Concord Ave, located on Block 2577, Lots 9 and 14. The Applicant-controlled lots include Lots 7, 8, 9, and 14. Lots 9 and 14 constitute Projected Development Site 1. Lots 7 and 8 constitute Projected Development Site 2. The Applicant uses a Zoning Lot Merger (ZLM) involving lots 7, 8, 9, and 14 to apply 8,777 ZSF of the Development Rights from Projected Development Site 2 (Lots 7 and 8) to Projected Development Site 1 (Lots 9 and 14) to effectuate the Proposed Development. Approximately 604 square feet of lot area would also be transferred from Lot 9 to Lot 8 to match the fence line against the existing retaining wall serving as a factual boundary between tax Lots 8 and 9.

The Proposed Development involves the assemblage of Lots 7, 8, 9, and 14 and the development of a new 174,709 gross square foot ("GSF"), 138,412 zoning square foot ("ZSF"), mixed-use residential, commercial, community facility, and light manufacturing building. The Proposed Development would include an 8,869 GSF parking garage at the cellar level with 43 residential

accessory parking spaces. There would be a total of 35,256 GSF (28,898 ZSF) of commercial space with 4,526 GSF (3,301 ZSF) GSF of local retail on the first floor and 30,730 GSF (25,597 ZSF) of office space at the cellar level, second and third floors, a total of 7,187 GSF (6,634 ZSF) of community facility space on the first and second floors, and a total of 10,258 GSF (7,602 ZSF) of manufacturing space at the cellar level and the first floor. Beginning from the fourth floor of the building, a total of 113,139 GSF (95,279 ZSF) of residential floor area would be developed. The Proposed Development would result in 87 dwelling units, 25-30% (22-26 units) of which would be affordable pursuant to MIH. The applicant intends to pursue MIH Option 1, which would result in 22 affordable units. However, the Applicant plans to provide 24 affordable units at an average of 60% AMI. The building would be ten stories tall and rise to 111 feet with a base height of 92 feet. At the base height of 92 feet, there would be a 15.5-foot setback on Concord Avenue and 15-foot setbacks on both 145th Street and Wales Avenue. Two curb cuts would be proposed: one at Concord Avenue and one at 145th Street.

Under the Proposed Project, Lots 7 and 8 would remain developed as they are under existing conditions with two two-story residential buildings with two dwelling units in each building. Approximately 604 square feet of lot area would be transferred from Lot 9 to lot 8. The total ZSF, including the existing residential dwellings on Lots 7 and 8, would be 141,611 at a total FAR of 5.54. Lots 7 and 8 are analyzed as Projected Development Site 2 for a conservative CEQR analysis.

The Proposed Actions are discretionary actions subject to environmental review. The New York City (NYC) Department of City Planning (DCP) is the lead agency on behalf of the NYC City Planning Commission (CPC) for environmental review under the City Environmental Quality Review Act (CEQR).

DCP is proposing a citywide zoning text amendment, the City of Yes for Housing Opportunity ("CHO") (CEQR No. 24DCP033Y) to expand opportunities for housing within all zoning districts, and across all 59 of the City's Community Districts. These changes to the City's Zoning Resolution would enable more housing and a wider variety of housing types in every neighborhood, from the lowest density districts to the highest, to address the housing shortage and high cost of housing in New York City. It is anticipated that this proposed zoning text amendment would be referred into public review in Spring 2024. Given that this project may be affected by the proposals included in the text amendment, a technical memorandum has been included in Appendix H that assesses whether the conclusion of the environmental review would by altered by CHO.

1.2 Background and Site History

The Affected Area is located in the western part of the Mott Haven neighborhood. It was originally zoned M1-1 in the 1961 zoning ordinance and was rezoned to an M1-2 district in 1964 (CP-18356, effective March 28, 1964). The current land uses within Applicant-controlled Lots 7 and 8, as well as non-Applicant-controlled Lots 6 and 20 are One- & Two-Family Residential Buildings. The structures on these lots were built in 1901 and were turned into One- & Two-

Family Buildings prior to the enactment of the Zoning Resolution in 1961. Therefore, the existing residential buildings are legal nonconforming. The Applicant-controlled Lot 14 with a 1-story structure currently used as Transportation & Utility was built in 1931 and altered in 2012. The Applicant-controlled Lot 9 is currently utilized as a parking facility.

A 1921 Certificate of Occupancy (CO) exists for Lot 7, permitting a one-story metal structure - private garage. A 2018 CO for Lot 14 permitted a one-story structure that could be used for 4 accessory car parking spaces, auto body shop, auto repair, auto sales, and accessory offices. A 1920 CO for Lot 20 permitted a garage for five cars, a 1923 CO permitted a one-story brick structure that could be used as storage, and a 1939 CO permitted a 2-family building with a boiler room.

DCP has recently initiated a rezoning adjacent to the Affected Area. In 2021, 431 Concord Avenue Rezoning (C 200274 ZMX, N 200275 ZRX, effective May 27, 2021), proposed by First Concord Realty, LLC, requested:

- A Zoning Map Amendment from an existing M1-2 district to an R7D district of properties bounded by Concord Avenue and East 145th Street in the Mott Haven neighborhood of the Bronx, Community District 1.
- A Zoning Text Amendment to modify Appendix F to designate the newly mapped R7D district as a Mandatory Inclusionary Housing (MIH) designated area.

431 Concord Avenue Rezoning would facilitate the development of an 11-story, 115-foot tall, 87,369 GSF (5.51 FAR) Quality Housing residential building with approximately 92 affordable residential dwelling units and 29 accessory parking spaces on the first/ground floor of the building.

The abovementioned recent rezoning is indicative of the area's trend away from manufacturing uses.

1.3 Description of the Surrounding Area

The Affected Area is located within the Mott Haven neighborhood of the Bronx, CD 1. The area is bounded by East 145th Street to the north; Wales Avenue to the east; Lot 5 and the southern portion of lot 20 to the south; and Concord Avenue to the west. East 145th Street is an east-west, two-way right-of-way with one moving lane of traffic in each direction and curbside parking. Concord Avenue and Wales Avenue are south-to-north two-way rights-of-way with one moving lane of traffic in each direction and curbside parking.

Existing land uses within a 400-foot buffer around the Affected Area ("the Surrounding Area") primarily consist of multi-family residential buildings, one-and two-family residential buildings, mixed residential and commercial buildings, a variety of manufacturing buildings and transportation and utility buildings, four schools (Mott Haven Community High School (P.S.557),

JM Rapport School for Career Development (P.S. 754), Neighborhood Charter School: Bronx, and The American Dream School), one commercial building, parking lots and vacant parcels.

Built form in the surrounding area varies by use, and generally consists of one- to two-story industrial buildings, three to four-story community facility buildings, two- to six-story multi-family residential buildings, and two-story one-and two-family buildings. Concord Avenue and Wales Avenue do not have significant commercial activity and are more residential in character north of East 145th Street and more industrial south of East 145th Street. The closest commercial corridors are located along East 149th Street and Southern Boulevard.

The existing zoning of the surrounding 400-foot Study Area consists of M1-2, M1-3, R7-1, R7D zoning districts. The Affected Area is within an M1-2 zoning district that generally extends south and east of the Affected Area. An M1-3 zoning district is mapped farther south and east of the Affected Area. An R7-1 zoning district generally extends to the north and the west of the Affected Area, with the exception of the northeastern portion of Block 2578 to the west of the Affected Area, which was recently rezoned from an M1-2 to an R7-1 zoning district as the result of the 431 Concord Avenue Rezoning (C 200274 ZMX, N 200275 ZRX, effective May 27, 2021).

The Affected Area is located close to the Port Morris Industrial Business Zone, which begins south of East 144th Street and east of Timpson Place. St. Mary's Park, located 500 feet west of the Affected Area, is a 35-acre park, the largest in the South Bronx, and includes several playgrounds, barbecue areas, baseball and basketball fields, an indoor pool, and a recreation center.

The area is well-served by transit. The E 143 St - St Mary's St subway station with service to the 6 Train is located approximately 800 feet from the Affected Area. The subway station provides full-time connecting service to Downtown Manhattan. Two bus lines (Bx17/ Bx19) are accessible to users in the area. The bus lines have two bus stops in different directions, located two blocks north of the Affected Area near the corner of Concord Avenue and East 149th Street. Bus Bx17 connects the Affected Area with the Fordham Plaza/Bus Terminal in the northern Bronx. Bus Bx19 provides connection to Hamilton Heights, Manhattan, and New York Botanical Garden, Bronx.

1.4 Description of the Affected Area

The Affected Area is a 150-foot-deep rectangular area of approximately 30,548 SF on the northern portion of Block 2577 in Bronx Community District 1. The Affected Area is located within an M1-2 zoning district and includes the contiguous tax lots p/o 6, 7-9, 14, and the northern portion of Lot 20 adjacent to Lot 14. The Affected Area is bounded by East 145th Street to the north, Wales Avenue to the east, Lot 5 and the southern portion of Lot 20 to the south, and Concord Avenue to the west.

The Applicant-controlled tax lots include Lots 7, 8, 9, and 14. The Applicant uses a Zoning Lot Merger (ZLM) involving Lots 7, 8, 9, and 14 to apply 8,777 ZSF of the Development Rights from Projected Development Site 2 (Lots 7 and 8) to Projected Development Site 1 (Lots 9 and 14) to effectuate the Proposed Development.

Applicant-controlled lots

The Projected Development Site 1 includes Applicant-controlled Lots 9 and 14:

- According to a survey conducted by the Applicant, Lot 9 is a 7,774-SF corner lot (varies from ZOLA's 7,758 SF) corner lot with frontages on East 145 Street and Concord Avenue. The lot is a surface lot classified as an unlicensed parking lot.
- Lot 14 is a 12,774-SF corner lot with frontages on East 145 Street and Wales Avenue. The lot is currently improved with a one-story 12,500 GSF manufacturing building constructed in 1931.

The Projected Development Site 2 includes Applicant-controlled Lots 7 and 8:

- Lot 7 is a 2,500-SF interior lot with 25 feet of frontage on Concord Avenue. The lot is currently improved with a two-story, two-family, 1,500 GSF residential building constructed in 1901.
- Lot 8 is a 2,500-SF interior lot with 25 feet of frontage on Concord Avenue. The lot is currently improved with a two-story, two-family, 1,904 GSF residential building constructed in 1901.

Non-Applicant-controlled lots

Other non-Applicant-controlled lots within the Affected Area include p/o Lot 6 and p/o lot 20:

- Lot 6 is a 2,500-SF lot with frontage on Concord Avenue. The lot is currently improved with a 1.5-story, two-family, 1,638 GSF residential building constructed in 1901.
- Lot 20 is a 5,000-SF lot with frontage on Wales Avenue. The lot is currently improved with a two-story, two-family, 1,305 GSF residential building constructed in 1901 and two other one-story supplementary structures. Only approximately 50% of lot 20 is within the Affected Area.

The current land uses within Lots 6, 7, 8, and 20 are One- & Two-Family Residential Buildings. The structures on these lots were turned into residential buildings prior to the enactment of the Zoning Resolution in 1961, which mapped the area with a manufacturing district. As a result, these existing residential buildings are now legal nonconforming uses.

1.5 Description of the Proposed Project

The Proposed Development involves the assemblage of the Applicant-controlled Lots 7, 8, 9, and 14, and the development of a new 174,709-GSF (138,412-ZSF) mixed-use building on the Applicant-owned Lots 9 and 14 (Projected Development Site 1) containing approximately 7,187 GSF (6,634 ZSF) of community facility use, 10,258 GSF (7,602 ZSF) of light industrial and manufacturing use, 4,526 GSF (3,301 ZSF) of local retail, 30,730 GSF (25,597 ZSF) of office use, and 113,139 GSF (95,279 ZSF) of residential use. The Proposed Development would result in 87

units, 25-30% (22-26 units) of which would be affordable pursuant to MIH. The applicant intends to pursue MIH Option 1, which would result in 22 affordable units. However, the Applicant plans to provide 24 affordable units at an average of 60% AMI. A below-grade parking lot would contain approximately 43 spaces. The building would be ten stories tall and rise to 111 feet with a base height of 92 feet. At the base height of 92 feet, there would be a 15.5-foot setback on Concord Avenue and 15-foot setbacks on both 145th Street and Wales Avenue. Two curb cuts would be proposed: one at Concord Avenue and one at 145th Street.

While Lots 7 and 8 constitute Projected Development Site 2 for analysis purposes, the Applicant does not intend to redevelop these lots. Under the Proposed Project, Lots 7 and 8 would remain developed as they are under existing conditions, with two two-story residential buildings with two dwelling units in each building.

The Applicant uses a Zoning Lot Merger (ZLM) involving Lots 7, 8, 9, and 14 to apply 8,777 ZSF of the Development Rights from Projected Development Site 2 (Lots 7 and 8) to Projected Development Site 1 (Lots 9 and 14) to effectuate the Proposed Development. Approximately 604 square feet of lot area would also be transferred from Lot 9 to Lot 8 to match the fence line against the existing retaining wall serving as a factual boundary between tax lots 8 and 9. The total ZSF of the Proposed Development, inclusive of the existing residential dwellings on Lots 7 and 8, would be 141,386 SF at a total FAR of 5.53.

The Proposed Actions would introduce a new commercial office use currently not present in the surrounding area and could contribute to the job generation in the area. The proposed mixed-use building combining residential, community facility, light industrial, local retail, and office uses would be unique for the neighborhood and would allow the residents to live, work, and shop in the same building ensuring the optimal use of space and resources. The proposed actions would encourage the revitalization of the manufacturing area with mixed-use development that aligns with the evolving nature of the workplace and urban development. New York City has ample precedent in the mixing of light industrial, commercial and community facility uses.

This mix of uses has been codified into zoning and land use procedure in NYC in the form of MX districts, which is proposed under the Proposed Actions. For example, in October 2010, New York City Council approved Third Avenue - Tremont Avenue Rezoning (C100407ZMX, N100408ZRX, effective October 13, 2010) in Bronx Community District 6, a rezoning of Tremont Avenue and Third Avenue, two diverse intersecting corridors. Along Third Avenue, an MX district was mapped from 184th to 188th street adjacent to the Fordham area which allows for new housing and commercial opportunities, with light industrial uses permitted in limited locations. The goal of Third Avenue - Tremont Avenue Rezoning was to strengthen these vital avenues and promote a mix of uses. In 2003, New York City Council approved Morrisania Area Rezoning (C030333ZMX, N030334ZRX, effective August 19, 2003) which encompassed 13 blocks located in the southern portion of Community District 3 in Bronx. The MX (M1-1/R7-2) mixed-use district permitted manufacturing, commercial, residential and community facility uses. It allowed for new residential development, while allowing existing manufacturing and commercial uses to remain

and grow. It also brought existing residential uses into conformance with zoning. Morrisania Area Rezoning was a positive step towards advancing then-Mayor Michael R. Bloomberg administration's efforts to increase housing supply in New York City. One of the latest initiatives aimed at revitalization of manufacturing areas in the city is a proposal by the NYC Department of City Planning to create a plan for a 13-block area of Atlantic Avenue between Vanderbilt and Nostrand Avenues, in Crown Heights and Bedford-Stuyvesant neighborhoods called the Atlantic Avenue Mixed Use Plan (AAMUP) that would establish an MX zoning district on a portion of the proposed project's affected area, intended to support mixed development of residential, community facility, commercial and light manufacturing uses on lots within the proposed district.

1.6 Action(s) Necessary to Facilitate the Project

The actions necessary to facilitate the construction of the Proposed Development are approvals of:

(1) Zoning Map Amendment to map a R7D/M1-4 (MX) zoning district in the Affected Area currently zoned as M1-2, a portion of Block 2577 in the Mott Haven neighborhood of Bronx, CD 1;

(2) Zoning Text Amendment to Appendix F to add a Mandatory Inclusionary Housing (MIH) area coterminous with the Affected Area and the addition of R7D to the Special "MX 18 – Community District 1, The Bronx" row in the table within Section 123-63 (Maximum Floor Area Ratio and Lot Coverage Requirements for Zoning Lots Containing Only Residential Buildings in R6, R7, R8 and R9 Districts).

1.7 Purpose and Need

Census Tract 35 of the Projected Development Site and the adjoining Census Tracts (31, 33, 37, 73, and 79) have recently experienced significant residential growth. Between the 2006-2010 and 2014-2018 ACSs, the housing stock increased by 7.1 percent (from 6,870 to 7,357), while the population increased by 14.1 percent (from 18,111 to 20,774). The share of rent-burdened households paying more than 35% of income in rent rose from 43.4% to 52.5%, while those paying over 50% of income in rent rose from 32.4% to 34.3 % during this period.

The proposed rezoning would further facilitate the introduction of the needed residential uses within the Study Area and be compatible with the previous rezonings in the neighborhood such as a recently effectuated rezoning on the western side of Concord Avenue at 431 Concord Avenue (C 200274 ZMX, N 200275 ZRX, effective May 27, 2021). The proposed R7D/M1-4 (MX) zoning district would be compatible with the adjacent R7D district across Concord Avenue in terms of permitted residential FAR and building height and serve as a transition between the adjacent to the Affected Area residential districts (R7D and R7-1) to the north and the west and the manufacturing district (M1-2) to the east and south of the Affected Area. In addition, the proposed commercial, community facility and custom manufacturing uses would help diversify

the economy of the South Bronx, revitalize and preserve urban industrial land, supply unique products and retail experiences, and provide a sense of place and local character.

The proposed rezoning to R7D/M1-4 (MX) zoning district would provide opportunities for mid-rise mixed-use building construction and help induce the development of underutilized lots within the Affected Area. The proposed Zoning Text Amendment to Appendix F to add a Mandatory Inclusionary Housing (MIH) would require the development of income-restricted housing.

1.8 Analysis Framework

The analysis framework compares the incremental difference between the proposed and potential development under the Proposed Actions (With-Action Scenario) and the development which could occur under the existing zoning (No-Action Scenario) by the build year specified below. This EAS studies the potential for individual and cumulative environmental impacts related to the Proposed Actions occurring in a Study Area of approximately 400 feet around the Affected Area. This environmental assessment considers the potential effects of the Proposed Actions compared to future conditions without the approvals sought by the Applicant. The analysis framework is described below:

Reasonable Worst-Case Development Scenario

Discretionary actions sometimes permit a range of project characteristics, or development scenarios, to occur even though the action may be sought in order to facilitate a specific development. From the range of possible scenarios that are considered reasonable and likely, the scenario with the worst environmental consequences is chosen for analysis; this is considered to be the Reasonable Worst-Case Development Scenario (RWCDS), the use of which ensures that, regardless of which scenario actually occurs, its impacts would be no worse than those considered in the environmental review. The environmental assessment examines the incremental differences between the RWCDS of the future without the project in place (No-Action Scenario) and the future with the project in operation (With-Action Scenario).

The *CEQR Technical Manual* categorizes soft sites as either “projected” or “potential” development sites. Projected Development Sites are defined as those sites that are more likely to be developed as a result of the proposed project. Potential Development Sites are defined as sites that could be developed but have been determined to have less development potential than the Projected Development Sites, based on observed historic and current market conditions, location, site configuration, proximity to transit, infrastructure and other facilities, and other factors that affect the likelihood that they would be developed under the Proposed Actions. Projected Development Sites are analyzed for both site-specific and density-related effects, whereas Potential Development sites are only analyzed for site-specific effects.

Pursuant to *CEQR Technical Manual* methodology, sites may be considered ‘soft’ if they are built to substantially less than the maximum permitted floor area ratio and are of a sufficient size or

could be assembled into a parcel of sufficient size, to support a feasible development. Sites that have recently been developed or redeveloped are considered less likely to be soft, due to the significant recent investment in the current use.

Build Year

The build year for the analysis is anticipated to be 2026 in consideration of an 18-month CEQR review period, and a 7-month ULURP process. The proposed construction schedules for each site can be found in **Appendix G**.

- Projected Development Site 1 is anticipated to begin with demolition and site clearance in October 2024, with exterior work expected to be completed by October 2025. Major construction-related activities would conclude with elevators, interior shell and core in December 2025. Lastly, Temporary Certificate of Occupancy (TCO) is anticipated by June 2026.
- Projected Development Site 2 is anticipated to begin demolition and site clearance on in June 2025, with exterior work expected to be completed by April 2026. Major construction-related activities would conclude with elevators, interior shell and core in May 2026. Lastly, Temporary Certificate of Occupancy (TCO) is anticipated by August 2026.

Future Without the Proposed Actions (No-Action Condition)

The No-Action Condition for the Affected Area would be the same as the existing conditions.

Projected Development Site 1 includes Applicant-controlled Lots 9 and 14. Projected Development Site 2 includes Applicant-controlled Lots 7 and 8. There are no records of construction work permit applications submitted by the Applicant on the DOB website. As such, it is assumed that under the No-Action Scenario, existing conditions would continue on both Projected Development Sites.

The other non-Applicant-owned Lots 6 and 20 do not pass the soft site criteria established by the *CEQR Technical Manual*, Chapter 2. Although Lots 6 and 20 are built to substantially less than the maximum allowable FAR, they are not considered likely to be redeveloped under the No-Action Conditions because of their small lot sizes (below the CEQR Technical Manual soft site threshold of 5,000 square feet). Lot 20 is also unlikely to be redeveloped as the increased development potential within the Proposed Actions would only affect approximately 50% of the lot.

Redevelopment is also not considered likely in the No-Action Scenario because of the bulk permitted under the current M1-2 district (2.00 commercial and manufacturing; 4.80 community facility) and significant parking requirement (1 space per 300 sf of uses).

In the Future without the Proposed Actions, all residential uses withing the Affected Area would remain legal non-conforming.

Future With the Proposed Actions (With-Action Condition)

The RWCDS is consistent with the Applicant's proposal to use a Zoning Lot Merger (ZLM) involving Lots 7, 8, 9, and 14 to apply 8,777 ZSF of the Development Rights of Projected Development Site 2 (Lots 7 and 8) to Projected Development Site 1 (Lots 9 and 14). The Applicant-controlled Lots 7, 8, 9, and 14 would be merged into a 25,548-SF zoning lot within the proposed R7D/M1-4 (MX) district. Approximately 604 square feet of lot area would also be conveyed from Lot 9 to Lot 8 to match the fence line against the existing retaining wall serving as a factual boundary between tax Lots 8 and 9. Additionally, to provide a conservative analysis when considering the combination of Projected Development Sites 1 and 2, a maximum FAR of 6.5 was utilized as described below.

Projected Development Site 1 (Lots 9 and 14)

The RWCDS for Projected Development Site 1 is consistent with the Applicant's proposal in terms of the proposed uses and their respective floor areas. For the purposes of a conservative analysis, the RWCDS adopts a dwelling unit factor of 837 GSF/DU, resulting in a total of 120 dwellings units and 48 residential parking spaces (50% of market-rate dwelling units). The building height is assumed to be 115 SF (11 floors), which is the maximum permitted under the proposed zoning district.

Under Future With-Action Conditions, it is assumed that Projected Development Site 1 would be developed with a single 174,709 GSF (138,413 ZSF, 6.94 FAR) mixed-use building with 100% lot coverage. The building would contain approximately 7,187 GSF (6,634 ZSF, 0.33 FAR) of community facility use, 10,258 GSF (7,602 ZSF, 0.38 FAR) of light industrial and manufacturing use, 4,526 GSF (3,301 ZSF, 0.17 FAR) of local retail and 30,730 GSF (25,597 ZSF,1.28 FAR) of office use (1.45 total commercial FAR), and 113,139 GSF (95,279 ZSF, 4.78 FAR) of residential use of which 100,586 GSF (95,279 ZSF, 4.78 FAR) would be above the cellar level (residential lobby on the ground floor and residential units on floors 4 to 11) yielding approximately 120 dwelling units (assuming 837 GSF per DU on average) and 12,553 GSF would be in the cellar used as storage space and technical rooms. Among the 120 dwelling units, 25-30% (30-36 units) would be affordable pursuant to MIH at an average of 60-80% AMI depending on the Option selected. For the purposes of Early Childhood Programs analysis, 20% of residential floor area (24 units) is assumed to be affordable at or below 60% AMI. An 8,869-SF below-grade parking lot would contain approximately 48 spaces. The building would be 11 stories tall and rise to 115 feet with a base height of 95 feet. At the base height of 95 feet, there would be a 15-foot setback on Concord Avenue, 145th Street and Wales Avenue, as these streets are considered to be narrow (less than 75 feet wide). A 10-foot mechanical bulkhead would be assumed for the Development Site for a conservative shadows analysis under CEQR. One curb cut would be proposed on Concord Avenue.

Projected Development Site 2 (Lots 7 and 8)

Under Future With-Action Conditions, it is assumed that Projected Development Site 2 would be developed with a single 34,979 GSF (27,648 ZSF, 4.93 FAR) mixed-use building with 100% lot

coverage. The building would contain approximately 13,121 GSF (12,020 ZSF, 2.14 FAR) of residential use and 16,253 GSF (15,628 ZSF, 2.79 FAR) of community facility use (potentially medical office). There would be approximately 15 dwelling units (assuming 850 SF per DU on average), 25-30% (4 units) of which would be affordable pursuant to MIH at an average of 60-80% AMI depending on the Option selected. For the purposes of Early Childhood Programs analysis, 20% of residential floor area (3 units) is assumed to be affordable at or below 60% AMI. The 5,604-SF cellar would contain a parking lot with six parking spaces, mechanical rooms, and bike storage. The building would be 11 stories tall and rise to 115 feet with a base height of 95 feet. At the base height of 95 feet, there would be a 15-foot setback on Concord Avenue. A 10-foot mechanical bulkhead would be assumed for the development site for a conservative shadows analysis under CEQR. One curb cut would be proposed on Concord Avenue.

Overall, the merged zoning lot consisting of Lots 7, 8, 9, and 14 would include 209,688 GSF (166,061 ZSF, 6.5 FAR) of mixed-use development consisting of 126,260 GSF (107,299 ZSF, 4.20 FAR) of residential use, 35,256 GSF (28,898 ZSF, 1.13 FAR) of commercial use, 23,440 GSF (22,262 ZSF, 0.87 FAR) of community facility use, and 10,258 GSF (7,602 ZSF, 0.38 FAR) of manufacturing use. There would be a total of 135 dwelling units, 25-30% (34-40 units) of which would be affordable pursuant to MIH at an average of 60-80% AMI depending on the Option selected. For the purposes of Early Childhood Programs analysis, 20% of residential floor area (27 units) is assumed to be affordable at or below 60% AMI. 14,473 SF of below-grade parking over the two Development Sites would contain approximately 54 parking spaces. A total of two curb cuts would be constructed on Concord Avenue.

The other lots within the Affected Area (Other Affected Sites) not projected to redevelop under the With-Action Condition include Lots p/o 6 and p/o 20. The non-Applicant-owned Lots 6 and 20 do not pass the soft site criteria established by the *CEQR Technical Manual*, Chapter 2. Although the lots are built to substantially less than the maximum allowable FAR, Lots 6 and 20 are not considered likely to be redeveloped under the future With-Action Condition because of their small lot sizes (below the CEQR Technical Manual soft site threshold of 5,000 square feet). In addition, the Proposed Actions would only affect approximately 50% of Lot 20.

The Projected and Other Affected Sites are shown in **Figure 1.1-1**.

Only Projected Development Sites 1 and 2 are considered in the increment between the No-Action and With-Action Conditions. Therefore, the Other Affected Sites will not be considered in the analysis of density-related aspects of the environmental review (such as Open Space, Transportation, and Socioeconomic Conditions). This incremental development would consist of 131 dwelling units — 92-98 market rate and 33-39 affordable. The net residential square footage would equal 122,820 GSF or 104,084 ZSF, the net commercial square footage would equal 35,256 GSF or 28,898 ZSF, and the net community facility square footage would equal 23,440 GSF or 22,262 ZSF. Manufacturing square footage would be reduced by 2,242 GSF or 4,417 ZSF, and an

increase of 54 parking spaces would result in the With-Action Condition compared to the No-Action Condition to accommodate future residential parking demands.

The RWCDS Existing, No-Action, and With-Action Scenarios at the Projected Development Sites are shown below in **Table 1.8-1**. The RWCDS increment of Analysis on the Projected Development Sites within the Affected Area are presented in **Table 1.8-2**.

Table 1.8-1: RWCDS Analysis Framework - Existing, No-Action, and With-Action Conditions

Site Info				Existing Condition								No-Action Condition								With-Action Condition								
Site ID	Block	Lot	Lot Area	Zoning	MF (gsf)	Com. (gsf)	CF (gsf)	Res. (gsf)	Total gsf	Afford. DU	Total DU	Zoning	MF (gsf)	Com. (gsf)	CF (gsf)	Res. (gsf)	Total gsf	Afford. DU	Total DU	Zoning	MF (gsf)	Com. (gsf)	CF (gsf)	Res. (gsf)	Parking (gsf)	Total gsf	Afford. DU	Total DU
Projected Development Site 1	2577	9*	7,774	M1-2	0	0	0	0	0	0	0	M1-2	0	0	0	0	0	0	0	R7D/M1-4 (MX)	10,258	35,256	7,187	113,139	8,869	174,709	24	120
		14	12,774		12,500	0	0	0	12,500	0	0		12,500	0	0	0	12,500	0	0									
Projected Development Site 2		7	2,500		0	0	0	1,500	1,500	0	2		0	0	0	1,500	1,500	0	2		0	0	16,253	13,121	5,604	34,979	3	15
		8*	2,500		0	0	0	1,940	1,940	0	2		0	0	0	1,940	1,940	0	2									
Total			**25,548**	**-**	**12,500**	**0**	**0**	**3,440**	**15,940**	**0**	**4**	-	**12,500**	**0**	**0**	**3,440**	**15,940**	**0**	**4**	**-**	**10,258**	**35,256**	**23,440**	**126,260**	**14,473**	**209,688**	**27**	**135**

* Approximately 604 square feet of lot area would be transferred from Lot 9 to lot 8
DU = Dwelling Units
gsf = gross square feet
Res. = Residential
Com. = Commercial
MF = Manufacturing
CF = Community Facility
Afford. = Affordable

Table 1.8-2: RWCDS Incremental Analysis Table

Use	No-Action Condition	With-Action Condition	Increment
Commercial GSF	0	35,256[3]	+35,256
Manufacturing GSF	12,500	10,258	-2,242
Community Facility GSF	0	23,440	+23,440
Residential GSF	3,440	126,260	+122,820
Total GSF	15,940	209,688	+193,748
Residential DUs	4	135	+131
Residents[1]	11	371	+360
Workers[2]	13	239	+226

1: Assumes 2.75 residents per household average - 2020 Census data, Bronx CD 1

2: Assumes 3 employees per 1,000 SF

3: 30,730 GSF of Office Area and 4,526 GSF of Local Retail

2 Environmental Review

The following technical sections are provided as supplemental assessments to the Environmental Assessment Statement ("EAS") Short Form. Part II: Technical Analyses of the EAS forms a series of technical thresholds for each analysis area in the respective chapter of the *CEQR Technical Manual*. If the proposed project was demonstrated not to meet or exceed the threshold, the 'NO' box in that section was checked; thus, additional analyses were not needed. If the proposed project was expected to meet or exceed the threshold, or if this was not able to be determined, the 'YES' box was checked on the EAS Short Form, resulting in a preliminary analysis to determine whether further analyses were needed. For those technical sections, the relevant chapter of the CEQR Technical Manual was consulted for guidance on providing additional analyses (and supporting information, if needed) to determine whether detailed analysis was needed.

A 'YES' answer was provided in the following technical analyses areas on the EAS Short Form:

- Land Use, Zoning, and Public Policy
- Open Space
- Shadows
- Historic and Cultural Resources
- Urban Design and Visual Resources
- Hazardous Materials
- Transportation
- Air Quality
- Noise
- Public health
- Neighborhood Character
- Construction

2.1 Land Use, Zoning, and Public Policy

The *CEQR Technical Manual* recommends procedures for analysis of land use, zoning and public policy to ascertain the impacts of a project on the Study Area. This section considers existing conditions, development trends, zoning, and public policies in relation to the Affected Area and the Study Area, as well as the larger area in which the Proposed Actions may have an effect. Because the Proposed Actions would affect land use, would change the zoning in the Affected Area, and are within an area governed by public policies, a preliminary assessment of Land Use, Zoning, and Public Policy is provided.

Methodology

Existing land uses were determined by reference to the New York City Zoning and Land Use (Zola) database and PLUTOTM 20v4 shapefiles. These uses were then confirmed through site visits. The evaluation of lots within the 400-foot Study Area was performed with reference to New York City Zoning Maps and the Zoning Resolution of the City of New York and served as the basis for the zoning evaluation of the Future No Action and Future With-Action Conditions. Public Policy research was performed through an evaluation of New York City Department of City Planning (NYCDCP) and other city agencies programs and documentation.

2.1.1 Land Use

The *CEQR Technical Manual* suggests that a land use, zoning, and public policy Study Area should generally extend 400 feet from the Affected Area ("the Surrounding Area"). Existing land uses within approximately 400 feet of the Affected Area are presented in **Figure 1.1-2**.

Existing Conditions

Land Use Study Area

As shown in **Figure 1.1-2** and stated in **Section 1.3**, the Surrounding Area features predominantly manufacturing uses with a mixture of community facility and residential uses, as well as mixed commercial and residential buildings, transportation and utility uses, and vacant land. The manufacturing buildings range from 1 to 2 stories in height. The residential buildings consist of multi-family apartment buildings ranging from 2 to 6 stories in height and two-story one-and two-family buildings. The Surrounding Area also features two- to four-story community facility buildings, including four schools: Mott Haven Community High School (P.S.557), JM Rapport School for Career Development (P.S. 754), Neighborhood Charter School: Bronx, and The American Dream School. Concord Avenue and Wales Avenue do not have significant commercial activity and are more residential in character north of East 145th Street and more industrial in character south of East 145th Street.

The Affected Area is located close to the Port Morris Industrial Business Zone, which begins south of East 144th Street and east of Timpson Place. St. Mary's Park, located 500 feet west of the

Affected Area, is a 35-acre park, the largest in the South Bronx, and includes several playgrounds, barbecue areas, baseball and basketball fields, an indoor pool, and a recreation center.

Among recent rezonings affecting the land use within the 400-foot Study Area is 431 Concord Avenue Rezoning (C 200274 ZMX, N 200275 ZRX, effective May 27, 2021). The rezoning proposed:

- A Zoning Map Amendment from an existing M1-2 district to an R7D district of properties bounded by Concord Avenue and East 145th Street in the Mott Haven neighborhood of the Bronx, Community District 1.
- A Zoning Text Amendment to modify Appendix F to designate the newly mapped R7D district as a Mandatory Inclusionary Housing (MIH) designated area.

Affected Area

The Applicant-controlled lots include Lots 7, 8, 9, and 14:

- Lot 7 is a 2,500-SF interior lot with 25 feet of frontage on Concord Avenue. The lot is currently improved with a two-story, two-family, 1,500 GSF residential building constructed in 1901.
- Lot 8 is a 2,500-SF interior lot with 25 feet of frontage on Concord Avenue. The lot is currently improved with a two-story, two-family, 1,904 GSF residential building constructed in 1901.
- Lot 9 is a 7,774-SF corner lot with frontages on East 145 Street and Concord Avenue. The lot is a surface lot classified as an unlicensed parking lot.
- Lot 14 is a 12,774-SF corner lot with frontages on East 145 Street and Wales Avenue. The lot is currently improved with a one-story 12,500 GSF manufacturing building constructed in 1931.

Other lots within the Affected Area include the non-Applicant-controlled Lots p/o 6 and p/o 20:

- Lot 6 is a 2,500-SF lot with frontage on Concord Avenue. The lot is currently improved with a 1.5-story, two-family, 1,638 GSF residential building constructed in 1901.
- Lot 20 is a 5,000-SF lot with frontage on Wales Avenue. The lot is currently improved with a two-story, two-family, 1,305 GSF residential building constructed in 1901 and two other one-story supplementary structures. Only approximately 50% of lot 20 is within the Affected Area.

The current land uses within Lots 6, 7, 8, and 20 are One- & Two-Family Residential Buildings. The structures on these lots were turned into residential buildings prior to the enactment of the Zoning Resolution in 1961 which mapped the area with a manufacturing district. As a result, these existing residential buildings are now legal nonconforming.

Future No-Action Condition

Land Use Study Area

There is one active construction permit within the 400-foot Study Area for a new charter school at 447 Wales Avenue. When complete, the project will stand 73 feet tall across six stories and have a total of 45,979 square feet of interior space. The school is designed to accommodate 504 students from grades nine through 12. Additionally, there is a recently effectuated rezoning on the western side of Concord Avenue at 431 Concord Avenue (C 200274 ZMX, N 200275 ZRX, effective May 27, 2021). The affected area includes Block 2578, Lots p/o 15, p/o 16, p/o 18. The reasonable worst-case development scenario for the applicant-owned Lots 16 and 18 is an 11-story, 115-foot tall, 87,369 GSF (5.51 FAR) Quality Housing residential building with approximately 93 residential dwelling units and 29 accessory parking spaces located on the first/ground floor of the building. Approximately 20% of the residential floor area would be reserved as affordable to households with incomes at or below 80% of the AMI, resulting in 19 affordable units. Based on the review of the DOB website, no construction permit applications have been submitted for Lots 15, 16, and 18. However, there are applications for demolition on Lot 18 received on July 7th, 2021. The development on Lots 16 and 18 is expected to be completed within two years.

No-Action Developments are shown below in **Table 2.1-1**.

Affected Area

The No-Action Condition for the Affected Area would be the same as the existing conditions. The Affected Area contains Projected Development Site 1 (Lots 9 and 14) and Projected Development Site 2 (lots 7 and 8). There are no records of construction work permit applications submitted by the Applicant on the DOB website. As such, it is assumed that under the No-Action Scenario, existing conditions would continue on both Projected Development Sites.

The non-Applicant owned Lots 6 and 20 do not pass the soft site criteria established by the *CEQR Technical Manual*, Chapter 2. Although the lots are built to substantially less than the maximum allowable FAR, because of the small lot size (below the CEQR Technical Manual soft site threshold of 5,000 square feet), Lots 6 and 20 are not considered likely to be redeveloped under No-Action Conditions.

In the Future, without the Proposed Actions, all residential uses within the Affected Area will remain legal non-conforming.

Future With-Action Condition

Land Use Study Area

In the future, with the Proposed Actions, land use and development patterns in the Surrounding Area are anticipated to remain the same as under No-Action Conditions. Any new development would be consistent with the underlying zoning regulations.

Affected Area

The RWCDS is consistent with the Applicant's proposal to use a Zoning Lot Merger (ZLM) involving Lots 7, 8, 9, and 14 to apply 8,777 ZSF of the Development Rights of Projected Development Site 2 (Lots 7 and 8) to Projected Development Site 1 (Lots 9 and 14). The Applicant-controlled Lots 7, 8, 9, and 14 would be merged into a 25,548-SF zoning lot within the proposed R7D/M1-4 (MX) district. Approximately 604 square feet of lot area would also be conveyed from Lot 9 to Lot 8 to match the fence line against the existing retaining wall serving as a factual boundary between tax Lots 8 and 9. Additionally, to provide a conservative analysis when considering the combination of Projected Development Sites 1 and 2, a maximum FAR of 6.5 was utilized as described below.

Projected Development Site 1 (Lots 9 and 14)

The RWCDS for Projected Development Site 1 is consistent with the Applicant's proposal in terms of the proposed uses and their respective floor areas. For the purposes of a conservative analysis, the RWCDS adopts a dwelling unit factor of 837 GSF/DU, resulting in a total of 120 dwellings units and 48 residential parking spaces. The building height is assumed to be 115 SF (11 floors), which is the maximum permitted under the proposed zoning regulation.

Under Future With-Action Conditions, it is assumed that Projected Development Site 1 would be developed with a single 174,709 GSF (138,413 ZSF, 6.94 FAR) mixed-use building with 100% lot coverage. The building would contain approximately 7,187 GSF (6,634 ZSF, 0.33 FAR) of community facility use, 10,258 GSF (7,602 ZSF, 0.38 FAR) of light industrial and manufacturing use, 4,526 GSF (3,301 ZSF, 0.17 FAR) of local retail and 30,730 GSF (25,597 ZSF,1.28 FAR) of office use (1.13 total commercial FAR), and 113,139 GSF (95,279 ZSF, 4.78 FAR) of residential use of which 100,586 GSF (95,279 ZSF, 4.78 FAR) would be above the cellar level (residential lobby on the ground floor and residential units on floors 4 to 11) yielding approximately 120 dwelling units (assuming 837 GSF per DU on average) and 12,553 GSF would be in the cellar used as storage space and technical rooms. Among the 120 dwelling units, 25-30% (30-36 units) would be affordable pursuant to MIH at an average of 60-80% AMI depending on the Option selected. An 8,869-SF below-grade parking lot would contain approximately 48 spaces. The building would be 11 stories tall and rise to 115 feet with a base height of 95 feet. At the base height of 95 feet, there would be a 15-foot setback on Concord Avenue, 145th Street and Wales Avenue, as these streets are considered to be narrow (less than 75 feet wide). A 10-foot mechanical bulkhead would be assumed for the Development Site for a conservative shadows analysis under CEQR. One curb cut would be proposed on Concord Avenue.

The Proposed Actions would introduce a new commercial office use currently not present in the surrounding area and could contribute to the job generation in the area. The proposed mixed-use building combining residential, community facility, light industrial, local retail, and office uses would be unique for the neighborhood and would allow the residents to live, work, and shop in the same building ensuring the optimal use of space and resources. The Proposed Actions support the trend of revitalization of certain manufacturing areas with mixed-use development that follows the changing nature of the workplace and urban development. New York City has ample precedent in the mixing light industrial, commercial and community facility uses. This mix of uses has been codified into zoning and land use procedure in NYC in the form of MX districts, which is proposed under the Proposed Actions. For example, in October 2010, New York City Council approved Third Avenue - Tremont Avenue Rezoning (C100407ZMX, N100408ZRX, effective October 13, 2010) in Bronx Community District 6, a rezoning of Tremont Avenue and Third Avenue, two diverse intersecting corridors. Along Third Avenue, an MX district was mapped from 184th to 188th street adjacent to the Fordham area which allows for new housing and commercial opportunities, with light industrial uses permitted in limited locations. The goal of Third Avenue - Tremont Avenue Rezoning was to strengthen these vital avenues and promote a mix of uses. In 2003, New York City Council approved Morrisania Area Rezoning (C030333ZMX, N030334ZRX, effective August 19, 2003) which encompassed 13 blocks located in the southern portion of Community District 3 in Bronx. The proposed MX(M1-1/R7-2) mixed-use district permitted manufacturing, commercial, residential and community facility uses. It allowed for new residential development, while allowing existing manufacturing and commercial uses to remain and grow. It also brought existing residential uses into conformance with zoning. Morrisania Area Rezoning was a positive step towards advancing the Mayor Michael R. Bloomberg administration's efforts to increase housing supply in New York City. One of the latest initiatives aimed at revitalization of manufacturing areas in the city is a proposal by the NYC Department of City Planning to create a plan for a 13-block area of Atlantic Avenue between Vanderbilt and Nostrand Avenues, in Crown Heights and Bedford-Stuyvesant neighborhoods called the Atlantic Avenue Mixed Use Plan (AAMUP) that would establish an MX zoning district on a portion of the proposed project's affected area, intended to support mixed development of residential, community facility, commercial and light manufacturing uses on lots within the proposed district.

Projected Development Site 2 (Lots 7 and 8)

Under Future With-Action Conditions, it is assumed that Projected Development Site 2 would be developed with a single 34,979 GSF (27,648 ZSF, 4.93 FAR) mixed-use building with 100% lot coverage. The building would contain approximately 13,121 GSF (12,020 ZSF, 2.14 FAR) of residential use and 16,253 GSF (15,628 ZSF, 2.79 FAR) of community facility use (potentially medical office). There would be approximately 15 dwelling units (assuming 850 SF per DU on average), 25-30% (4 units) of which would be affordable pursuant to MIH at an average of 60-80% AMI depending on the Option selected. The 5,604-SF cellar would contain a parking lot with six parking spaces, mechanical rooms, and bike storage. The building would be 11 stories tall and

rise to 115 feet with a base height of 95 feet. At the base height of 95 feet, there would be a 15-foot setback on Concord Avenue. A 10-foot mechanical bulkhead would be assumed for the development site for a conservative shadows analysis under CEQR. One curb cut would be proposed on Concord Avenue.

Overall, the merged zoning lot consisting of Lots 7, 8, 9, and 14 would include 209,688 GSF (166,061 ZSF, 6.5 FAR) of mixed-use development consisting of 126,260 GSF (107,299 ZSF, 4.20 FAR) of residential use, 35,256 GSF (28,898 ZSF, 1.13 FAR) of commercial use, 23,440 GSF (22,262 ZSF, 0.87 FAR) of community facility use, and 10,258 GSF (7,602 ZSF, 0.38 FAR) of manufacturing use. There would be a total of 135 dwelling units, 25-30% (34-40 units) of which would be affordable pursuant to MIH at an average of 60-80% AMI depending on the Option selected. For the purposes of Early Childhood Programs analysis, 20% of residential floor area (27 units) is assumed to be affordable at or below 60% AMI. 14,473 SF of below-grade parking over the two Development Sites would contain approximately 54 parking spaces. A total of two curb cuts would be constructed on Concord Avenue.

Other Lots (Block 2577, Lots p/o 6 and p/o 20)

Other lots within the Affected Area (Other Affected Sites) are not projected to redevelop under the With-Action Condition. The non-Applicant-owned Lots 6 and 20 do not pass the soft site criteria established by the *CEQR Technical Manual*, Chapter 2. Although Lots 6 and 20 are built to substantially less than the maximum allowable FAR, they are not considered likely to be redeveloped under the future With-Action Condition because of their small lot sizes (below the CEQR Technical Manual soft site threshold of 5,000 square feet). In addition, the Proposed Actions would only affect approximately 50% of Lot 20.

The Proposed Rezoning would also bring into conformance the non-conforming residential uses within Lots 6, 7, 8, and 20.

Conclusion

The density and uses permitted by the Proposed Actions would facilitate the increased utilization of the lots within the Affected Area. The Proposed Actions would be consistent with the bulk permitted by the nearby 431 Concord Avenue Rezoning from M1-2 district to R7D district. The proposed R7D/M1-4 (MX) district along with the proposed mixed-use development is appropriate for the project's location on the border between the residential districts (R7-1 and R7D) to the north and to the west and the manufacturing district (M1-2) to the south and to the east of the Affected Area. The proposed community facility use would be compatible to the community facility uses on the surrounding blocks (Mott Haven Community High School (P.S.557), JM Rapport School for Career Development (P.S. 754), Neighborhood Charter School: Bronx, and The American Dream School). The proposed manufacturing and commercial uses would be consistent with similar uses found in the Study Area, including the commercial and light industrial businesses that are found along East 144th Street and on the southern side of the

intersection of Concord Avenue and East 144th Street. Moreover, the proposed Zoning Text Amendment to Appendix F to add Mandatory Inclusionary Housing (MIH) to the Affected Area would facilitate the development of new permanently affordable housing. Therefore, no potentially significant adverse impacts related to land use would occur as a result of the Proposed Actions, and further analysis of land use is not warranted.

Table 2.1-1: No-Action Developments

Address	Type	Land Use	Additional Floor Area (GSF)	Dwelling Units	Stories
431, 439 Concord Avenue	New Building	Residential	85,381	115	11

GSF = Gross Square Feet

2.1.2 Zoning

The *CEQR Technical Manual* suggests that a zoning Study Area should extend 400 feet from the Affected Area. The proposed zoning map amendment would rezone the following lots: Block 2577, Lots p/o 6, 7, 8, 9, 14, and p/o 20 from M1-2 to R7D/M1-4 (MX). Existing zoning districts within approximately 400 feet of the Affected Area are presented in **Figure 1.1-3**.

Existing Conditions

Zoning Study Area

The zoning districts within 400 feet of the Affected Area are M1-2, M1-3, R7-1, and R7D zoning districts, as illustrated in **Table 2.1-2** and described below:

M1-2

M1 districts often serve as buffers between M2 or M3 and adjacent residential or commercial districts. M1-2 districts typically include light industrial uses, such as woodworking shops, repair shops, and wholesale service and storage facilities. Permitted uses in M1-2 districts are as follows: UG 4-14, 16, and 17. M1-2 districts permit a FAR of 2.0 for permitted commercial and manufacturing uses, and 4.80 for permitted community facility uses. M1-2 districts are subject to parking requirements based on the type of use and size of an establishment (1 per 300 sf for PRC-B). Building heights are regulated by a sky exposure plane beginning at 60 feet (or four stories) above the street line.

M1-3

M1 districts often serve as buffers between M2 or M3 and adjacent residential or commercial districts. M1-3 districts typically include light industrial uses, such as woodworking shops, repair shops, and wholesale service and storage facilities. Permitted uses in M1-2 districts are as follows: UG 4-14, 16, and 17. M1-3 districts permit an FAR of 5.0 for permitted commercial and manufacturing uses, and 6.5 for permitted community facility uses. M1-3 districts are subject to parking requirements based on the type of use and size of an establishment (1 per 300 sf for PRC-B). Building heights are regulated by a sky exposure plane beginning at 85 feet (or six stories) above the street line.

R7-1

R7 districts are medium-density apartment house districts mapped in much of the Bronx, as well as the Upper West Side in Manhattan and Brighton Beach in Brooklyn. The height factor regulations for R7 districts encourage lower apartment buildings on smaller zoning lots and, on larger lots, taller buildings with less lot coverage.

Height factor buildings are often set back from the street and surrounded by open space and on-site parking. The floor area ratio (FAR) in R7 districts ranges from 0.87 to a high of 3.44; the Open Space Ratio (OSR) ranges from 15.5 to 25.5. As in other non-contextual districts, a taller building

may be obtained by providing more open space. The maximum FAR is achievable only where the zoning lot is large enough to accommodate a practical building footprint as well as the required amount of open space. The building must be set within a sky exposure plane which, in R7 districts, begins at a height of 60 feet above the street line and then slopes inward over the zoning lot.

Off-street parking is generally required for 60 percent of a building's dwelling units in an R7-1 district, but requirements are lower for income-restricted housing units (IRHU) and are further modified in certain areas, such as within the Transit Zone and the Manhattan Core, or for lots less than 15,000 square feet in R7-1 districts. Off-street parking requirements can be waived if 5 or fewer parking spaces are required in R7-1 districts.

R7D

R7D districts are medium-density contextual districts to promote new developments along transit corridors where Quality Housing bulk regulations are mandatory. The permitted uses within R7D districts are residential and community facility.

In R7D districts, the community facility FAR is 4.2 and the basic residential FAR is 4.2, which allows greater residential density than R7A districts and less than R7X districts. Above a base height of 60 to 85 feet, the building must set back by at least 10 feet on a wide street and 15 feet on a narrow street before rising to its maximum height of 100 feet, or 105 feet, if providing a qualifying ground floor. Higher maximum residential FAR of 5.6, base height of 95 feet, and building height of 110 feet (115 feet with a qualifying ground floor) are available for buildings participating in the Inclusionary Housing Program or that provide certain senior facilities.

Off-street parking is generally required for 50 percent of a building's dwelling units, but requirements are lower for income-restricted housing units (IRHU) and are further modified in certain areas, such as within the Transit Zone and the Manhattan Core, or for lots 10,000 square feet or less. Off-street parking requirements can be waived if 15 or fewer parking spaces are required.

Affected Area

The Affected Area is zoned M1-2, which permits light manufacturing developments up to four stories along with commercial and certain community facility uses.

Future No-Action Condition

Zoning Study Area and Affected Area

There are no proposed rezonings within the 400-foot zoning Study Area. No changes to zoning would occur in the future without the Proposed Actions in the Affected Area. Existing zoning patterns would remain, and the Affected Area would continue to be subject to M1-2 zoning regulations.

Table 2.1-2: Zoning Districts in the Surrounding Area[1]

Zoning District	Type and Use Group	Floor Area Ratio (FAR)	Parking
M1-2	Light Manufacturing UGs 4-14, 16-17	2.0 FAR – Manufacturing 2.0 FAR – Commercial 4.8 FAR – Community Facility	1 per 300 sf
M1-3	Light Manufacturing UGs 4-14, 16-17	5.0 FAR – Manufacturing 5.0 FAR – Commercial 6.5 FAR – Community Facility	1 per 300 sf
R7-1	Non-Contextual Residential UGs 1-4	3.44 – Residential (Basic, Narrow Street) 4.00 – Residential (Basic, Wide Street) 4.60 – Residential (MIH/VIH) FAR – Community Facility	50% of DU; 50% of DU for lots 10,000sf or less; 0 for IRHU inside TZ 15% of DU for IRHU outside TZ
R7D	Contextual Residential UGs 1-4	4.20 – Residential (Basic) 5.60 – Residential (MIH/VIH) 4.20 – Community Facility	50% of DU; 30% of DU for lots 10,000sf or less; 0 for IRHU

Future With-Action Condition

Zoning Study Area

Changes to zoning would only occur in the Affected Area in the future with the Proposed Actions.

Affected Area

The Proposed Actions would rezone Block 2577, Lots p/o 6, 7, 8, 9, 14, and the northern portion of Lot 20 (a 150-foot-deep rectangular area approximately of 30,548 SF bounded in part by East 145th Street, Wales Avenue, and Concord Avenue) from an M1-2 to an R7D/M1-4 (MX) zoning district, extending the application of the existing MX-18 Special Mixed-Use District (Mott Haven) to the rezoning area. The Proposed Actions also include a Zoning Text Amendment to Appendix F (Inclusionary Housing designated areas and Mandatory Inclusionary Housing areas) to add a Mandatory Inclusionary Housing (MIH) area coterminous with the Affected Area and the addition of R7D to the Special "MX 18 – Community District 1, The Bronx" row in the table within Section 123-63 (Maximum Floor Area Ratio and Lot Coverage Requirements for Zoning Lots Containing Only Residential Buildings in R6, R7, R8 and R9 Districts).

Under the With-Action condition, the proposed R7D/M1-4 (MX) district would permit a maximum of 5.6 FAR for residential use (MIH area), 2.0 FAR for commercial uses, 4.2 for community facility uses, and 2.0 FAR for manufacturing uses. The maximum building height within the R7D/M1-4

[1] Zoning Handbook, New York City Department of City Planning, 2019

(MX) zoning district is 115 feet after a setback from the base height of up to 95 feet. Buildings within the proposed zoning district must have a 10-foot setback above the maximum base height on a wide street and a 15-foot setback on a narrow street before rising to a maximum of 11 floors. Off-street parking is required for 50 percent of the residential dwelling units but is not required for income-restricted housing units within the Transit Zone.

In comparison with the existing M1-2 zoning districts currently mapped over the Affected Area, the proposed R7D/M1-4 (MX) zoning district would allow for residential uses, a wider range of community facility uses, a larger FAR, and increased building heights.

Conclusion

The proposed rezoning would increase the utilization of the lots within the Affected Area. The Proposed Actions would not create nonconforming uses and would bring existing residential lots within the Affected Area into compliance. The proposed R7D/M1-4 (MX) zoning district would be consistent with the adjacent R7D district across Concord Avenue in terms of bulk and serve as a transition between the adjacent-to-the-Affected Area residential districts (R7D and R7-1) to the north and the west and the manufacturing district (M1-2) to the east and south of the Affected Area. In comparison to the existing M1-2 district, the proposed district would allow for residential uses, a wider range of community facility uses, a larger FAR, and increased building heights. Moreover, the proposed Zoning Text Amendment to Appendix F to add Mandatory Inclusionary Housing (MIH) would facilitate the development of new permanently affordable housing. The proposed R7D/M1-4 (MX) zoning district would also facilitate the development of community facility uses that would be complementary to the community facility uses on the surrounding blocks (Mott Haven Community High School (P.S.557), JM Rapport School for Career Development (P.S. 754), Neighborhood Charter School: Bronx, and The American Dream School). The proposed manufacturing and commercial uses would be compatible with the adjacent industrial area (M1-2 zoning district to the east and to the south of the Affected Area). Therefore, no significant adverse impacts related to zoning would occur as a result of the Proposed Actions, and further analysis of zoning is not warranted.

2.1.3 Public Policy

According to the *2021 CEQR Technical Manual*, a project that would be located within areas governed by public policies controlling land use, or that has the potential to substantially affect land use regulation or policy controlling land use, requires an analysis of public policy. A preliminary assessment of public policy should identify and describe any public policies, including formal plans or published reports, which pertain to the Study Area. If the Proposed Actions could potentially alter or conflict with identified policies, a detailed assessment should be conducted; otherwise, no further analysis of public policy is necessary.

The Affected Area is not part of, or subject to, an Urban Renewal Plan (URP), adopted community 197-a Plan, Solid Waste Management Plan, Business Improvement District (BID), Industrial

Business Zone (IBZ), or the New York City Landmarks Law. In addition, the Affected Area is located within a designated FRESH-eligible area but would not include any FRESH programming.

The relevant public policies analyzed in this section include:

- Housing New York 2.0
- Rebuild, Renew, Reinvent: A Blueprint for New York City's Economic Recovery

Existing Conditions

Housing New York 2.0

Facilitated by the Department of Housing Preservation and Development (HPD), *Housing New York 2.0* is the City's plan to build or preserve 300,000 affordable homes by 2026. The plan outlines a comprehensive set of policies and programs to address the city's affordable housing crisis and retain the diversity and vitality of its neighborhoods.

Rebuild, Renew, Reinvent: A Blueprint for New York City's Economic Recovery

Rebuild, Renew, Reinvent: A Blueprint for New York City's Economic Recovery aims to accelerate job creation and make communities more resilient to future environmental and public health emergencies, financially stronger, and more connected. It contains five main strategies, including

1. Restarting the city's economic engines and reactivating the public realm
2. Supporting small businesses, entrepreneurship, and a more equitable economy
3. Driving inclusive sector growth and building a future-focused economy
4. Connecting New Yorkers to quality jobs and in-demand skills
5. Planning and building for inclusive growth now and in the future.

Future No-Action Condition

No changes to *Housing New York 2.0 or Rebuild, Renew, Reinvent: A Blueprint for New York City's Economic Recovery* are anticipated under Future No-Action Conditions.

Future With-Action Condition

Housing New York 2.0

The Proposed Actions support the goal of Housing New York 2.0 to provide 100,000 more affordable homes by 2026, in addition to the 200,000 affordable homes provided by 2022 under the original Housing New York Plan. The Proposed Actions would establish an MIH area over the Affected Area and facilitate the development of 135 dwelling units, 25-30% (34-40 units) of which would be affordable at an average of 60-80% AMI pursuant to MIH Option 1 or Option 2. The affordable units would foster diverse and livable neighborhoods and preserve the affordability and quality of the housing stock.

Rebuild, Renew, Reinvent: A Blueprint for New York City's Economic Recovery

The Proposed Actions would facilitate the development of community facility space and commercial space occupied by local retail and offices while preserving manufacturing uses. Since the Proposed Actions would facilitate new commercial and community facility uses on the ground floor of Projected Development Site 1, they contribute to *Strategy 1. Restart our city's economic engines and reactivate the public realm* by strengthening corridors where New Yorkers live, work, and play and reviving the city's vitality and dynamism by activating public spaces. In addition, the Proposed Actions would generate new quality jobs and support the Strategy 4 of "Rebuild, Renew, Reinvent: A Blueprint for New York City's Economic Recovery" aiming to connect New Yorkers to quality jobs and in-demand skills. The Proposed Actions would facilitate the development of multiple kinds of businesses including commercial office, retail, and manufacturing, which would attract a diverse range of job opportunities and skill sets to the area. Lastly, the Proposed Actions would facilitate the development of the affordable housing and increase opportunities for low-cost housing in the neighborhood. Therefore, the Proposed Actions are aligned with the *Strategy 5. Plan and build for inclusive growth now and in the future*.

Conclusion

The Proposed Actions would support the City policy "*Rebuild, Renew, Reinvent: A Blueprint for New York City's Economic Recovery"* by offering new spaces for small businesses, enhancing economic diversity within the community, and generating quality job opportunities for New Yorkers. Moreover, the proposed Zoning Text Amendment to Appendix F to add Mandatory Inclusionary Housing (MIH) would allow for the development of permanently affordable housing and would be supportive of City policies such as *Housing New York 2.0* that aim to address the city's affordable housing crisis and retain the diversity and vitality of its neighborhoods. The Proposed Actions would not result in significant material changes to existing regulations or policy. Therefore, no significant adverse impacts on public policies would occur, and no further analysis is warranted.

2.2 Open Space

The *2021 CEQR Technical Manual* defines the need for an open space assessment if the Proposed Actions would have a direct or indirect effect on open space resources. Direct effects would occur if the proposed action would result in the physical loss of a public open space; change of use of an open space so that it no longer serves the same user population; limit public access to an open space; or cause increased noise or air pollutant emissions, odors, or shadows on public open space that would affect its usefulness, whether temporary or permanent. Indirect effects would occur if a proposed action would result in an increase of population sufficiently large enough to noticeably diminish the ability of an area's open space to serve future population.

Open space is defined as publicly or privately-owned land that is publicly accessible and operates, functions, or is available for leisure, play, or sport, or set aside for the protection and/or enhancement of the natural environment.

Pursuant to Chapter 7, Section 100 of the *2021 CEQR Technical Manual*, Open Space Resources are defined as active and/or passive, and may include, but are not limited to, the following:

- Parks operated or managed by City, State, or federal governments and include neighborhood and regional parks, beaches, pools, golf courses, boardwalks, playgrounds, ballfields, and recreational facilities that are available to the public at no cost or through a nominal fee, such as NYC Parks recreation centers and golf courses;
- Open Space designated through regulatory approvals (e.g., zoning), including large-scale permits that prescribe publicly accessible Open Space, such as public plazas;
- Outdoor schoolyards, if available to the public during non-school hours;
- Publicly-accessible institutional campuses;
- Promenades and esplanades;
- Designated greenways, as shown on the NYC Bike Map, and defined as multi-use pathways for non-motorized recreation and transportation along natural or other linear spaces, such as rail and highway rights-of-way, river corridors, and waterfront spaces;
- Landscaped medians or malls with seating;
- Housing complex grounds, if publicly accessible;
- Nature preserves, if publicly accessible;
- Gardens, if publicly accessible;
- Church yards (with seating) or cemeteries, if publicly-accessible for passive recreation;
- Waterfront piers used for recreation.

Methodology

According to the guidelines of the City's *2021 CEQR Technical Manual* for analysis of residential development, census tracts with at least half of their geographic area within a one-half mile radius of the Affected Area comprise the residential Open Space Study Area. Using current population figures, an Open Space Ratio is calculated for both the future no-action and future with-action conditions, expressed as the amount of open space acreage per 1,000 user population. Typically, a comparison is made to the city's planning goal of 2.50 acres of Open Space per 1,000 residents.

In addition to field surveys, information from the NYC Department of City Planning's Community District Needs Statements and Housing Database, NYC Parks Department website, and U.S. Census data were utilized in preparing the Open Space analysis.

Direct Effects

Direct effects to Open Space are addressed in the sections for those specific technical areas where warranted. Construction impacts to Open Space are not anticipated as there would be no physical loss of public Open Space, no change in existing Open Space so that it no longer serves the same user population, would not limit public access, and would not increase noise or air pollutant emissions, odors, or shadows on public Open Space that would affect its usefulness. An assessment of the effects of the Proposed Actions related to shadows on Open Space resources is provided in **Section 2.3**.

Indirect Effects

Pursuant to the *2021 CEQR Technical Manual*, the threshold for assessment of the potential for indirect impacts is 200 new residents or 500 additional employees. As indicated in **Table 1.8-2,** the Future With-Action Condition at the Affected Area is projected to generate 360 new incremental residents. Accordingly, a preliminary residential Open Space assessment for indirect effects is warranted. The Future With-Action Condition is projected to result in an increase of 213 employees in the Affected Area. Accordingly, a preliminary commercial Open Space assessment for indirect effects is not warranted.

2.2.1 Preliminary Residential Open Space Assessment for Indirect Effects

As previously discussed, the Proposed Actions are projected to result in the incremental development of 131 new dwelling units within the Affected Area. Assuming an average household size of 2.75 persons within Bronx, Community District 1 (based on 2020 United States Decennial Census Data), the incremental residential population increase in the Affected Area would be approximately 360 persons (2.75 x 131 = 360).

Study Area Definition

In accordance with the guidelines established in the City's *2021 CEQR Technical Manual*, the Open Space Study Area is defined to analyze both the nearby Open Spaces and the population

using those Open Space resources. The Study Area is generally defined by a reasonable walking distance that users would travel to reach local Open Spaces and recreational areas. Pursuant to the *2021 CEQR Technical Manual*, the Open Space Study Area includes all U.S. Census Tracts that have 50 percent or more of their area within a half-mile radius of the Affected Area for residential users. As shown in **Figure 2.2-1**, there are nine census tracts with 50 percent or more of their area within the Generalized Open Space Study Area, including Bronx Census Tracts 27.01, 27.02, 31, 33, 35, 43, 73, 79, and 83.

Existing Condition

Based on census tract level population data provided in the 2020 United States Decennial Census, the 1/2-mile Study Area had a total population of 41,490 persons. According to the Project-Level DCP Housing Database, three (3) building permits were completed within the nine census tracts comprising the Study Area since January 1, 2020 (see **Appendix C**). One of these permits was issued for an alteration of existing building and two for new building construction. The three permits ultimately resulted in 42 net residential dwelling units which multiplied by the average household size (2.75) for Bronx Community District 1 (2020 ACS) came out to 116 additional residents. As such, the Study Area population under Existing Conditions is estimated to be 41,606 persons.

Future No-Action Condition

A review of active major construction projects[2] and approved BSA applications and ULURP actions was undertaken to determine known developments within 1/2-mile Study Area. Based on this review, there are 20 active permits for alteration and/or demolition of existing buildings and construction of new buildings that would result in a net gain of 614 residential dwelling units by the 2026 Project Build Year. In addition, 431 Concord Avenue Rezoning was identified as a land use and/or zoning action with the potential to generate 93 new residential dwelling units within the 1/2-mile Study Area by the 2026 Project Build Year. Overall, the No-Action construction projects are projected to add an additional 1,944 persons to the 1/2-mile study area population, for a total of 43,550 persons in the Future No-Action Condition (see **Table 2.2-1** below).

[2] https://nycdob.github.io/DOB_Dashboards/layouts/two-and-one/Active_ConstructionTM_withGraphs, Accessed April 6, 2022

Table 2.2-1: No-Action Developments within Census Tracts 27.01, 27.02, 31, 33, 35, 43, 73, 79, 83

Address	Land Use	Permit Type	SF	DU	Story
810 E 147 Street	Mercantile	New Building	3,120	0	1
740 East 137th Street	Business	New Building	10,886	0	2
582 East 138 Street	Residential	New Building	10,528	8	5
350 Cypress Avenue	Educational	New Building	5,742	0	1
602 Oak Terrace	Residential	New Building	7,431	8	4
600 Oak Terrace	Residential	New Building	7,294	8	4
345 St Ann's Ave	Residential	New Building	180,155	178	10
880 East 147th Street	Residential	New Building	73,899	80	11
494 Jackson Ave	Residential	New Building	14,462	16	4
531 Tinton Avenue	Residential	New Building	23,352	34	8
536 Wales Avenue	Institution	New Building	55,201	70	7
569 Prospect Ave	Residential	New Building	66,000	45	7
516 E 147 Street	Residential	New Building	5,666	7	4
518 E 147 Street	Residential	New Building	5,666	7	4
571 Jackson Avenue	Residential	New Building	44,289	45	7
554 Trinity Avenue	Residential	New Building	49,203	52	7
567 East 149th Street	Business	New Building	49,248	0	3
603 Jackson Avenue	Residential	New Building	33,800	25	7
444 East 149 Street	Residential	New Building	20,226	31	9
671 Prospect Avenue	Educational	Alt 1 Enlargement	6,552	0	4

Future With-Action Condition

Compared to No-Action Conditions, the Proposed Actions would introduce 131 more dwelling units. Assuming an average household size of 2.75 persons, there would be 360 incremental residents resulting from the Proposed Actions. The Future With-Action population, then, would be 43,910 residents as shown below in **Table 2.2-2**.

Table 2.2-2: Existing, No-Action, and With-Action Populations[3]

Existing	No-Action	With-Action
41,606	43,550	43,910

[3] Existing = 2020 American Community Survey plus completed DUs since January 1st 2020; No-Action = Existing plus 1,944 residents; With-Action = No-Action plus 336 additional residents from the Projected Developments

Figure 2.2-1: Open Space Study Area Boundary, Census Tracts, and Open Spaces

2.2.2 Open Space Resources

There are 10 Open Space resources with regular open access to the public within the Study Area identified in **Table 2.2-3**. There are 42.87 acres of Open Spaces resources in the Study Area—31.80 are considered active, and 11.07 are considered passive based on field visits and a review of Open Space site plans. The location of these resources, as well as community gardens present in the Study Area, are shown in **Figure 2.2-1**. Community gardens are not considered Open Space resources under many circumstances given their small size and limited public accessibility; therefore, community gardens are not included in the analysis.

Existing Condition

The Study Area has 42.87 acres of Open Space and an existing residential population of 41,606. The Open Space Ratio (OSR) under existing conditions is 1.030 acres per thousand residents, which is below the citywide average of 1.5 acres per thousand residents and reflects the shortfall of Open Spaces within the Study Area.

Future No-Action Condition

In the future, without the Proposed Actions, the population within the Study Area in the 2026 build year is projected to be 43,550 persons. As no new Open Spaces are planned within this Study Area by the 2026 build year, the existing conditions, with a total of 42.87 acres of Open Space serving the Study Area, would remain unchanged in the Future No-Action Condition. As such, the OSR under the Future No-Action Condition would be 0.984, which is also below the citywide average of 1.5 acres per thousand residents.

Future With-Action Condition

The Proposed Actions would result in an increase in the Future No-Action population of 360 residents by the 2026 build year, resulting in a total Future With-Action Condition population of 43,910 persons within the Study Area. The Proposed Actions would not facilitate the development of any new publicly accessible Open Spaces within the Affected Area. Accordingly, the Future No-Action Condition total of 42.87 acres of Open Space serving the Study Area would remain unchanged in the Future With-Action Condition. As such, the OSR under the Future With-Action Condition would be 0.976 acres per 1,000 residents.

The decrease in the OSR from 0.984 in the Future No-Action Condition to 0.976 in the Future With-Action Condition constitutes a 0.81 percent decrease in the Study Area's OSR. Pursuant to the *2021 CEQR Technical Manual*, when the OSR range falls between 0.51 and 1, a maximum decrease of two percent in Open Space Ratio between the Future No-Action and Future With-Action Conditions does not require further analysis. As the projected OSR decrease of 0.81 percent under the Future With-Action Condition is below the 2 percent threshold, the Proposed Actions do not warrant a detailed analysis of Open Space.

2.2.3 NYC Parks Walk to a Park Initiative

New York City, as part of the OneNYC 2050 Building a Strong and Fair City plan, has put forth a goal for 85 percent of New York City residents living within walking distance of a park by 2030. To help the City reach this goal, NYC Parks has a Walk to a Park initiative that focuses on increasing access to parks and Open Space in areas of the City where residents live further than walking distance to a park. Areas outside of Walk to a Park Service Areas are considered "walk gaps" – i.e., areas of the City that are not within walking distance to a park.

As part of the preliminary assessment for Open Space, a project should be reviewed to determine if it is located in an area of the city within a Walk to a Park Service Area. Project sites that are located outside of a Walk to a Park Service Area (i.e., located in a known walk gap areas) suggests there is a need for a detailed analysis to be performed to determine if the project may further exacerbate a condition of residents living in areas of the city with inadequate park access, potentially leading to a significant impact. While the focus of the Walk to a Park initiative is on residents living within walking distance to a park, projects that create a non-residential population (e.g., new workers) should also review if the project is located within a known walk gap and assess if the project would generate a new non-residential population within areas of the City with inadequate access to open space resources.

As shown in **Figure 2.2-1**, the Affected Area is located within a Walk to Park Service Area and is therefore not identified as a walk gap area.

Table 2.2-3: Open Space Resources

Name	Park ID Number	Property Type	Responsible Agency	Acreage	% Active	% Passive	Total Active	Total Passive	Features
Abigail Playground	X216	Playground	NYC DPR	0.53	75%	25%	0.3975	0.1325	BC, PG, SS, Ba
Clark Playground	X200	Jointly Operated Playground	NYC DPR/DOE	0.72	75%	25%	0.54	0.18	BC, Ba, HC, PG, SS
Fountain Of Youth Playground	X233	Jointly Operated Playground	NYC DPR/DOE	1.38	75%	25%	1.035	0.345	HC, PG, SS
Gouverneur Morris Triangle	X139	Triangle/Plaza	NYC DPR	0.31	0%	100%	0	0.31	-
I-Am-Park	X228	Jointly Operated Playground	NYC DPR/DOE	0.71	75%	25%	0.5325	0.1775	BC, Pg
Martin Luther King Triangle	X063	Triangle/Plaza	NYC DPR	0.16	0%	100%	0	0.16	-
Millbrook Playground	X182	Playground	NYC DPR	1.05	75%	25%	0.7875	0.2625	BC, Ba, FE, HC, PG, SS
Playground 52 LII	X179	Jointly Operated Playground	NYC DPR/DOE	1.79	75%	25%	1.3425	0.4475	BC, HC, Ba, PG, SP, SS
Pontiac Playground	X207	Jointly Operated Playground	NYC DPR/DOE	0.91	75%	25%	0.6825	0.2275	HC, PG
St. Mary's Park	X045	Community Park	NYC DPR	35.31	75%	25%	26.4825	8.8275	BF, BC, Ba, DFA, FE, FF, HC, IP, ML, PG, RC, SS, RT, SF, TC, WFHS
Totals				**42.87**	**-**	**-**	**31.80**	**11.07**	**-**

SS = Spray Showers; Pg = Playgrounds; Bi = Bicycling; BC = Basketball Courts; BA = BBQ Area; FE = Fitness Equipment; Ba = Bathrooms; Be = Benches; HC = Handball Courts; GW = Greenway; CG = Community Garden; VB = Volley Ball; BF = Baseball Fields; FF = Football Fields; DFA = Dog Friendly Areas; IP = Indoor Pools; ML = Media Labs; WFHS = Wifi Hot Spots; SF = Soccer Fields; RC = Recreation Centers; RT = Running Tracks.

2.2.4 Conclusion

The Future With-Action Condition would result in the development of 131 additional dwelling units over the Future No-Action Condition, projected to generate an additional population of 360 new residents. This would result in a decrease of the OSR within the Study Area from 0.984 acres per 1,000 residents in the Future No-Action Condition to 0.976 in the Future With-Action Condition, a decrease of approximately 0.81 percent. Pursuant to the *2021 CEQR Technical Manual*, OSR range between 0.51 and 1 can tolerate up to a two percent decrease in the OSR between the Future No-Action and Future With-Action Condition without warranting additional analyses. Further, the Affected Area is within a Walk to a Park service area, indicating all future projected residents are within a reasonable walking distance to public Open Spaces. Therefore, the Proposed Actions would not result in a significant adverse impact on Open Space within the Study Area, and further analysis is not warranted.

2.3 Shadows

The *CEQR Technical Manual* defines a shadow as the condition that results when a building or other built structure blocks the sunlight that would otherwise directly reach a certain area, space or feature. An incremental shadow is the additional or new shadow that a building or other built structure resulting from a Proposed Action would cast on a sunlight-sensitive resource during the year. The sunlight-sensitive resources of concern are those resources that depend on sunlight or for which direct sunlight is necessary to maintain the resource's usability or architectural integrity, including public open space, architectural resources and natural resources. Shadows can have impacts on publicly accessible open spaces or natural features by adversely affecting their use and important landscaping and vegetation. In general, increases in shadow coverage make parks feel darker and colder, affecting the experience of park patrons. Shadows can also have impacts on historic resources whose features are sunlight-sensitive, such as stained-glass windows, by obscuring the features or details, which make the resources significant.

The duration and dimensions of shadows are determined by the geographic location of the area from which the shadow is cast and the time of day and season. Shadows cast during the morning and evening, when the sun is low in the sky, are longer, while midday shadows are shorter in length. Shadows in winter, when the sun arcs low across the southern sky, are also longer throughout the day than at corresponding times in spring and fall seasons. In summer, the high arc of the sun casts shorter shadows than at any other time of year, and early and late shadows during the summer are cast farther towards the south than shadows cast in early and late winter months.

The CEQR Technical Manual states that a shadow assessment considers projects that result in new shadows long enough to reach a sunlight-sensitive resource. Therefore, a shadow assessment is warranted only if the project would either result in (a) new structures (or additions to existing structures, including the addition of rooftop mechanical equipment) of 50 feet or more or, (b) be located adjacent to, or across the street from, a sunlight-sensitive resource.

The sunlight-sensitive resources of concern are those resources that depend on sunlight or for which direct sunlight is necessary to maintain the resource's usability or architectural integrity, including public open space, architectural resources and natural resources. In general, shadows on city streets and sidewalks or on other buildings are not considered significant. Some open spaces also contain facilities that are not sensitive to sunlight. These are usually paved such as handball or basketball courts, places containing no seating areas and no vegetation, no unusual or historic plantings, or containing only unusual or historic plantings that are shade tolerant. These types of facilities do not need to be analyzed for shadow impacts. Additionally, it is generally not necessary to assess resources located to the south of projected development sites, as shadows cast by the action-generated development would not be cast in the direction of these resources. Furthermore, shadows occurring within one and one-half hour of sunrise or sunset generally are not considered significant in accordance with *CEQR Technical Manual* guidance.

Methodology

This preliminary analysis of shadows follows the guidelines set forth in the *2021 CEQR Technical Manual* for a preliminary assessment (Section 310). According to the *2021 CEQR Technical Manual*, a preliminary shadow assessment includes the development of a base map showing the site location in relationship to any sunlight-sensitive resources as per guidelines provided in the *2021 CEQR Technical Manual*. Following these guidelines, the longest shadow Study Area is determined, and a Tier 1 screening assessment is conducted to determine if any sunlight-sensitive resources fall within the Study Area. If no resources are identified, no further analysis would be required. If sunlight-sensitive resources lay within the longest shadow Study Area, the next tier of screening assessment should be conducted. This preliminary assessment includes a basic description of the proposed project that would be facilitated by the Proposed Actions in order to determine whether a more detailed assessment would be appropriate.

Analysis Framework

Projected Development Site 1

Projected Development Site 1 is located on Block 2577, Lots 9 and 14. Under Future With-Action conditions, it is assumed that Projected Development Site 1 would be developed with a new 11-story mixed-use building that would reach a height of 115 feet. Additionally, the development would be expected to exceed the maximum building height by 10 feet to accommodate rooftop mechanical space, which would result in a total potential building height of 125 feet. Since Projected Development Site 1 is currently utilized as parking and improved with a one-story warehouse, the Development would result in an incremental change in height greater than 50 feet, and a preliminary assessment for shadows is warranted.

Projected Development Site 2

Projected Development Site 2 is located on Block 2577, Lots 7 and 8. Under Future With-Action conditions, it is assumed that Projected Development Site 2 would be developed with a new 11-story mixed-use building that would reach a height of 115 feet. Additionally, the development would be expected to exceed the maximum building height by 10 feet to accommodate rooftop mechanical space, which would result in a total potential building height of 125 feet. Since Projected Development Site 2 is currently improved with two two-story residential buildings, the Development would result in an incremental change in height greater than 50 feet, and a preliminary assessment for shadows is warranted.

No other sites within the Affected Area are anticipated to be redeveloped as a result of the Proposed Actions, thus, only Projected Development Sites 1 and 2 will be assessed for potential shadow impacts.

2.3.1 Tier 1 Shadow Screening Assessment

Under the Future With-Action Condition, the Projected Development Sites 1 and 2 could be developed with new buildings having a maximum height of 125 feet. Therefore, the longest action-induced shadow would be approximately 537.5 feet (4.3 x 125 feet) in length.

The first step in a shadow analysis is to determine whether there are any sunlight-sensitive resources located within the length of the radius equal to the longest action-induced shadow length for each of the Sites.

As **Figure 2.3-1** shows below, two sunlight-sensitive resources, St. Mary's Park (Sunlight Sensitive Resource 1) and I-Am-Park (Sunlight Sensitive Resource 2) lie within the longest shadow Study Areas of Projected Development Sites 1 and 2. As such, a Tier 2 screening assessment is required.

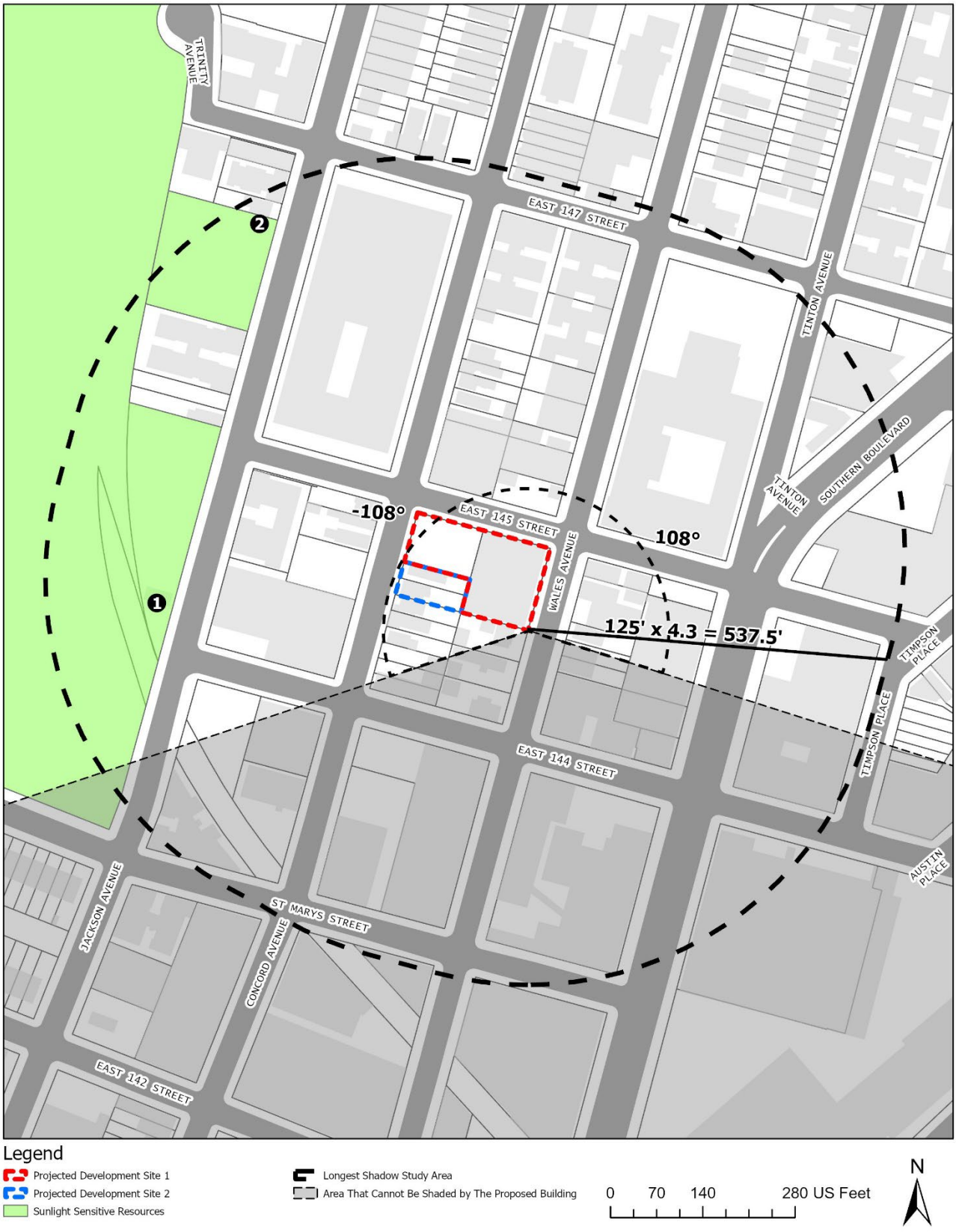
2.3.2 Tier 2 Shadow Screening Assessment

The *CEQR Technical Manual* states that if any portion of a sunlight-sensitive resource lies within the longest shadow Study Area, a Tier 2 screening assessment should be performed. Because of the path the sun travels across the sky in the northern hemisphere, no shadow can be cast in a triangular area south of any given project site. In New York City, this area lies between -108 and +108 degrees from true north. For a Tier 2 screening assessment, sunlight-sensitive resources within the triangular area cannot be shaded by new Projected Development Sites and are screened out. The complementing portion to the north within the longest shadow Study Area is the area that can be shaded by the proposed project.

As shown in **Figure 2.3-2**, the Tier 2 screening assessment shows that St. Mary's Park (Sunlight Sensitive Resource 1) and I-Am-Park (Sunlight Sensitive Resource 2) are outside of the -108/+180-degree triangular area south of the Projected Sites where no shadow can be cast. Accordingly, a Tier 3 shadow screening assessment is required.

Figure 2.3-1: Tier 1 Shadow Screening Assessment

Figure 2.3-2: Tier 2 Shadow Screening Assessment



2.3.3 Tier 3 Shadow Screening Assessment

The *CEQR Technical Manual* states that if any portion of a sunlight-sensitive resource is within the area that could be shaded by the Proposed Project, a Tier 3 screening assessment should be performed. Because the sun rises in the east and travels across the southern part of the sky to set in the west, a project's earliest shadows would be cast almost directly westward. Throughout the day, they would shift clockwise (moving northwest, then north, then northeast) until sunset, when they would fall east. Therefore, a project's earliest shadow on a sunlight-sensitive resource would occur in a similar pattern, depending on the location of the resource in relation to the Project Site. For a Tier 3 screening assessment, if the assessment determines that no shadows from the development would reach any of the sunlight-sensitive resources on any of the representative analysis days, then no further assessment for those days is needed. If, however, in the absence of intervening buildings shadows from the proposed buildings would reach sunlight-sensitive resources on any of the representative analysis days, then a detailed shadow analysis would be warranted for those days.

Three-dimensional computer modeling was used for the Tier 3 screening assessment. At this stage of the assessment, the surrounding buildings were not included in the model to determine whether shadows from the proposed project would reach the sunlight-sensitive resource.

The following representative days were included in the modeling:

- December 21 (Winter Solstice),
- March 21/ September 21 (Vernal Equinox/Autumnal Equinox),
- June 21 (Summer Solstice),
- May 6/ August 6.

As shown in **Figure 2.3-3** to **Figure 2.3-6** below, shadows from the Projected Developments would reach the sunlight-sensitive resource, I-Am-Park (Sunlight Sensitive Resource 2), on December 21st (Winter Solstice) and reach St. Mary's Park on March 21st/September 21st (Vernal and Autumnal Equinox), May 6th / August 6th, and June 21st (Summer Solstice). Therefore, a detailed shadow analysis is required to determine the impacts on St. Mary's Park (Sunlight Sensitive Resource 1) and I-Am-Park (Sunlight Sensitive Resource 2).

Figure 2.3-3: Tier 3 Shadow Screening December 21st (Winter Solstice)

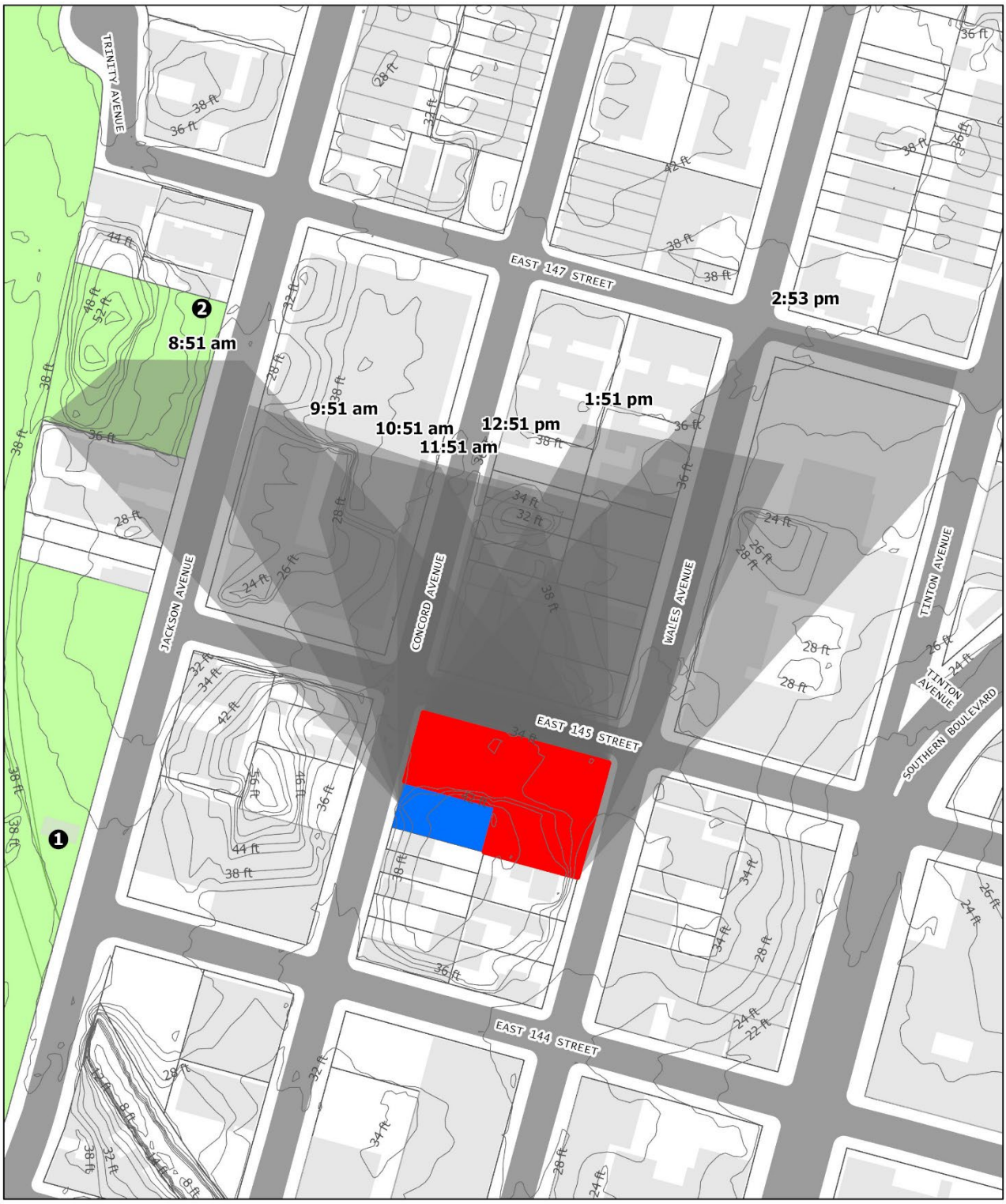


Figure 2.3-4: Tier 3 Shadow Screening March 21st/September 21st (Vernal and Autumnal Equinox)

Figure 2.3-5: Tier 3 Shadow Screening May 6th/August 6th

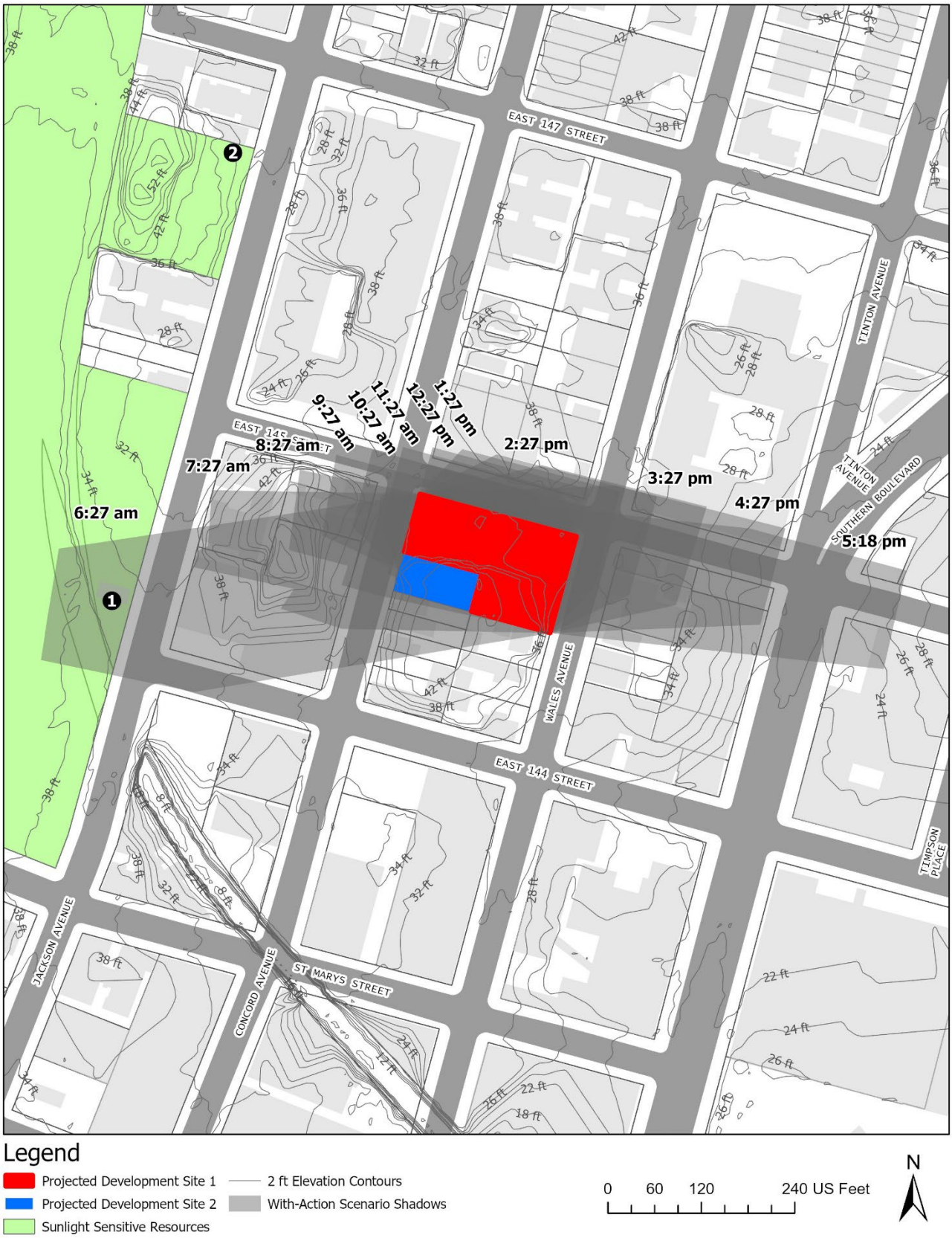
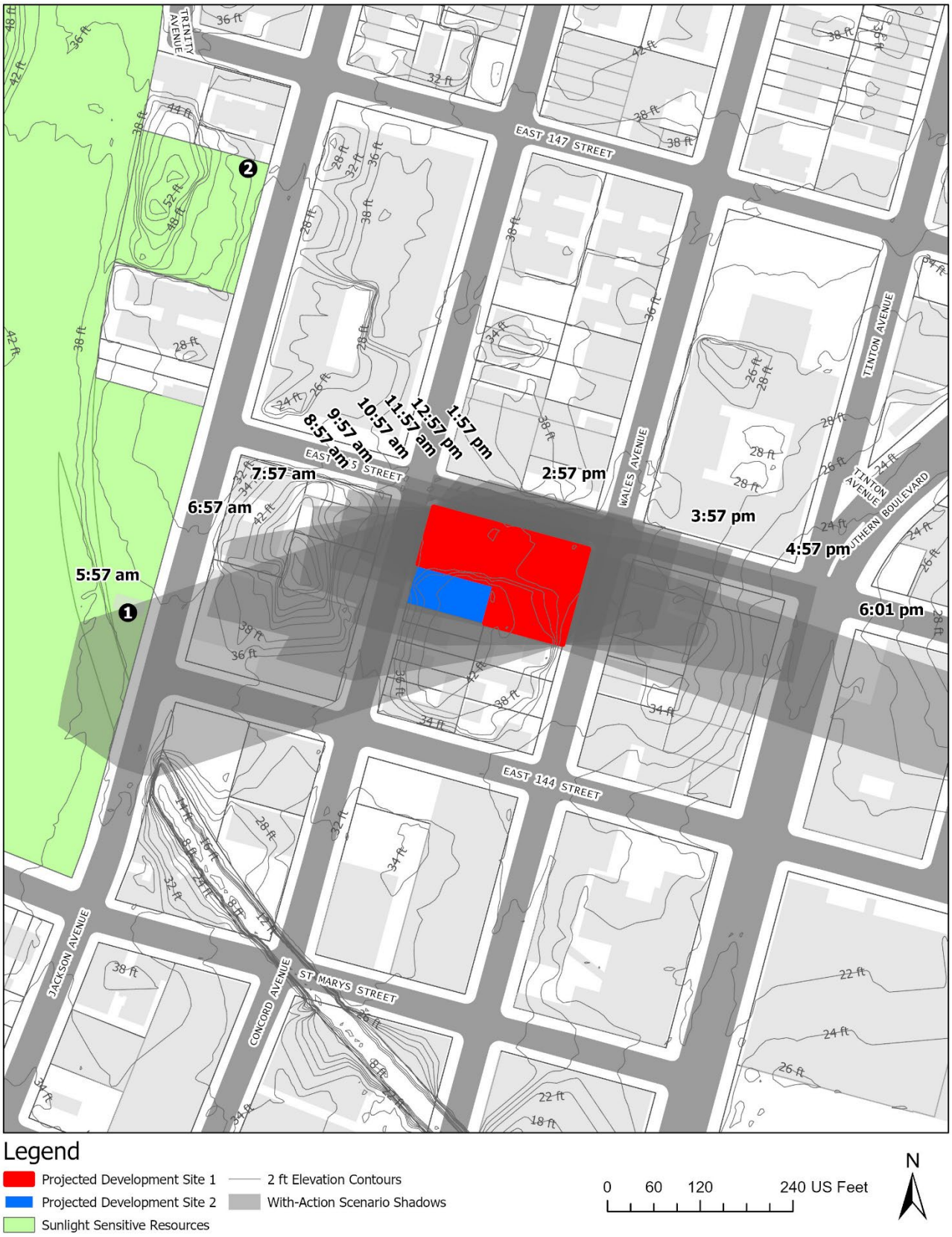


Figure 2.3-6: Tier 3 Shadow Screening June 21st (Summer Solstice)



2.3.4 Detailed Shadow Analysis

Owned and managed by NYC DPR, St. Mary's Park is a publicly accessible outdoor space located in the Bronx, NY (Block 2557, Lot 1) and is 35.31 acres in size. The park includes walking paths, baseball fields, a dog-run, handball courts, playgrounds, soccer fields, basketball courts, tennis courts, football fields, and an indoor recreation center with a pool and fitness equipment. **Figure 2.3-7** shows an aerial view of the park. The playground is open from 6 am to 9 pm all year round.

Owned and managed by NYC DPR, I-Am-Park is a publicly accessible outdoor space located in the Bronx, NY (Block 2557, Lot 49) and is 0.71 acres in size. The park includes basketball courts and a playground. **Figure 2.7-8** shows an aerial view of the 3.2-acre playground. The playground is open from 6 am to 9 pm all year round.

The purpose of the detailed analysis is to determine the extent and duration of shadows that fall on a sunlight-sensitive resource due to the proposed project. In order to carry out the detailed shadow analysis, the three-dimensional computer model used for the previous screening assessment was augmented by adding the existing and future buildings near the Projected Development Sites that could cast shadows on any of the sunlight-sensitive resources.

The results of the detailed shadow analyses on the identified resources of concern are summarized in **Table 2.3-1**. The incremental shadows cast by the Projected Development Sites are shown below in **Figure 2.3-9** to **Figure 2.3-12**.

Based on the findings of the Detailed Shadow Analysis, the Proposed Actions would result in incremental shadows on I-Am-Park during the December 21st analysis period. Shadows cast from the Projected Development Sites during the representative day in December enter I-Am-Park at 8:51 am and leave the park at 9:25 am. The total Incremental Shadow Duration on December 21st is 34 Minutes, which leaves 5 hours and 28 minutes of the parks unaffected sunlight exposure.

Based on the findings of the Detailed Shadow Analysis, the Proposed Actions would result in incremental shadows on St. Mary's Park during the March 21st / September 21st analysis period. Shadows cast from the Projected Developments during the representative day in March / September enter St. Mary's Park at 7:36 am and leave the park at 8:06 am. The total Incremental Shadow Duration on March 21st / September 21st is 30 Minutes, which leaves 8 hours and 23 minutes of the parks unaffected sunlight exposure.

Based on the findings of the Detailed Shadow Analysis, the Proposed Actions would result in incremental shadows on St. Mary's Park during the May 6th / August 6th analysis period. Shadows cast from the Projected Developments during the representative day in May / August enter St. Mary's Park at 6:27 am and leave the park at 6:50 am. The total Incremental Shadow Duration on May 6th / August 6th is 23 Minutes, which leaves 10 hours and 28 minutes of the parks unaffected sunlight exposure.

Based on the findings of the Detailed Shadow Analysis, the Proposed Actions would result in incremental shadows on St. Mary's Park during the June 21st analysis period. Shadows cast from the Projected Developments during the representative day in June enter St. Mary's Park at 5:57 am and leave the park at 6:20 am. The total Incremental Shadow Duration on June 21st is 23 Minutes, which leaves 11 hours and 41 minutes of the parks unaffected sunlight exposure.

Table 2.3-1: Detailed Shadow Analysis Results

Analysis Day	21-Dec	March 21 / September 21	May 6 / August 6	21-Jun
Timeframe Window	8:51 a.m. - 2:53 p.m.	7:36 a.m. - 4:29 p.m.	6:27 a.m. - 5:18 p.m.	5:57 a.m. - 6:01 p.m.
Sunlight Sensitive Resource 1	St. Mary's Park			
Shadow enter - exit times	-	7:36 am - 8:06 am	6:27 am - 6:50 am	5:57 am - 6:20 am
Incremental Shadow Duration	-	30 Minutes	23 Minutes	23 Minutes
Sunlight Sensitive Resource 2	I-Am-Park			
Shadow enter - exit times	8:51 am - 9:25 am	-	-	-
Incremental Shadow Duration	34 Minutes	-	-	-
Note: Daylight savings time not used				

Figure 2.3-7: St. Mary's Park (Sunlight Sensitive Resource 1)

Figure 2.3-8: I-Am-Park (Sunlight Sensitive Resource 2)

Figure 2.3-9: Incremental Shadows December 21st, 8:51 a.m.

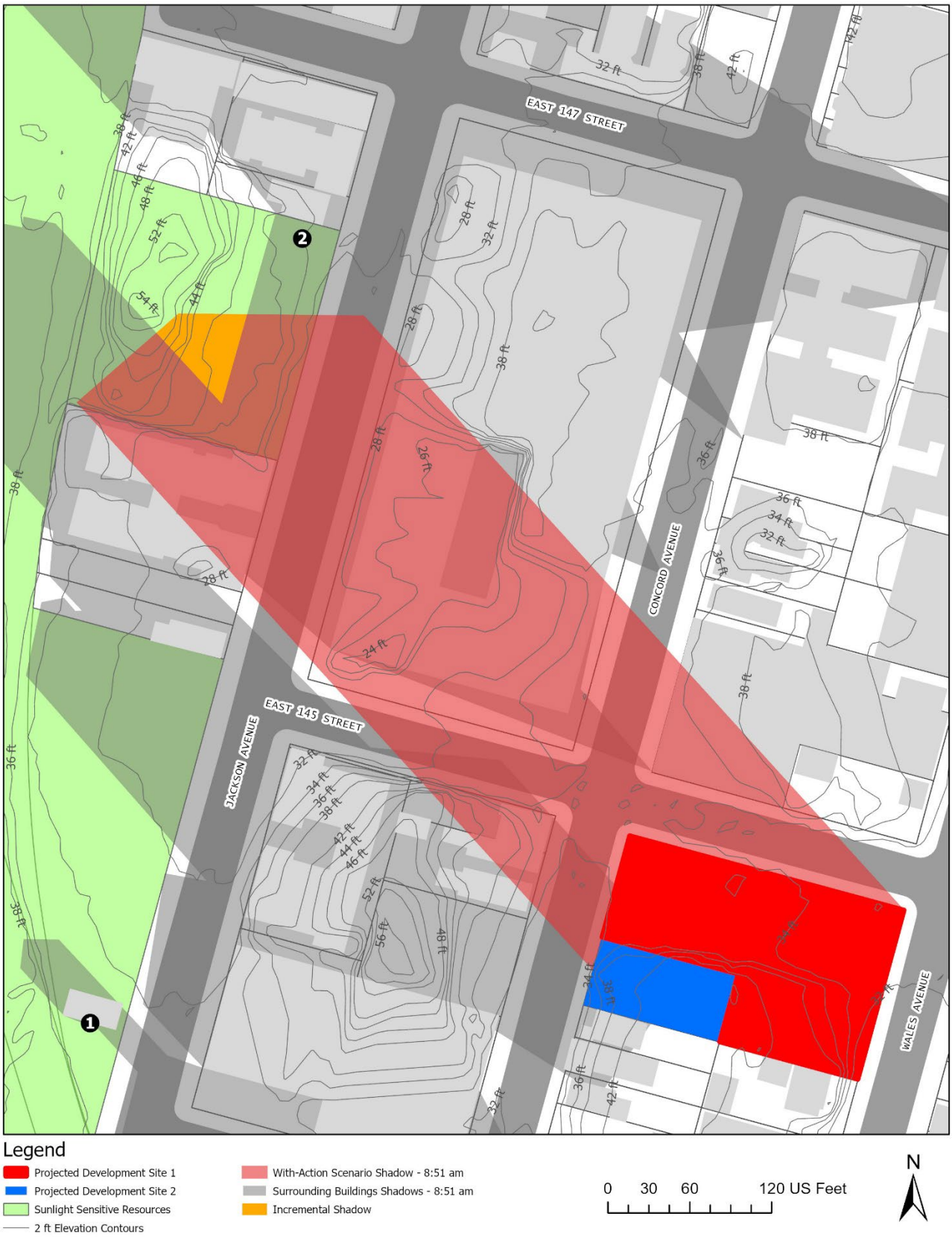


Figure 2.3-10: Incremental Shadows March 21st / September 21st, 7:36 a.m.

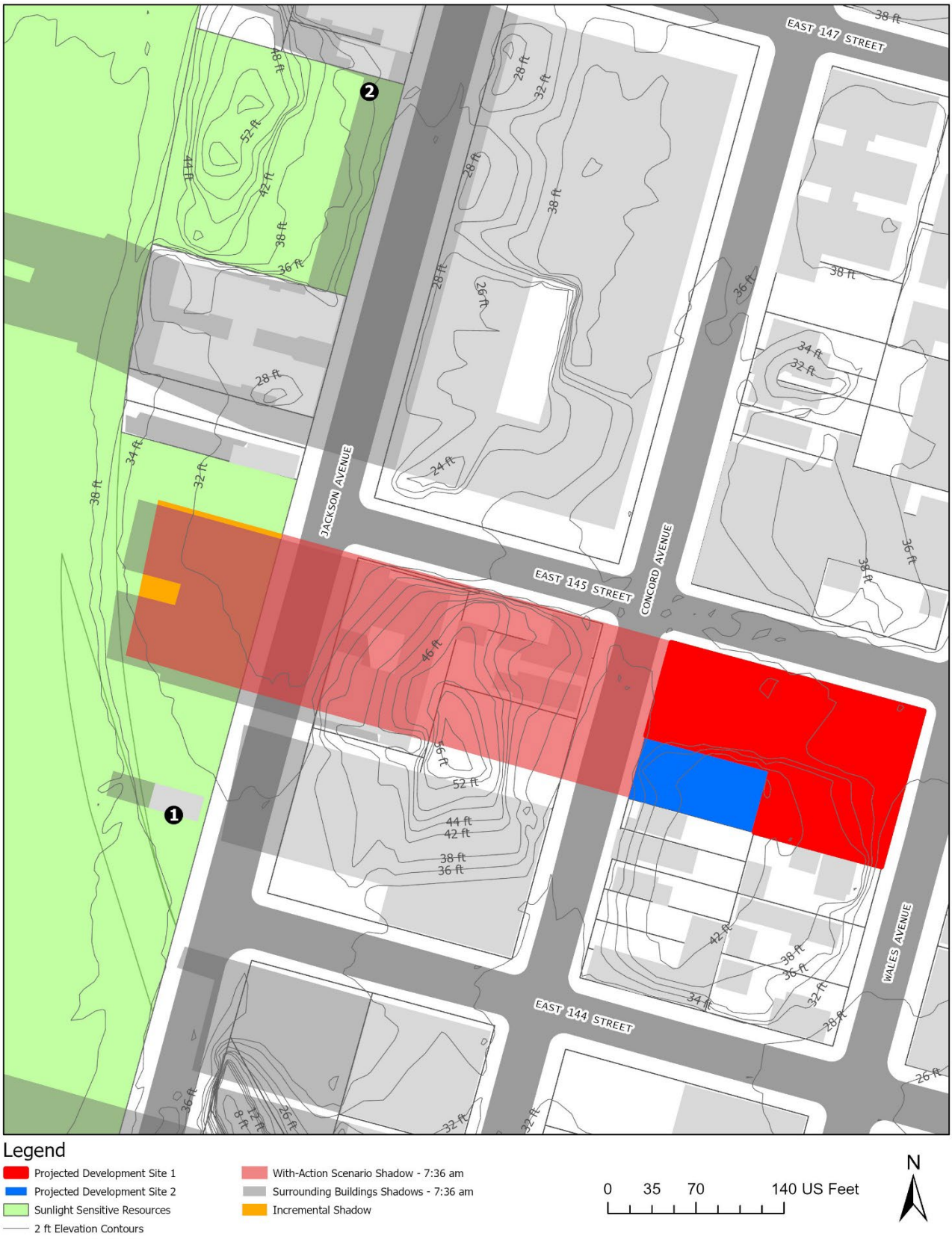


Figure 2.3-11: Incremental Shadows May 6th / August 6th, 6:27 a.m.

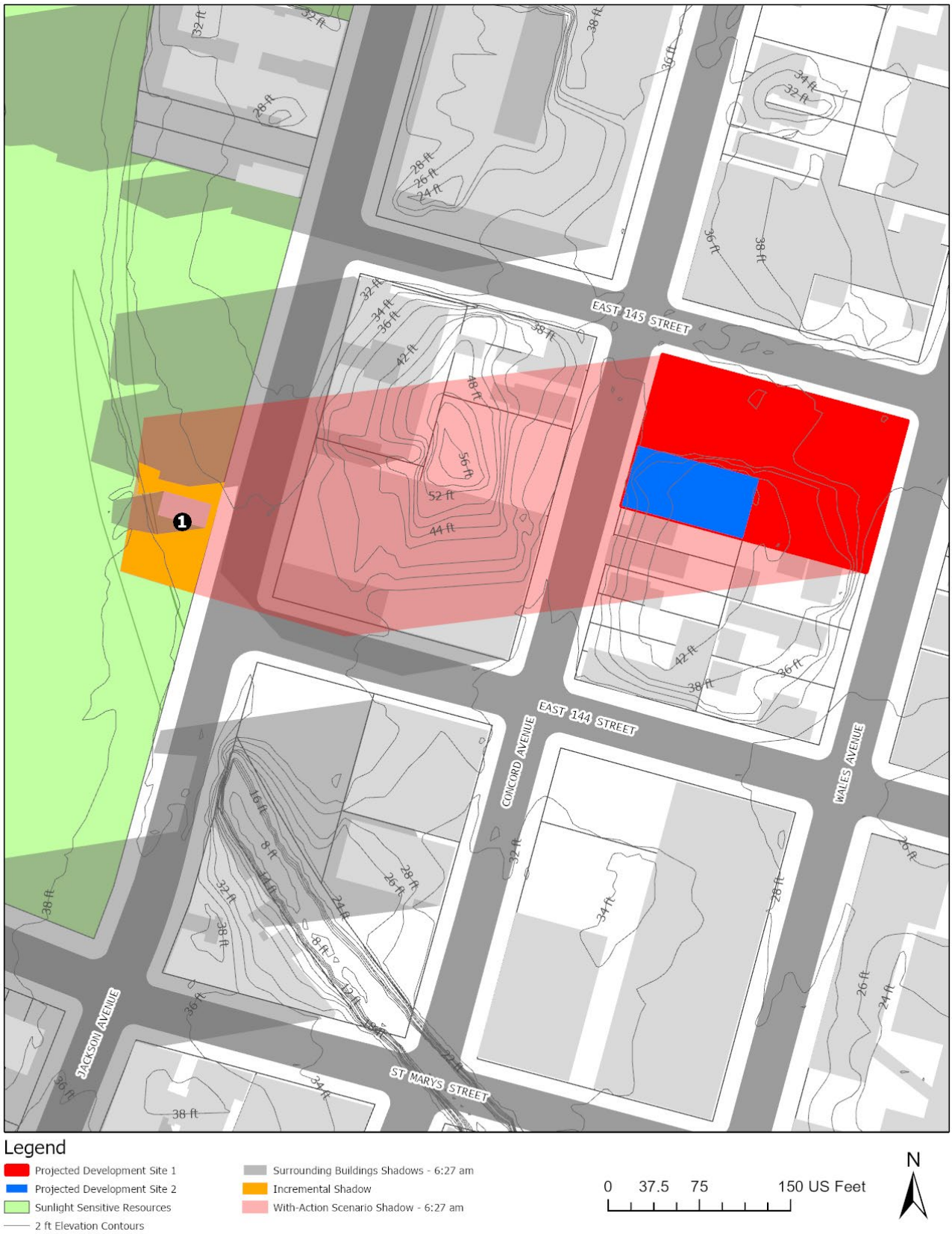
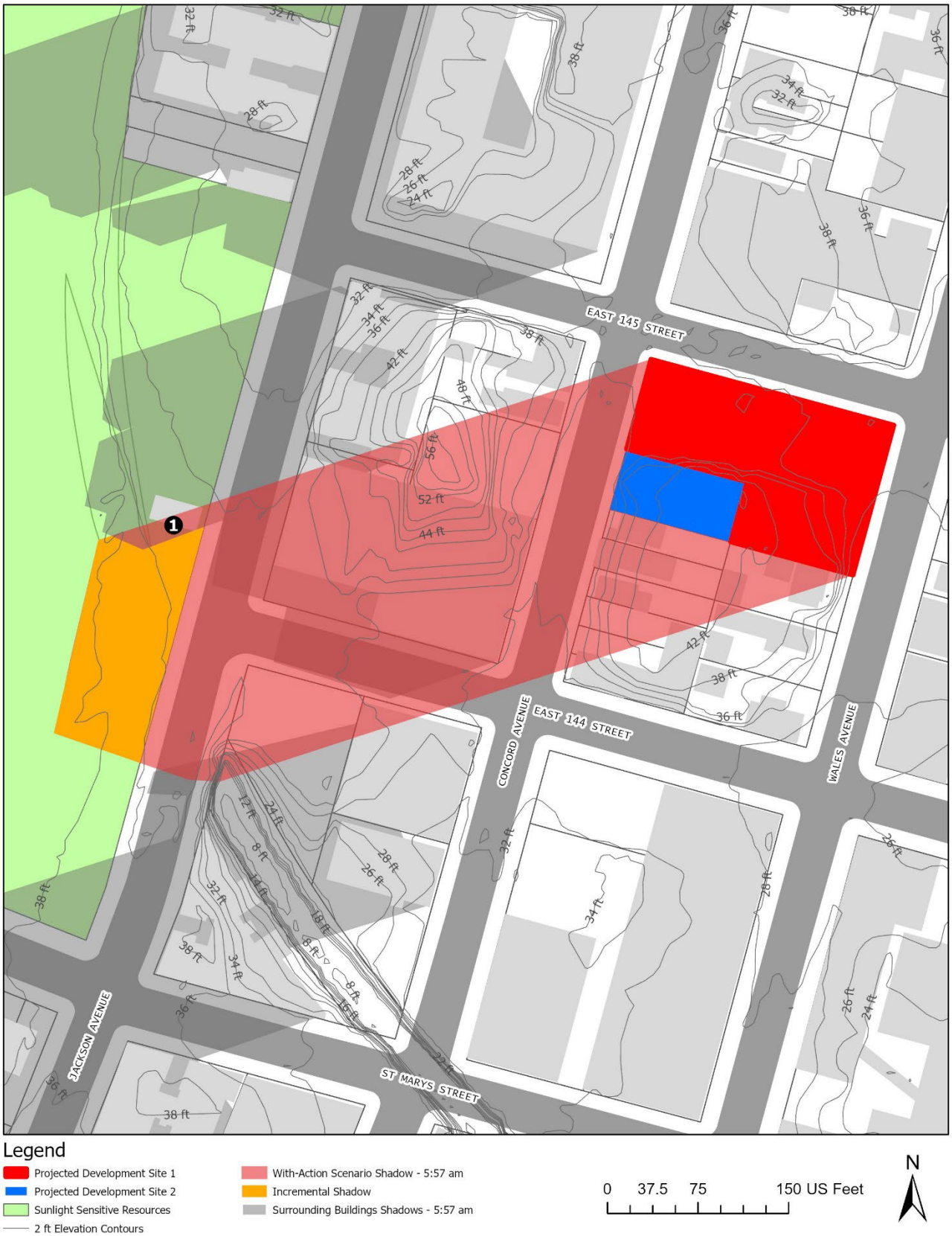


Figure 2.3-12: Incremental Shadows June 21st, 5:57 a.m.



Determination of Shadow Impact Significance

The *CEQR Technical Manual* states that the determination of significance of shadow on a sunlight-sensitive resource is based on: (1) the information resulting from the detailed shadow analysis describing the extent and duration of incremental shadows; and (2) an analysis of the resource's sensitivity to reduced sunlight. Determining whether this impact is significant or not, under CEQR, depends on the extent and duration of the incremental shadow and the specific context in which the impact occurs.

For open space and natural resources, the uses and features of a resource is an indicator of its sensitivity to shadows. Shadows occurring during the cold-weather months, for example, generally do not affect the growing season of outdoor vegetation. This sensitivity is assessed for warm-weather-dependent features such as vegetation that could be affected by a loss of sunlight during the growing season, and for features (such as benches) that could be affected by a loss of winter sunlight. Generally, six to eight hours a day of sunlight, particularly in the growing season, is often a minimum requirement. Where the incremental shadows from the project fall on sunlight-sensitive features or uses, the analysis assesses the loss of sunlight relative to sunlight that would be available without the project.

As stated in the *CEQR Technical Manual*, to determine impact significance, an incremental shadow is generally not considered significant when its duration is no longer than 10 minutes at any time of year and the resource continues to receive substantial direct sunlight. A significant shadow impact generally occurs when an incremental shadow of 10 minutes or longer falls on a sunlight-sensitive resource and results in one of the following:

- Vegetation - A substantial reduction in sunlight available to a sunlight-sensitive feature of the resource to less than the minimum time necessary for its survival (when there was sufficient sunlight in the future without the project). Or, a reduction in direct sunlight exposure where the sunlight-sensitive feature of the resource is already subject to substandard sunlight (i.e., less than minimum time necessary for its survival).
- Open Space Utilization - A substantial reduction in the usability of open space as a result of increased shadow.
- For Any Sunlight-Sensitive Feature of a Resource - Complete elimination of all direct sunlight on the sunlight-sensitive feature of the resource, when the complete elimination results in substantial effects on the survival, enjoyment, or, in the case of open space or natural resources, the use of the resource.

In the December 21st analysis period, as the shadows move, they cover the southern half of the park and basketball courts of I-Am-Park at about 8:51 am (**Figure 2.3-9**). The incremental shadows last until 9:25 am. During the period that the Proposed Developments are shadowing the park, there are shadows on the park from the existing buildings surrounding the park. The

total new shadow added to the park from the proposed development is 2,400 square feet of the 30,927 square foot park.

The new shadows created by the Projected Developments cover a small fraction of the park for a limited amount of time. Therefore, the utilization of the active Open Space resources at I-Am-Park would not be significantly impacted during the December 21st analysis period.

In the March 21st/September 21st analysis period, as the shadows move, they cover a portion of the basketball courts and playground on the eastern portion of St. Mary's Park at about 7:36 am (**Figure 2.3-10**). The incremental shadows last until 8:06 am. During the period that the Proposed Developments are shadowing the park, there are shadows on the park from the existing buildings surrounding the park. The total new shadow added to the park from the Projected Developments is 948 square feet of the 35.31-acre park.

The new shadows created by the Projected Developments cover a small fraction of the park for a limited amount of time. Therefore, the utilization of the active Open Space resources at St. Mary's Park would not be significantly impacted during the March 21st / September 21st analysis period.

In the May 6th/August 6th analysis period, as the shadows move, they cover a portion of the baseball field and walking path on the eastern portion of St. Mary's Park at 6:27 am (**Figure 2.3-11**). The incremental shadows last until 6:50 am. During the period that the Projected Developments are shadowing the park, there are shadows on the park from the existing buildings surrounding the park. The total new shadow added to the park from the Projected Developments is 8,500 square feet of the 35.31-acre park.

The new shadows created by the Projected Developments cover a small fraction of the park for a limited amount of time. Therefore, the utilization of the active Open Space resources at St. Mary's Park would not be significantly impacted during the May 6th / August 6th analysis period.

In the June 21st analysis period, as the shadows move, they cover a portion of the baseball field and walking path on the eastern portion of St. Mary's Park at 5:57 am (**Figure 2.3-12**). The incremental shadows last until 6:20 am. During the period that the Projected Developments are shadowing the park, there are shadows on the park from the existing buildings surrounding the park. The total new shadow added to the park from the Projected Developments is 14,000 square feet of the 35.31-acre park.

The new shadows created by the Projected Developments cover a small fraction of the park for a limited amount of time. Therefore, the utilization of the active Open Space resources at St. Mary's Park would not be significantly impacted during the June 21st analysis period.

2.3.5 Conclusion

The Proposed Actions would not affect the vitality or usage of the sunlight-sensitive resources identified within the Study Area, and significant adverse impacts from shadows would not result

from the Proposed Actions. Two buildings, each with a height of 125 feet on both Projected Development Sites were analyzed. Based on the findings of the Detailed Shadow Analysis, the Proposed Actions would result in incremental shadows on I-Am-Park and St. Mary's Park.

In the December 21st analysis period, the new shadows created by the Projected Developments cover a small fraction of I-Am-Park for a limited time (from 8:51 am to 9:25 am). The shadows cover the southern half of the park and basketball courts. In the March 21st/September 21st analysis period, the incremental shadows cover a small fraction of St. Mary's Park for a limited amount of time (from 7:36 am to 8:06 am). The shadows cover a portion of the basketball courts and playground on the eastern portion of St. Mary's Park. In the May 6th/August 6th analysis period, the shadows created by the Projected Developments cover a small fraction of St. Mary's Park for a limited amount of time (from 6:27 am to 6:50 am). The shadows cover a portion of the baseball field and walking path on the eastern portion of St. Mary's Park. In the June 21st analysis period, the incremental shadows cover a small fraction of St. Mary's Park for a limited amount of time (from 5:57 am to 6:20 am). The shadows cover a portion of the baseball field and walking path on the eastern portion of St. Mary's Park. Overall, the new shadows created by the Projected Developments cover a small fraction of the parks for a limited amount of time. Therefore, the incremental shadows resulting from the Proposed Actions would not significantly alter the public's utility nor enjoyability of the sunlight-sensitive resource.

2.4 Historic and Cultural Resources

An assessment of historic and cultural resources is usually necessary for projects that are located in close proximity to historic or landmark structures or districts, or for projects that require in-ground disturbance, unless such disturbance occurs in an area that has been formerly excavated, according to the *CEQR Technical Manual*.

The term "historic resources" defines districts, buildings, structures, sites, and objects of historical, aesthetic, cultural, architectural and archaeological importance. In assessing both historic and cultural resources, the findings of the appropriate city, state, and federal agencies are consulted. Historic resources include: the New York City Landmarks Preservation Commission (LPC) designated landmarks, interior landmarks, scenic landmarks, and historic districts; locations being considered for landmark status by the LPC; properties/districts listed on, or formally determined eligible for, inclusion on the State and/or National Register (S/NR) of Historic Places; locations recommended by the New York State Board for Listings on the State and/or National Register of Historic Places and National Historic Landmarks.

Methodology

Archaeological and architectural resources usually need to be assessed for projects that would result in any in-ground disturbance. In-ground disturbance is any disturbance to an area not previously excavated, including new excavation that is deeper and/or wider than previous excavation on the same site.

For projects that may affect historic or cultural resources, the first step in evaluating a project's potential effects on historic resources is to consider what area the project might affect and then identify historic resources—whether officially recognized or eligible for such recognition—within that area. The area of subsurface work for the proposed project is considered the impact area for archaeological resources while the Study Area for architectural resources is the area in which any resources may be affected by the project, which is defined by the radius of 400 feet from the borders of the project site for most proposals.

After the Study Areas have been established, all known archaeological and architectural resources within the Study Areas are identified, and the potential for unknown resources is investigated. It is recommended that lead agencies and applicants contact LPC for archaeological and architectural resources review. Based on the report from LPC, if any listed historic or cultural resources are located in the Study Areas, then further analysis of the project's impact on these resources must be performed. The proposed project's effects on any designated or potential archaeological and architectural resources are then analyzed under Existing, No-Action, and With-Action Condition. The assessment specifically considers whether the project may result in disturbance or destruction of those archaeological and architectural resources as a result of the Proposed Actions.

2.4.1 Architectural Resources

Per *CEQR Technical Manual* guidelines, impacts on historic resources are considered on those sites affected by the Proposed Actions and in the area surrounding identified development sites. The historic resources Study Area is therefore defined as the project site plus an approximately 400-foot radius around the Proposed Action area.

According to the *CEQR Technical Manual*, significant adverse impacts to historic and cultural resources could potentially result if a proposed action affects those characteristics that make a resource eligible for LPC designation or S/NR listing. This section assesses the potential for the Proposed Actions to result in significant adverse impacts on identified historic and cultural resources. **Table 2.4-1** below provides information about possible direct, indirect and construction-related impacts to historic and cultural resources. Generally, architectural resources should be surveyed and assessed if the proposed project would result in any of the following, whether or not any known historic resources are located near the site of the project:

Table 2.4-1: Possible Impacts to Historic and Cultural Resources

Construction resulting in ground disturbance, including construction of temporary roads and access facilities, grading, and landscaping.
Below-ground construction, such as excavation or installation of utilities.
Physical destruction, demolition, damage, alteration or neglect of all or part of an historic property.
Changes to the architectural resource that cause it to become a different visual entity, such as a new location, design, materials, or architectural features.
Isolation of the property from, or alteration of, its setting or visual relationship with the streetscape. This includes changes to the resource's visual prominence so that it no longer conforms to the streetscape in terms of height, footprint, or setback; is no longer part of an open setting; or can no longer be seen as part of a significant view corridor.
Introduction of incompatible visual, audible, or atmospheric elements to a resource's setting.
Replication of aspects of the resource so as to create a false historical appearance.
Elimination or screening of publicly accessible views of the resource.
Construction-related impacts such as falling objects, vibration, dewatering, flooding, subsidence, or collapse.
Introduction of significant new shadows, or significant lengthening of the duration of existing shadows, over an historic landscape or an historic structure to the extent that the architectural details that distinguish that resource as significant are obscured.

Direct Impacts

Historic resources could be directly affected by physical destruction, demolition, damage, alteration, or neglect of all or part of a historic resource. Direct impacts also include changes to an architectural resource that cause it to become a different visual entity, such as a new location, design, materials, or architectural features.

NR-listed and eligible resources are given a measure of protection from the effects and impacts of projects sponsored, assisted, or approved by federal agencies under Section 106 of the National Historic Preservation Act. Although preservation is not mandated, federal agencies must attempt to avoid adverse impacts on such resources through a notice, review, and consultation process. S/NR-listed and eligible resources are similarly protected against impacts resulting from projects sponsored, assisted, or approved by State agencies under the State Historic Preservation Act. However, private owners of S/NR-listed and eligible resources using private funds can alter or demolish their properties without such a review process. Privately owned properties that are NYCLs, in LPC-designated historic districts, or pending designation as Landmarks by LPC are protected under the New York City Landmarks Law. The law requires LPC review and approval before any alteration or demolition occurs, regardless of whether the project is publicly or privately funded. Publicly owned resources are also subject to review and advisement by LPC before project implementation.

Construction Impacts

The assessment of construction impacts on historic and cultural resources considers the possibility of physical damage to any architectural or archaeological resources identified in the project's historic and cultural resources assessment.

Pursuant to Chapter 22, Section 300 of the *2021 CEQR Technical Manual*, if a project's construction activities are located within 400 feet of a historic or cultural resource, potential hazards should be assessed, such as whether certain character-defining elements of a structure, including but not limited to rooftops or stained-glass windows, could be impacted by falling objects from an adjacent construction site.

The City has two procedures for avoidance of damage to historic structures from adjacent construction.

1. All buildings are provided some protection from accidental damage through New York City Department of Buildings (DOB) controls that govern the protection of any adjacent properties from construction activities, under Building Code Section 27-166 (C26-112.4). For all construction work, Building Code section 27-166 (C26-112.4) serves to protect buildings by requiring that all lots, buildings, and service facilities adjacent to foundation and earthwork areas be protected and supported in accordance with the code requirements.

2. The second protective measure applies only to designated NYCL and S/NR listed historic buildings that are located within 90 linear feet of a proposed construction site. For these structures, the DOB's Technical Policy and Procedure Notice (TPPN) #10/88 is applicable. The DOB's TPPN 10/88 supplements the standard building protections afforded by the Building Code C26-112.4 by requiring, among other things, a monitoring program to reduce the likelihood of construction damage to adjacent LPC-designated or S/NR-listed resources (within 90 feet), and to detect at an early stage the beginnings of damage so that construction procedures can be changed.

If the project is not located within 90 feet of a historic or cultural resource that is NYC-landmark eligible, eligible for the State and National Register of Historic Places, or within an eligible New York City Historic District, then no special protections apply. Therefore, the potential for physical disturbance and adverse impacts on those historic and cultural resources should be disclosed.

Indirect Impacts

As per the *CEQR Technical Manual*, visual and contextual impacts on historic resources can include: isolation of a property from or alteration of its setting or visual relationship with the streetscape; introduction of incompatible visual, audible, or atmospheric elements to a resource's setting; elimination or screening of publicly accessible views of a resource; or introduction of significant new shadows, over a historic landscape or on a historic structure (if the features that make the resource significant depend on sunlight) to the extent that the architectural details that distinguish that resource as significant are obscured.

Architectural Resources within the Study Area

To determine whether the Proposed Actions have the potential to affect nearby off-site historic or architectural resources, the Study Area was screened for historic and architectural resources.

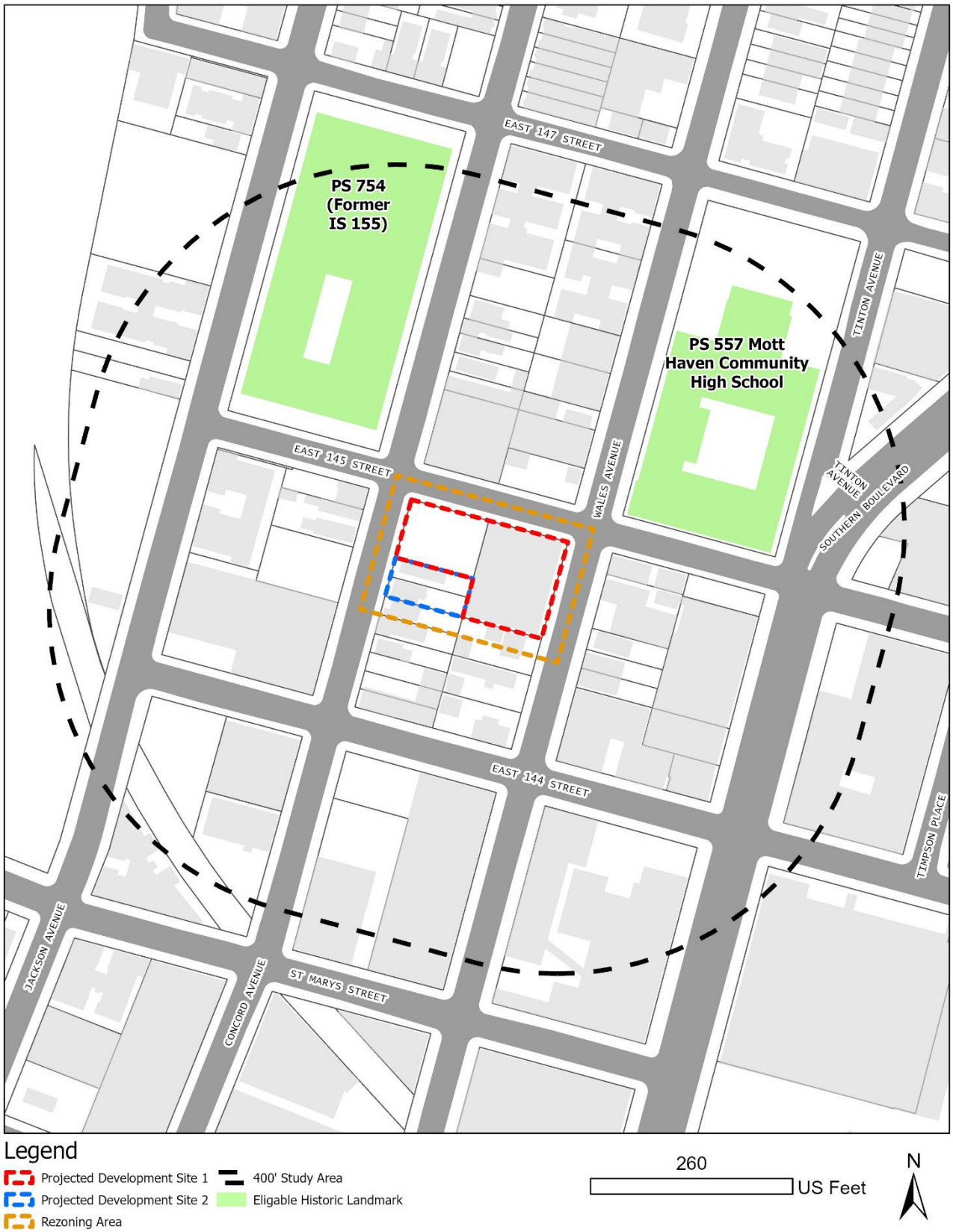
The LPC was contacted for their initial review of the project's potential to impact historic or architectural resources and by letter dated May 18, 2021, indicated that no properties within the Affected Area have architectural significance (see **Appendix A**).

The Cultural Resource Information System (CRIS) online resource has indicated two eligible architectural resources within the Study Area:

- S/NR eligible PS 754, JM Rapport School for Career Development at 470 Jackson Avenue;
- S/NR eligible PS 557, Mott Haven Community High School at 455 Southern Boulevard.

Therefore, an analysis of the potential impacts of the Proposed Actions on the identified architectural resources is warranted. **Figure 2.4-1** shows the locations of properties with Architectural significance.

Figure 2.4-1: Historic Resources Within 400-Foot Study Area



Existing Condition

According to the LPC letter dated May 18, 2021, no properties within the Affected Area have architectural significance.

The Cultural Resource Information System (CRIS) has indicated two S/NR-eligible architectural resources within the Study Area:

- 470 Jackson Ave, P.S. 754, JM Rapport School for Career Development: a 3-story buff-colored brick building constructed in 1965 and altered in 2010. The school is rectangular in plan with an interior courtyard. The building is located approximately 100 feet northwest of the Affected Area. The school is significant in the area of architecture as a reflection of postwar changes in architectural design, building materials and technology, and educational philosophy. P.S. 754 possesses the character-defining features of schools of its period, including flat roofs, modern application of materials, vertical bays of windows, the use of contrasting color, and an overall horizontality.
- 455 Southern Blvd, P.S. 557, Mott Haven Community High School (former Samuel Gompers High School, closed in 2012): a 4-story brick building constructed in 1931 and altered in 2007 and 2012. The building is located approximately 86 feet northeast of the Affected Area. The school is the site for a notable Federal Art Project mural created in 1936 by Eric Mose. The three-panel, 600-square-foot: 141 fresco, Power, was created in the school library. The work was described in an April 1938 article in The New York Times.

Future No-Action Condition

Without the Proposed Actions, the existing conditions would remain within the Affected Area and within the properties identified as S/NR eligible. In the No-Action Scenario, the S/NR eligible properties within the Study Area would remain unchanged.

Future With-Action Condition

The Future With-Action Scenario's potential for significant adverse impacts on historic resources was assessed in accordance with **Table 2.4-1** above to determine (a) whether there would be a physical change to any designated resource or its setting, and (b) if so, is the change likely to diminish the qualities of the resource that make it important (including non-physical changes such as context or visual prominence).

Direct Impact Analysis

In the future with the Proposed Actions, it is expected that the Architectural Resources within the Study Area would be the same as in the existing conditions. There are no existing Architectural Resources within the Affected Area (LPC letter dated May 18, 2021). Therefore, no direct impacts on architectural resources would occur.

Construction Impact Analysis

S/NR eligible PS 577 Mott Haven Community High School

- Projected Development Site 1 is within 90 feet of S/NR eligible PS 557, Mott Haven Community High School at 455 Southern Boulevard. Mott Haven Community High School is a 3-story brick building constructed in 1931, altered in 2007 and 2012, and located about 86 feet away from Projected Development Site 1. To mitigate any possible construction impact on S/NR-listed properties within a 90-foot radius, a special protective measure TPPN #10/8 applies. TPPN #10/88 requires a monitoring program to reduce the likelihood of construction damage to adjacent NYCLs and NR-listed properties (within 90 feet) and to detect at an early stage the beginnings of damage so that construction procedures can be changed. As such, no construction impacts from Projected Development Site 1 to S/NR eligible PS 557, Mott Haven Community High School are anticipated.

- Projected Development Site 2 is located 208 feet southwest of S/NR eligible PS 557, Mott Haven Community High School, at 455 Southern Boulevard. PS 557 is buffered from Projected Development Site 2 by the adjacent intervening building on Projected Development Site 1 and is further buffered by the intersection of East 145th Street and Wales Avenue. Accordingly, Projected Development Site 2 would not introduce adverse construction-related impacts to S/NR eligible PS 557, Mott Haven Community High School from ground-borne construction period vibrations, falling debris, and/or collapse. Therefore, no significant adverse impacts to this resource would occur because of the Proposed Actions, and further analysis is not warranted.

S/NR eligible 470 Jackson Ave, P.S. 754, JM Rapport School for Career Development

- Projected Development Site 1 is located 97 feet southeast of S/NR eligible PS 754, JM Rapport School for Career Development at 470 Jackson Avenue. PS 754 is buffered from Projected Development Site 1 by the intersection of East 145th Street and Concord Avenue. Accordingly, Projected Development Site 1 would not introduce adverse construction-related impacts to S/NR eligible PS 754 from ground-borne construction period vibrations, falling debris, and/or collapse. Therefore, no significant adverse impacts from Projected Development Site 1 on this resource would occur, and further analysis is not warranted.

- Projected Development Site 2 is located 158 feet southeast of S/NR eligible PS 754, JM Rapport School for Career Development at 470 Jackson Avenue. PS 754 is partially buffered from Projected Development Site 2 by the adjacent intervening building on Projected Development Site 1 and is further buffered by the intersection of East 145th Street and Concord Avenue. Accordingly, Projected Development Site 2 would not introduce adverse construction-related impacts to S/NR eligible PS 754, JM Rapport

School for Career Development ground-borne construction period vibrations, falling debris, and/or collapse. Therefore, no significant adverse impacts to this resource would occur because of the Proposed Actions, and further analysis is not warranted.

Indirect Impact Analysis

The Proposed Actions would not result in any types of visual and contextual impacts to the known historic resources within the Study Area, as the new buildings that could be developed under the Proposed Actions would be residential and mixed-use structures of heights and bulk consistent with urban design features of the Surrounding Area. The Proposed Actions would not introduce any incompatible visual, audible, or atmospheric elements to the settings of historic resources. As discussed in **Section 2.5**, Urban Design and Visual Resources, the buildings effectuated by the Proposed Actions would be designed to be visually compatible and consistent with existing developments but would not be replicated so as to create a false historical appearance.

Publicly accessible views of the historic architectural resources would not be blocked. In addition, none of the identified historic resources feature sunlight-sensitive physical characteristics based on the CEQR Technical Manual:

- The buildings do not contain design elements that are part of a recognized architectural style that depends on the contrast between light and dark design elements.
- The buildings are not distinguished by elaborate, highly carved ornamentation.
- The buildings do not have stained glass windows.
- The buildings do not contain exterior materials and color that depend on direct sunlight for visual character.
- The buildings do not include a historic landscape, such as scenic landmarks including vegetation recognized as a historic feature of the landscape.
- The buildings do not include features where the effect of direct sunlight is described as playing a significant role in the structure's significance as an historic landmark.

As such, no sunlight-sensitive historic resources would be affected by incremental shadows due to the Proposed Actions.

The Development of the Projected Development Sites would also not pose any changes to the setting or context of historic resources. Therefore, no significant indirect impacts on architectural resources would occur as a result of the Proposed Actions, and further analysis is not warranted.

2.4.2 Archaeological Resources

Unlike the architectural evaluation of a Study Area that extends beyond the footprint of a project's block and lot lines, the analysis of potential and/or projected impacts to archaeological resources is controlled by the actual footprint of the limits of soil disturbance. Archeological resources are physical remains, usually subsurface, of the prehistoric and historic periods such as

burials, foundations, artifacts, wells and privies. The *2021 CEQR Technical Manual* requires a detailed evaluation of a project's potential effect on the archeological resources if it would potentially result in an in-ground disturbance to an area not previously excavated.

The Proposed Actions would result in new in-ground construction on the Projected Development Sites. As noted, the LPC was contacted for their initial review of the project's potential to impact nearby cultural or archaeological resources, and a response was received on May 18, 2021 (see **Appendix A**). The LPC has indicated that no archaeological significance is associated with the properties within the Affected Area. Therefore, no significant adverse impacts on archaeological resources would occur because of the Proposed Actions, and further analysis is not warranted.

2.4.3 Conclusion

According to the *CEQR Technical Manual*, significant adverse impacts to historic and cultural resources could potentially result if a Proposed Action affects those characteristics that make a resource eligible for LPC designation or S/NR listing. The LPC was contacted for their initial review of the project's potential to impact historic or architectural resources and indicated that no properties within the Affected Area have architectural significance (see **Appendix A**). The Cultural Resource Information System (CRIS) online resource has indicated two eligible architectural resources within the 400-foot Study Area: S/NR eligible PS 754, JM Rapport School for Career Development at 470 Jackson Avenue and S/NR eligible PS 557, Mott Haven Community High School at 455 Southern Boulevard. Therefore, the possible direct, indirect, and construction-related impacts to historic and cultural resources have been assessed:

- Direct Impact Analysis addressed the possibility of historic resources to be directly affected by physical destruction, demolition, damage, alteration, or neglect of all or part of a historic resource. Since there are no existing Architectural Resources within the Affected Area, no direct impacts on architectural resources would occur.

- Construction Impact Analysis considered the possibility of physical damage to any architectural or archaeological resources identified in the project's historic and cultural resources assessment. Based on the assessment above, only Projected Development Site 1 is within 90 feet of one of the eligible architectural resources (PS 557, Mott Haven Community High School). To mitigate any possible construction impact on S/NR-listed properties within a 90-foot radius, a special protective measure TPPN #10/8 applies. In addition, all identified architectural resources are buffered from Projected Development Sites by intersections. Therefore, no significant adverse impacts related to construction would occur because of the Proposed Actions.

- Indirect Impact Analysis considers visual and contextual impacts on historic resources. Since publicly accessible views of the historic architectural resources would not be blocked and none of the identified historic resources feature sunlight-sensitive physical

characteristics, no significant indirect impacts on architectural resources would occur as a result of the Proposed Actions.

The Proposed Actions would result in new in-ground construction on the Projected Development Sites. By letter dated May 18, 2021 (see **Appendix A**), the LPC has indicated that no archaeological significance is associated with the properties within the Affected Area. Therefore, no significant adverse impacts on archaeological resources would occur because of the Proposed Actions

2.5 Urban Design and Visual Resources

According to the *CEQR Technical Manual*, urban design is the totality of components that may affect a pedestrian's experience of public space. Elements that play an important role in the pedestrian's experience include streets, buildings, visual resources, open space, and natural features, as well as wind as it relates to channelization and downwash pressure from tall buildings. Pursuant to the *2021 CEQR Technical Manual*, an assessment of Urban Design may be warranted when a Proposed Action may affect one or more of the elements that contribute to the pedestrian experience of an area, specifically the arrangement, appearance, and functionality of the built environment.

The proposed rezoning of the Affected Area from M1-2 to R7D/M1-4 (MX) would alter permitted use, bulk, and height within the Affected Area. Therefore, further analysis is warranted. The differences between existing and proposed zoning, with regards to those aspects of zoning affecting urban design, are presented in the following **Table 2.5-1**.

Table 2.5-1: No-Action and With-Action Zoning

	No-Action	With-Action
Zoning	M1-2	R7D/M1-4 (MX)
Permitted Uses	Manu., Com., CF	Res., Com., CF, Manu.
Maximum FAR	Manu. and Com.: 2.00 CF: 4.80	Res.: 5.60 Com: 2.00 CF: 4.20 Manu: 2.00
Maximum Height	Sky Exposure Plane	Base Height: 95 feet
		Building Height: 115 feet (w/QGF)
Lot Coverage (corner lot)	100%	100%

Com. = Commercial; CF = Community Facility; Manu. = Manufacturing; Res. = Residential; QGF = Qualifying Ground Floor

2.5.1 Existing Conditions

The Affected Area is located on the southern side of E 145th Street and includes the northern portion of Block 2577, consisting of the contiguous tax Lots 6-9, 14, and the northern portion of Lot 20, which are described in detail in **Sections 1.4** and **2.1**.

The existing land uses in the 400-foot Surrounding Area primarily consist of multi-family residential buildings, one-and two-family residential buildings, transportation and utility buildings, a variety of manufacturing buildings, four schools (Mott Haven Community High School (P.S.557), JM Rapport School for Career Development (P.S. 754), Neighborhood Charter School: Bronx, and The American Dream School), one commercial building, and parking lots and vacant parcels.

Built form in the surrounding area varies by use, and generally consists of one- to two-story industrial buildings, three to four-story community facility buildings, two- to six-story multi-family residential buildings, and two-story one-and two-family buildings. Most of the multi-family residential buildings, community facility and manufacturing buildings feature brick facades colored in different shades of beige and brown. The one-and two-family buildings typically feature vinyl siding exteriors in a variety colors.

Concord Avenue and Wales Avenue do not have significant commercial activities and are more residential in character north of East 145th Street and more industrial south of East 145th Street.

The Applicant-controlled lots include Lots 7, 8, 9, and 14:

- Lot 7 is a 2,500-SF interior lot with 25 feet of frontage on Concord Avenue. The lot is currently improved with a two-story, two-family, 1,500 GSF residential building constructed in 1901.
- Lot 8 is a 2,500-SF interior lot with 25 feet of frontage on Concord Avenue. The lot is currently improved with a two-story, two-family, 1,904 GSF residential building constructed in 1901.
- Lot 9 is a 7,774-SF corner lot with frontages on East 145 Street and Concord Avenue. The lot is a surface lot classified as an unlicensed parking lot.
- Lot 14 is a 12,774-SF corner lot with frontages on East 145 Street and Wales Avenue. The lot is currently improved with a one-story 12,500 GSF manufacturing building constructed in 1931.

Other lots within the Affected Area include the non-Applicant-owned Lots p/o 6 and p/o 20:

- Lot 6 is a 2,500-SF lot with frontage on Concord Avenue. The lot is currently improved with a 1.5-story, two-family 1,638 GSF residential building constructed in 1901.
- Lot 20 is a 5,000-SF lot with frontage on Wales Avenue. The lot is currently improved with a two-story, two-family, 1,305 GSF residential building constructed in 1901 and two other one-story supplementary structures. Only approximately 50% of lot 20 is within the Affected Area.

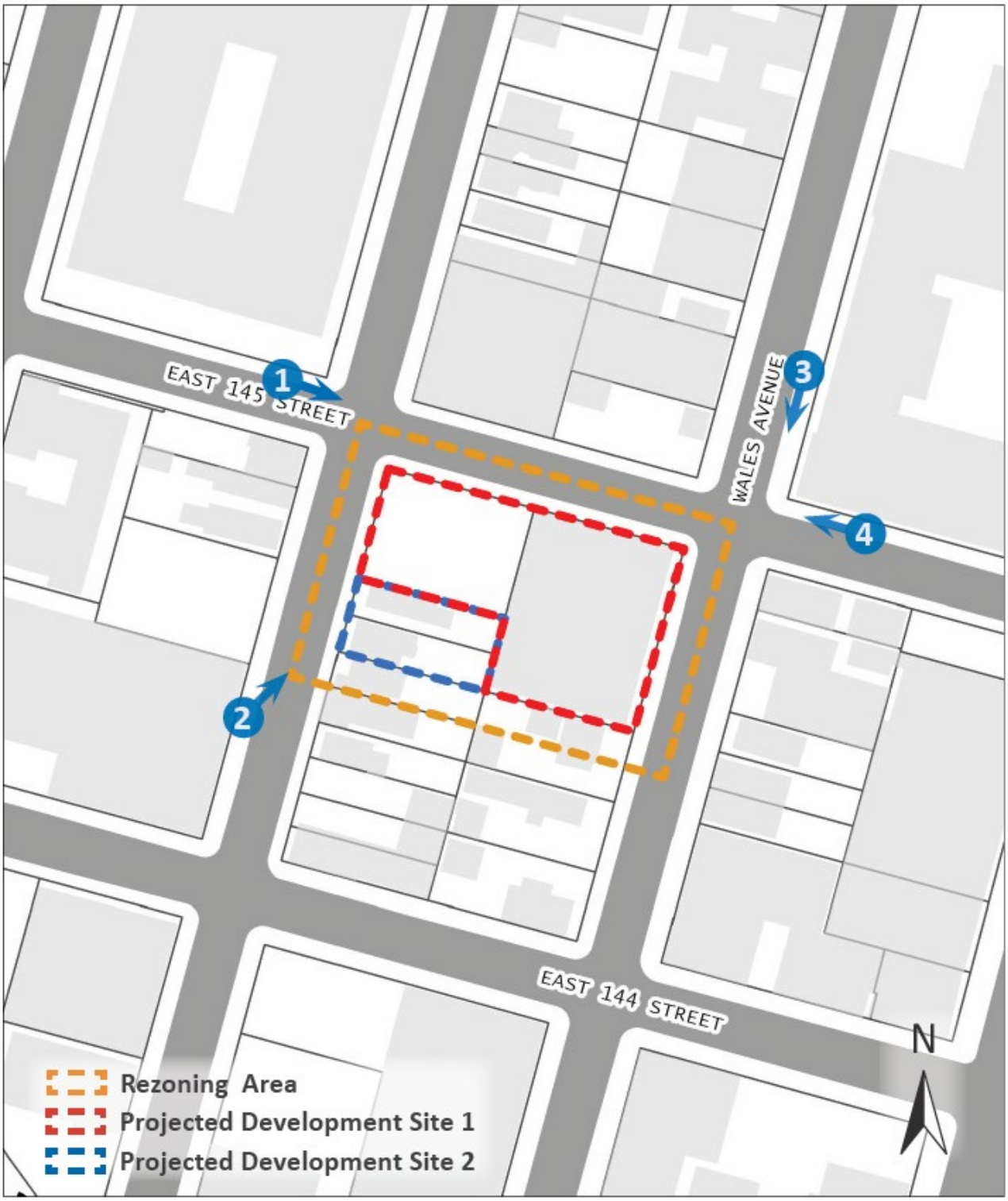
The Surrounding Area features a regular traffic grid to the west of Southern Boulevard, and irregular grid to the east of Southern Boulevard as a result of the direction change of Southern Boulevard to the north from E 145th Street. The closest commercial corridors to the Affected Area are located along East 149th Street and Southern Boulevard at its intersection with East 149th Street. The area is well-served by transit. The E 143 St - St Mary's St subway station with service from the 6 Train is located approximately 800 feet from the Affected Area. The subway station provides full-time connecting service to Downtown Manhattan. There are two bus lines (Bx17/ Bx19) that are accessible to users in the area. The bus lines have two bus stops in different directions, located two blocks north of the Affected Area near the corner of Concord Avenue and

East 149th Street. Bus Bx17 connects the Affected Area with the Fordham Plaza/Bus Terminal in the northern Bronx. Bus Bx19 provides connection to Hamilton Heights, Manhattan and New York Botanical Garden, Bronx.

Sidewalks, ranging from 8 to 13 feet wide, are in fair condition with paved surfaces, sufficient street trees, and regular streetlights throughout the Study Area except for the newly improved sidewalks within the adjacent Block 2574, which are in excellent condition. Most of the intersections within the 400-foot Study Area are controlled by two-way or all-way stop signs and feature clear crosswalk markings on all legs, or certain legs, depending on the stop controls.

Figure 2.5-1 contains a photo key map with locations of Urban Design Massing Views. The Urban Design Massing Views with the existing conditions are shown in **Figures 2.5-2** to **2.5-5.**

Figure 2.5-1: Locations of Urban Design Massing Views



Study Area Map with Photo Key

Figure 2.5-2: Urban Design Massing View 1. Existing Conditions

1 Looking southeast toward the intersection of E 145 Street and Concord Avenue

Figure 2.5-3: Urban Design Massing View 2. Existing Conditions

2 Looking northeast along Concord Avenue toward the Rezoning Area

Figure 2.5-4: Urban Design Massing View 3. Existing Conditions

3 Looking south toward the intersection of E 145 Street and Wales Avenue

Figure 2.5-5: Urban Design Massing View 4. Existing Conditions

4 Looking west toward the intersection of E 145 Street and Wales Avenue

2.5.2 Future No-Action Conditions

Affected Area

The No-Action Condition for the Affected Area would be the same as the existing conditions.

There are no records of construction work permit applications submitted by the Applicant on the DOB website. As such, it is assumed that under the No-Action Scenario, existing conditions would continue on the Projected Development Sites 1 and 2.

The Other non-Applicant-owned Lots 6 and 20 do not pass the soft site criteria established by the *CEQR Technical Manual*, Chapter 2. Although the lots are built to substantially less than the maximum allowable FAR, Lots 6 and 20 are not considered likely to be redeveloped under the No-Action Conditions because of their small lot sizes (below the CEQR Technical Manual soft site threshold of 5,000 square feet). In addition, the Proposed Actions would only affect approximately 50% of Lot 20.

Redevelopment is also not considered likely in the Future Without No Action because of the bulk permitted under the current M1-2 district (2.00 commercial and manufacturing FAR; 4.80 community facility FAR) and significant parking requirements (1 space per 300 sf of uses).

Urban Design Study Area

There is one active construction permit within the 400-foot Study Area for a new charter school at 447 Wales Avenue. When complete, the project will stand 73 feet tall across six stories and have a total of 45,979 square feet of interior space. Additionally, there is a recently effectuated rezoning on the western side of Concord Avenue at 431 Concord Avenue (C 200274 ZMX, N 200275 ZRX, effective May 27, 2021). The Affected Area associated with this action includes Block 2578, lots p/o 15, p/o 16, p/o 18. The worst-case development scenario for the Projected Development Site composed of the Applicant-owned Lots 16 and 18 is an 11-story, 115-foot tall, 87,369 GSF (5.51 FAR) Quality Housing residential building with approximately 93 residential dwelling units and 29 accessory parking spaces. Based on the review of the DOB website, no construction permit applications have been submitted for Lots 15, 16, and 18. However, there are applications for demolition on Lot 18 received on July 7th 2021. The development on lots 16 and 18 is expected to be completed within two years.

Pedestrian activity within the Study Area under Future No-Action Conditions would not experience significant changes compared to existing conditions. The sidewalks would be expected to remain in existing fair condition with street trees and lights. Built form in the Surrounding Area would remain, except for the potential new 11-story development on Block 2578, Lots 16 and 18.

The Urban Design Massing Views with the 2026 Build Year No-Action conditions are shown in **Figures 2.5-6 to 2.5-9**. The No-Action views include the building envelope of the projected development site expected to be redeveloped as a result of 431 Concord Avenue Rezoning. The envelope is illustrated in white.

2.5.3 Future With-Action Conditions

Under Future With-Action conditions, the RWCDS is consistent with the Applicant's proposal to use a Zoning Lot Merger (ZLM) involving Lots 7, 8, 9, and 14 to apply 8,777 ZSF of the Development Rights of Projected Development Site 2 (Lots 7 and 8) to Projected Development Site 1 (Lots 9 and 14). The Applicant-controlled Lots 7, 8, 9, and 14 would be merged into a 25,548-SF zoning lot within the proposed R7D/M1-4 (MX) district. Approximately 604 square feet of lot area would also be conveyed from Lot 9 to Lot 8 to match the fence line against the existing retaining wall serving as a factual boundary between tax Lots 8 and 9. Additionally, to provide a conservative analysis when considering the combination of Projected Development Sites 1 and 2, a maximum FAR of 6.5 was utilized as described below.

Projected Development Site 1 (Lots 9 and 14)

Under Future With-Action Conditions, it is assumed that Projected Development Site 1 would be developed with a single 174,709 GSF (138,413 ZSF, 6.94 FAR) mixed-use building with 100% lot coverage. The building would contain approximately 7,187 GSF (6,634 ZSF, 0.33 FAR) of community facility use, 10,258 GSF (7,602 ZSF, 0.38 FAR) of light industrial and manufacturing use, 4,526 GSF (3,301 ZSF, 0.17 FAR) of local retail and 30,730 GSF (25,597 ZSF,1.28 FAR) of office use (1.13 total commercial FAR), and 113,139 GSF (95,279 ZSF, 4.78 FAR) of residential use of which 100,586 GSF (95,279 ZSF, 4.78 FAR) would be above the cellar level (residential lobby on the ground floor and residential units on floors 4 to 11) yielding approximately 120 dwelling units (assuming 837 GSF per DU on average) and 12,553 GSF would be in the cellar used as storage space and technical rooms. Among the 120 dwelling units, 25-30% (30-36 units) would be affordable pursuant to MIH at an average of 60-80% AMI depending on the Option selected. An 8,869-SF below-grade parking lot would contain approximately 48 spaces. The building would be 11 stories tall and rise to 115 feet with a base height of 95 feet. At the base height of 95 feet, there would be a 15-foot setback on Concord Avenue, 145th Street and Wales Avenue, as these streets are considered to be narrow (less than 75 feet wide). A 10-foot mechanical bulkhead would be assumed for the Development Site for a conservative shadows analysis under CEQR. One curb cut would be proposed on Concord Avenue.

Projected Development Site 2 (Lots 7 and 8)

Under Future With-Action Conditions, it is assumed that Projected Development Site 2 would be developed with a single 34,979 GSF (27,648 ZSF, 4.93 FAR) mixed-use building with 100% lot coverage. The building would contain approximately 13,121 GSF (12,020 ZSF, 2.14 FAR) of residential use and 16,253 GSF (15,628 ZSF, 2.79 FAR) of community facility use (potentially medical office). There would be approximately 15 dwelling units. The 5,604-SF cellar would contain a parking lot with six parking spaces, mechanical rooms, and bike storage. The building would be 11 stories tall and rise to 115 feet with a base height of 95 feet. At the base height of 95 feet, there would be a 15-foot setback on Concord Avenue. A 10-foot mechanical bulkhead

would be assumed for the development site for a conservative shadows analysis under CEQR. One curb cut would be proposed on Concord Avenue.

Other lots within the Affected Area (Block 2577, Lots p/o 6 and p/o 20) are not projected to redevelop under the With-Action Condition. The non-Applicant-owned Lots 6 and 20 do not pass the soft site criteria established by the *CEQR Technical Manual*, Chapter 2. Although the lots are built to substantially less than the maximum allowable FAR, Lots 6 and 20 are not considered likely to be redeveloped under the future With-Action Conditions because of their small lot sizes (below the CEQR Technical Manual soft site threshold of 5,000 square feet). In addition, the Proposed Actions would only affect approximately 50% of Lot 20.

The Proposed Actions would introduce development that is larger in scale compared to the existing surrounding buildings but features similar uses, such as residential, manufacturing, commercial, and community facility. It should also be mentioned that there was another recently effectuated rezoning on the western side of Concord Avenue at 431 Concord Avenue (C 200274 ZMX, N 200275 ZRX, effective May 27, 2021). As the result of 431 Concord Avenue Rezoning, Block 2578, lots p/o 15, p/o 16, p/o 18 have been rezoned to an R7D district located right across Concord Avenue from the Projected Development Sites 1 and 2. The proposed rezoning of the Affected Area to R7D/M1-4 (MX) would be compatible with the R7D district across Concord Avenue and serve as a transition between the adjacent to the Affected Area residential districts (R7D and R7-1) to the north and to the west and manufacturing district (M1-2) to the east and to the south of the Affected Area. The proposed development would also improve the pedestrian experience by renovating sidewalks and providing a mixture of ground floor uses, including local retail, office lobby, and residential lobby on E 145th Street, and local retail and community facility on Wales Avenue.

The urban design figures under the With-Action conditions in comparison to No-Action conditions are shown in **Figures 2.5-6 to 2.5-9** below. Different colors were used to illustrate building envelops of the two Projected Development Sites: the building envelope of Projected Development Site 1 is colored red, and the building envelope of Projected Development Site 2 is colored blue. The development facilitated by the 431 Concord Avenue rezoning would be right across Concord Avenue from Projected Development Sites 1 and 2, and would have an effect on the pedestrian experience and other urban design characteristics in the vicinity of the Affected Area. Accordingly, the illustrations of Massing Views under With-Action Conditions presented in **Figures 2.5-6 to 2.5-9** include the building envelope of the projected development site expected to be redeveloped as a result of the 431 Concord Avenue Rezoning (illustrated in white). The worst-case development scenario for the site projected to be redeveloped as a result of 431 Concord Avenue Rezoning (Block 2578, lots 16 and 18) is an 11-story, 115-foot tall, 87,369 GSF (5.51 FAR) Quality Housing residential building with approximately 93 residential dwelling units and 29 accessory parking spaces located on the first/ground floor of the building.

Figure 2.5-6: Massing View 1. Illustrative Comparison of the No-Action and With-Action Conditions

No-Action Condition

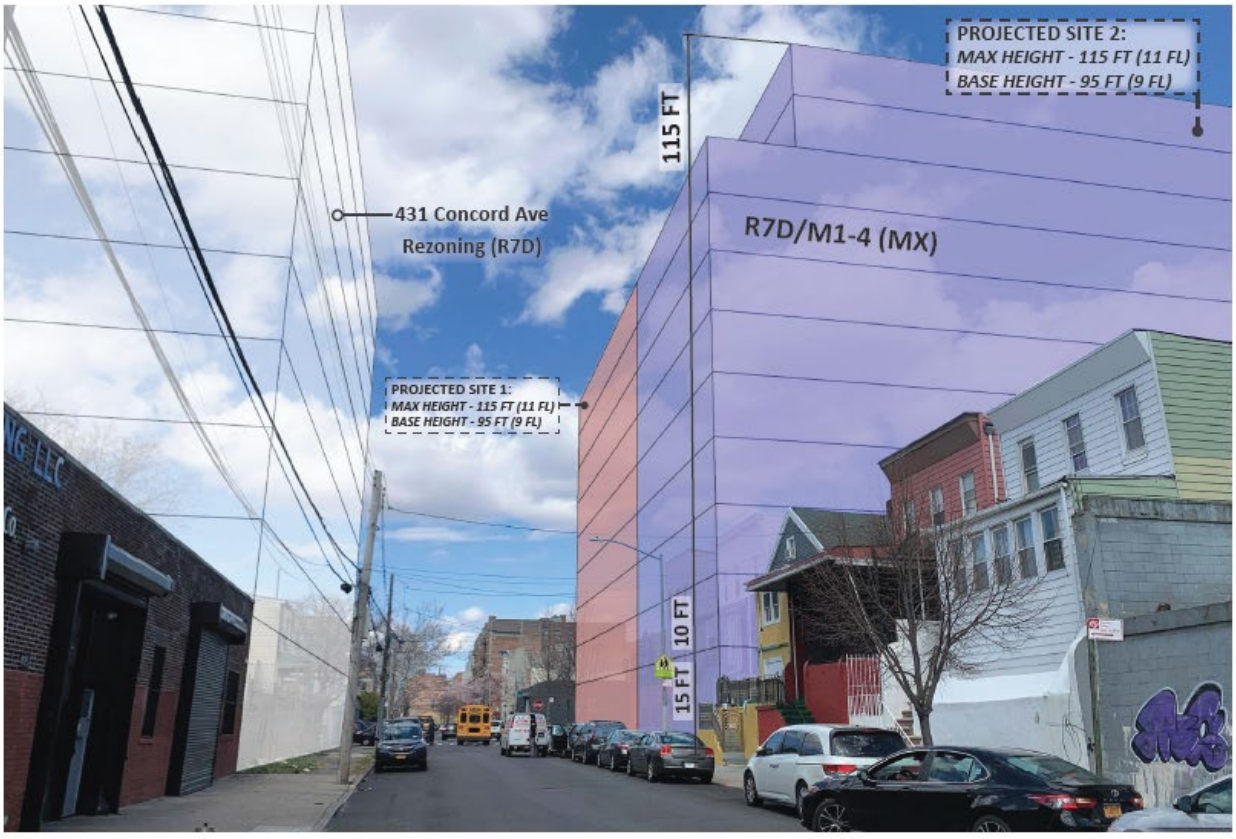
With-Action Condition

1 Looking southeast toward the intersection of E 145 Street and Concord Avenue

Figure 2.5-7: Massing View 2. Illustrative Comparison of the No-Action and With-Action Conditions

No-Action Condition

With-Action Condition



2 Looking northeast along Concord Avenue toward the Rezoning Area

Figure 2.5-8: Massing View 3. Illustrative Comparison of the No-Action and With-Action Conditions

No-Action Condition

With-Action Condition

3 Looking south toward the intersection of E 145 Street and Wales Avenue

Figure 2.5-9: Massing View 4. Illustrative Comparison of the No-Action and With-Action Conditions.

No-Action Condition

With-Action Condition

4 Looking west toward the intersection of E 145 Street and Wales Avenue

2.5.4 Conclusion

The development facilitated by the Proposed Actions would not adversely impact any of the constituent urban design elements or the overall character of the neighborhood. The Proposed Actions would not adversely change the pedestrian experience or negatively affect the vitality, walkability, or the visual character of the area. The mixed-use residential development with ground-floor commercial and community facility uses would improve the pedestrian experience and increase the vitality of the area. There are no view corridors within the study area. The proposed development would be located within an existing block. No publicly accessible views of the historic architectural resources would be blocked. Therefore, the Proposed Actions would not result in significant adverse impacts and no further analysis is required.

2.6 Hazardous Materials

According to the *CEQR Technical Manual*, the potential for significant impacts from hazardous materials can occur when: (a) hazardous material exists on a site, and (b) an action would increase pathways to their exposure, or (c) an action would introduce new activities or processes using hazardous materials.

Methodology

The hazardous materials assessment begins with a Phase 1 ESA, which is a qualitative evaluation of the environmental conditions present at a site, based on a review of available information, site observations, and interviews. Pursuant to the *2021 CEQR Technical Manual*, the Phase 1 ESA is conducted in accordance with the standards established by the current ASTM Phase 1 ESA Standard and includes research and field observations to determine whether the site may contain contamination from either past or present activities on the site or as a result of activities on adjacent or nearby properties. If a potential Recognized Environmental Conditions (RECs) is identified during this assessment, then building any subsurface investigations are usually conducted as part of a Phase II ESA to confirm the presence and extent of the contamination.

Analysis

Projected Development Site 1 includes Applicant-controlled Lots 9 and 14. According to a survey conducted by the Applicant, Lot 9 is a 7,774-SF corner lot (varies from ZOLA's 7,758 SF) with frontages on East 145 Street and Concord Avenue. The lot is a surface lot classified as an unlicensed parking lot. Lot 14 is a 12,774-SF corner lot with frontages on East 145 Street and Wales Avenue. The lot is currently improved with a one-story 12,500 GSF manufacturing building constructed in 1931.

Projected Development Site 2 includes Applicant-controlled Lots 7 and 8. Lot 7 is a 2,500-SF interior lot with 25 feet of frontage on Concord Avenue. The lot is currently improved with a two-story, two-family, 1,500 GSF residential building constructed in 1901. Lot 8 is a 2,500-SF interior lot with 25 feet of frontage on Concord Avenue. The lot is currently improved with a two-story, two-family, 1,904 GSF residential building constructed in 1901.

The Proposed Development that would be effectuated by the Proposed Actions is described above in Section 1.5, and the analysis framework under the RWCDS is described above in Section 1.8.

2.6.1 Phase I Environmental Site Assessment Summary

The proposed rezoning would allow for new sensitive uses, not previously permitted by the underlying M1-2 zoning district, to be developed within the Affected Area. Accordingly, a Phase I Environmental Site Assessment (ESA) was conducted for the Applicant-controlled Projected Development Site 1 by Equity Environmental Engineering (Equity) on October 14, 2022. An

additional Phase I ESA was conducted for the Applicant-controlled Projected Development Site 2 by Equity on March 24, 2023. A copy of both reports is included in **Appendix D-1**.

The purpose of a Phase I ESA is to determine whether any type of environmental hazard exists within or adjacent to the project site. Environmental hazards may include, but are not limited to, hazardous/toxic wastes or raw chemicals stored, dumped, or spilled on the site, underground and above ground storage of petroleum or hazardous materials; asbestos within the building materials/structures; and identification of potential off-site sources of hazardous waste contamination, such as industrial facilities adjacent to the subject property.

Recognized Environmental Conditions (RECs) are defined as the presence or likely presence of any hazardous substances or petroleum products under conditions that indicate an existing release, past release, or a material threat of a release into structures on the property or into the ground, groundwater or surface waters of the property. De minimis RECs are those that do not present a threat to health or the environment and would not be the subject of an enforcement action by a government agency. All RECs, excluding de minimis RECs, were considered in the Phase I.

Equity has performed a Phase I Environmental Site Assessment for Projected Development Site 1 on October 14, 2022 in conformance with the scope and limitations of ASTM Practice E 1527-21. The following conditions were observed:

- Recognized Environmental Condition (RECs): There are no RECs associated with the Subject Property.
- Historical Recognized Environmental Condition (HRECs): There are no HRECs associated with the Subject Property.
- Controlled Recognized Environmental Condition (CRECs): There are no CRECs associated with the Subject Property.
- Vapor Encroachment Conditions (VECs): The EDR Vapor Encroachment database identified three records on the Subject Property. One record is under the FINDS (Facility Index System) database and two records are under the SSTS (Section Seven Tracking Systems) database. These records are included at the Subject Property due to the facility on 435 Wales Avenue (Safeguard Chemical Corp) being an Insecticide, Fungicide, and Rodenticide facility. There are numerous potential VECs (Vapor Encroachment Conditions) within 1/10 of a mile of the Subject Property that are related to multiple NY Spills cases, four E-Designation sites, and one EDR Hist Auto listing. All NY Spills cases have either been closed or are not significant enough to have affected the Subject Property. Therefore, all spill cases are not considered VECs. Three of the four E-Designation sites are within 0.021 miles of the Subject Property. The E-Designation sites are located at 439 Concord Avenue, 431 Concord Avenue, and 441 Concord Avenue. 439 and 431 Concord Avenue have the following E-Designation description: “exhaust stack location

limitations". The E-Designation site at 441 Concord Avenue lists descriptions relating to air quality (HVAC nitrogen oxides), exhaust stack limitations, and hazardous materials phase I and phase II testing protocol. Based on the E-Designation descriptions, these three sites are not considered VECs. The EDR Hist Auto listing site is 0.086 miles from the Subject Property. The EDR Hist Auto site is cross gradient of the Subject Property, therefore, the EDR Hist Auto listing is not considered a VEC. Due to the records listed on the Subject Property, VECs cannot be ruled out.

Equity has performed a Phase I Environmental Site Assessment for Projected Development Site 2 on March 24, 2023 in conformance with the scope and limitations of ASTM Practice E 1527-21. The following conditions were observed:

- Recognized Environmental Condition (RECs): There are no RECs associated with the Subject Property.
- Historical Recognized Environmental Condition (HRECs): There are no HRECs associated with the Subject Property.
- Controlled Recognized Environmental Condition (CRECs): There are no CRECs associated with the Subject Property.
- Vapor Encroachment Conditions (VECs): The EDR Vapor Encroachment database identified Diallio Auto Repair at 441 Concord Avenue and the adjoining property to the east represent vapor encroachment concerns for the Subject Property The adjoining property to the east was a former chemical facility and is currently an auto repair shop. Based on the above, VECs cannot be ruled out.

Based on the findings of the Phase I ESA's, a VEC could not be ruled out due to a number of spills, sites with E-Designations for hazardous materials, historic autobody shops, and the identification of a Section Seven Tracking Systems database site. Therefore, a Phase II Investigation is required at the Projected Development Sites to adequately identify/characterize the surface and subsurface soils, groundwater and soil vapor of the subject property, and to inform and disclose the measures necessary to avoid impacts.

<u>For Projected Development Site 1 (Lots 9 and 14)</u>

The Applicant intends to enroll in the Voluntary Cleanup Program through the Mayor's Office of Environmental Remediation (OER). As such, a Remedial Investigation Workplan and Health and Safety Plan (RIWP/HASP) have been prepared for Projected Development Site 1 for OER review. Once approved by OER, a Phase II Investigation for this site will be performed, and a Remedial Investigation Report (RIR) will be prepared. The RIR will detail the findings of the investigation. If required, based on the Phase II ESA findings, a Remedial Action Workplan and Site-Specific Construction Health and Safety Plan (RAWP/CHASP) will also be prepared for OER review.

For Projected Development Site 2 (Lots 7 and 8)

Projected Development Site 2 includes Applicant-controlled lots 7 and 8. Lot 7 is currently improved with a two-story, two-family, 1,500 GSF residential building constructed in 1901. Lot 8 is currently improved with a two-story, two-family, 1,904 GSF residential building constructed in 1901.

The buildings are currently tenanted with a sensitive use. In addition, the buildings on these lots are approximately 20 feet wide. The proposed drilling method within the buildings would use a small, hydraulic rig that requires running hoses from an external power source through the buildings to the boring locations. These issues, taken together with the health and safety aspects of investigating a site with potentially unknown levels of contamination while occupants are in the buildings, would not be in compliance with OSHA Hazwoper requirements. Therefore, Phase II investigative work is not feasible at this time, and an E-Designation is required to undertake Phase II work.

2.6.2 Phase II Remedial Investigation Workplan Summary

Based on the results of the Phase I ESA on Projected Development Site 1, a March 17, 2023 Phase II Remedial Investigation Workplan (RIWP) and Health and Safety Plan (HASP) were prepared by Equity for Projected Development Site 1, contained in (**Appendix D-2**). The RIWP proposes the installation of nine (9) soil borings, four (4) temporary monitoring wells, and six (6) soil vapor sampling points.

Prior to installation of the above, a geophysical survey will be performed across the entire site to investigate for the presence of potential USTs, drums, etc.

2.6.3 Phase II Remedial Investigation Report Summary

The Remedial Investigation on Projected Development Site 1 was completed on April 28th, 2023, by Equity. The following scope of work was performed at the Subject Property:
1. Installed nine soil borings on the Subject Property and collected nine soil samples for chemical analysis to evaluate soil quality.
2. Collected appropriate quality assurance/quality control (QA/QC) samples.

Results

The soil samples indicated that, in general, the concentrations of VOCs, SVOCs, Pesticides, PCBs, and metals were low across the site except for iron and Barium which were detected in exceedance of the Residential criteria and the Restricted Residential criteria, and a few minor exceedances of the Unrestricted Use Criteria.

2.6.4 Remedial Action Workplan Summary

Upon completion of the Phase II Site Investigation, a Remedial Action Workplan (RAWP) was prepared for Projected Development Site 1 on October 31, 2023, by GZA GeoEnvironmental.

The following tasks comprise the Remedial Action Plan:

1. The preparation of a Construction Health and Safety Plan (CHASP) for the protection of onsite workers during construction.

2. The onsite soil/bedrock will be evaluated for waste classification purposes based on the volume of soil to be excavated and the selected disposal company/location.

3. The onsite soil will be excavated across the entire site to the necessary construction depth and transported offsite for the construction of the new building (Figure 5).

4. Progress reports including trucking logs will be maintained.

5. The necessary Community Air Monitoring Program (CAMP) will be implemented during the soil excavation and any other onsite activity that may raise dust or release volatile organic emissions (Appendix A). All CAMP readings will be made available for DEP to review.

6. A vapor barrier shall be installed to prevent possible vapor intrusion from the soil into the proposed building. It shall be, at minimum, 20-mil thick and properly anchored to the foundation walls and booted around all pipe penetrations, etc. Preprufe 300R is the proposed vapor barrier. Preprufe Tape and Bithuthene Liquid Membrane will be used to seal between the seams of the barrier and around penetrations respectively. The technical specifications for these materials are provided in Appendix B. A plan view showing the vapor barrier system is provided in Figure 5 and a cross-section is shown in Figure 6.

7. A passive Sub-slab Depressurization System (SSDS) will be designed and installed based on the potential concerns from VOCs identified during the Phase II environmental site investigation as well as potential radon concentrations within the new building. Should a SSDS be required, a design of the system will be prepared for regulatory approval. The system will consist of an extraction trench with 4-inch diameter, perforated PVC pipe laid in a layer of crushed stone and 4-inch diameter cast iron risers through the roof with ventilators on top. To the extent possible, the risers will run vertically in pipe chases where the bathrooms are planned, or other appropriate spaces. Should the SSDS need to be made active, appropriate exhaust fans will be selected and installed with the necessary pressure gauges, alarms, and O&M manual.

8. Complete a Remedial Action Report (RAR) when construction is complete.

2.6.5 Conclusion

With the above remedial measures in place, the potential for significant environmental impact associated with hazardous materials would be mitigated for Projected Development Site 1. To preclude the potential for significant adverse impact on Projected Development Site 1 (should the Applicant decide to leave the City Voluntary Cleanup Program) and Projected Development Site 2, an E-Designation will be placed to assure that testing and mitigation will be performed, as necessary, before any future development and/or soil disturbance. Further hazardous materials assessments should be coordinated through the Mayor's Office of Environmental Remediation

(OER). With these provisions in place, the Proposed Actions would not result in the potential for significant adverse impact related to Hazardous Materials.

The E-Designation language related to Hazardous Materials is as follows:

E-Designation (E-756)

Projected Development Site 1: Block 2577, Lots 9 and 14 (Applicant-Controlled)

Projected Development Site 2: Block 2577, Lots 7 and 8 (Applicant-Controlled)

Task 1-Sampling Protocol

The applicant submits to OER, for review and approval, a Phase I and Phase II of the site along with a soil, groundwater, and soil vapor testing protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented. If site sampling is necessary, no sampling should begin until written approval of a protocol is received from OER. The number and location of samples should be selected to adequately characterize the site, specific sources of suspected contamination (i.e., petroleum-based contamination and non-petroleum-based contamination), and the remainder of the site's condition. The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.

Task 2-Remediation Determination and Protocol

A written report with findings and a summary of the data must be submitted to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such results, a determination is made by OER if the results indicate that remediation is necessary. If OER determines that no remediation is necessary, written notice shall be given by OER.

If remediation is indicated from test results, a proposed remediation plan must be submitted to OER for review and approval. The Applicant must complete such remediation as determined necessary by OER. The Applicant should then provide proper documentation that the work has been satisfactorily completed.

A construction-related health and safety plan should be submitted to OER and would be implemented during excavation and construction activities to protect workers and the community from potentially significant adverse impacts associated with contaminated soil, groundwater and/or soil vapor. This plan would be submitted to OER prior to implementation.

2.7 Transportation

Pursuant to *2021 CEQR Technical Manual* methodology, a transportation assessment may be necessary when a Proposed Action would alter the transportation network by closing, opening, or realigning an element of the transportation system such as a roadway, pedestrian way, or transit route, or if it would generate new trips on the transportation network. The objective of the transportation analyses is to determine whether a proposed project may have a potential significant impact on traffic operations and mobility, public transportation facilities and services, pedestrian elements and flow, safety of all roadway users (pedestrians, bicyclists and vehicles), on- and off-street parking, or goods movement.

Analysis

Future No-Action Conditions

The No-Action Condition for the Affected Area would be the same as the existing conditions.

The Projected Development Site 1 includes Applicant-controlled lots 9 and 14. The Projected Development Site 2 includes Applicant-controlled Lots 7 and 8. The Applicant uses a Zoning Lot Merger (ZLM) involving Lots 7, 8, 9, and 14 to apply 8,777 ZSF of the Development Rights from Projected Development Site 2 (Lots 7 and 8) to Projected Development Site 1 (Lots 9 and 14) to effectuate the Applicant's proposed development. There are no records of construction work permit applications submitted by the Applicant on the DOB website. As such, it is assumed that under the No-Action Scenario, existing conditions would continue on both Projected Development Sites.

Future With-Action Conditions

The RWCDS is consistent with the Applicant's proposal to use a Zoning Lot Merger (ZLM) involving Lots 7, 8, 9, and 14 to apply 8,777 ZSF of the Development Rights of Projected Development Site 2 (Lots 7 and 8) to Projected Development Site 1 (Lots 9 and 14). The Applicant-controlled Lots 7, 8, 9, and 14 would be merged into a 25,548-SF zoning lot within the proposed R7D/M1-4 (MX) district. Approximately 604 square feet of lot area would also be conveyed from Lot 9 to Lot 8 to match the fence line against the existing retaining wall serving as a factual boundary between tax lots 8 and 9. Additionally, to provide a conservative analysis when considering the combination of Projected Development Sites 1 and 2, a maximum FAR of 6.5 was utilized as described below.

It should be noted that while Lots 7 and 8 constitute Projected Development Site 2 for the purposes of analysis, the Applicant does not intend to redevelop these lots Pursuant to the Proposed Actions. Under the Proposed Project, Lots 7 and 8 would remain developed as they are under existing conditions, with two two-story residential buildings with two dwelling units in each building.

Projected Development Site 1 (Lots 9 and 14)

Under Future With-Action Conditions, it is assumed that Projected Development Site 1 would be developed with a single 174,709 GSF (138,413 ZSF, 6.94 FAR) mixed-use building with 100% lot coverage. The building would contain approximately 7,187 GSF (6,634 ZSF, 0.33 FAR) of community facility use, 10,258 GSF (7,602 ZSF, 0.38 FAR) of light industrial and manufacturing use, 4,526 GSF (3,301 ZSF, 0.17 FAR) of local retail and 30,730 GSF (25,597 ZSF,1.28 FAR) of office use (1.13 total commercial FAR), and 113,139 GSF (95,279 ZSF, 4.78 FAR) of residential use of which 100,586 GSF (95,279 ZSF, 4.78 FAR) would be above the cellar level (residential lobby on the ground floor and residential units on floors 4 to 11) yielding approximately 120 dwelling units (assuming 837 GSF per DU on average) and 12,553 GSF would be in the cellar used as storage space and technical rooms. Among the 120 dwelling units, 25-30% (30-36 units) would be affordable pursuant to MIH at an average of 60-80% AMI depending on the Option selected. An 8,869-SF below-grade parking lot would contain approximately 48 spaces. The building would be 11 stories tall and rise to 115 feet with a base height of 95 feet. At the base height of 95 feet, there would be a 15-foot setback on Concord Avenue, 145th Street and Wales Avenue, as these streets are considered to be narrow (less than 75 feet wide). A 10-foot mechanical bulkhead would be assumed for the Development Site for a conservative shadows analysis under CEQR. One curb cut would be proposed on Concord Avenue.

Projected Development Site 2 (Lots 7 and 8)

Under Future With-Action Conditions, it is assumed that Projected Development Site 2 would be developed with a single 34,979 GSF (27,648 ZSF, 4.93 FAR) mixed-use building with 100% lot coverage. The building would contain approximately 13,121 GSF (12,020 ZSF, 2.14 FAR) of residential use and 16,253 GSF (15,628 ZSF, 2.79 FAR) of community facility use (potentially medical office). There would be approximately 15 dwelling units (assuming 850 SF per DU on average), 25-30% (4 units) of which would be affordable pursuant to MIH at an average of 60-80% AMI depending on the Option selected. The 5,604-SF cellar would contain a parking lot with six parking spaces, mechanical rooms, and bike storage. The building would be 11 stories tall and rise to 115 feet with a base height of 95 feet. At the base height of 95 feet, there would be a 15-foot setback on Concord Avenue. A 10-foot mechanical bulkhead would be assumed for the development site for a conservative shadows analysis under CEQR. One curb cut would be proposed on Concord Avenue.

Overall, the merged zoning lot consisting of Lots 7, 8, 9, and 14 would include 209,688 GSF (166,061 ZSF, 6.5 FAR) of mixed-use development consisting of 126,260 GSF (107,299 ZSF, 4.20 FAR) of residential use, 35,256 GSF (28,898 ZSF, 1.13 FAR) of commercial use, 23,440 GSF (22,262 ZSF, 0.87 FAR) of community facility use, and 10,258 GSF (7,602 ZSF, 0.38 FAR) of manufacturing use. There would be a total of 135 dwelling units, and 14,473 SF of below-grade parking would be provided over the two Projected Sites containing approximately 54 parking spaces, with two curb cuts constructed on Concord Avenue.

The incremental change in land use for Sites 1 and 2 from the future No-Action Condition to the future With-Action Condition are detailed below in **Table 2.7-1**.

Table 2.7-1: Increment Summary Table

Site	Land Use	Existing		No-Action		With-Action		Increment	
		gsf	DU	gsf	DU	gsf	DU	gsf	DU
Site 1	Local Retail (UG 6)	0	0	0	0	4,526	0	4,526	0
	Residential (UG 2)	0	0	0	0	100,586	120	100,586	120
	Professional Offices (UG 9)	0	0	0	0	30,730	0	30,730	0
	Community Facility (Medical Office)	0	0	0	0	7,187	0	7,187	0
	Manufacturing / Light Industrial (Auto Repair)*	12,500	0	12,500	0	10,258	0	-2,242	0
Site 2	Residential (UG 2)	3,440	4	3,440	4	13,121	15	9,681	11
	Community Facility (Medical Office)	0	0	0	0	16,253	0	16,253	0
Total	Local Retail (UG 6)	0	0	0	0	4,526	0	4,526	0
	Residential (UG 2)	3,440	4	3,440	4	113,707	135	110,267	131
	Professional Offices (UG 9)	0	0	0	0	30,730	0	30,730	0
	Community Facility (Medical Office)	0	0	0	0	23,440	0	23,440	0
	Manufacturing / Light Industrial (Auto Repair)*	12,500	0	12,500	0	10,258	0	-2,242	0

***Note:** The existing manufacturing / light industrial use (12,500 sf), which is expected to remain unchanged in the No-Action condition, is an auto body shop. While the exact proposed manufacturing / light industrial land use (10,258 sf) is to be determined, it is conservatively treated as an auto repair use for the purposes of the transportation analyses, as the auto repair use yields more trips than other manufacturing / industrial uses.

2.7.1 Preliminary Assessment

Based on the Affected Area's location, it is within Traffic Zone 2. According to Table 16-1 of the *2021 CEQR Technical Manual*. In this zone, a residential development of fewer than 200 residential units, 100,000 square feet of commercial office, 15,000 square feet of local retail, or 25,000 square feet of community facility space, or a weighted average below 1.00 of any of the above, typically does not warrant further assessment of the potential for adverse effects on Transportation. Incremental development under the Proposed Actions compared to No-Action conditions, as detailed above in **Table 2.7-1**, results in an average of 2.11 for the Proposed Actions. Therefore, a Tier 1 trip generation is required.

2.7.2 Level 1 Trip Generation Screening Assessment

Methodology

The *2021 CEQR Technical Manual* states that a preliminary trip generation assessment should be prepared to determine whether a quantified analysis of any technical areas of the transportation system is necessary. Except in unusual circumstances, a further quantified analysis would

typically not be needed for a technical area if the proposed development would result in fewer than the following increments:

- 50 peak hour vehicle trips;
- 200 peak hour subway/rail or bus transit riders (or 50 bus trips in a single direction on a single route during a peak hour);
- 50 CWFS Ferry Trips; or
- 200 peak hour pedestrian trips.

The *CEQR Technical Manual* also states that if the threshold for traffic is surpassed, a parking assessment may also be warranted.

Transportation Planning Assumptions

Table 2.7-3 shows the person trips, vehicular trips, and pedestrian trips generated from the trip factors in **Table 2.7-2**.

Residential

The daily trip generation, temporal distribution, directional splits, truck trip generation, truck temporal distribution, and truck directional splits were taken from the *2021 CEQR Technical Manual*. The modal splits and auto vehicle occupancy rate were taken from 2015 – 2019 ACS Journey to Work data for Census Tracts 31, 33, 35, 37, 73, and 79 in the Bronx, while the taxi vehicle occupancy rate was based on the Jerome Avenue Rezoning FEIS.

Auto Repair

All transportation demand assumptions and factors for the auto repair use were based on the Jerome Avenue Rezoning FEIS.

Community Facility (Medical Office)

The daily trip generation, temporal distribution, directional splits, modal splits, truck trip generation, truck temporal distribution, and truck directional splits were taken from the *2021 CEQR Technical Manual*. The auto and taxi vehicle occupancy rates were based on data provide by NYC DOT per NYC DCP guidance.

Office

The daily trip generation, temporal distribution, directional splits, truck trip generation, truck temporal distribution, and truck directional splits were taken from the *2021 CEQR Technical Manual*. The modal splits and auto vehicle occupancy rate were taken from 2014 – 2016 ACS Reverse Journey to Work data for Census Tracts 31, 33, 35, 37, 73, and 79 in the Bronx, while the taxi vehicle occupancy rate was based on the Jerome Avenue Rezoning FEIS.

Local Retail

The daily trip generation, temporal distribution, directional splits, modal splits, truck trip generation, truck temporal distribution, and truck directional splits were taken from the *2021 CEQR Technical Manual*. The auto and taxi vehicle occupancy rates were based on data provide by NYC DOT per NYC DCP guidance.

Table 2.7-2: Transportation Demand Factors

	Residential		Auto Repair		Community Facility (Medical Office)		Office		Local Retail	
Trip Generation	(1)		(4)		(1)		(1)		(1)	
Weekday	8.18		19.42		66.626x + 141.77		18		329	
Saturday	9.08		19.42		37		3.9		358	
	per dwelling unit		per 1,000 sf		per 1,000 sf		per 1,000 sf		per 1,000 sf	
Linked-trip									25%	
Temporal Distribution	(1)		(4)		(1)		(1)		(1)	
AM	9.30%		13.20%		11.00%		12.40%		4.80%	
MD	5.60%		11.00%		12.60%		11.00%		8.00%	
PM	8.50%		14.20%		8.50%		10.50%		10.90%	
Sat MD	8.40%		11.00%		16.60%		14.10%		11.70%	
Modal Splits	(2)		(4)		(1)		(3)		(1)	
Auto	20%		85%		26.0%		41%		11%	
Taxi	1.8%		5.0%		10.0%		0.4%		0.0%	
Bus	16%		1%		23.0%		12%		2%	
Subway	54%		1%		14.0%		35%		3%	
Walk/Other	9%		8%		27.0%		11%		84%	
In/Out Splits	In (1)	Out (1)	In (4)	Out (4)	In (1)	Out (1)	In (1)	Out (1)	In (1)	Out (1)
AM	22%	78%	65%	35%	62%	38%	86%	14%	52%	48%
MD	50%	50%	50%	50%	53%	47%	52%	48%	50%	50%
PM	62%	38%	50%	50%	39%	61%	16%	84%	50%	50%
Sat MD	55%	45%	50%	50%	54%	46%	48%	52%	50%	50%
Vehicle Occupancy	(2) (4)		(4)		(5)		(3) (4)		(5)	
Auto	1.14		1.30		1.60		1.15		2.10	
Taxi	1.40		1.30		1.60		1.40		2.10	
Truck Trip Generation	(1)		(4)		(1)		(1)		(1)	
Weekday	0.06		0.89		0.35		0.32		0.35	
Saturday	0.02		0.05		0.04		0.01		0.04	
Temporal Distribution	(1)		(4)		(1)		(1)		(1)	
AM	12.00%		14.00%		8.00%		10.00%		8.00%	
MD	9.00%		9.00%		11.00%		11.00%		11.00%	
PM	2.00%		1.00%		2.00%		2.00%		2.00%	
Saturday	9.00%		9.00%		11.00%		11.00%		11.00%	
In/Out Splits	In (1)	Out (1)	In (4)	Out (4)	In (1)	Out (1)	In (1)	Out (1)	In (1)	Out (1)
AM/MD/PM/Sat	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%

1 = 2021 CEQR Technical Manual

2 = JTW ACS 2017-2019 Bronx Census Tracts 31, 33, 35, 37, 73, and 79

3 = RJTW ACS 2014-2016 Bronx Census Tracts 31, 33, 35, 37, 73, and 79

4 = Jerome Avenue Rezoning FEIS

5 = Data provided by NYC DOT

Table 2.7-3: Total Project Generated Trips

	Residential		Auto Repair		Community Facility (Medical Office)		Office		Local Retail		Total		
Size (gsf)	131 du		-2,242 gsf		23,440 gsf		30,730 gsf		4,526 gsf				
Peak Hour Trips													
AM	100		-6		187		69		54		403		
MD	60		-5		215		61		89		420		
PM	91		-6		145		58		122		410		
Sat MD	100		-5		144		17		142		398		
Person Trips													
AM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In/Out Total
Auto	4	15	-3	-2	30	19	24	4	3	3	59	39	98
Taxi	0	1	0	0	12	7	0	0	0	0	12	8	21
Bus	3	12	0	0	27	16	7	1	1	1	38	30	68
Subway	12	42	0	0	16	10	21	3	1	1	49	56	105
Walk/Other	2	7	0	0	31	19	6	1	23	22	63	49	111
Total	22	78	-4	-2	116	71	59	10	28	26	162	143	306
MD	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In/Out Total
Auto	6	6	-2	-2	30	26	13	12	5	5	52	47	99
Taxi	1	1	0	0	11	10	0	0	0	0	12	11	23
Bus	5	5	0	0	26	23	4	4	1	1	36	32	68
Subway	16	16	0	0	16	14	11	10	1	1	44	42	86
Walk/Other	3	3	0	0	31	27	3	3	38	38	74	70	144
Total	30	30	-2	-2	114	101	32	29	45	45	166	155	321
PM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In/Out Total
Auto	11	7	-3	-3	15	23	4	20	7	7	34	54	88
Taxi	1	1	0	0	6	9	0	0	0	0	7	10	16
Bus	9	6	0	0	13	20	1	6	1	1	24	33	57
Subway	30	19	0	0	8	12	3	17	2	2	43	50	93
Walk/Other	5	3	0	0	15	24	1	5	51	51	72	83	155
Total	56	35	-3	-3	56	88	9	49	61	61	146	175	322
Saturday	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In/Out Total
Auto	11	9	-2	-2	20	17	3	4	8	8	40	36	76
Taxi	1	1	0	0	8	7	0	0	0	0	9	7	16
Bus	9	7	0	0	18	15	1	1	1	1	29	25	54
Subway	29	24	0	0	11	9	3	3	2	2	45	39	84
Walk/Other	5	4	0	0	21	18	1	1	60	60	86	82	169
Total	55	45	-2	-2	78	66	8	9	71	71	169	153	322
Taxi Overlap Rate													
Vehicle Trips													
AM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In/Out Total
Auto	4	13	-2	-1	19	12	21	3	1	1	43	29	71
Taxi	0	1	0	0	7	4	0	0	0	0	7	5	12
Taxi Balanced	1	1	0	0	10	10	0	0	0	0	11	11	22
Truck	0	0	0	0	0	0	1	1	0	0	1	1	3
Total	5	15	-3	-1	29	22	22	4	2	1	55	41	96
MD	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In/Out Total
Auto	5	5	-2	-2	18	16	11	11	2	2	36	33	69
Taxi	0	0	0	0	7	6	0	0	0	0	7	6	13
Taxi Balanced	0	0	0	0	12	12	0	0	0	0	12	12	24
Truck	0	0	0	0	0	0	1	1	0	0	1	1	3
Total	6	6	-2	-2	31	29	12	11	2	2	49	46	95
PM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In/Out Total
Auto	10	6	-2	-2	9	14	3	18	3	3	23	39	63
Taxi	1	0	0	0	4	6	0	0	0	0	5	6	11
Taxi Balanced	1	1	0	0	9	9	0	0	0	0	10	10	20
Truck	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	11	7	-2	-2	18	23	3	18	3	3	34	49	83
Saturday	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In/Out Total
Auto	10	8	-2	-2	13	11	3	3	4	4	27	24	51
Taxi	1	1	0	0	5	4	0	0	0	0	6	5	11
Taxi Balanced	2	2	0	0	8	8	0	0	0	0	10	10	20
Truck	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12	10	-2	-2	21	19	3	3	4	4	37	34	72

* A 25% taxi overlap rate was assumed (i.e., 25% of inbound full taxis are assumed to be available for outbound demand)

Conclusion

The *2021 CEQR Technical Manual* provides a methodology for evaluating the potential impacts of a proposed project on the transportation system. In accordance with the 2*021 CEQR Technical Manual*, a Level 1 Screening Assessment includes a trip generation analysis to determine whether the project would result in more than 50 vehicle trip-ends, 200 subway/rail or bus transit riders, 50 CWFS ferry trips, or 200 pedestrian trip-ends in a peak hour.

Table 2.7-3 shows the Total Trip Generation projected for the proposed development.

Traffic

As shown in **Table 2.7-4**, the Proposed Project would generate greater than 50 vehicle trip-ends during all identified peak hours. Accordingly, further analysis of vehicular trips is warranted.

Subway

As shown in **Table 2.7-4**, the Proposed Project would generate fewer than 200 subway trip-ends during all identified peak hours. Therefore, no further transit analysis is warranted.

Bus

As shown in **Table 2.7-4**, the Proposed Project would generate fewer than 200 MTA bus trip-ends during all identified peak hours. Therefore, further transit analysis is not warranted.

Pedestrian

In addition to walk-only trips, all bus and subway trips generated by the Proposed Project would begin or end as pedestrian trips. The Proposed Project would exceed the Level 1 threshold of 200 trips-ends during all identified peak hours, as shown in **Table 2.7-4**. Therefore, a Level 2 screening assessment is warranted.

Table 2.7-4: Project Generated Trip Ends

Peak Hour	AM Peak Hour	Midday Peak Hour	PM Peak Hour	Saturday Peak Hour
Total Walk Only Trip-Ends	111	144	155	169
Walk Only Threshold	200	200	200	200
Total Subway Trip-Ends	105	86	93	84
Subway Threshold	200	200	200	200
Total MTA Bus Trip-Ends	68	68	57	54
MTA Bus Threshold	200	200	200	200
Total Pedestrian Trip-Ends	285	299	306	306
Pedestrian Threshold	200	200	200	200
Total Vehicular Trip-Ends	96	95	83	72
Vehicular Threshold	50	50	50	50

Highlighted cells denote trips in exceedance of 200 pedestrians or 50 vehicles per peak hour

2.7.3 Level 2 Screening Assessment

A Level 2 Screening Assessment assigns project-generated vehicular and pedestrian trips to specific intersections, bus routes, subway lines, CWFS ferry routes, or parking facilities.

If the results of the analysis conclude that the Proposed Action(s) would result in intersections with 50 or more vehicle trips, pedestrian elements with 200 or more pedestrian trips, 50 or more bus trips in a single direction on a single route, 25 or more passenger ferry trips in a single direction on a single route, 50 or more passengers at a ferry landing, or 200 or more passengers at a subway station or on a subway line during any analysis peak hour, further detailed analysis may be needed for a particular technical area.

Level 2 Vehicular Assignment

As shown previously in **Table 2.7-4**, incremental vehicle trip-ends resulting from the proposed project would exceed the CEQR Level-1 screening threshold during the Weekday AM, Midday, PM, and Saturday Midday peak hours. Accordingly, a Level 2 Trip Assignment was prepared for all peak hours, as shown below in **Figure 2.7-1** through **Figure 2.7-4**.

Site Access and Egress Assumptions

Access and egress to the Projected Development Sites for all auto trips (taxi, truck, and auto) was analyzed to be at the entrance/exits to the parking garage and the loading bay for Projected Development Site 1, located on Concord Avenue (see **Appendix B: Architectural Plans**). Projected Development Site 2 would only permit vehicular access on Concord Avenue, therefore, the vehicular assumptions used for Projected Development Site 1 were mirrored for Projected Development Site 2.

Origin and Destination Assumptions

The most likely travel routes to and from the Projected Development Sites, prevailing travel patterns, commuter origin-destination (O-D) summaries from the most recent census data, the configuration of the roadway network, and the anticipated locations of site access and egress by site and land use were examined and utilized to perform vehicular trip assignments. All vehicular trips (auto, taxi, truck) were conservatively assumed to enter the proposed project location via the specific frontages for Sites 1 and 2. Census Transportation Planning Product Reverse Journey to Work and Journey to Work (2012 – 2016) data was utilized to determine the relative O-D points of trips.

Conclusion

As shown below in **Figure 2.7-1** through **Figure 2.7-4**, based on the assignment of vehicular trips, one intersection (Concord Avenue and East 144th Street) would exceed greater than 50 vehicular trips during the Weekday AM, Weekday Midday, Weekday PM, and Saturday Midday peak hours. Accordingly, this location was selected for detailed Levels of Service analysis.

Figure 2.7-1: Weekday AM Vehicular Trip Assignment (1 of 4)

Weekday AM Total Inbound Vehicular Assignment

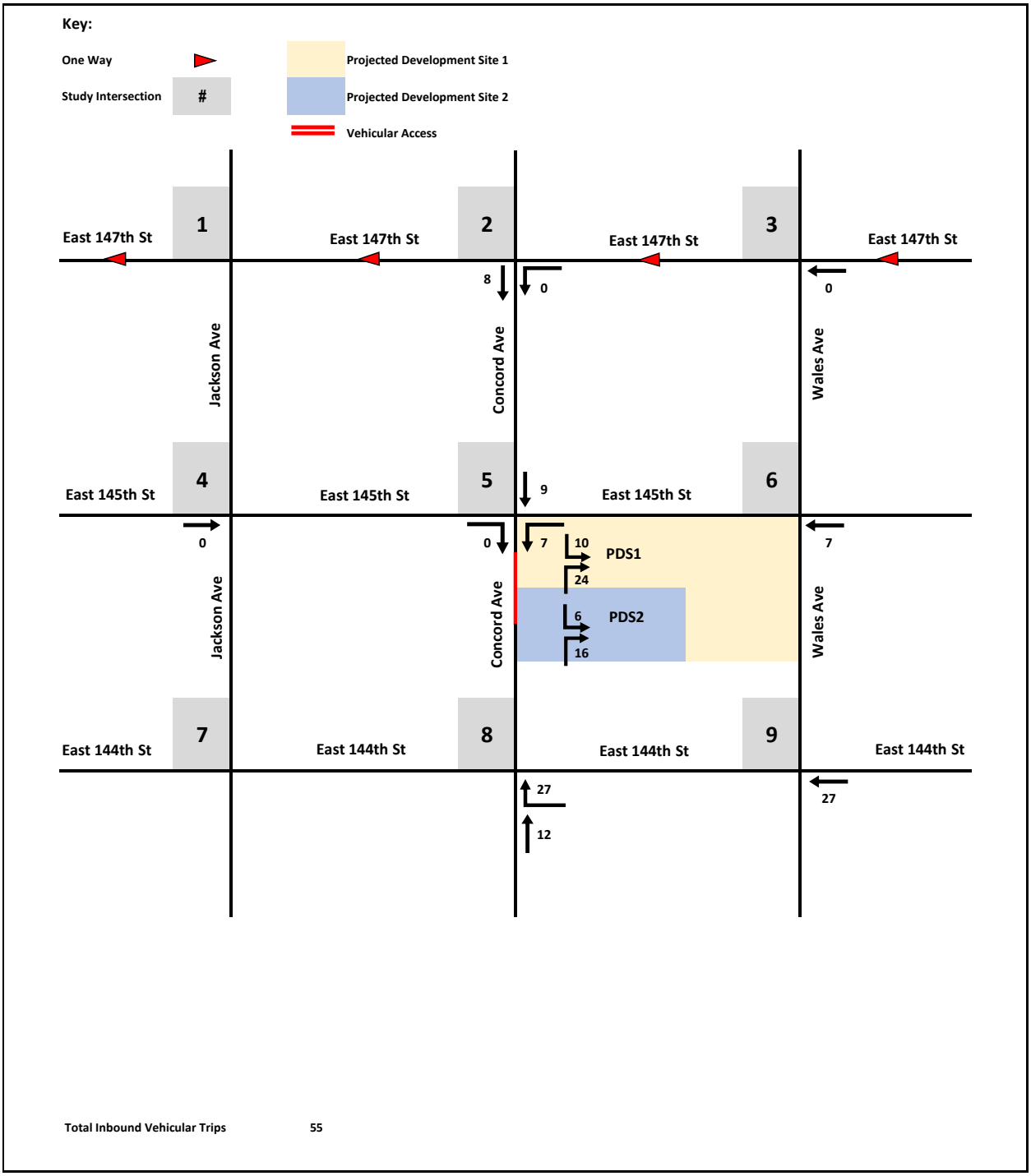


Figure 2.7-1: Weekday AM Vehicular Trip Assignment (2 of 4)

Weekday AM Total Outbound Vehicular Assignment

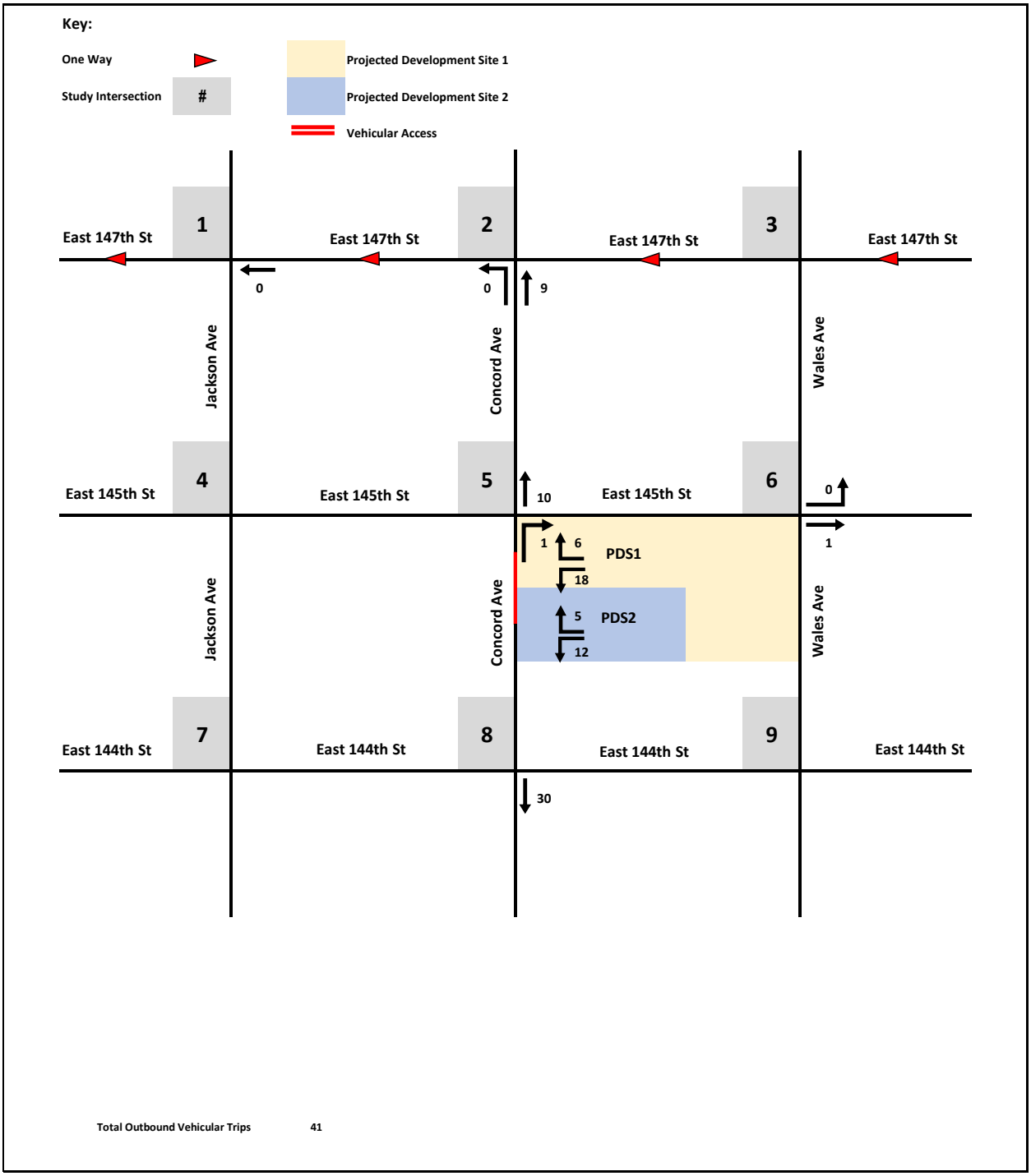


Figure 2.7-1: Weekday AM Vehicular Trip Assignment (3 of 4)

Weekday AM Total Vehicular Assignment (Inbound and Outbound)

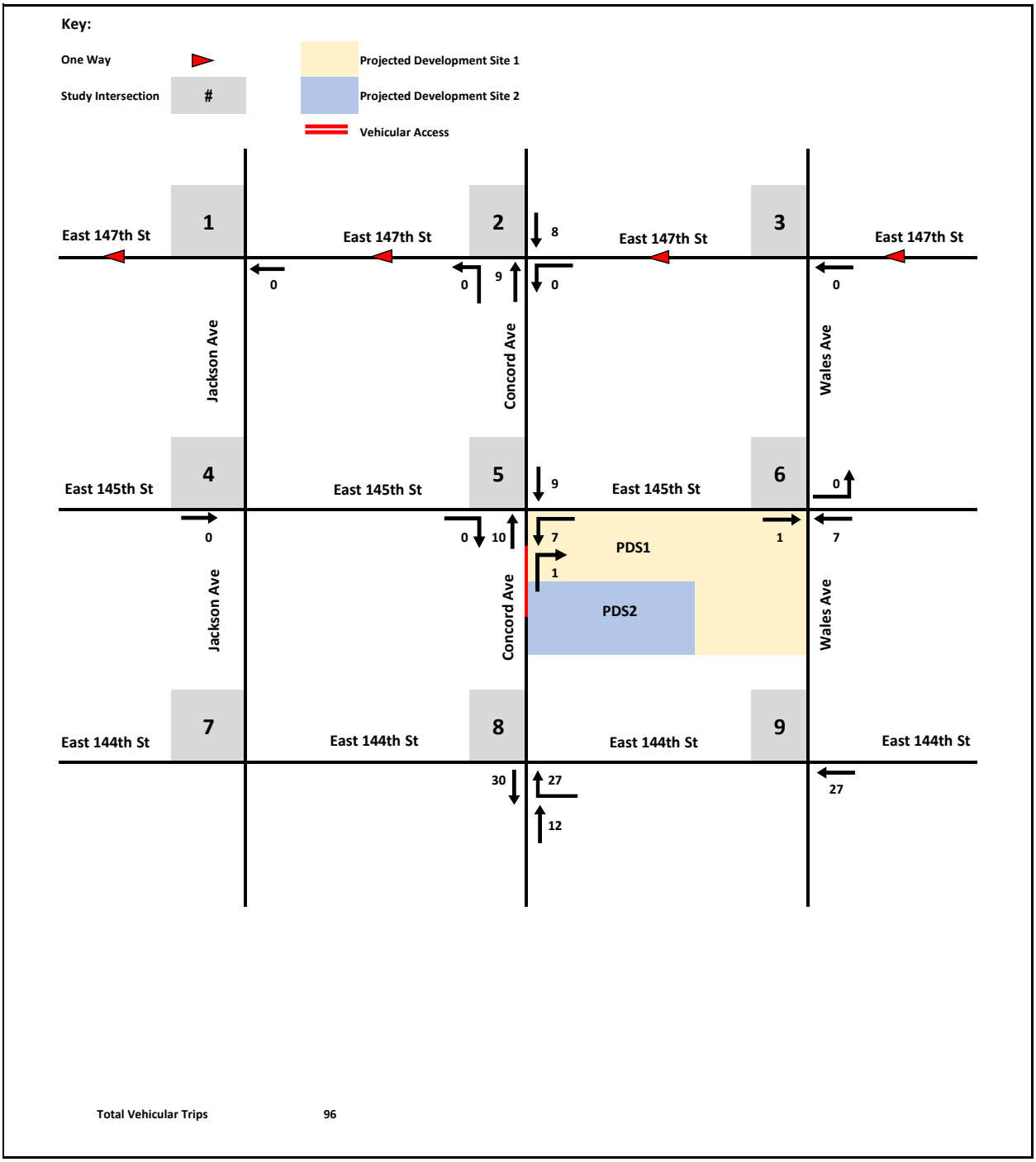


Figure 2.7-1: Weekday AM Vehicular Trip Assignment (4 of 4)

Weekday AM Vehicular Assignment Intersection Summary

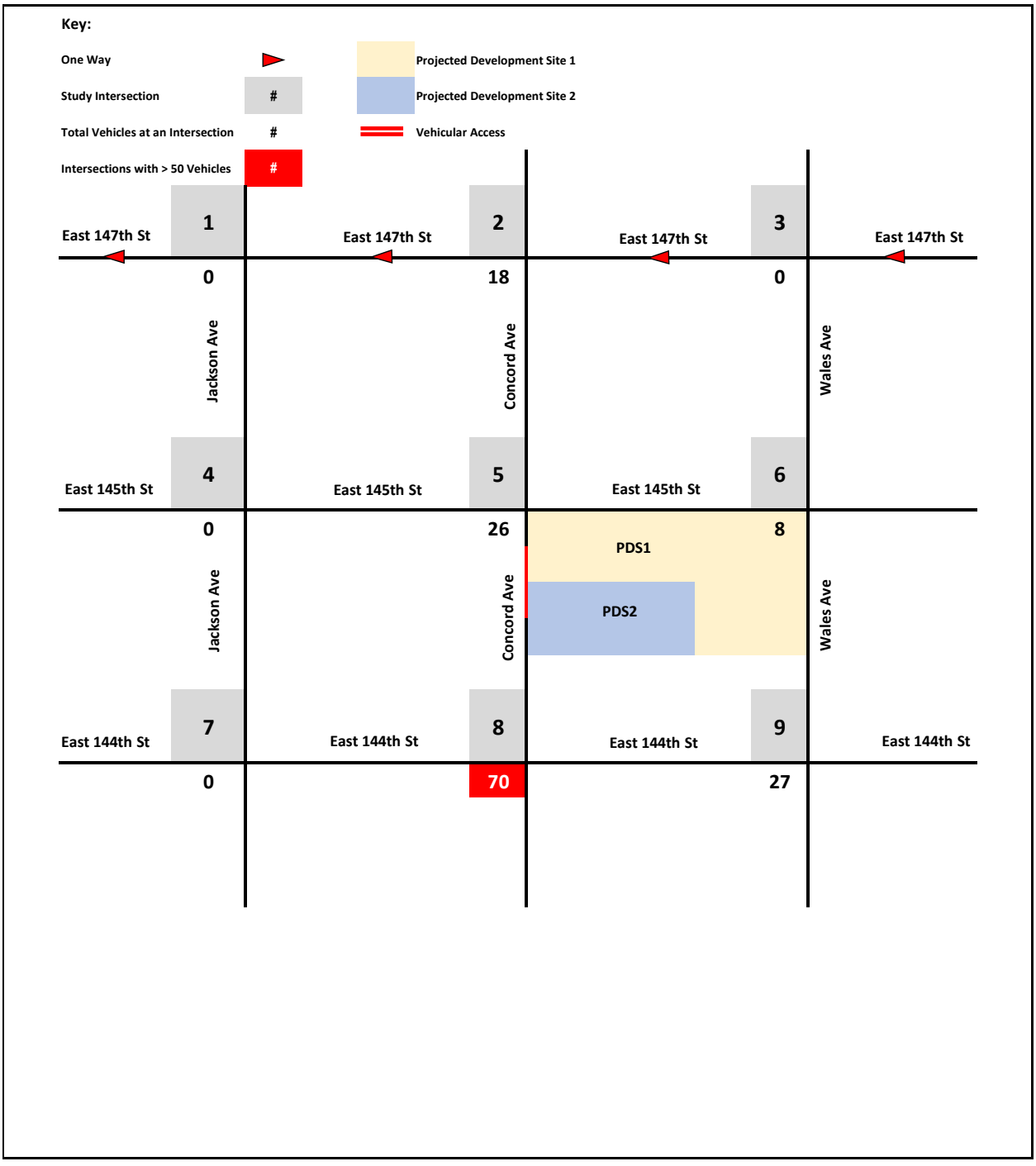


Figure 2.7-2: Weekday Midday Vehicular Trip Assignment (1 of 4)

Weekday Midday Total Inbound Vehicular Assignment

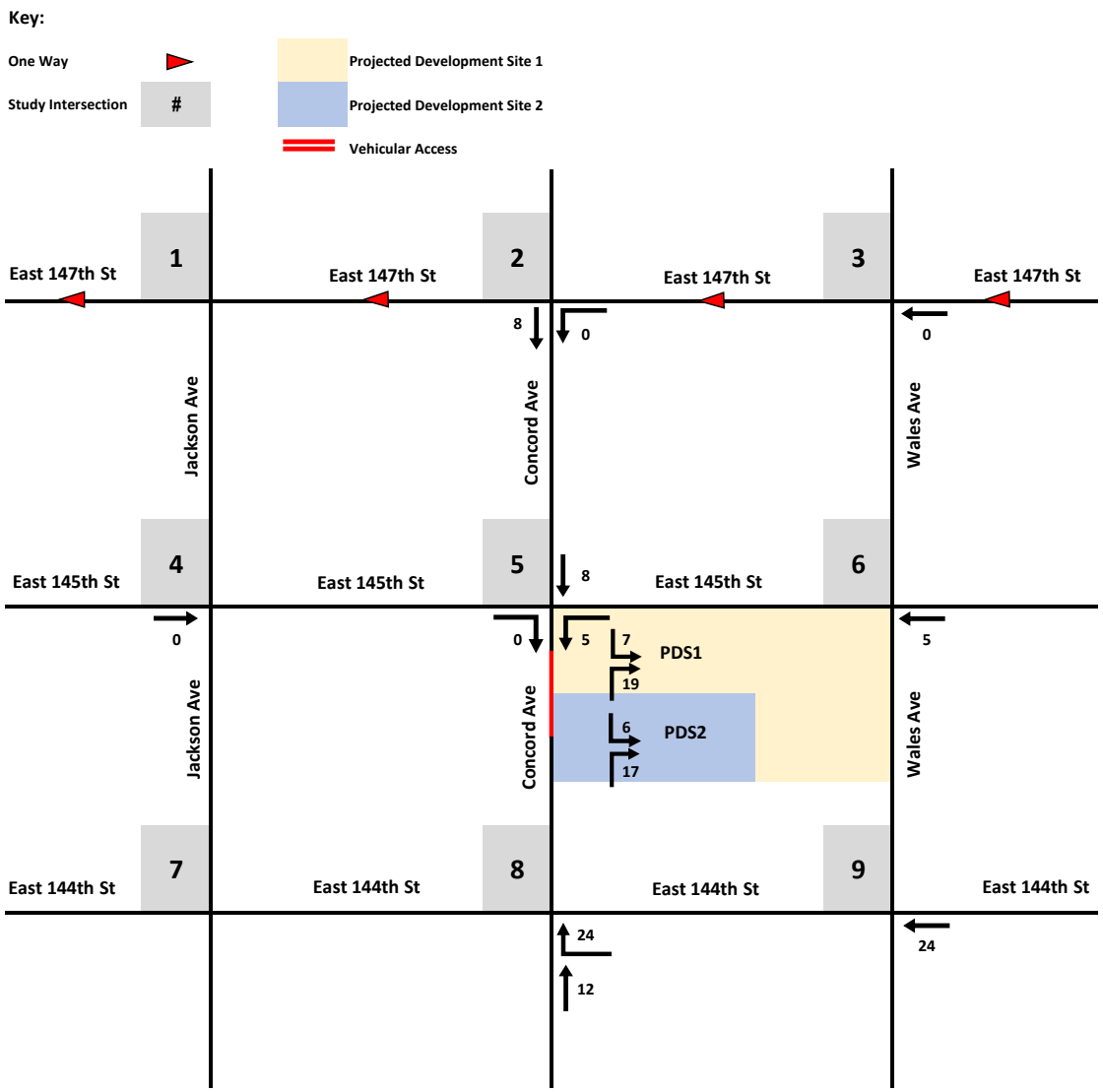


Figure 2.7-2: Weekday MD Vehicular Trip Assignment (2 of 4)

Weekday Midday Total Outbound Vehicular Assignment

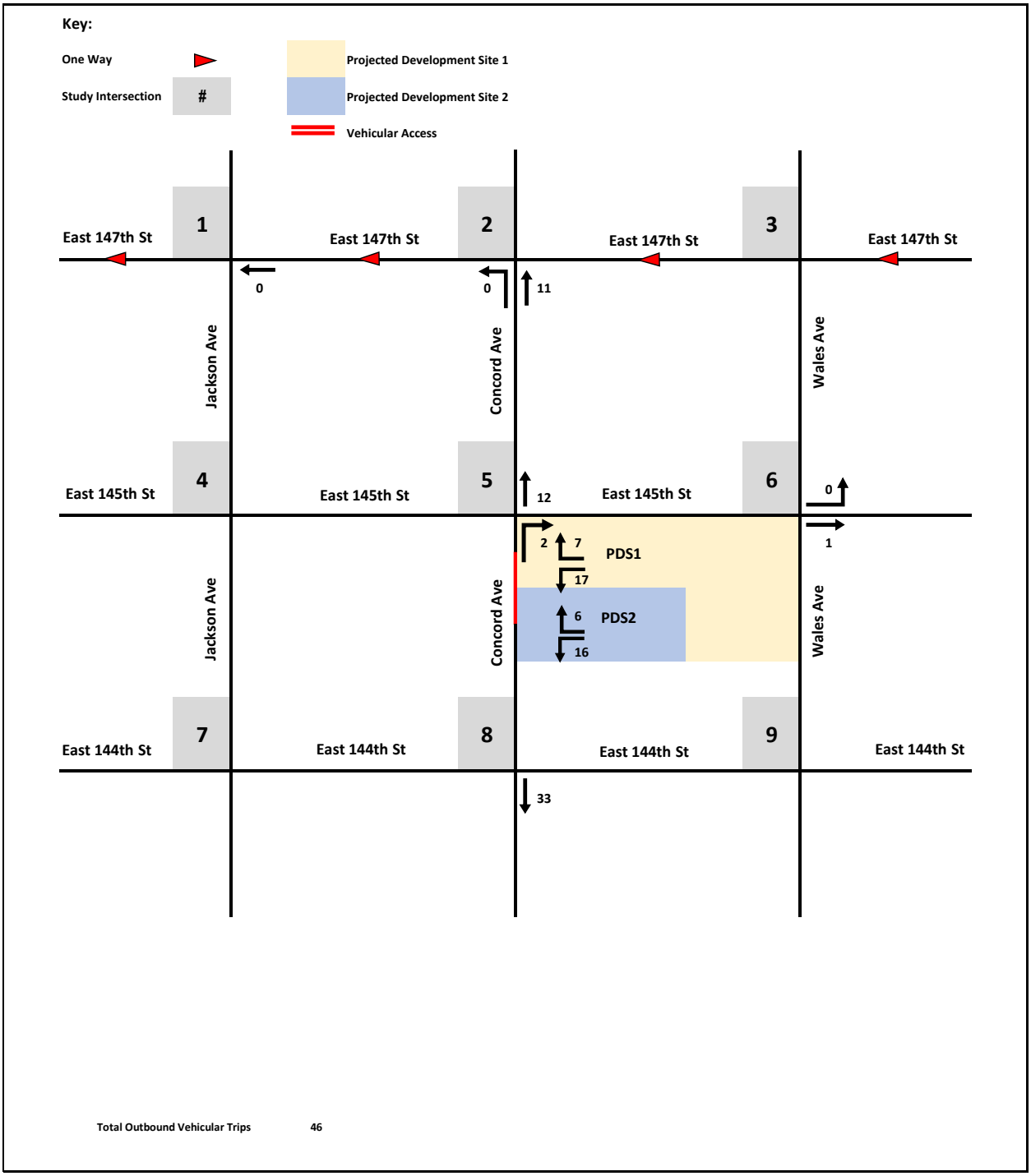


Figure 2.7-2: Weekday MD Vehicular Trip Assignment (3 of 4)

Weekday Midday Total Vehicular Assignment (Inbound and Outbound)

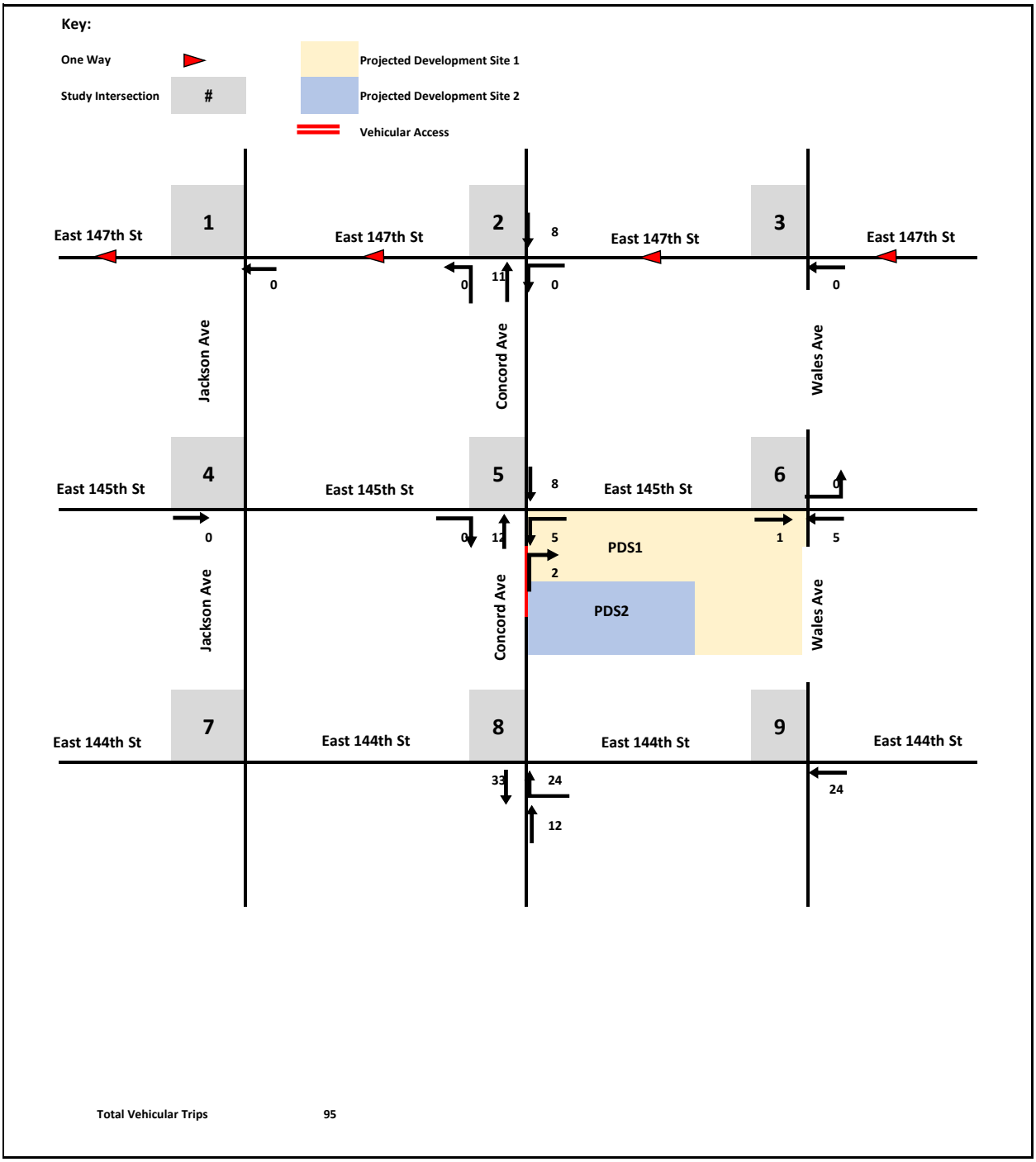


Figure 2.7-2: Weekday MD Vehicular Trip Assignment (4 of 4)

Weekday Midday Vehicular Assignment Intersection Summary

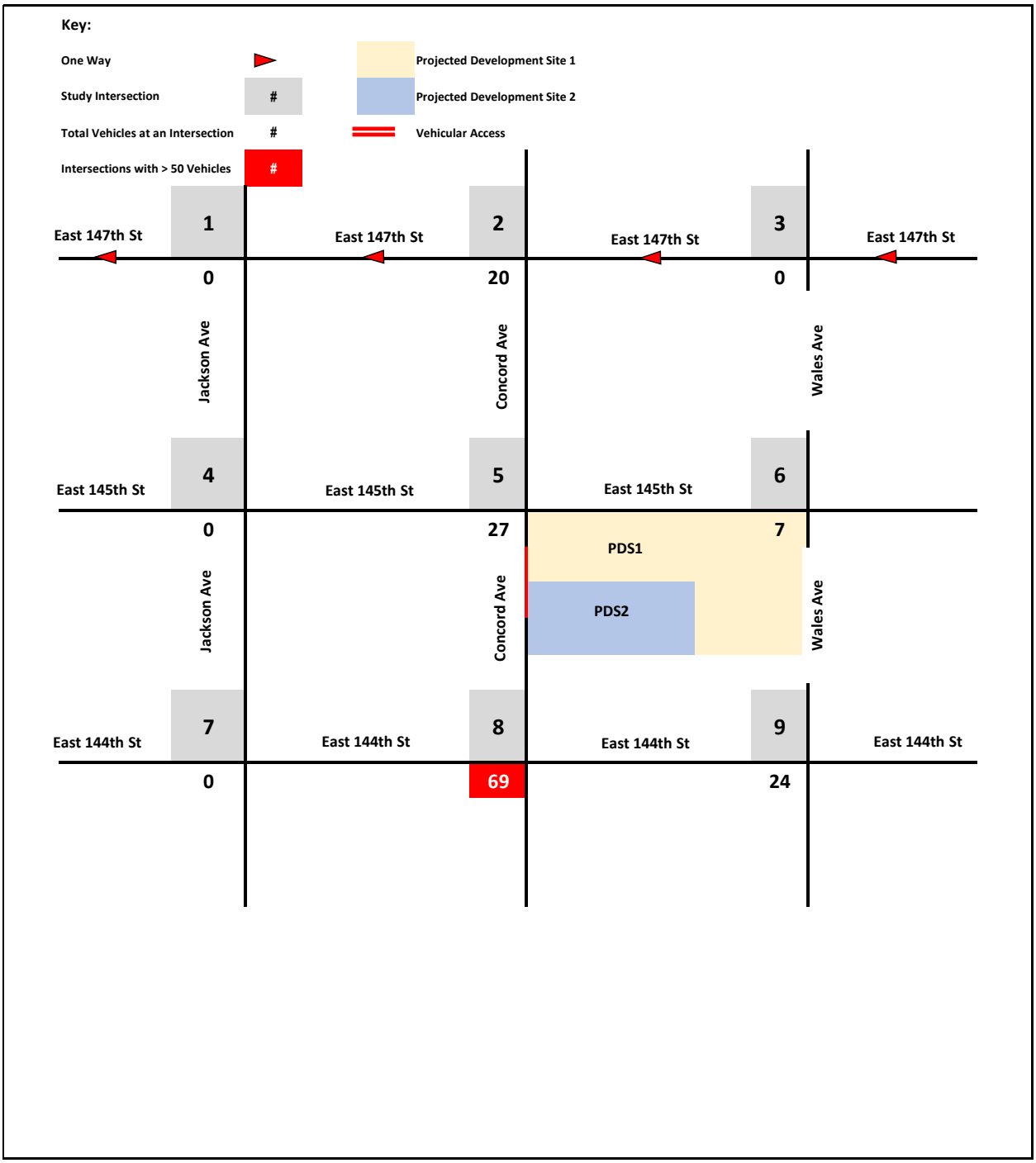


Figure 2.7-3: Weekday PM Vehicular Trip Assignment (1 of 4)

Weekday PM Total Inbound Vehicular Assignment

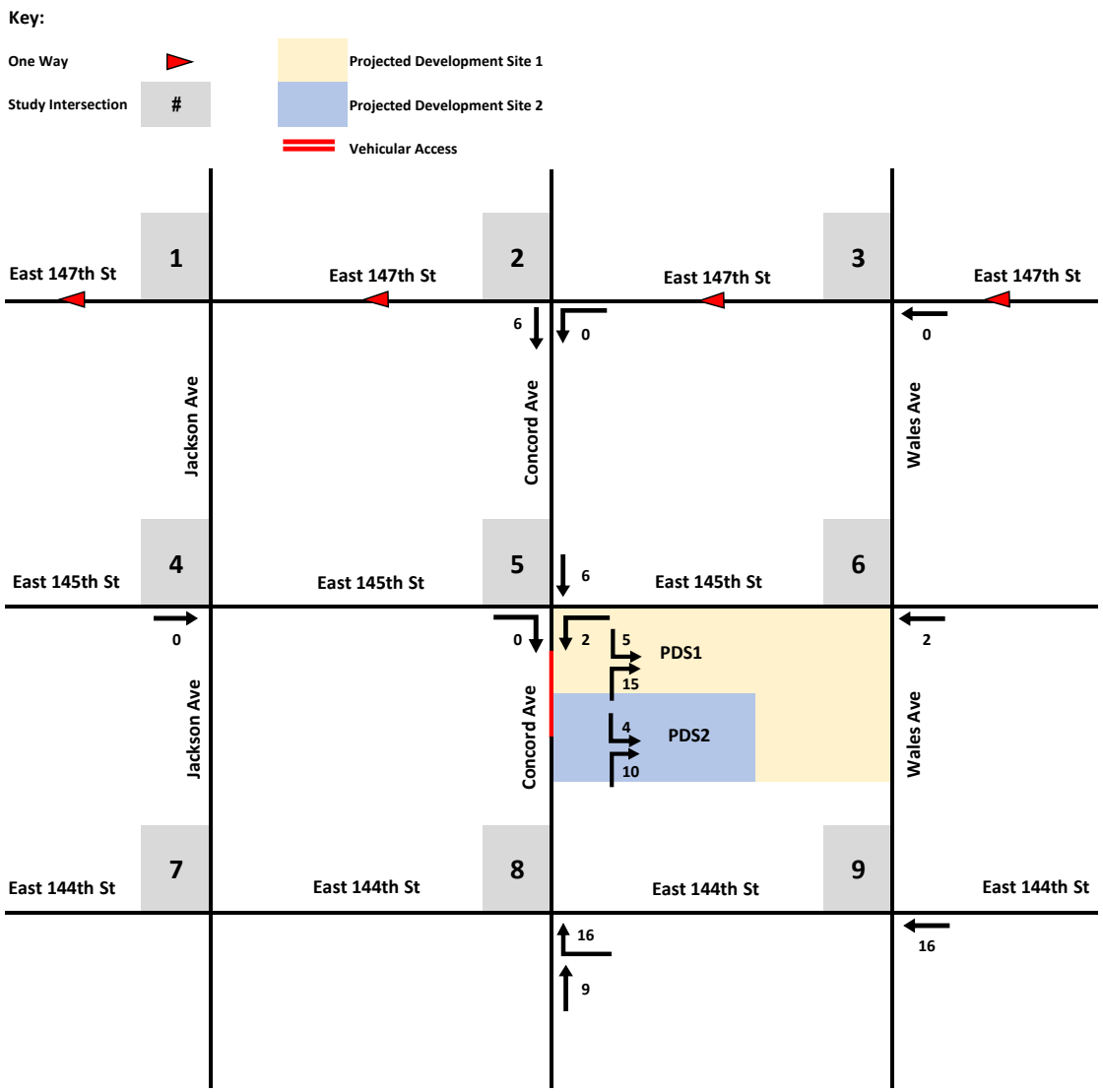


Figure 2.7-3: Weekday PM Vehicular Trip Assignment (2 of 4)

Weekday PM Total Outbound Vehicular Assignment

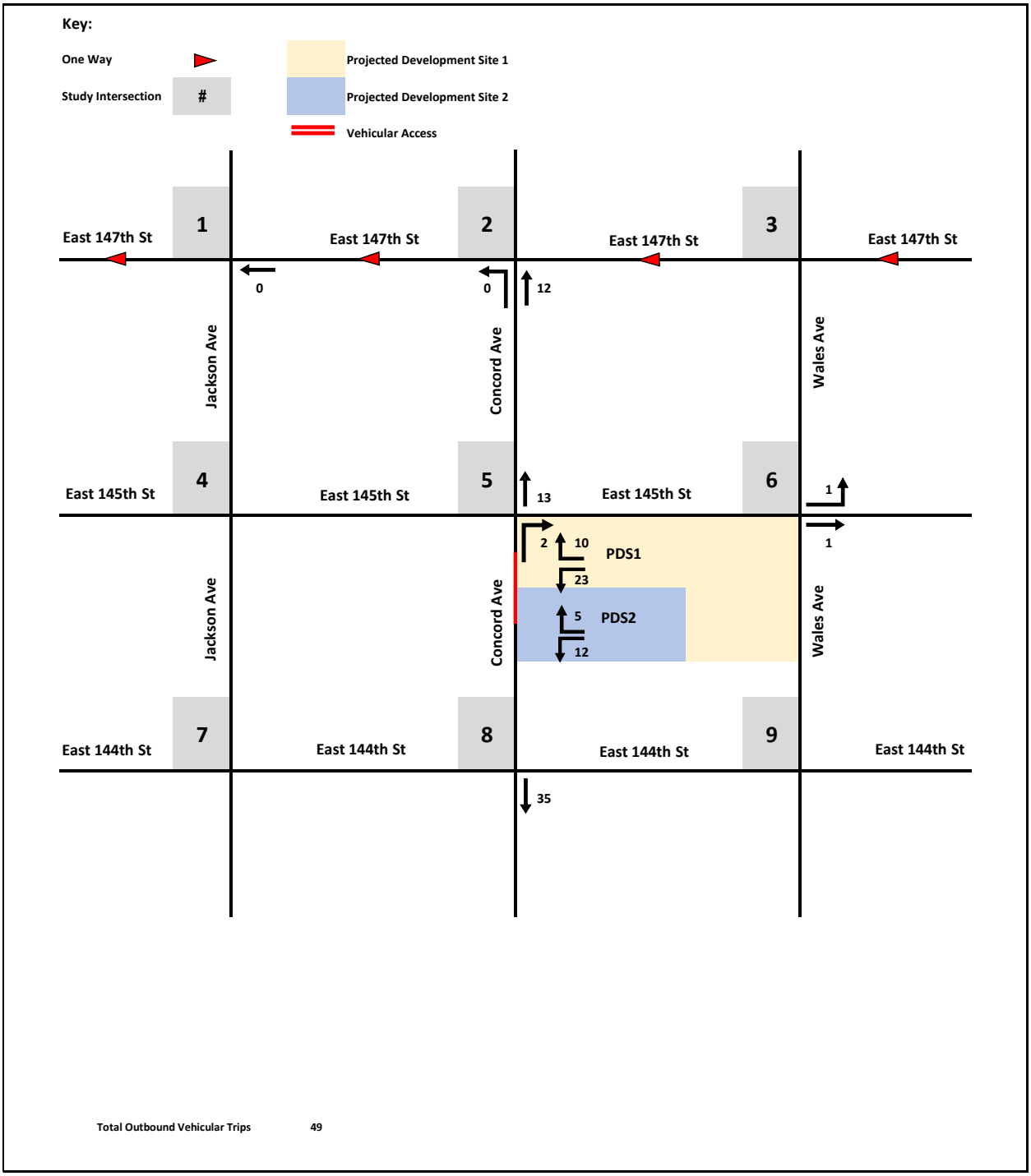


Figure 2.7-3: Weekday PM Vehicular Trip Assignment (3 of 4)

Weekday PM Total Vehicular Assignment (Inbound and Outbound)

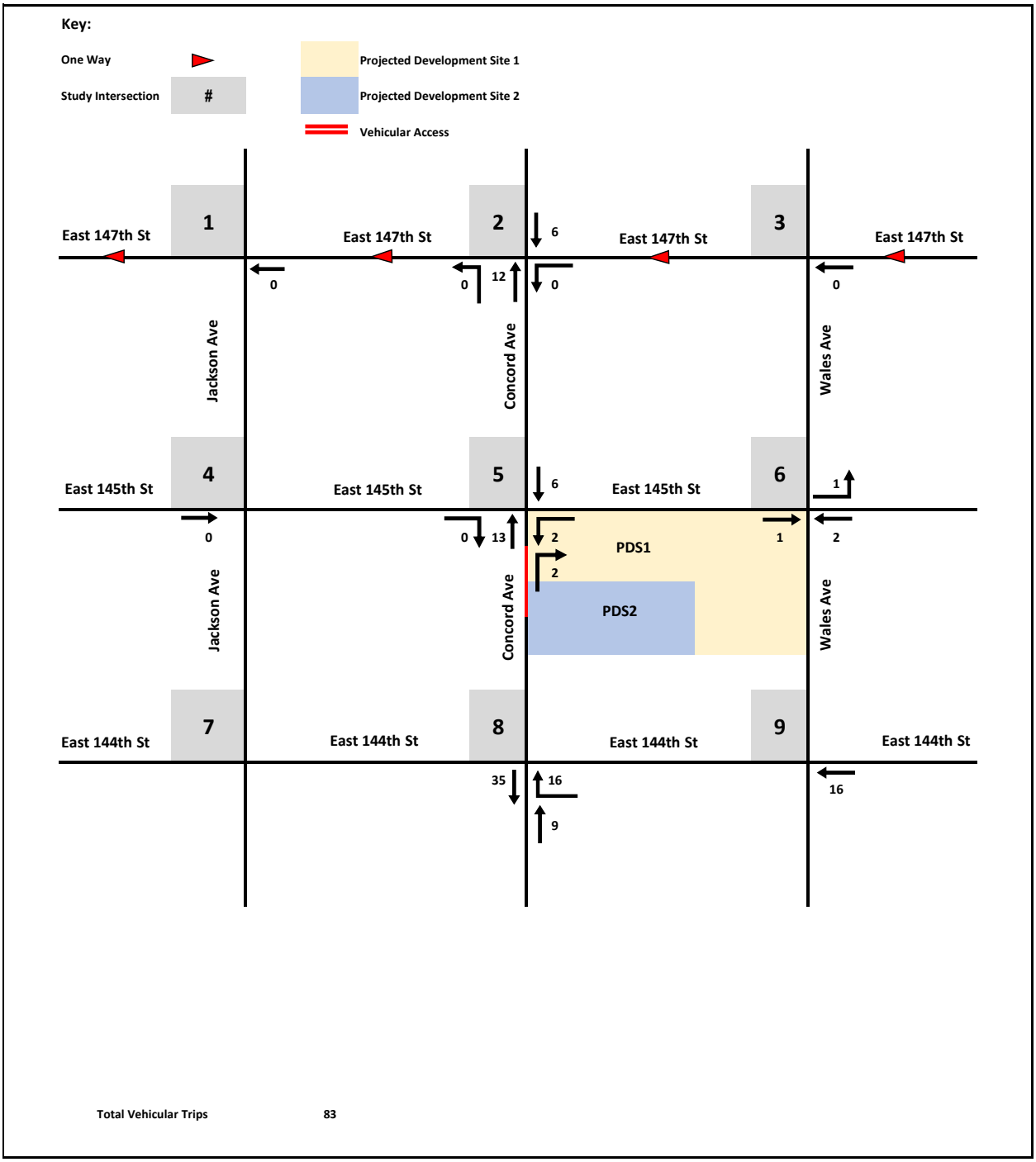


Figure 2.7-3: Weekday PM Vehicular Trip Assignment (4 of 4)

Weekday PM Vehicular Assignment Intersection Summary

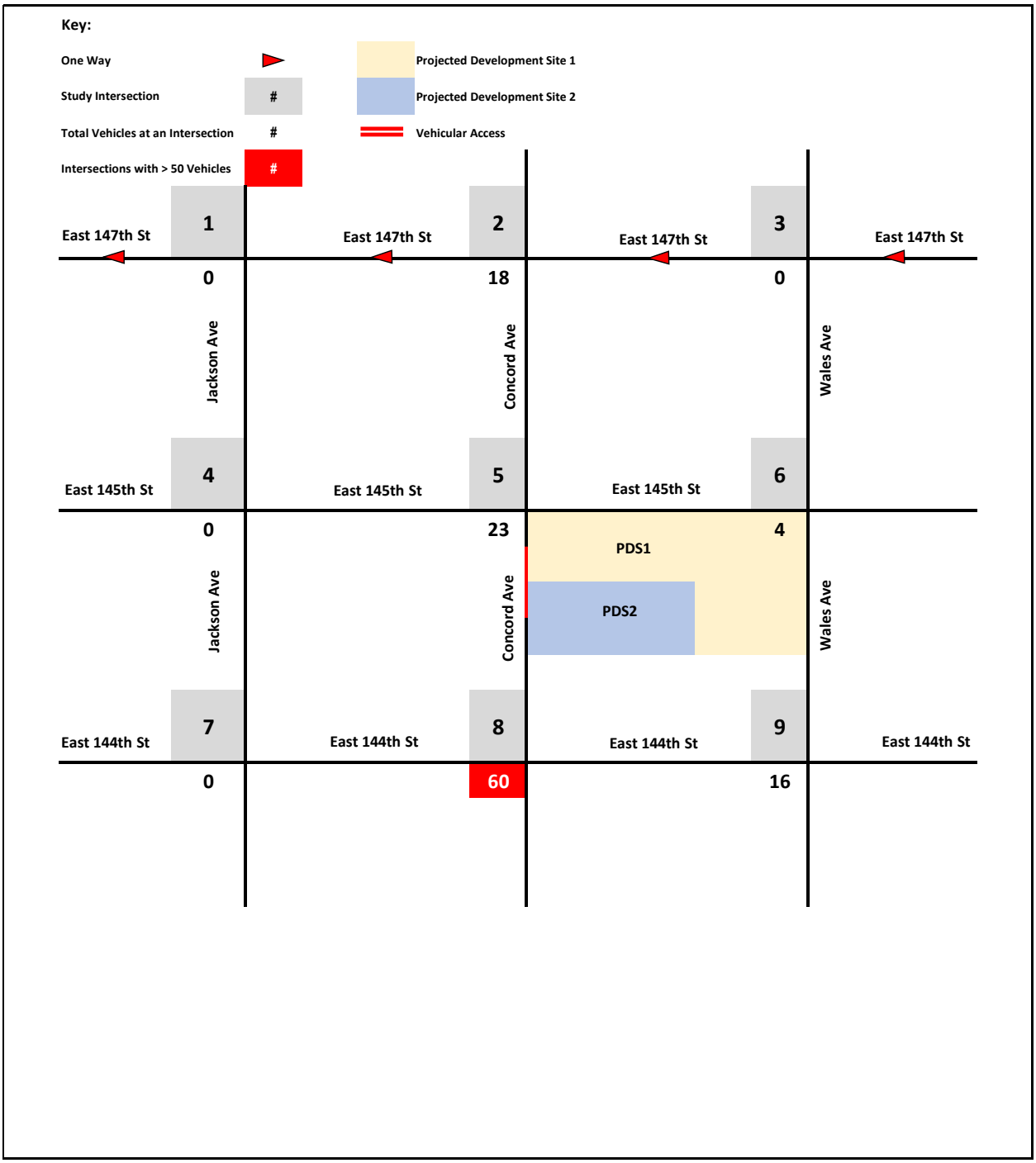


Figure 2.7-4: Saturday Midday Vehicular Trip Assignment (1 of 4)

Saturday MD Total Inbound Vehicular Assignment

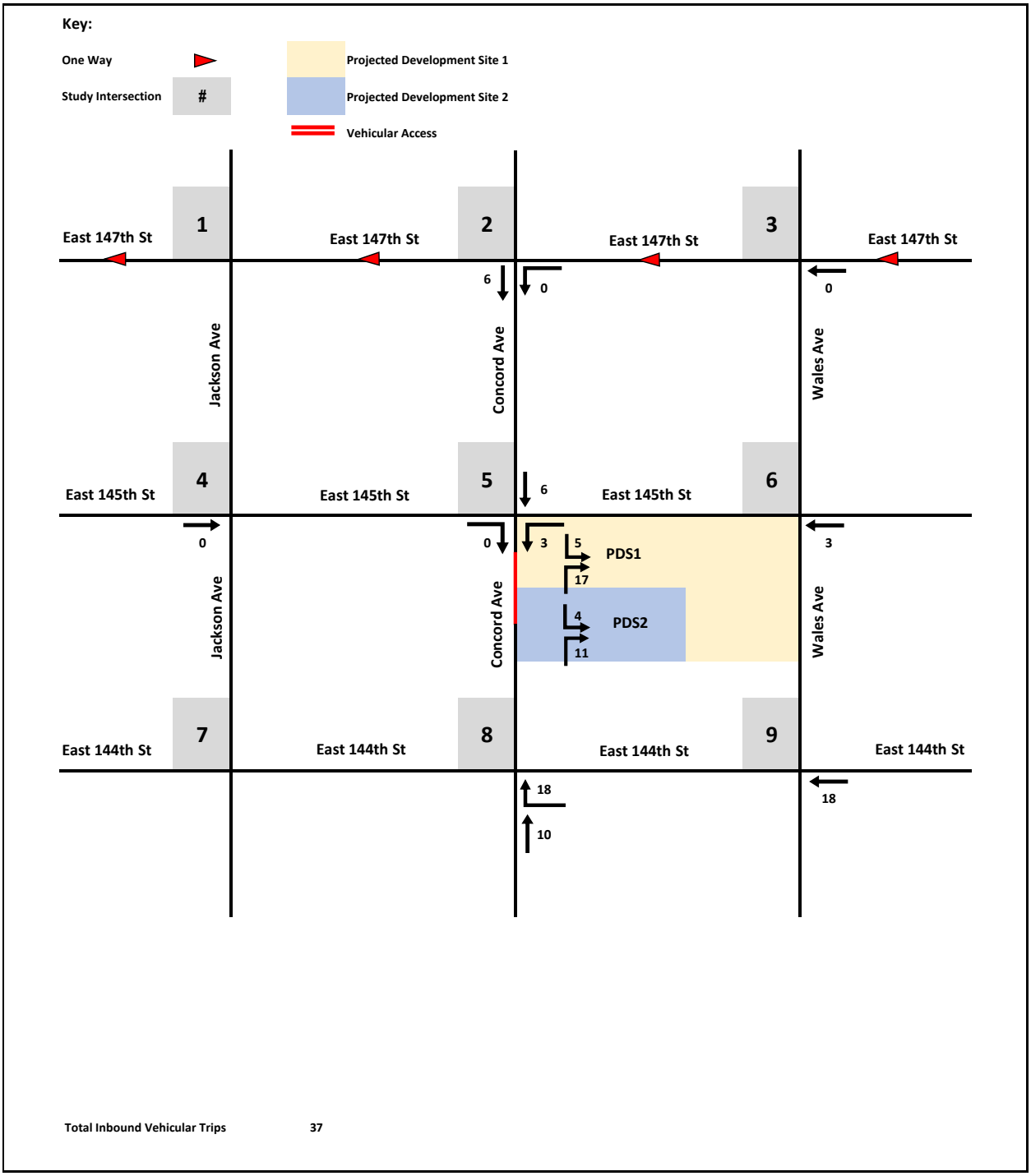


Figure 2.7-4: Saturday MD Vehicular Trip Assignment (2 of 4)

Saturday MD Total Outbound Vehicular Assignment

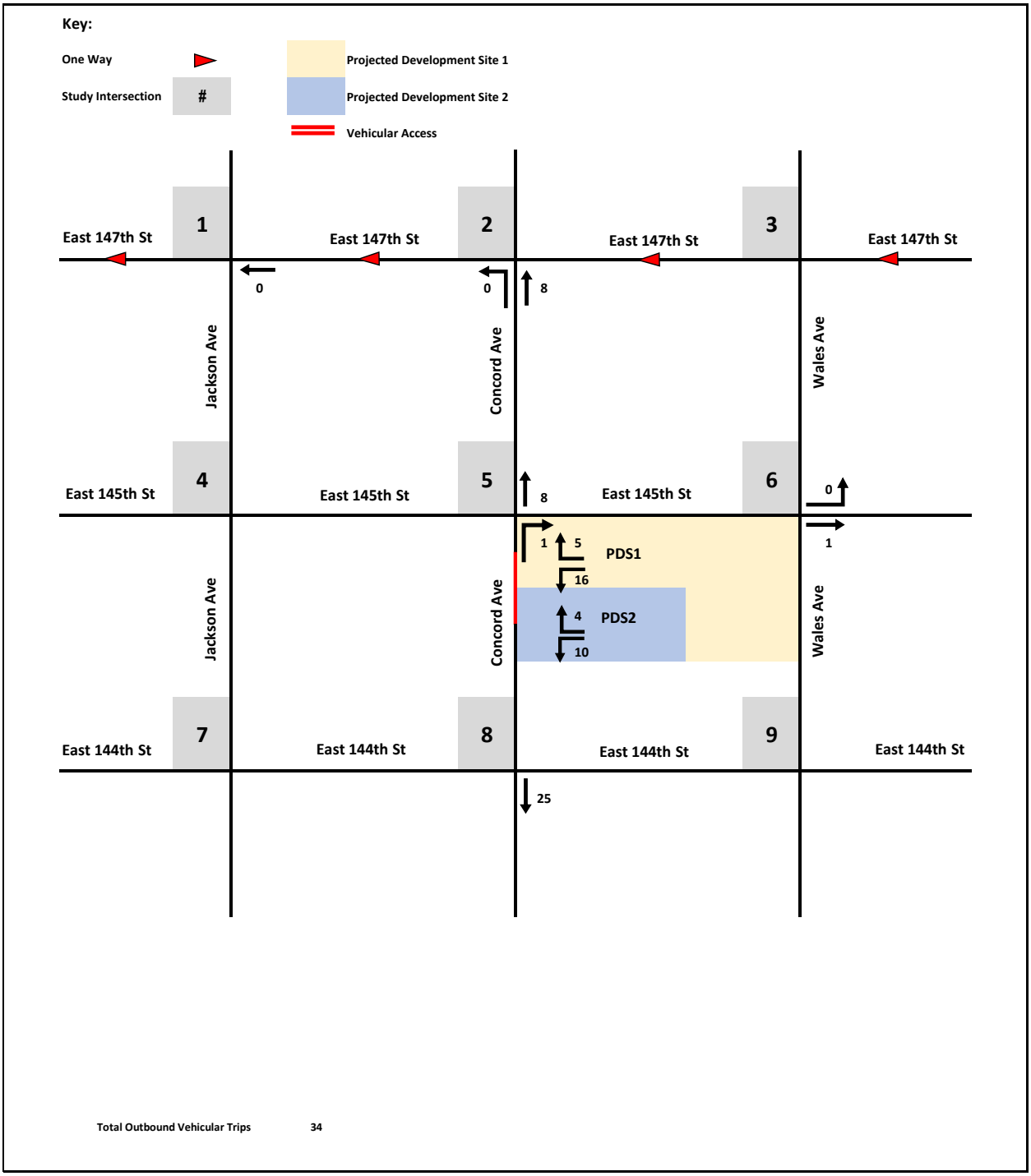


Figure 2.7-4: Saturday MD Vehicular Trip Assignment (3 of 4)

Saturday MD Total Vehicular Assingment (Inbound and Outbound)

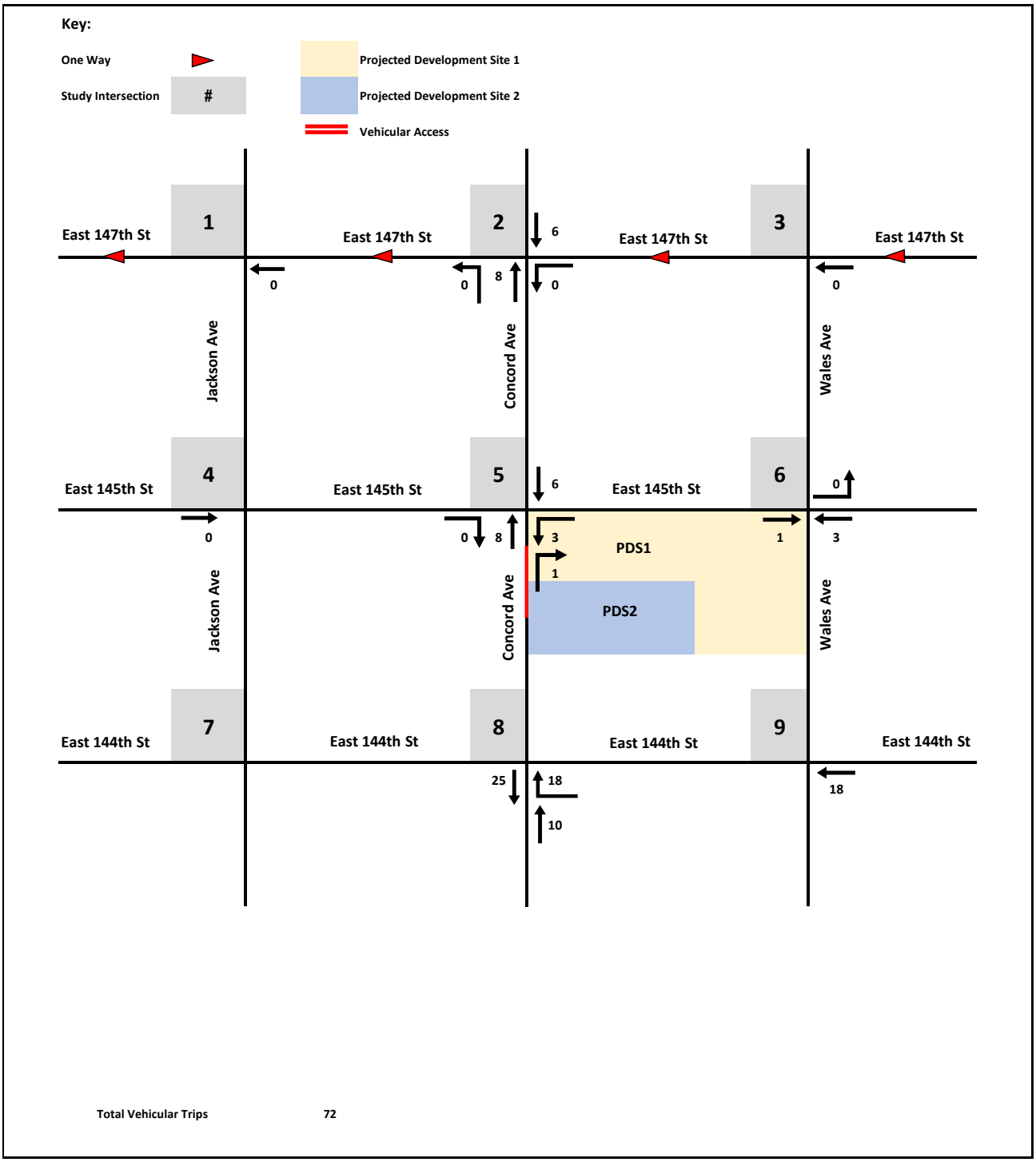
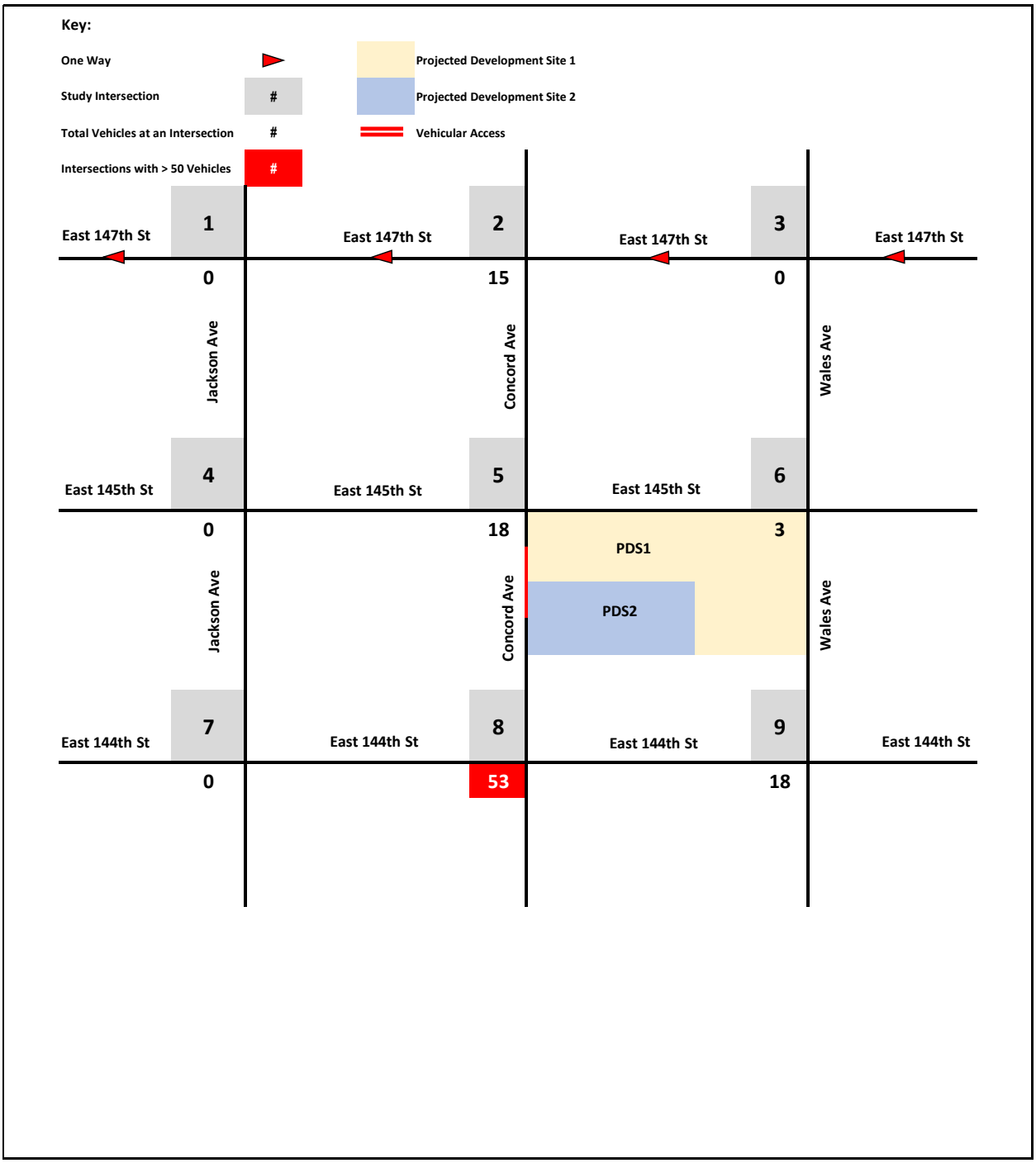


Figure 2.7-4: Saturday MD Vehicular Trip Assignment (4 of 4)

Saturday MD Vehicular Assignment Intersection Summary



Parking

Projected Development Sites 1 and 2 would provide a total of 54 accessory parking spaces under the RWCDS. As the Proposed Actions would result in a greater amount of incremental vehicle trips in each peak hour, a parking demand forecast was prepared for the Proposed Project. **Table 2.7-5** and **Table 2.7-6** below, show forecasts of the total hourly weekday and Saturday parking demands that would be generated by the Proposed Actions. The parking forecast was derived from the forecast of daily auto trips from the proposed uses. Parking demand from the commercial and community facility uses would typically peak in the midday and afternoon hours, while the residential use would typically in the evening/overnight period. Overall, parking demand would peak with approximately 143 spaces in the 3 PM – 4 PM weekday period and 83 spaces in the 3 PM – 4 PM Saturday period. As 54 accessory parking spaces would be provided as part of the Proposed Project, the peak parking demand would not be fully accommodated on-site. Therefore, a detailed parking analysis provided below.

Table 2.7-5: Weekday Hourly Parking Accumulation – RWCDS Proposed Project

Time	Residential (135 Dus)			Office (30,730 GSF)			Facility (23,440 GSF)			Local Retail (4,526 GSF)			Light Industrial (10,258 GSF)			Total Demand		
	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.
12 - 1 AM	1	0	39	0	0	0	0	0	0	0	0	0	0	0	0	1	0	39
1 - 2 AM	1	0	40	0	0	0	0	0	0	0	0	0	0	0	0	1	0	40
2 - 3 AM	0	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
3 - 4 AM	0	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
4 - 5 AM	0	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
5 - 6 AM	1	2	39	0	0	0	0	0	0	0	0	0	0	0	0	1	2	39
6 - 7 AM	1	6	33	5	0	5	0	0	0	0	0	0	4	0	4	10	6	43
7 - 8 AM	1	10	25	5	0	11	0	0	0	1	0	0	4	0	7	11	10	43
8 - 9 AM	4	16	13	33	0	44	18	13	5	1	1	0	22	0	29	77	30	91
9 - 10 AM	3	4	12	22	5	60	20	8	18	3	2	1	14	4	40	62	22	131
10 - 11 AM	4	5	11	5	5	60	18	10	25	3	1	2	4	4	40	34	26	138
11 - 12 PM	4	4	11	0	5	55	13	15	23	3	2	3	0	4	36	20	30	128
12 - 1 PM	4	4	11	0	0	55	8	10	20	3	3	3	0	0	36	14	17	125
1 - 2 PM	5	5	11	5	5	55	18	18	20	7	7	3	4	4	36	39	39	125
2 - 3 PM	5	3	13	11	5	60	13	13	20	3	3	3	7	4	40	39	28	136
3 - 4 PM	7	2	18	5	5	60	13	10	23	3	3	3	4	4	40	32	25	143
4 - 5 PM	11	4	24	5	22	44	13	15	20	3	4	2	4	14	29	36	60	119
5 - 6 PM	14	8	31	0	38	5	8	18	10	4	4	2	0	25	4	25	93	52
6 - 7 PM	9	4	36	0	5	0	0	10	0	3	3	2	0	4	0	12	27	37
7 - 8 PM	6	4	38	0	0	0	0	0	0	1	2	1	0	0	0	8	7	39
8 - 9 PM	6	4	40	0	0	0	0	0	0	1	2	0	0	0	0	8	6	40
9 - 10 PM	3	4	39	0	0	0	0	0	0	0	1	0	0	0	0	4	5	39
10 - 11 PM	3	4	38	0	0	0	0	0	0	0	0	0	0	0	0	3	4	38
11 - 12 AM	2	3	38	0	0	0	0	0	0	0	0	0	0	0	0	2	3	38

Note: Assumes 100% renter ownership rate of 0.28 autos/DU based on ACS census data.

Table 2.7-6: Saturday Hourly Parking Accumulation – RWCDS Proposed Project

Time	Residential (135 Dus)			Office (30,730 GSF)			Facility (23,440 GSF)			Local Retail (4,526 GSF)			Light Industrial (10,258 GSF)			Total Demand		
	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.
12 - 1 AM	1	0	39	0	0	0	0	0	0	0	0	0	0	0	0	1	0	39
1 - 2 AM	1	0	40	0	0	0	0	0	0	0	0	0	0	0	0	1	0	40
2 - 3 AM	0	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
3 - 4 AM	0	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
4 - 5 AM	0	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
5 - 6 AM	1	2	39	0	0	0	0	0	0	0	0	0	0	0	0	1	2	39
6 - 7 AM	1	7	33	1	0	1	0	0	0	0	0	0	4	0	4	6	7	38
7 - 8 AM	1	11	23	1	0	2	0	0	0	1	0	0	4	0	7	7	11	33
8 - 9 AM	4	17	10	7	0	9	9	6	3	1	1	0	22	0	29	43	25	52
9 - 10 AM	3	4	9	5	1	13	10	4	9	3	2	1	14	4	40	35	15	72
10 - 11 AM	5	6	8	1	1	13	9	5	13	3	1	3	4	4	40	21	17	76
11 - 12 PM	5	4	8	0	1	12	6	8	12	3	2	3	0	4	36	14	19	71
12 - 1 PM	4	4	8	0	0	12	4	5	10	3	3	3	0	0	36	11	13	70
1 - 2 PM	5	5	8	1	1	12	9	9	10	8	8	3	4	4	36	27	27	70
2 - 3 PM	5	4	10	2	1	13	6	6	10	3	3	3	7	4	40	25	18	76
3 - 4 PM	8	2	16	1	1	13	6	5	12	3	3	3	4	4	40	23	16	83
4 - 5 PM	12	5	23	1	5	9	6	8	10	3	4	2	4	14	29	27	36	74
5 - 6 PM	16	8	30	0	8	1	4	9	5	4	4	2	0	25	4	24	55	42
6 - 7 PM	10	5	35	0	1	0	0	5	0	3	3	2	0	4	0	13	18	37
7 - 8 PM	7	5	38	0	0	0	0	0	0	2	2	1	0	0	0	9	7	39
8 - 9 PM	7	5	40	0	0	0	0	0	0	1	2	1	0	0	0	8	7	41
9 - 10 PM	4	4	40	0	0	0	0	0	0	0	1	0	0	0	0	4	5	40
10 - 11 PM	4	5	38	0	0	0	0	0	0	0	0	0	0	0	0	4	5	38
11 - 12 AM	2	3	38	0	0	0	0	0	0	0	0	0	0	0	0	2	3	38

Note: Assumes 100% renter ownership rate of 0.28 autos/DU based on ACS census data.

Level 2 Pedestrian Assignment

As shown previously in **Table 2.7-4**, incremental pedestrian trips-ends resulting from the proposed project would exceed the CEQR Level-1 screening threshold during the Weekday AM, Midday, PM, and Saturday Midday peak hours. Accordingly, a Level 2 Trip Assignment was prepared for all peak hours, as shown below in **Figure 2.7-5** through **Figure 2.7-8**.

Site Access and Egress Assumptions

Projected Development Site 1 has numerous entrances/exits for pedestrian trips specific to each site and land use (see **Appendix B: Architectural Plans**). Pedestrians were assigned to specific frontages based on their trip purpose. Where a location had multiple entrances/exits on the same frontage, a singular point was used. As Projected Development Site 2 has only one frontage along Concord Avenue, all pedestrian trips were assumed to arrive at this frontage.

Origin and Destination Assumptions

- *MTA Bus Trips*

  The location of bus stops, the bus lines that serve each stop, the route each line covers, and the connections these lines allow for, were considered and applied to bus riders traveling to and from the Projected Development Sites. There are two bus lines (Bx17/ Bx19) that are accessible to users in the area. The bus lines have two bus stops in different directions, located two blocks north of the Affected Area near the corner of Concord Avenue and East 149th Street. Bus Bx17 connects the Affected Area with the Fordham Plaza/Bus Terminal in the northern Bronx. Bus Bx19 provides connection to Hamilton Heights, Manhattan and New York Botanical Garden, Bronx.

- *Subway Trips*

  The E 143 St - St Mary's St subway station with service from the 6 Train is located approximately 800 feet east of the Affected Area. All subway trips were anticipated to utilize this station.

- *Walk-Only Trips*

  Pedestrian walk-only trips were developed by distributing project-generated trips throughout the network based on the relative population weight of all census tracts within a ¼ mile radius using the 2020 ACS population data. The specific entrances/exits pedestrians would use based on their trip purpose, and the specifics of the street network surrounding the site were considered.

Conclusion

Based on the detailed assignment of pedestrian trips, no pedestrian elements would exceed Level 2 Screening thresholds. Accordingly, no further analysis is warranted.

Figure 2.7-5: Weekday AM Pedestrian Trip Assignment (1 of 4)

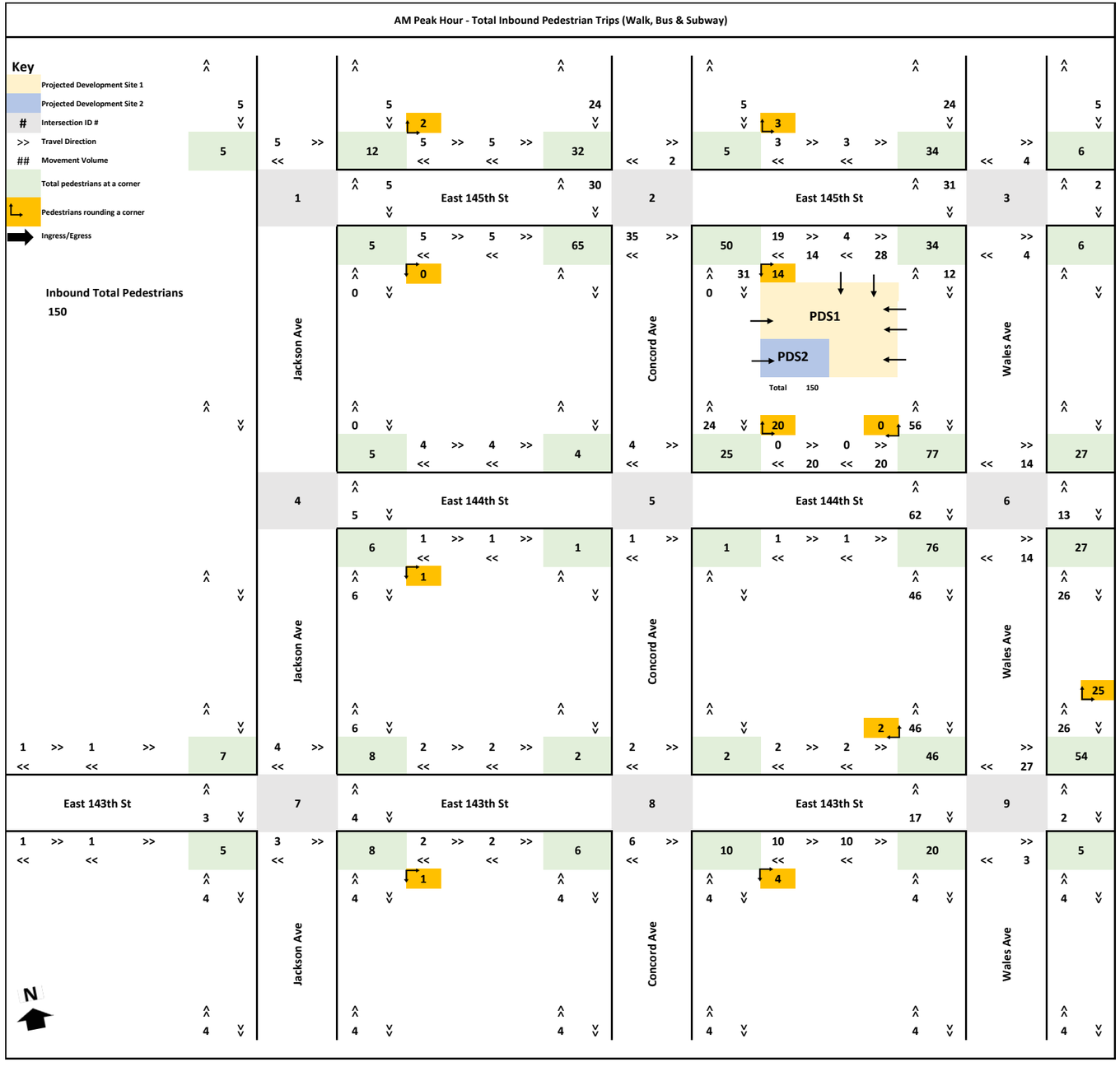


Figure 2.7-5: Weekday AM Pedestrian Trip Assignment (2 of 4)

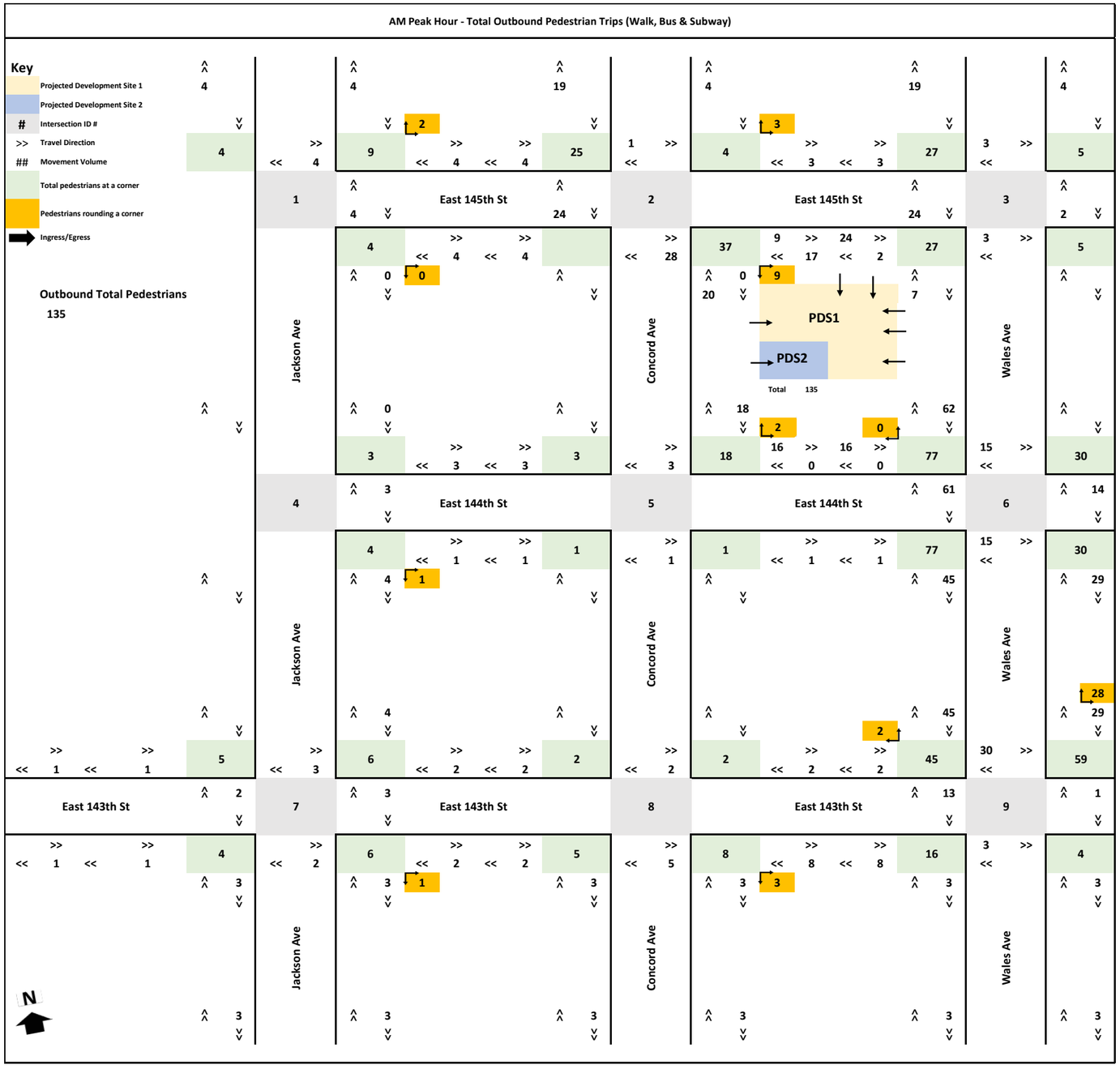


Figure 2.7-5: Weekday AM Pedestrian Trip Assignment (3 of 4)

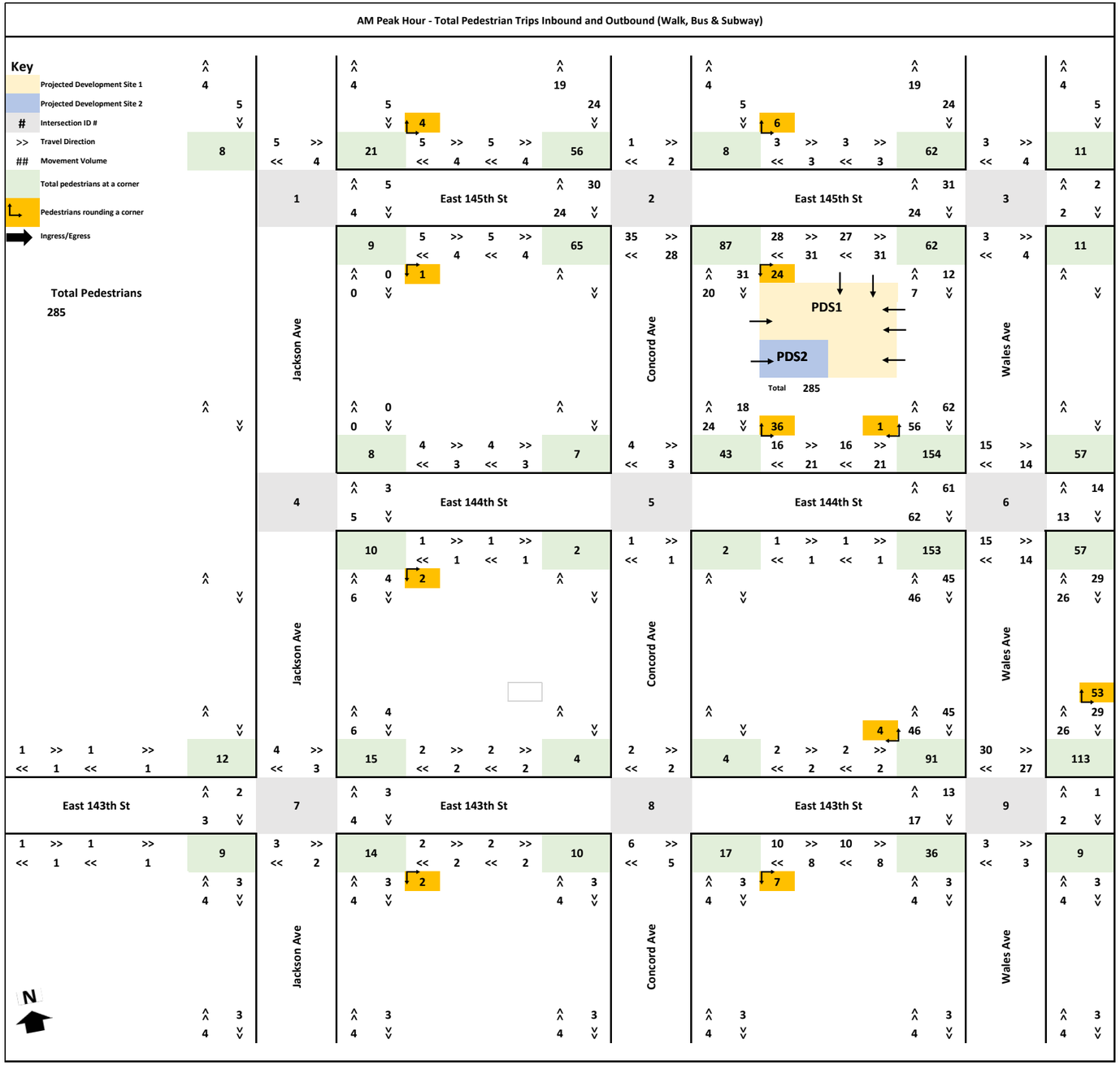


Figure 2.7-5: Weekday AM Pedestrian Trip Assignment (4 of 4)

Figure 2.7-6: Weekday MD Pedestrian Trip Assignment (1 of 4)

Figure 2.7-6: Weekday MD Pedestrian Trip Assignment (2 of 4)

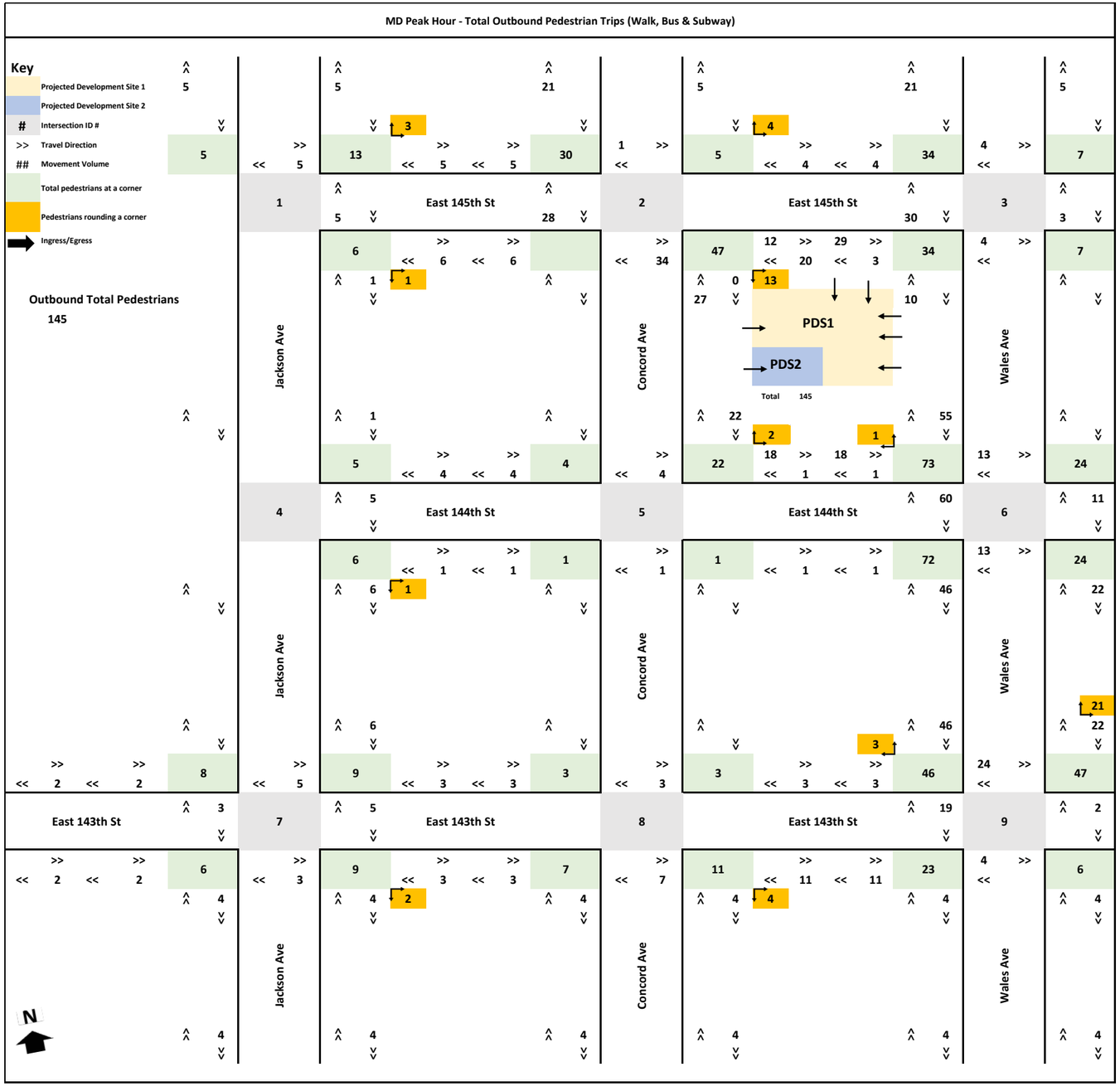


Figure 2.7-6: Weekday MD Pedestrian Trip Assignment (3 of 4)

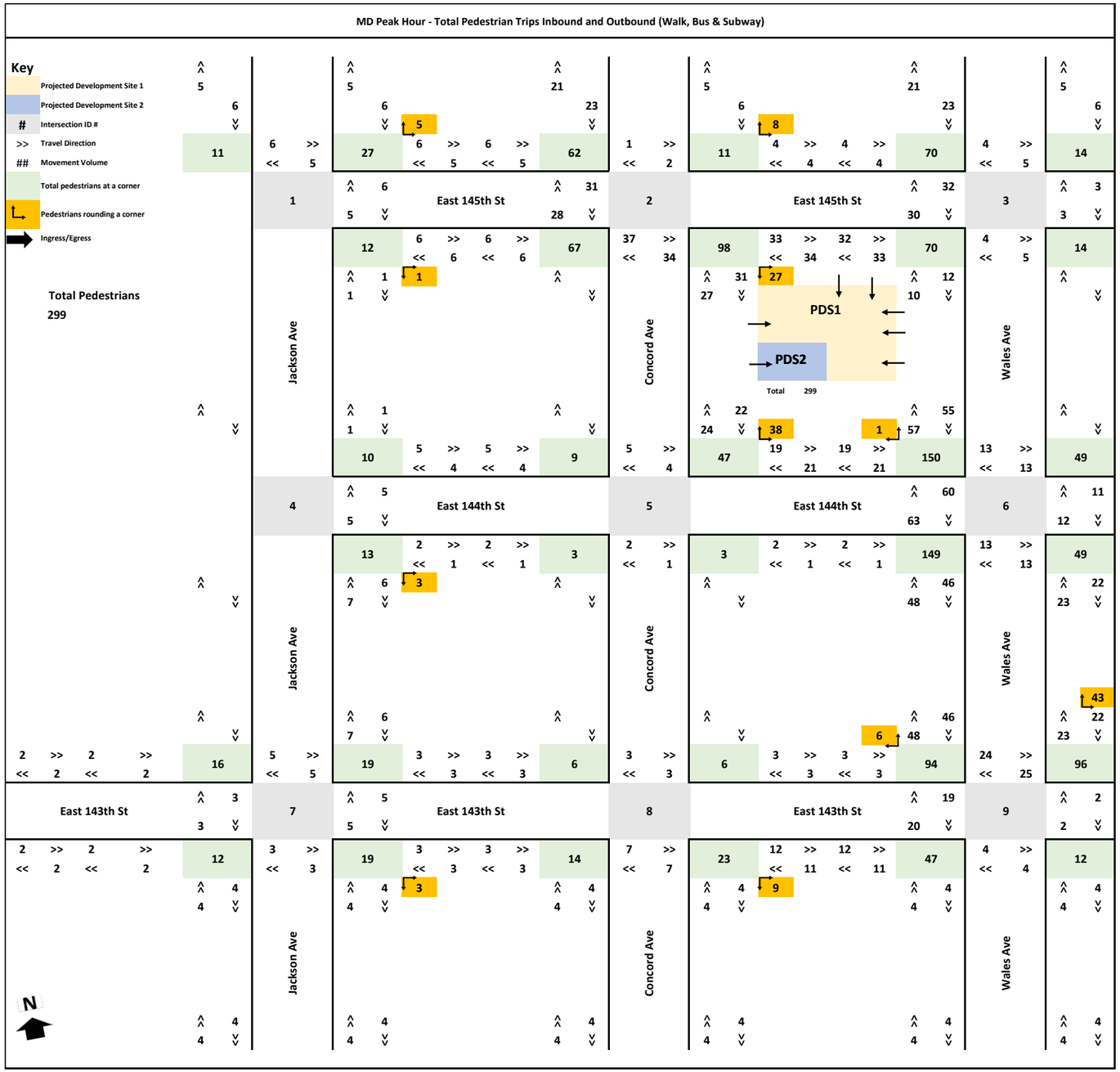


Figure 2.7-6: Weekday MD Pedestrian Trip Assignment (4 of 4)

Figure 2.7-7: Weekday PM Pedestrian Trip Assignment (1 of 4)

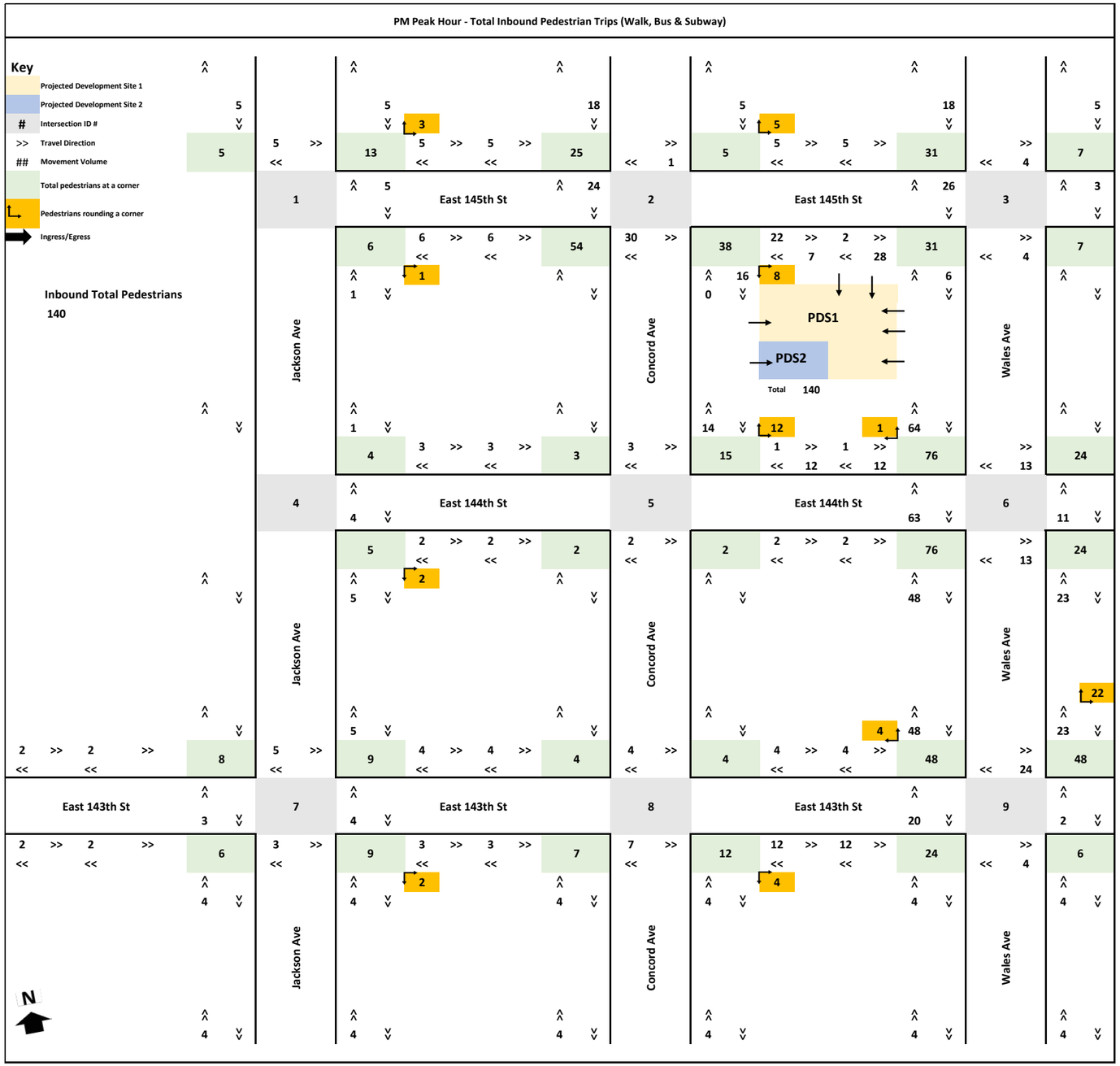


Figure 2.7-7: Weekday PM Pedestrian Trip Assignment (2 of 4)

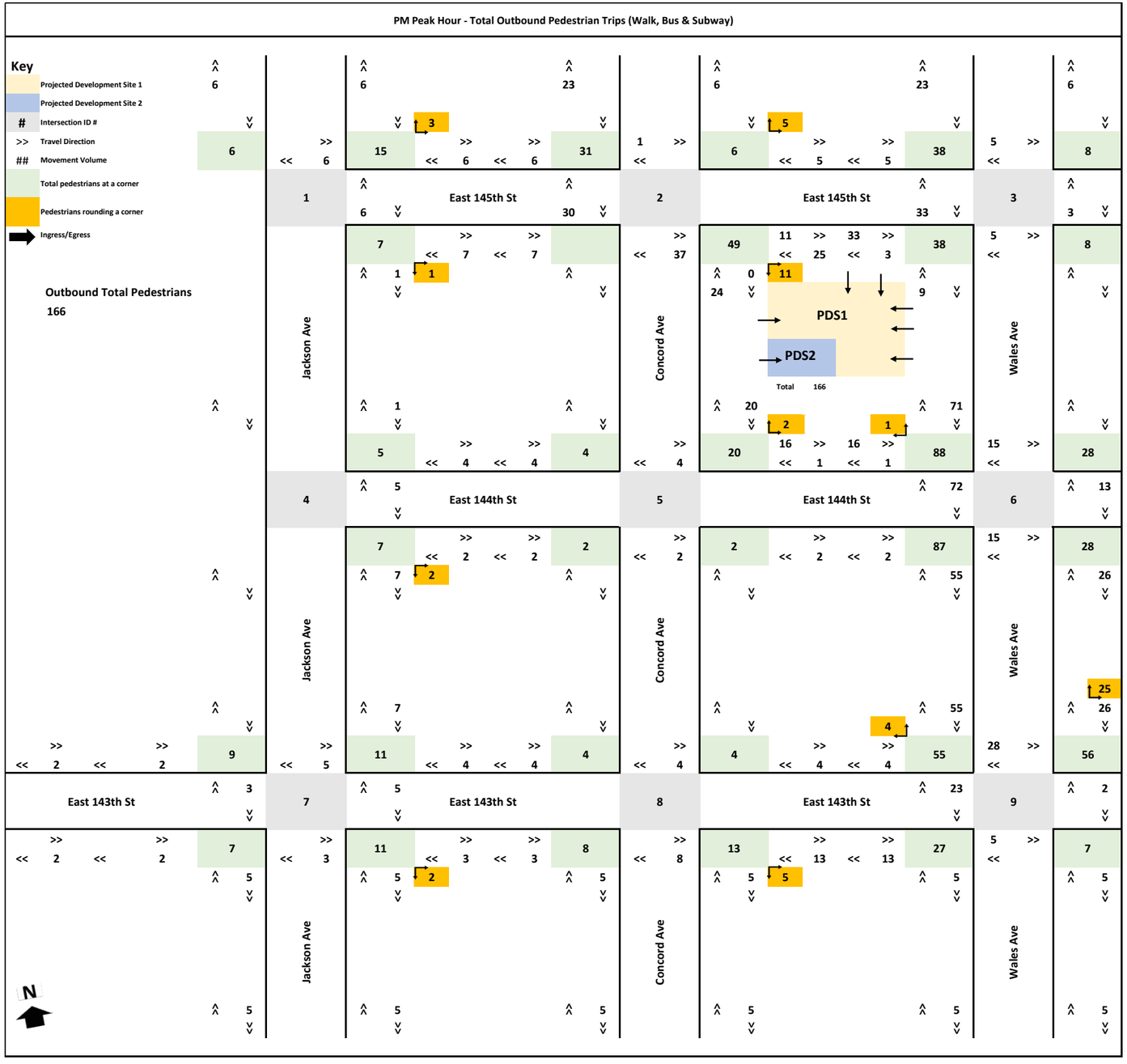


Figure 2.7-7: Weekday PM Pedestrian Trip Assignment (3 of 4)

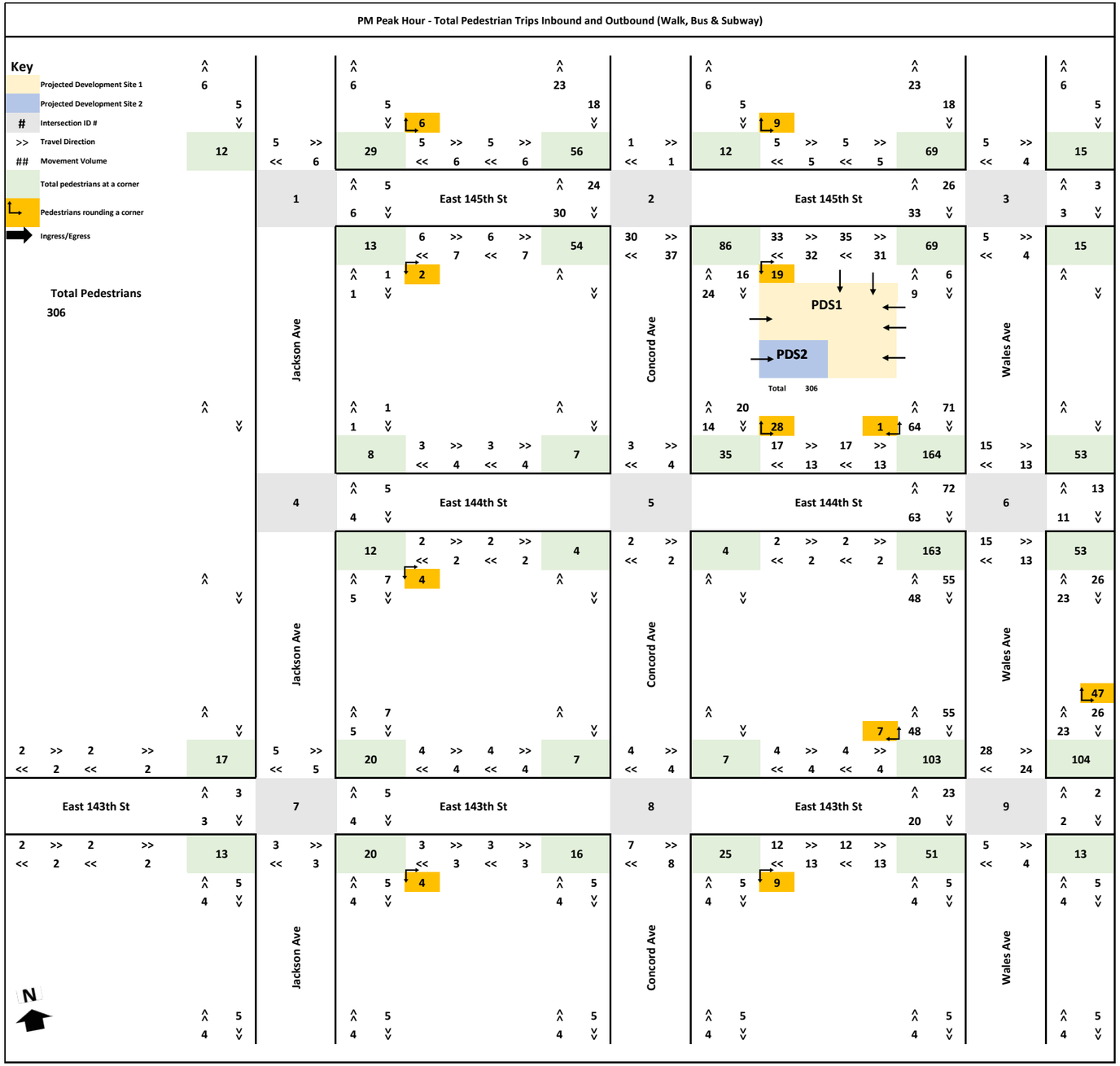


Figure 2.7-7: Weekday PM Pedestrian Trip Assignment (4 of 4)

Figure 2.7-8: Saturday MD Pedestrian Trip Assignment (1 of 4)

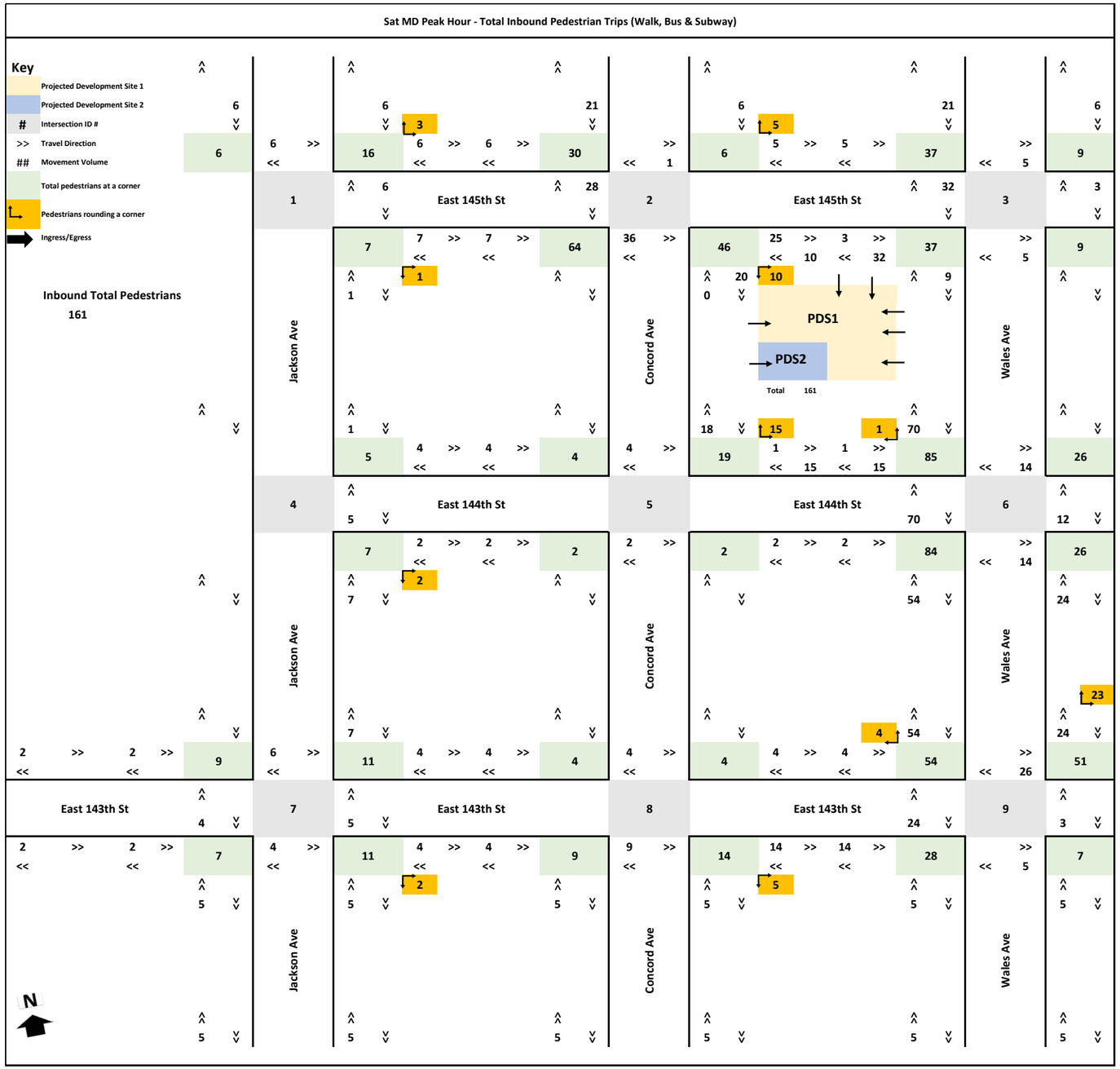


Figure 2.7-8: Saturday MD Pedestrian Trip Assignment (2 of 4)

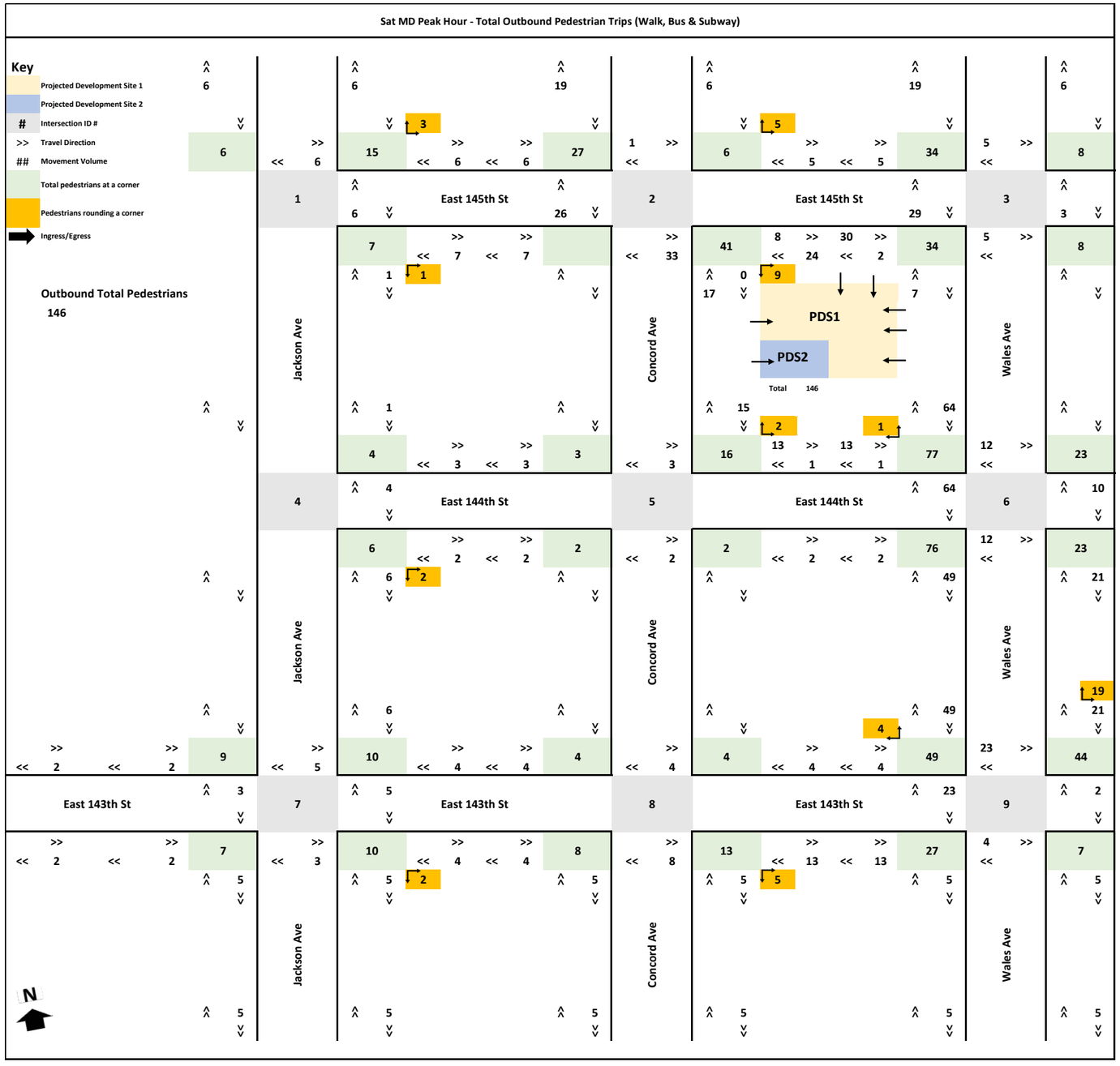


Figure 2.7-8: Saturday MD Pedestrian Trip Assignment (3 of 4)

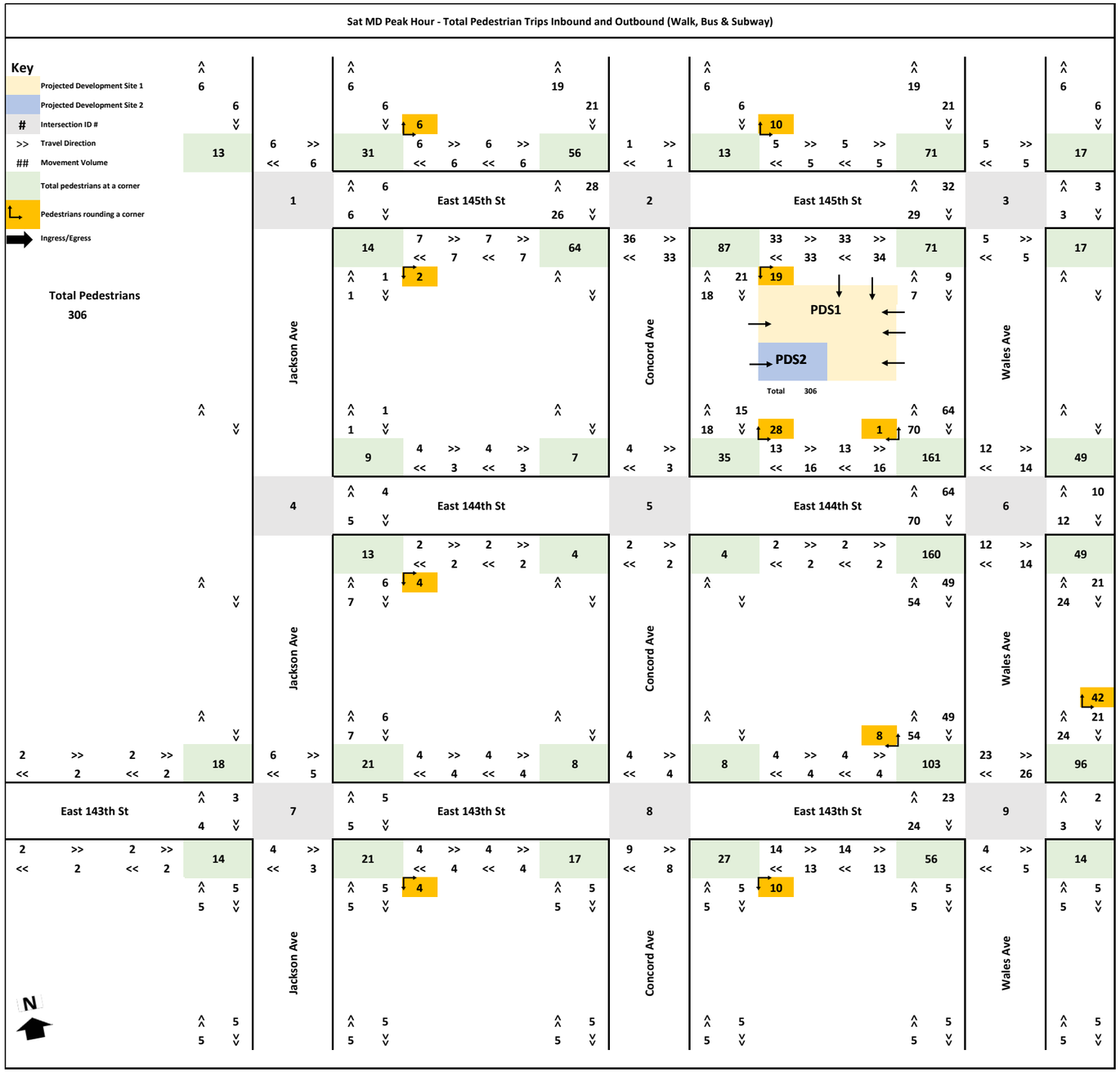


Figure 2.7-8: Saturday MD Pedestrian Trip Assignment (4 of 4)

2.7.4 Transportation Analysis Methodology

Traffic Operations

The operation of the one unsignalized intersection selected for a detailed Level of Service Analysis was assessed using methodologies presented in the *2000 Highway Capacity Manual* (HCM) using the Synchro 11 software. The HCM procedure evaluates the LOS for unsignalized intersections using average stop control delay, in seconds per vehicle, as described on more detail below.

Unsignalized Intersections

For unsignalized intersections, the average control delay is defined as the total elapsed time from which a vehicle stops at the end of the queue until the vehicle departs from the stop line. This includes the time required for the vehicle to travel from the last-in-queue to the first-in-queue position. The average control delay for any particular minor movement is a function of the service rate or capacity of the approach and the degree of saturation. The LOS criteria for unsignalized intersections are summarized in **Table 2.7-7.**

Table 2.7-7: Level of Service Criteria for Unsignalized Intersections[4]

LOS	Average Control Delay
A	≤ 10.0 seconds
B	> 10.0 and ≤ 15.0 seconds
C	> 15.0 and ≤ 25.0 seconds
D	> 25.0 and ≤ 35.0 seconds
E	> 35 and ≤ 50.0 seconds
F	> 50.0 seconds

The LOS thresholds for unsignalized intersections are different from those for signalized intersections. The primary reason is that drivers expect different levels of performance from different types of transportation facilities. The expectation is that a signalized intersection is designed to carry higher traffic volumes than an unsignalized intersection; hence, the corresponding control delays are higher at a signalized intersection than at an unsignalized intersection for the same LOS. In addition, certain driver behavioral considerations combine to make delays at signalized intersections less onerous than at unsignalized intersections. For example, drivers at signalized intersections are able to relax during the red interval, whereas drivers on minor approaches to unsignalized intersections must remain attentive to the task of identifying acceptable gaps and vehicle conflicts. Also, there is often much more variability in the amount of delay experienced by individual drivers at unsignalized intersections. For these reasons, the corresponding delay thresholds for unsignalized intersections are lower than those of signalized intersections. As with signalized intersections, within New York City, the midpoint

[4] **Source**: Transportation Research Board. *Highway Capacity Manual*, 2000.

of LOS D (30 seconds of delay) is generally perceived as the threshold between acceptable and unacceptable operations.

Significant Adverse Impact Criteria

According to the criteria presented in the *CEQR Technical Manual*, impacts are considered significant and require examination of mitigation if they result in an increase in the With-Action conditions of 5 or more seconds of delay in a lane group over No-Action levels beyond a mid-LOS D. For No-Action LOS E, a 4-second increase in delay is considered significant. For a No-Action LOS F, a 3-second increase in delay is considered significant. In addition, impacts are considered significant if levels of service deteriorate from acceptable A, B, or C in the No-action condition to marginally unacceptable LOS D (a delay in excess of 30 seconds, the midpoint of LOS D at unsignalized intersections), or unacceptable LOS E or F in the With-Action Condition.

For the minor street at an unsignalized street to trigger significant adverse impacts, at least 90 passenger car equivalents (PCE) must be identified in the With-Action condition in any peak hour.

Vehicular and Pedestrian Safety Evaluation

Pursuant to *CEQR Technical Manual* guidelines, an evaluation of vehicular and pedestrian safety is needed for locations within the traffic and pedestrian study areas that have been identified as high crash locations. These are defined as locations where 48 or more total reportable and non-reportable crashes or five or more pedestrian/bicyclist injury crashes have occurred in any consecutive 12 months of the most recent three-year period for which data are available. For these locations, crash trends would be identified to determine whether projected vehicular and pedestrian traffic would further impact safety, or whether existing unsafe conditions could adversely impact the flow of the projected new trips. The determination of potential significant safety impacts depends on the type of area where the project site is located, traffic volumes, crash types and severity, and other contributing factors. Where appropriate, measures to improve traffic and pedestrian safety should be identified and coordinated with DOT.

2.7.5 Detailed Traffic Analysis

As described above, Level 1 and Level 2 screening analysis were prepared to identify the vehicular intersections that warrant a detailed Level of Service analysis. Based on the assignment of vehicular trips, the unsignalized intersection of Concord Avenue and East 144th Street was selected for analysis.

Existing Conditions

<u>Roadway Network and Traffic Study Area</u>

The roadway network in the immediate vicinity of the analysis intersection is primarily comprised of local two-way roads. Southern Boulevard and Jackson Avenue are minor north-south arterials just east and west of the project site while St. Mary's (E. 143rd) Street is a major westbound

collector street just south of the project site. The project site is also located near the Bruckner Expressway (I-278) and Major Deegan Expressway (I-87).

Traffic Conditions

Traffic data was collected in May 2023 in accordance with procedures outlined in the I *CEQR Technical Manual* during the weekday hours of 7:00am – 9:30am, 11:00am – 2:00pm and 4:00pm – 6:30pm; and during the Saturday hours of 11:00am – 2:00pm. Count volumes were summarized by 15min periods and the resulting peak hour factors and peak hour volumes were calculated. The peak hours were determined to be 7:15am – 8:15am, 11:45am – 12:45pm, 4:45pm – 5:45pm, and 11:30am – 12:30pm for the Weekday AM, midday, PM, and Saturday midday analysis periods, respectively. The Existing peak hour volumes are shown below in **Figure 2.7-9**.

Level of Service

Detailed Existing conditions traffic analysis LOS results, v/c ratios, and average delays for the unsignalized analysis intersection at E. 144th Street and Concord Avenue are presented in **Table 2.7-8**. As shown in **Table 2.7-8**, all approaches and movements are functioning at LOS B or better in all four analysis peak hours under Existing conditions.

Figure 2.7-9: Existing Peak Hour Traffic Volumes

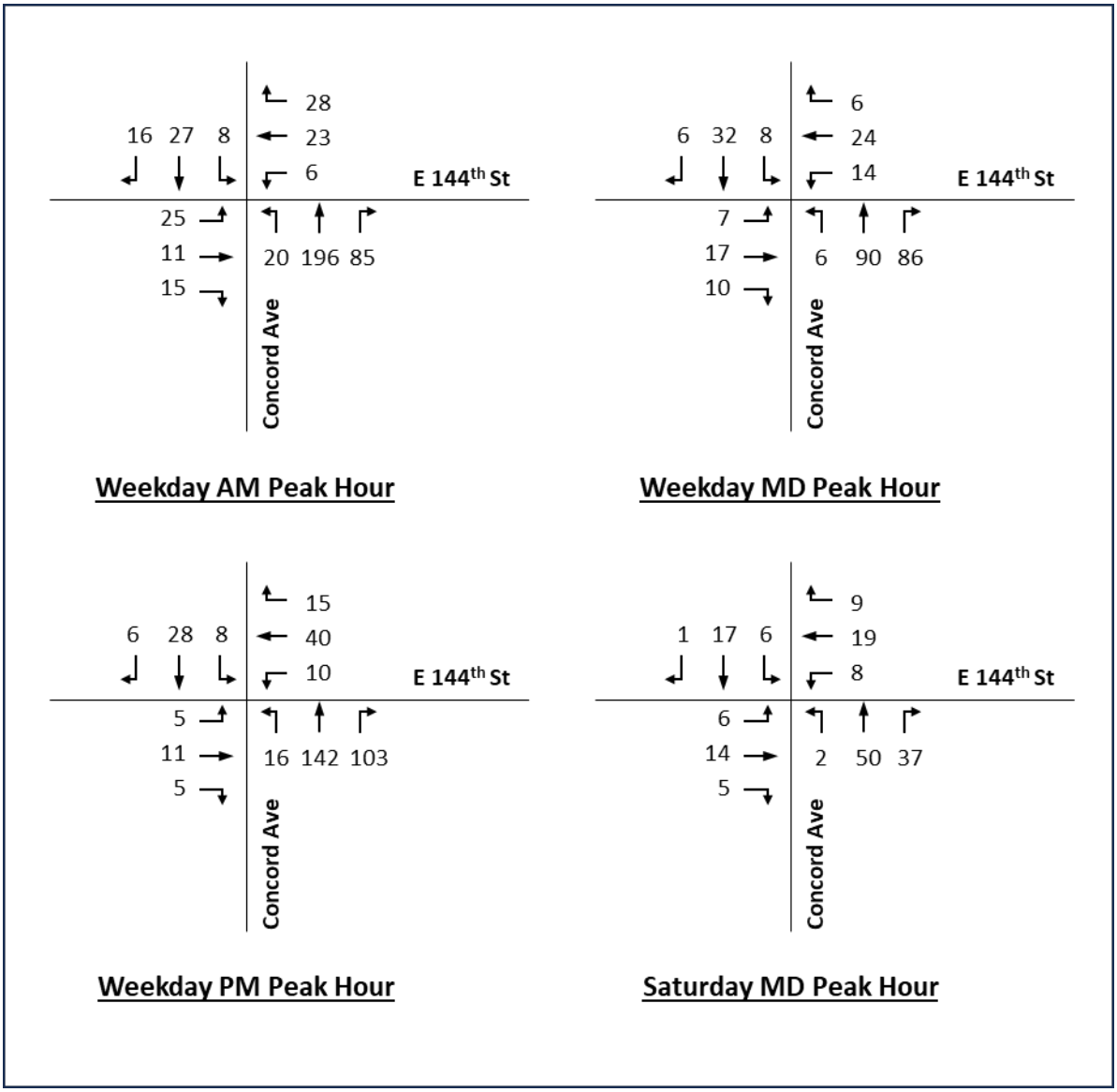


Table 2.7-8: Existing Traffic Level of Service

INTERSECTION & APPROACH		Mvt.	2023 Existing		
			V/C Ratio	Delay (sec)	LOS
WEEKDAY AM PEAK HOUR					
E. 144th Street	EB	LTR	0.02	3.7	A
	WB	LTR	0.00	0.8	A
Concord Avenue	NB	LTR	0.54	16.6	B
	SB	LTR	0.11	11.8	B
Overall Intersection		-		**12.6**	**B**
WEEKDAY MIDDAY PEAK HOUR					
E. 144th Street	EB	LTR	0.01	1.5	A
	WB	LTR	0.01	2.4	A
Concord Avenue	NB	LTR	0.27	11.4	B
	SB	LTR	0.09	11.0	B
Overall Intersection		-		**8.9**	**A**
WEEKDAY PM PEAK HOUR					
E. 144th Street	EB	LTR	0.00	1.9	A
	WB	LTR	0.01	1.2	A
Concord Avenue	NB	LTR	0.36	12.4	B
	SB	LTR	0.08	11.2	B
Overall Intersection		-		**9.5**	**A**
SATURDAY MIDDAY PEAK HOUR					
E. 144th Street	EB	LTR	0.01	1.9	A
	WB	LTR	0.01	1.7	A
Concord Avenue	NB	LTR	0.13	10.3	B
	SB	LTR	0.04	10.5	B
Overall Intersection		-		**7.2**	**A**

No-Action Condition

The 2026 No-Action traffic volumes, as shown in **Figure 2.7-10**, reflect an annual background growth rate of 0.25 percent per year for the 2023 through 2026 period to account for small projects and as-of-right developments and general increases in travel demand not attributable to specific development projects. There are no discrete No-Action projects in the study area that exceeded metrics in Table 16-1 of the *2021 CEQR Technical Manual*, that needed to be accounted for in the 2026 No-Action traffic volumes.

Level of Service

Detailed No-Action conditions traffic analysis LOS results, v/c ratios, and average delays for the unsignalized analysis intersection at E. 144th Street and Concord Avenue are presented in **Table 2.7-9**. As shown in **Table 2.7-9**, all approaches and movements are continuing to function at LOS B or better in all four analysis peak hours under No-Action conditions.

Figure 2.7-10: No-Action Peak Hour Traffic Volumes

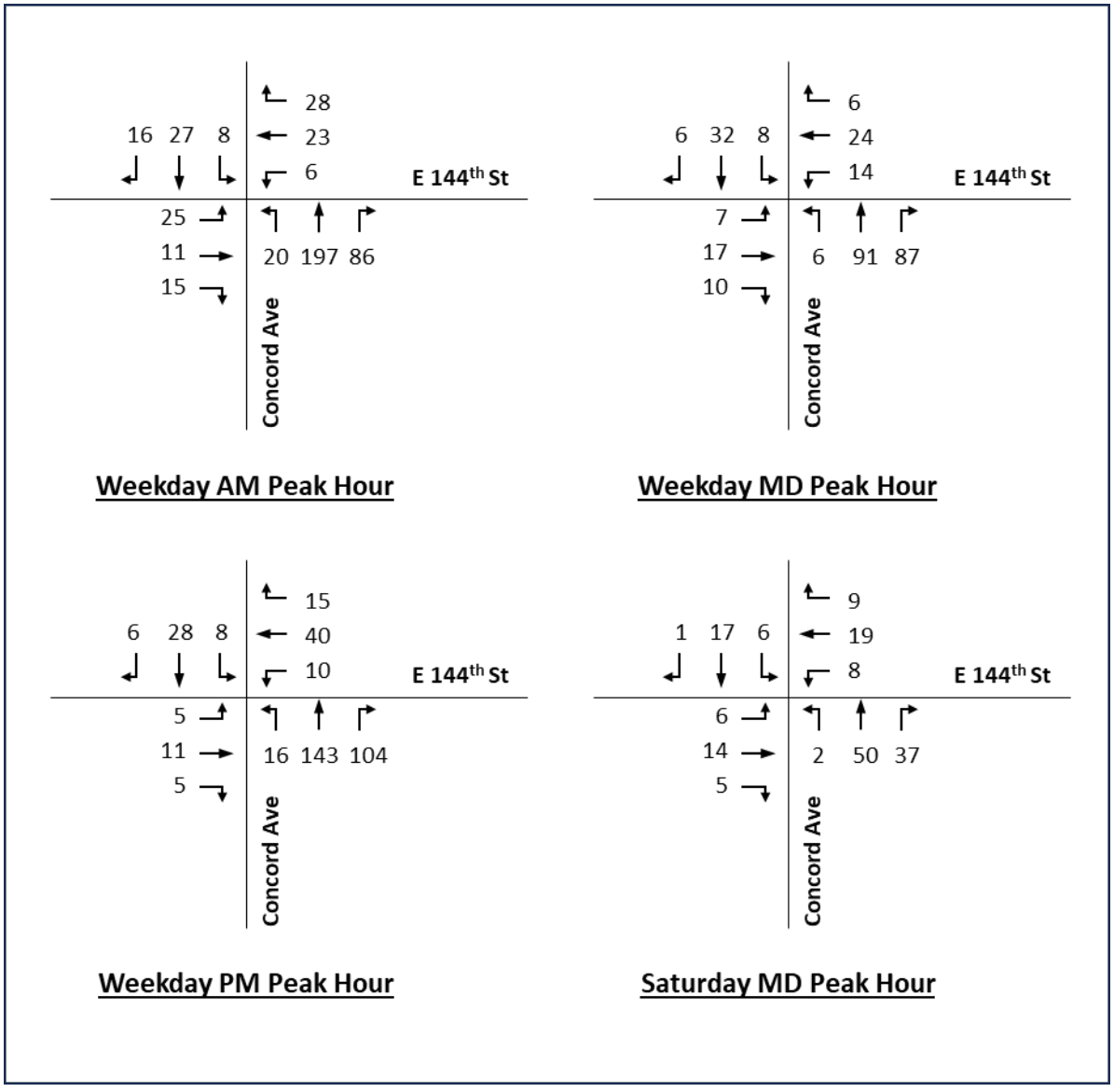


Table 2.7-9: No-Action Traffic Level of Service

INTERSECTION & APPROACH		Mvt.	2023 Existing			2026 No-Action		
			V/C Ratio	Delay (sec)	LOS	V/C Ratio	Delay (sec)	LOS
WEEKDAY AM PEAK HOUR								
E. 144th Street	EB	LTR	0.02	3.7	A	0.02	3.7	A
	WB	LTR	0.00	0.8	A	0.00	0.8	A
Concord Avenue	NB	LTR	0.54	16.6	B	0.55	16.6	B
	SB	LTR	0.11	11.8	B	0.11	11.8	B
Overall Intersection		-		**12.6**	**B**		**12.7**	**B**
WEEKDAY MIDDAY PEAK HOUR								
E. 144th Street	EB	LTR	0.01	1.5	A	0.01	1.5	A
	WB	LTR	0.01	2.4	A	0.01	2.4	A
Concord Avenue	NB	LTR	0.27	11.4	B	0.27	11.4	B
	SB	LTR	0.09	11.0	B	0.09	11.0	B
Overall Intersection		-		**8.9**	**A**		**8.9**	**A**
WEEKDAY PM PEAK HOUR								
E. 144th Street	EB	LTR	0.00	1.9	A	0.00	1.9	A
	WB	LTR	0.01	1.2	A	0.01	1.2	A
Concord Avenue	NB	LTR	0.36	12.4	B	0.36	12.4	B
	SB	LTR	0.08	11.2	B	0.08	11.2	B
Overall Intersection		-		**9.5**	**A**		**9.6**	**A**
SATURDAY MIDDAY PEAK HOUR								
E. 144th Street	EB	LTR	0.01	1.9	A	0.01	1.9	A
	WB	LTR	0.01	1.7	A	0.01	1.7	A
Concord Avenue	NB	LTR	0.13	10.3	B	0.13	10.3	B
	SB	LTR	0.04	10.5	B	0.04	10.5	B
Overall Intersection		-		**7.2**	**A**		**7.2**	**A**

With-Action Condition

The 2026 With-Action condition vehicular volumes were generated by combining the 2026 No-Action vehicle volumes and the incremental project developed trips (see **Figure 2.7-11)**. The resulting With-Action volumes are shown below in **Figure 2.7-12**.

Level of Service

Detailed With-Action conditions traffic analysis LOS results, v/c ratios, and average delays for the unsignalized analysis intersection at E. 144th Street and Concord Avenue are presented in **Table 2.7-10**. As shown in **Table 2.7-10**, all approaches and movements are continuing to function at LOS B or better in all four analysis peak hours under With-Action conditions. As such, the Proposed Actions are not anticipated to result in significant adverse traffic impacts.

Figure 2.7-11: Peak Hour Project Increment Traffic Volumes

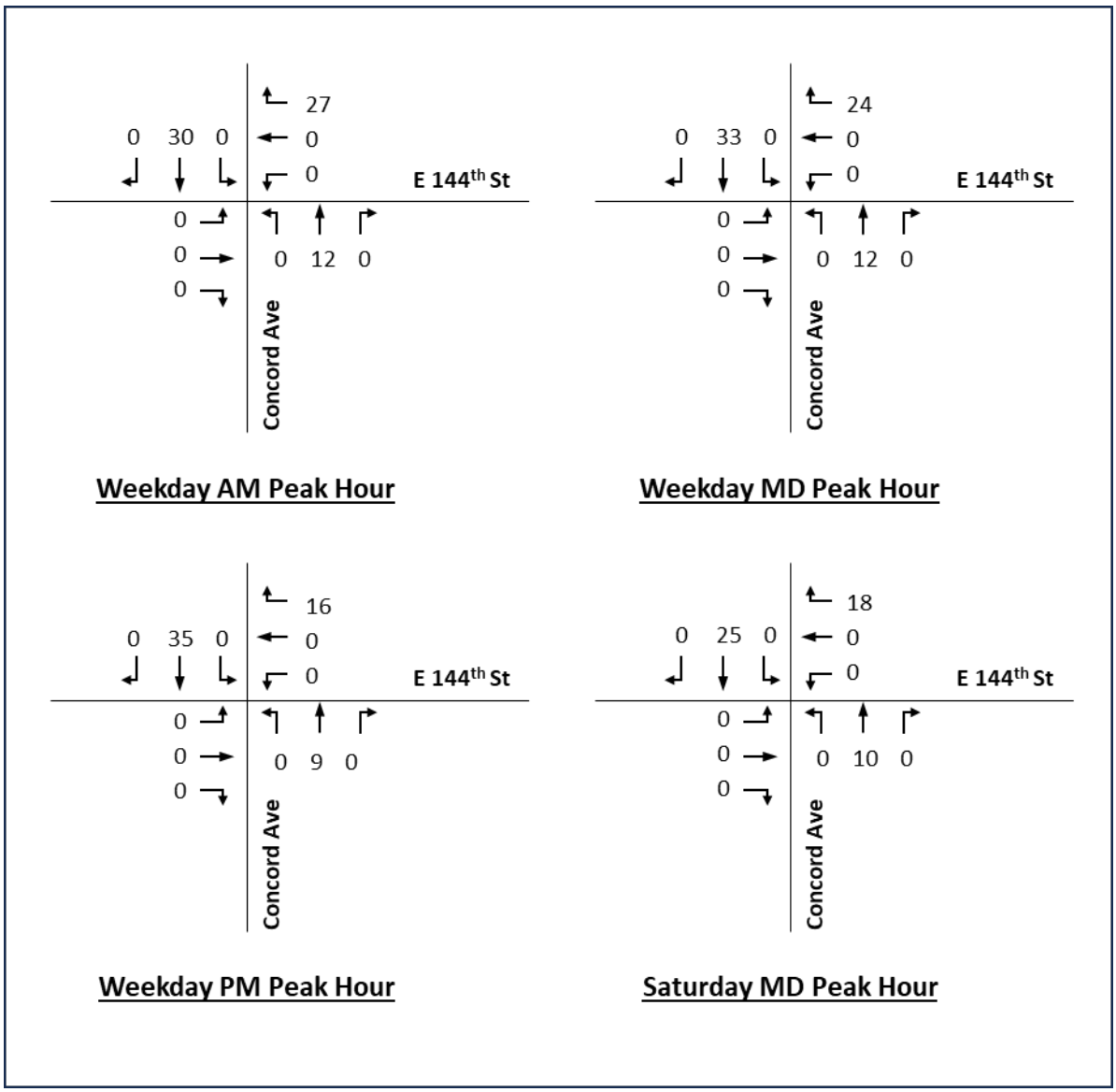


Figure 2.7-12: With-Action Peak Hour Traffic Volumes

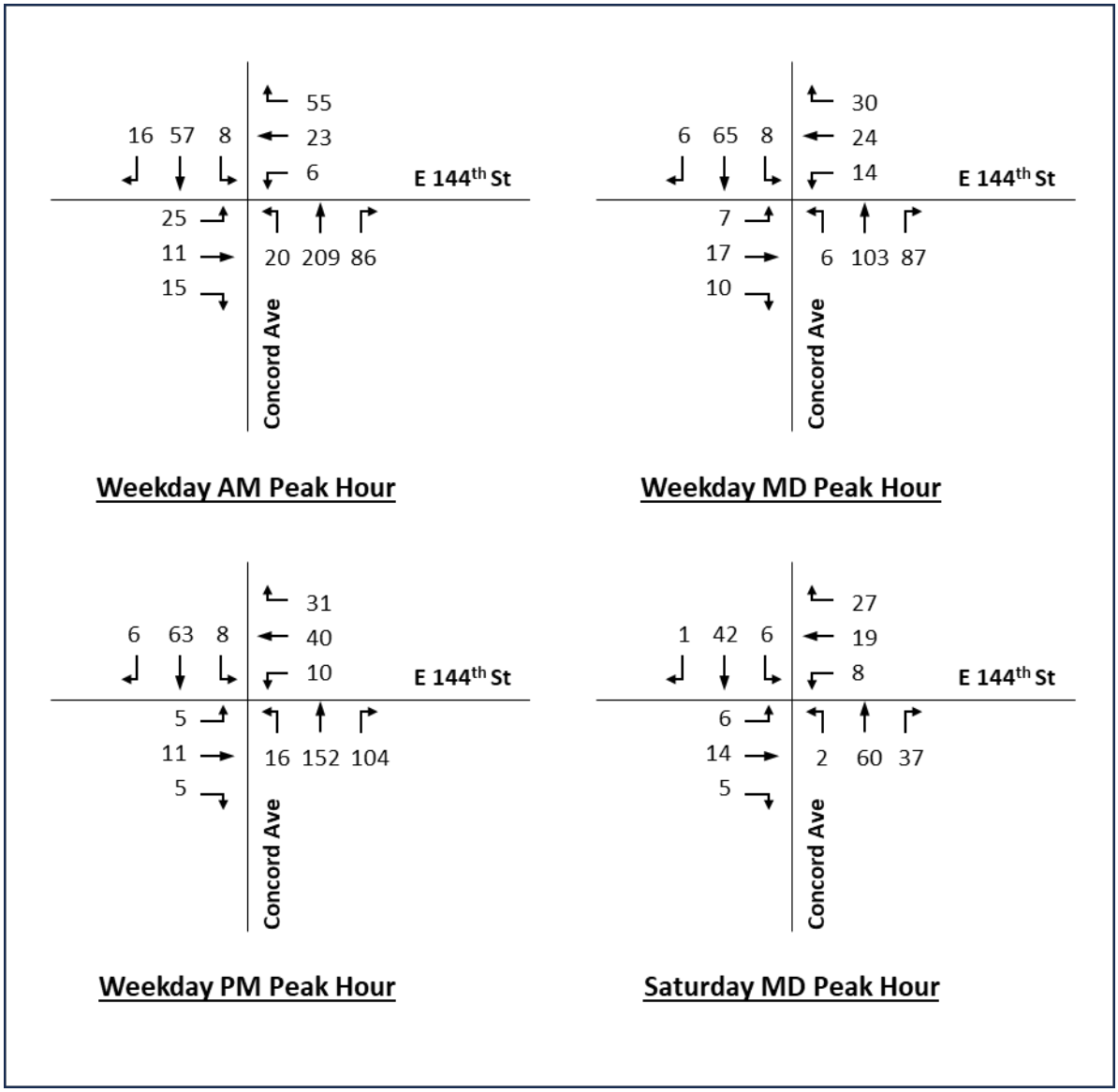


Table 2.7-10: With-Action Traffic Level of Service

INTERSECTION & APPROACH		Mvt.	2026 No-Action			2026 With-Action		
			V/C Ratio	Delay (sec)	LOS	V/C Ratio	Delay (sec)	LOS
WEEKDAY AM PEAK HOUR								
E. 144th Street	EB	LTR	0.02	3.7	A	0.02	3.7	A
	WB	LTR	0.00	0.8	A	0.00	0.5	A
Concord Avenue	NB	LTR	0.55	16.6	B	0.58	17.7	B
	SB	LTR	0.11	11.8	B	0.17	12.2	B
Overall Intersection		-		**12.7**	**B**		**12.8**	**B**
WEEKDAY MIDDAY PEAK HOUR								
E. 144th Street	EB	LTR	0.01	1.5	A	0.01	1.5	A
	WB	LTR	0.01	2.4	A	0.01	1.6	A
Concord Avenue	NB	LTR	0.27	11.4	B	0.30	11.9	B
	SB	LTR	0.09	11.0	B	0.15	11.6	B
Overall Intersection		-		**8.9**	**A**		**8.9**	**A**
WEEKDAY PM PEAK HOUR								
E. 144th Street	EB	LTR	0.00	1.9	A	0.00	1.9	A
	WB	LTR	0.01	1.2	A	0.01	1.0	A
Concord Avenue	NB	LTR	0.36	12.4	B	0.38	12.9	B
	SB	LTR	0.08	11.2	B	0.15	11.6	B
Overall Intersection		-		**9.6**	**A**		**9.7**	**A**
SATURDAY MIDDAY PEAK HOUR								
E. 144th Street	EB	LTR	0.01	1.9	A	0.01	1.9	A
	WB	LTR	0.01	1.7	A	0.01	1.2	A
Concord Avenue	NB	LTR	0.13	10.3	B	0.15	10.6	B
	SB	LTR	0.04	10.5	B	0.09	10.8	B
Overall Intersection		-		**7.2**	**A**		**7.4**	**A**

2.7.6 Vehicular and Pedestrian Safety Evaluation

High Accident Locations

According to *2021 CEQR Technical Manual* guidance, an evaluation of vehicular and pedestrian safety may be warranted for locations within the traffic and pedestrian study area that have been identified as high accident locations. These are defined as locations where 48 or more total reportable and non-reportable accidents or five or more pedestrian/bicyclist injury accidents have occurred in any consecutive 12 months of the most recent three-year period for which data is available (reportable accidents are defined as those involving injuries, fatalities, and/or $1,000 or more in property damage).

Table 2.7-11 provides a summary of accident data for the three-year reporting period between January 1, 2018, and December 31, 2020, which were obtained from NYC DOT. This is the most recent three-year period for which data is available. The table shows the total number of accidents each year and the number of accidents each year involving pedestrians and bicyclists at intersections in the vicinity of the Project Site where most new vehicular and pedestrian trips would be concentrated. As shown in **Table 2.7-11**, no intersections were found to have experienced a total of 48 or more accidents or experienced five or more pedestrian and/or bicyclist injury accidents in one or more years.

Table 2.7-11: Accident Data Summary 2018 – 2020

Intersection		Pedestrian Injury Accidents			Bicycle Injury Accidents			Total Pedestrian/Bicycle Injury Accidents			Total Accidents (Reportable + Non-Reportable)		
		2018	2019	2020	2018	2019	2020	2018	2019	2020	2018	2019	2020
Jackson Ave	E. 147th St	0	1	0	0	0	0	0	1	0	0	1	2
	E. 145th St	0	0	0	0	0	0	0	0	0	1	1	1
	E. 144th St	0	0	0	0	0	0	0	0	0	2	0	2
	E. 143rd St	0	0	1	0	0	0	0	0	1	1	0	3
Concord Ave	E. 147th St	0	0	0	0	0	0	0	0	0	0	1	0
	E. 145th St	0	0	0	0	1	0	0	1	0	1	2	1
	E. 144th St	0	0	0	0	0	0	0	0	0	1	2	0
	E. 143rd St	0	0	0	0	0	0	0	0	0	2	0	0
Wales Ave	E. 147th St	0	0	0	0	0	0	0	0	0	1	4	0
	E. 145th St	0	0	0	0	0	0	0	0	0	1	1	1
	E. 144th St	0	0	0	0	0	0	0	0	0	3	0	0
	E. 143rd St	0	0	0	0	0	0	0	0	0	3	5	1
Tinton Ave	E. 147th St	0	0	0	0	0	0	0	0	0	0	0	1
Southern Blvd	E. 145th St	0	0	0	0	0	0	0	0	0	1	1	0
	E. 144th St	1	0	0	0	0	0	1	0	0	7	0	0
	E. 143rd St	1	0	0	0	0	0	1	0	0	1	1	2

Vision Zero

According to the *2023 Vision Zero Borough Pedestrian Safety Action Plan Update*, the project is located within the larger South Bronx Vision Zero Priority Corridor but none of the analysis intersections or site frontages are located along a Vision Zero Priority Corridor or identified as a Vision Zero Priority Intersection. Vision Zero seeks to eliminate all deaths from traffic crashes regardless of whether on foot, bicycle, or inside of a motor vehicle, whereas Vision Zero Priority

Corridors & Intersections are identified as locations that disproportionately account for pedestrian fatalities and severe injuries thus prioritizing them for safety interventions.

One major Vision Zero Safety Engineering Project, namely the Jackson Ave Bike Boulevard has been implemented just west of the Project Site. The project, which included a new two-way protected bike lane and new pedestrian infrastructure, as well as a conversion of Jackson Avenue from two-way to one-way southbound traffic operations, was completed at the end of 2021.

Additionally, lead pedestrian intervals have been implemented in the vicinity of the project site at the intersections of Southern Boulevard and E. 145th Street, Southern Boulevard and E. 144th Street, and Jackson Avenue and E. 143rd Street.

2.7.7 Parking Assessment

As discussed above, it is anticipated that a total of 54 combined accessory parking spaces would be provided on the two Projected Development Sites under the RWCDS. **Table 2.7-12** below summarizes the projected parking demand generated by the proposed uses (see **Table 2.7-5** and **Table 2.7-6** in **Section 2.7.3** for detailed accumulation forecasts). As shown below in **Table 2.7-12**, the residential overnight parking demand of 38 spaces would be readily accommodated by the 54 proposed accessory parking spaces that would be provided on the two Projected Development Sites. During all other peak periods, however, the proposed project would result in a parking deficit ranging from 29 spaces during the Saturday Midday peak period to 89 spaces during the Weekday PM peak period that would have to be accommodated within the surrounding street network. As such detailed on-street parking surveys were conducted during the Weekday AM, Midday, PM, and Saturday Midday periods.

Table 2.7-12: Proposed Parking Demand vs. On-Site Supply Summary

	With-Action Parking Demand				
Peak Period	Residential	Commercial & Community Facility	**Total**	Parking provided on-site	**Surplus / Deficit**
Weekday AM	13	78	**91**	54	**-37**
Weekday Midday	11	128	**139**		**-85**
Weekday PM	18	125	**143**		**-89**
Overnight	38	0	**38**		**16**
Saturday Midday	16	67	**83**		**-29**

Existing Conditions

The Existing weekday AM, midday, PM, and Saturday midday on-street parking conditions are summarized below in **Table 2.7-13**. Based on data collected during field surveys conducted in June 2024, on-street parking utilization within the ¼-mile parking study area ranges from approximately 88% during the Saturday Midday peak period to 94% during the weekday AM and PM peak periods. As the parking available within the ¼-mile radius was limited, particularly during the weekday peak periods with as few as 78 available spaces during the AM peak period, an additional parking survey was conducted within the area between the ¼-mile and ½-mile radius from the Development Site. The survey indicated that parking utilization within the ½-mile parking study area ranges from approximately 85% during the Saturday Midday peak period to 93% during the weekday AM peak period, with availability ranging from 332 spaces in the AM peak period to 757 spaces in the Saturday Midday peak period.

Table 2.7-13: Existing On-Street Parking Capacity & Demand

		Weekday AM	Weekday Midday	Weekday PM	Saturday Midday
1/4-mile Study Area	Capacity	1270	1278	1289	1538
	Demand (Utilized Spaces)	1192	1165	1208	1359
	Available Spaces	78	113	81	179
	Utilization Rate	94%	91%	94%	88%
1/2-mile Study Area	Capacity	4759	4758	4769	5175
	Demand (Utilized Spaces)	4427	4174	4320	4418
	Available Spaces	332	584	449	757
	Utilization Rate	93%	88%	91%	85%

No-Action Condition

The No-Action weekday midday and weekday overnight parking conditions are summarized below in **Table 2.7-14**. After accounting for background growth, the on-street parking availability within the ¼-mile study area is expected to decrease from 78 to 72 spaces in the weekday AM peak period, from 113 to 107 spaces in the weekday midday peak period, from 81 to 75 spaces in the weekday PM peak period and from 179 to 172 spaces in the Saturday Midday peak period. On-street parking availability would similarly slightly decrease in the ½-mile study area due to increased demand from background growth. The remaining available spaces in the ½-mile study area would range from 310 in the weekday AM peak period to 735 in the Saturday Midday peak period.

Table 2.7-14: No-Action On-Street Parking Capacity & Demand

		Weekday AM	Weekday Midday	Weekday PM	Saturday Midday
1/4-mile Study Area	Capacity	1270	1278	1289	1538
	Demand (Utilized Spaces)	1198	1171	1214	1366
	Available Spaces	72	107	75	172
	Utilization Rate	94%	92%	94%	89%
1/2-mile Study Area	Capacity	4759	4758	4769	5175
	Demand (Utilized Spaces)	4449	4195	4342	4440
	Available Spaces	310	563	427	735
	Utilization Rate	93%	88%	91%	86%

With-Action Condition

As discussed above, in the future with the Proposed Actions, the two Projected Development Sites would provide a total of 54 on-site accessory parking spaces, which would accommodate the residential overnight demand which is forecast to be approximately 38 spaces. The 54 on-site accessory parking spaces would only partially accommodate the forecast parking demand of 91, 139, 143, and 83 spaces during the weekday AM, Midday, PM, and Saturday peak periods, respectively, resulting in excess parking demand of 37, 85, 89 and 29 parking spaces to be accommodated by on-street parking during the weekday AM, Midday, PM, and Saturday peak periods, respectively.

It should be noted that the With-Action condition parking analysis conservatively does not account for on-street parking demand that would be eliminated as a result of the redevelopment of the Projected Development Sites. It should further be noted that the existing parking lot within Projected Development Site 1 is not publicly accessible parking but rather used as vehicle storage by the adjacent auto repair shop. As such, the displacement of this parking lot would not lead to additional on-street parking demand in the With-Action Condition.

As shown in **Table 2.7-15** below, the excess Proposed Project Demand would be accommodated within the ¼-mile radius during all peak periods except for the Weekday PM peak period, when the Proposed Project would result in a parking deficit of approximately 14 spaces within the 1/4-mile radius of the Proposed Development Sites. However, this deficit would be accommodated in the ½-mile radius of the Proposed Development Site during the weekday PM peak period. Therefore, no significant adverse parking shortfalls are anticipated.

Table 2.7-15: With-Action On-Street Parking Capacity & Demand

		Weekday AM	Weekday Midday	Weekday PM	Saturday Midday
1/4-mile Study Area	Capacity	1270	1278	1289	1538
	No-Action Demand (Utilized Spaces)	1198	1171	1214	1366
	Project Demand*	37	85	89	29
	Total With-Action Demand	**1235**	**1256**	**1303**	**1395**
	Available Spaces / Deficit	35	22	-14	143
	Utilization Rate	97%	98%	101%	91%
1/2-mile Study Area	No-Action Capacity	4759	4758	4769	5175
	No-Action Demand (Utilized Spaces)	4449	4195	4342	4440
	Project Demand	37	85	89	29
	Total With-Action Demand	**4486**	**4280**	**4431**	**4469**
	Available Spaces	273	478	338	706
	Utilization Rate	94%	90%	93%	86%

2.7.8 Conclusion

Based on the detailed Traffic Analysis, all approaches and movements would continue to function at LOS B or better in all four analysis peak hours under With-Action conditions. The Proposed Project would generate fewer than 200 subway trip-ends and fewer than 200 MTA bus trip-ends during all identified peak hours. Based on the detailed assignment of pedestrian trips, no pedestrian elements would exceed Level 2 Screening thresholds. Lastly, as the Proposed Project is not anticipated to accommodate all of the project-generated parking demand on-site, a detailed parking analysis showed that the demand would be accommodated by available on-street parking in the surrounding area within a ¼-mile and ½-mile of the Project Area and would not result in any significant adverse parking shortfalls. Therefore, the Proposed Actions would not result in a development that would have significant adverse impact on transportation within the Study Area.

2.8 Air Quality

When assessing the potential for air quality significant impacts, the *2021 CEQR Technical Manual* seeks to determine a Proposed Action's effect on ambient air quality, or the quality of the surrounding air. Ambient air can be affected by motor vehicles, referred to as "mobile sources," or by fixed facilities, referred to as "stationary sources." This can occur during operation and/or construction of a project being proposed. The pollutants of concern include six criteria pollutants, which are the most common pollutants, and hazardous air pollutants (HAPs), air toxics or toxic air pollutants known as noncriteria pollutants.

The *2021 CEQR Technical Manual* generally recommends an assessment of the potential impact of mobile sources on air quality when an action increases traffic or causes a redistribution of traffic flows, creates any other mobile sources of pollutants (such as diesel train usage), or adds new uses near mobile sources (e.g., roadways, parking lots, garages). The *CEQR Technical Manual* generally recommends assessments when new stationary sources of pollutants are created, when a new use might be affected by existing stationary sources, or when stationary sources are added near existing sources and the combined dispersion of emissions would impact surrounding areas.

Ambient air quality describes pollutant levels in the surrounding environment to which the public has access. To assess potential health hazards due to ambient air quality, the impact of air pollutants emitted by motor vehicles (mobile source) and by fixed facilities (stationary source) are analyzed, where the effects of both the proposed project on ambient air quality and the ambient air quality effect on the proposed project are considered.

Pollutants of Concern

The Clean Air Act (CAA) is a comprehensive federal law that regulates all sources of air emissions. The CAA requires U.S. Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants that are common in outdoor air, considered harmful to public health and the environment, and that come from numerous and diverse sources. The EPA has identified six key pollutants considered harmful to public health and the environment. In addition, national and state regulations identified numerous other pollutants, primarily due to industrial activities.

- Carbon monoxide (CO) is a colorless, odorless gas, which is primarily formed by incomplete combustion of carbon-containing fuels and by photochemical reactions in the atmosphere. Nationally, particularly in urban areas, the majority of CO emissions to ambient air come from mobile sources. The majority of these on-road CO emissions are derived from gasoline powered vehicles.[5] Because CO disperses quickly, its concentrations may vary greatly over

[5] EPA. *Integrated Science Assessment (ISA) for Carbon Monoxide (Final Report, Jan 2010)*. U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-09/019F, 2010

relatively short distances. Elevated concentrations are usually limited to locations near congested intersections and along heavily traveled and congested roadways.

- Nitrogen oxides (NOx) is emitted from both mobile and stationary sources. Nitric Oxide (NO) accounts for approximately 90% of the total oxidized nitrogen emitted. In the atmosphere, and in the presence of sunlight, NO reacts with radicals and ozone (O_3) to form mainly nitrogen dioxide (NO_2).[6] Ground-level ozone is formed when volatile organic compounds (VOCs), also known as hydrocarbons, and nitrogen oxides (NOx) interact in the presence of sunlight. Because the reactions are slow and occur as the pollutants are transported downwind, elevated ozone levels are often found many miles from the sources of the precursor pollutants.

  The zone of elevated NO_2 concentration from vehicular emission extends away from the roadway. Therefore, the effects of NOx (NO and NO_2) emissions from mobile sources are generally examined on a regional basis. The Proposed Action would not substantially increase the vehicle mile traveled or stationary source emissions at a regional scale. Therefore, mesoscale (regional) analysis for ozone precursor is not required. The Proposed Action would include stationary fuel combustion sources (boiler(s) for heating and hot water). Therefore, the proposed project's effects on local NO_2 concentration were evaluated.

- Airborne particulate matter (PM) is a mixture of substances suspended in air as small liquid and/or solid particles. In contrast to the other criteria pollutants, PM does not have a unique chemical composition. These individual particles range in size from less than 0.01 µm to more than 10 µm. $PM_{2.5}$ is the abbreviation for fine PM with a diameter smaller than 2.5 microns. PM_{10} refers to particulates with diameter less than or equal to 10 micrometers. Some particles, such as dust, dirt, soot, or smoke, are large or dark enough to be seen with the naked eye.

  PM sources are both primary and secondary in nature. Primary sources are specific sources, such as particles produced by mechanical abrasion. Secondary PM sources originate from gas-phase chemical compounds that condensate with certain gasses or when different gasses react with each other. These small particles might then coagulate with other particles to form larger particles. Sulfur oxides, nitrogen oxides, and volatile organic compounds (VOC) are examples of PM precursors.[7] The burning of fossil fuel can produce both primary and secondary PM. $PM_{2.5}$ is extremely persistent in the atmosphere and has the ability to reach the lower regions of the respiratory tract, delivering with it other compounds that adsorb to the surfaces of the particles.

[6] EPA. *Integrated Science Assessment (ISA) for Oxide of Nitrogen – Health Criteria (Final Report, Jan 2010)*. U.S. Environmental Protection Agency, Washington, DC, EPA/ EPA/600/R-15/068, 2016

[7] EPA. *Integrated Science Assessment (ISA) for Particulate Matter (Final Report, Dec 2019)*. U.S. Environmental Protection Agency, Washington, DC, EPA EPA/600/R-19/188, 2019

Anthropogenic sources of PM are prevalent in many activities. Common sources include fuel combustion, such as in boilers or vehicular engines, industrial processes, such as spray painting or sanding of wood, and construction activities. Fugitive road dust that gets airborne when vehicles traverse roadways is also a common source.

- Fossil fuel combustion is the main anthropogenic source of primary SO_2. The amount of SO_2 emitted is directly related to the amount of sulfur in the fuel. Therefore, fuels with low sulfur content produces little SO_2. Beginning in 2006, EPA began to phase-in more stringent regulations to lower the amount of sulfur in diesel fuel to 15 parts per million (ppm). This fuel is known as ultra-low sulfur diesel (ULSD). SO_2 is also a precursor for the formation of $PM_{2.5}$. As such, controlling SO_2 emissions, controls $PM_{2.5}$ concentrations.

  The amount of SO_2 emitted from on-road vehicles is not significant. Therefore, mobile source analysis for SO_2 is not required. The developments could potentially include stationary fuel combustion sources (boiler(s) for heating and hot water), where fuel oil No. 2 is burned. Therefore, effects on local SO_2 concentration were examined.

- Emissions of lead (Pb) have dropped substantially over the past 40 years as results of phasing out of Pb as an anti-knock agent in gasoline for on-road vehicles, and later from enhanced controls of the metal processing industry.[8] The Proposed Action is unlikely to result in lead emission. Therefore, no analysis is required.

- Noncriteria pollutants, also referred to as toxic air pollutants or air toxics, are mainly associated with industrial sources. The CAA identifies 187 HAPs to be regulated by the EPA (currently there are 185 HAP), where the EPA regulates their emissions. These are substances that cause or may cause cancer or other serious health effects. In addition, the New York State Department of Environmental Conservation (NYSDEC) identified numerous other pollutants (also noncriteria pollutants) of various toxicities for which the EPA has no established standards.

Applicable Standards/Guidelines

Criteria Pollutants

The US Environmental Protection Agency (EPA) has established national ambient air quality standards (NAAQS) for six of the most common air pollutants—known as "criteria" pollutants. The presence of these pollutants in ambient air is generally due to numerous diverse and widespread sources of emissions. The NAAQS primary standards are designed to protect public health with adequate margin of safety. The NAAQS secondary standards are designed to protect the public welfare from adverse effects, including those related to effects on soils, water, vegetation, visibility, and other aspects. As required by the Clean Air Act (CAA), EPA periodically

[8] EPA. *Integrated Science Assessment (ISA) for Lead (Final Report, Jul 2013)*. U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-10/075F, 2013

conducts comprehensive reviews of the scientific literature on health and welfare effects associated with exposure to the criteria air pollutants. The NAAQS have been adopted as the ambient air quality standards for the State of New York.

Determination of significant impact related to criteria pollutants accounts for pollutants concentrations in the ambient air, which include background concentrations. The New York State Department of Environmental Conservation (NYSDEC) measures air pollutants concentrations at more than 50 sites across the state. The primary NAAQS and background concentrations from the nearest federally-mandated monitoring station(s) are presented in **Table 2.8-1**.

Table 2.8-1: NAAQS or NYS and Background Concentration Published in the NYSDEC Report(s)

Pollutant	Averaging Period	National and State Standards	Background Concentration	Monitoring Station
NO_2 (1)	1-Hour	188 µg/m^3	110.5 µg/m^3	IS 52
	Annual	100 µg/m^3	31.8 µg/m^3	
$PM_{2.5}$ (2)	24-Hour	35 µg/m^3	19.7 µg/m^3	IS 52
	Annual	12 µg/m^3	7.3 µg/m^3	
PM_{10} (2)	24-Hour	150 µg/m^3	31 µg/m^3	IS 52
CO (2)	1-Hour	35 ppm	1.99 ppm	CCNY
	8-Hour	9 ppm	1.50 ppm	
SO_2 (2)	1-Hour	196 µg/m^3	14.2 µg/m^3	IS 52
	Annual (3)	80 µg/m^3	1.1 µg/m^3	

1. NYSDEC (2019). New York State Ambient Air Quality Report for 2019, dec.ny.gov/chemical/8406.html#Quality.
2. NYSDEC (2020). New York State Ambient Air Quality Report for 2020, dec.ny.gov/chemical/8406.html#Quality.
3. New York State standard.
4. µg/m^3 – microgram per meter cube; ppm – parts per million.

In addition to the NAAQS, the *CEQR Technical Manual* requires that projects subject to CEQR apply $PM_{2.5}$ and CO significant impact criteria (based on concentration increments). The *CEQR Technical Manual de minimis* criteria set allowable incremental increase in CO and $PM_{2.5}$ concentrations that would result as a consequence of a proposed project. CO criteria set the minimum change in 8-hour average concentration that constitutes a significant environmental impact. Significant increase of CO concentrations in New York City are:

- An increase of 0.5 parts per million (ppm) or more in the maximum 8-hour average CO concentration at a location where the predicted No-Action 8-hour concentration is equal to 8 ppm or between 8 ppm and 9 ppm; or
- An increase of more than half the difference between baseline (i.e., No-Action) concentrations and the 8-hour standard, when No-Action concentrations are below 8 ppm.

$PM_{2.5}$ significant impact concentrations are evaluated as follows:

- Predicted 24-hour maximum $PM_{2.5}$ concentration increase of more than half the

difference between the 24-hour background concentration and the 24-hour standard; or

- Predicted annual average $PM_{2.5}$ concentration increments greater than 0.1 $\mu g/m^3$ at ground level on a neighborhood scale (i.e., the annual increase in concentration representing the average over an area of approximately 1 square kilometer, centered on the location where the maximum ground-level impact is predicted for stationary sources; or for mobile sources, at a distance from a roadway corridor similar to the minimum distance defined for locating neighborhood scale monitoring stations).
- Predicted annual average $PM_{2.5}$ concentration increments greater than 0.3 $\mu g/m^3$ at any receptor location for stationary sources.

$PM_{2.5}$ *de minimis* are 24-hour concentration increment of 7.65 $\mu g/m^3$, and annual $PM_{2.5}$ concentration increments of 0.3 $\mu g/m^3$ for stationary source and 0.1 $\mu g/m^3$ for mobile source on a neighborhood scale. Eight-hour CO *de minimis* is 3.75 parts per million.

Noncriteria Pollutants and New York State Standards

As mentioned, New York State has adopted the national standard, NAAQS. In addition, the NYSDEC has established guidelines for maximum allowable concentration of "noncriteria pollutants," which are potentially toxic or carcinogenic pollutants. These include 185 hazardous air pollutants (HAPs) which are also regulated by the EPA. The maximum allowable guidelines set a maximum 1-hour and annual averaging time concentrations and are published in the DAR-1 AGC/SGC Table (February 12, 2021 publication), where AGC/SGC refers to Annual and Short-term Guideline Concentrations. In addition, DAR-1 also includes standard for pollutants cumulative risk assessment.

NYSDEC also regulates pollutants that produce discomfort due to odors, where significant discomfort is evaluated on quantity, characteristic or duration.

2.8.1 Mobile Sources

According to the *CEQR Technical Manual*, projects, whether site-specific or generic, may result in significant mobile source air quality impacts when they increase or cause a redistribution of traffic; create any other mobile sources of pollutants (such as diesel trains, helicopters etc.); or add new uses near mobile sources (roadways, garages, parking lots, etc.). Projects requiring further assessment include:

- Projects that would result in placement of operable windows, balconies, air intakes or intake vents generally within 200 feet of an atypical source of vehicular pollutants.
- Projects that would result in the creation of a fully or partially covered roadway, would exacerbate traffic conditions on such a roadway, or would add new uses near such a roadway.

- Projects that would generate peak hour auto traffic or divert existing peak hour traffic of 170 or more auto trips in this area of the City.
- Projects that would generate peak hour heavy- duty diesel vehicle traffic or its equivalent in vehicular emissions resulting from 12 or more heavy-duty diesel vehicles (HDDVs) for paved roads with average daily traffic of fewer than 5,000 vehicles, 19 or more HDDVs for collector roads, 23 or more HDDVs for principal and minor arterials, or 23 or more HDDVs for expressways and limited-access roads.
- Projects that would result in new sensitive uses (e.g., schools or hospitals) adjacent to large existing parking facilities or parking garage exhaust vents.
- Projects that would result in parking facilities or applications requesting the grant of a special permit or authorization for parking facilities; or projects that would result in a sizable number of other mobile sources of pollution (e.g., a heliport or a new railroad terminal).
- Projects that would substantially increase the vehicle miles traveled in a large area.

Screening Assessment

The Proposed Actions would not result in operable windows or air intakes within 200 feet of an atypical roadway. It would not result in the creation of a covered roadway or affect any covered roadway. Peak hour trip generation is below the 170-car threshold, as per the transportation section, as potentially warranting further assessment. The project would not create a new sensitive receptor adjacent to large parking facilities. The project would not result in the creation of a new parking facility with an increment of 85 or more parking spaces.

The project would generate HDDV equivalent traffic volume of more than 12 – 23 per hour depending on the road type. The intersections where the highest concentrations of peak-hour project-generated automobiles and trucks are anticipated to traverse include East 147th Street and Concord Avenue, East 145th Street and Concord Avenue, and East 144th Street and Concord Avenue. East 147th Street, East 145th Street, East 144th Street, and Concord Avenue are classified as local roadways.

Using the worksheet provided in the *2021 CEQR Technical Manual*, project-generated auto and truck trips were screened referencing the vehicular trip generation and vehicular trip assignment provided in Section 2.7 at the surrounding Study Area intersections referenced above. All autos were assumed to be LDGT1 class vehicles, based on guidance from the Department of City Planning (DCP) on similar projects. **Table 2.8-2** shows the project-generated Auto and Truck Trips at each Study Area intersection and the results of the *CEQR Technical Manual* Equivalent Truck Calculation for each peak-hour period.

As shown below in **Table 2.8-2**, the intersection of 145th Street and Concord Avenue, and 144th Street and Concord Avenue fail the HDDV screening threshold for local roads. Accordingly, further analysis is warranted.

Table 2.8-2: HDDV Screening

Intersection ID	Intersection	Threshold EQU Truck	AM Peak Hour				MD Peak Hour				PM Peak Hour				Sat MD Peak Hour			
			Cars	Trucks	Etrucks	Pass/Fail	Cars	Trucks	Etrucks	Pass/Fail	Cars	Trucks	Etrucks	Pass/Fail	Cars	Trucks	Etrucks	Pass/Fail
2	147th St and Concord Ave	12	17.6	0.5	8.9	Pass	19.0	0.5	9.6	Pass	18.3	0.1	8.9	Pass	14.5	0.1	7.1	Pass
5	145th St and Concord Ave	12	25.4	0.7	12.8	Fail	25.8	0.7	13.0	Fail	22.5	0.1	11.0	Pass	18.0	0.1	8.8	Pass
8	144th St and Concord Ave	12	68.1	1.9	34.5	Fail	67.0	1.9	33.9	Fail	60.1	0.4	29.3	Fail	53.1	0.4	25.9	Fail

Detailed Intersection Analysis

The Proposed Actions project-generated traffic failed the $PM_{2.5}$ screen; therefore, a detailed analysis is required. Based on the HDDVs screening assessment, Concord Avenue and 144th Street intersection was selected for a detailed analysis. The transportation analysis for this project derived peak period existing traffic volume and action-generated vehicles by vehicle type. A Tier 1 approach, applying the AM peak hour period traffic, was used in the analysis.

The EPA's Mobile Vehicle Emission Simulator (MOVES3 version) was utilized to predict vehicular emissions. MOVES inputs of inspection/maintenance, fuel data, age distribution, and meteorology were obtained from NYSDEC. The Bronx projected vehicle population database, part of the MOVES3 database was used to classify vehicle types further. The MOVES3 model was run for each season (January, April, July, and October), and the peak emission was applied in the analysis (maximum emission was predicted in July). In addition, $PM_{2.5}$ emissions of dust generated by vehicles traveling on paved roadways were added to estimate total particulate matter emissions for the short-term analysis (annual fugitive dust emission is negligible, based on similar types of analysis under CEQR). Fugitive dust emissions were calculated using the EPA's AP-42 manual methodology[9], where a conservative assumption of "dry" road conditions (precipitation reduced silt loading) was used. Silt loading factors of 0.4 grams per meter square (g/m^2) for local roadways were applied in the analysis based on values in the *CEQR Technical Manual*.

AERMOD was used to predict $PM_{2.5}$ concentration. AERMOD application is discussed in the EAS section 2.8.2.1, "Heating and Hot Water Systems." Receptors were placed in spaced intervals in the middle of the sidewalks for the short-term analysis and 15 meters from the curbside for the annual neighborhood scale analysis. Lakes Environmental, Inc.'s commercial application of AERMOD (AERMOD View) was used to locate sources and receptors spatially. A vehicle height of 1.53 meters for cars and 4.0 meters for heavy-duty vehicles and the methodology outlined in the EPA's manual[10] were used to calculate the emission sources' dispersion parameters. The U.S. Geological Service (USGS) National Elevation Dataset (NED) 1/3 arc-second resolution (GeoTIFF dataset) was used to process sources' and receptors' base elevations. Predicted concentrations were evaluated with the *de minimis*. **Table 2.8-3** shows the dispersion analysis results.

[9] EPA. Compilation of Air Pollutant Emission Factors AP-42 Fifth Edition, Vol. 1: Paved Roads Chapter 13: Miscellaneous Sources. epa.gov/ttn/chief/ap42. January 2011.

[10] Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas – Appendix J. EPA-420-B-10-040, Transportation and Regional Programs Division, Office of Transportation and Air Quality, U. S. Environmental Protection Agency, December 2010.

Table 2.8-3: $PM_{2.5}$ Dispersion Analysis Results at the Intersection of Concord Ave and 144th St

Averaging Time	No-Action Increment Concentration (µg/m³)	With-Action Increment Concentration (µg/m³)	Increment Concentration (µg/m³)	*de minimis* (µg/m³)
24-Hour	N.A.	7.03	7.03	7.65 (1)
Annual	0.183	0.254	0.07 (2)	0.1

Note:

1. A background concentration of 19.70 µg/m³ from the IS 52 monitoring Station (AQS Site ID 36-005-0110) 2020 was used to calculate the 24-hour *de minimis*.
2. Annual $PM_{2.5}$ concentration increment is the difference between the With-Action and No-Action increment concentrations.

Table 2.8-3 shows that the Proposed Actions incremental $PM_{2.5}$ concentration would not exceed the *CEQR Technical Manual de minimis* criteria. In addition, the total $PM_{2.5}$ concentration (increment plus background concentration) would not exceed the NAAQS. Therefore, no significant adverse air quality impact is predicted in the future with the Proposed Actions.

Conclusion

No significant adverse air quality impact was predicted in the refined mobile source HDDVs analysis for the most affected intersection. Therefore, there is no reason to believe that the project-increment traffic associated with the Proposed Actions would result in any potentially significant adverse mobile source air quality impact.

2.8.2 Stationary Sources

According to the *CEQR Technical Manual*, air quality analyses of stationary sources may be warranted if a project would (i) create new stationary sources of pollutants – such as emission stacks of industrial plants, hospitals, other large institutional uses, or even a building's boilers – that may affect surrounding uses; (ii) introduce certain new uses near existing or planned emissions stacks that may affect the use, or (iii) introduce structures near such stacks so that changes in the dispersion of emissions from the stacks may affect surrounding uses.

Analysis Framework

The Affected Area consists of Block 2577, Lots p/o 6, 7, 8, 9, 14, and p/o 20 in the Mott Haven neighborhood of Bronx, Community District 1 and contains two Projected Development Sites.

Under Future With-Action conditions, it is assumed that Projected Development Site 1 (Lots 9 and 14) would be developed with a single 174,709 GSF (138,413 ZSF, 6.94 FAR) mixed-use building with 100% lot coverage. The building would contain approximately 7,187 GSF (6,634 ZSF, 0.33 FAR) of community facility use, 10,258 GSF (7,602 ZSF, 0.38 FAR) of light industrial and manufacturing use, 4,526 GSF (3,301 ZSF, 0.17 FAR) of local retail and 30,730 GSF (25,597 ZSF,1.28 FAR) of office use (1.13 total commercial FAR), and 113,139 GSF (95,279 ZSF, 4.78 FAR) of residential use. An 8,869-SF below-grade parking lot would contain approximately 48 spaces.

The Reasonable Worst Case Development Scenario (RWCDS) building would be 11 stories tall and rise to 115 feet with a base height of 95 feet. The Proposed Development would be 10 stories tall and rise to 111 feet with a base height of 92 feet. The Proposed Development height of 111 ft was considered in the heat/hot water, ventilation, air conditioning (HVAC) system analysis.

Under Future With-Action conditions, it is assumed that Projected Development Site 2 (Lots 7 and 8) would be developed with a single 34,979 GSF (27,648 ZSF, 4.93 FAR) mixed-use building with 100% lot coverage. The building would contain approximately 13,121 GSF (12,020 ZSF, 2.14 FAR) of residential use and 16,253 GSF (15,628 ZSF, 2.79 FAR) of community facility use (potentially medical office). The 5,604-SF cellar would contain a parking lot with six parking spaces, mechanical rooms, and bike storage. The RWCDS building would be 11 stories tall and rise to 115 feet with a base height of 95 feet.

2.8.2.1 Heating and Hot Water Systems

Screening Assessment

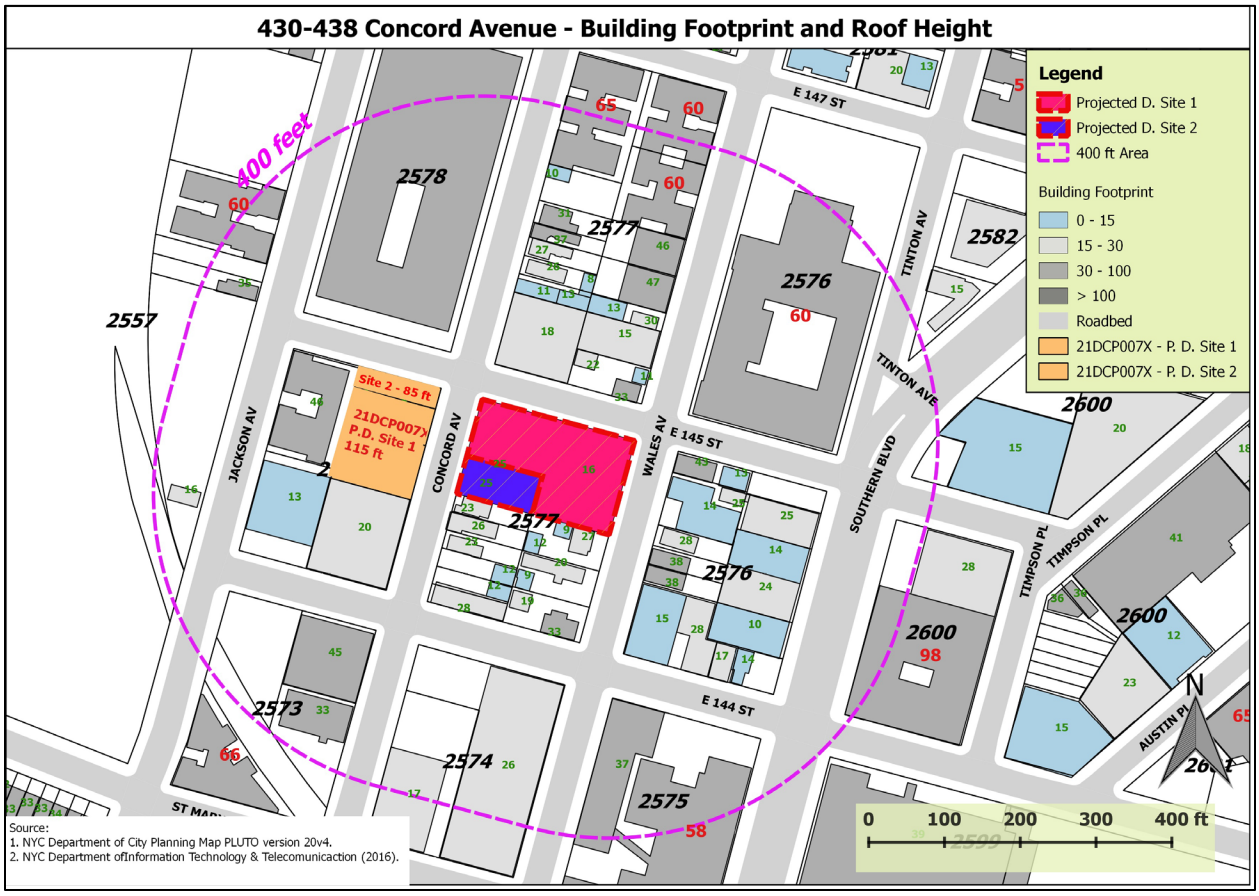
The potential for the heat and hot water system(s) to have a significant adverse impact on nearby receptors depends on the type of fuel that would be used by the HVAC system, the height of the stack venting the emissions, the distance to the nearest building of similar or greater height, and the building's use and the square footage of the development that would be served by the system, both of which effect the amount of fossil fuel consumed. The *2021 CEQR Technical Manual* screening assessment is based on these factors. In addition, the CEQR screening procedure is applicable to buildings that are not less than 30 feet from the nearest building of similar or greater height. A detailed analysis is required if the screening assessment fails.

The *2021 CEQR Technical Manual* Figure 17-3 nomograph was used for the screening assessment. This stationary source screen is a generic screen for heat and hot water systems. The nomograph depicts the size of the development versus the distance below which the potential impact can occur and provides a conservative estimate of the threshold distance. In addition, as screening analysis is only applicable to a single smokestack, for the purposes of a cumulative screening analysis emissions from multiple stacks were combined in a single stack situated as close as possible to the receiving building.

The roof heights of buildings in the area were obtained from the NYC Building Footprint database[11] or the New York City Department of Building (DOB) database for newly constructed buildings. Development Sites (not yet developed) associated with the CEQR action *431 Concord Avenue* (*CEQR # 21DCP007X*) were included in the analysis. **Figure 2.8-1** shows the Development Sites with a 400 feet area and buildings in the area with their roof height specified.

[11] City of New York, nyc-geo-metadata (May 03, 2016); https://data.cityofnewyork.us/Housing-Development/Building-Footprints/nqwf-w8eh

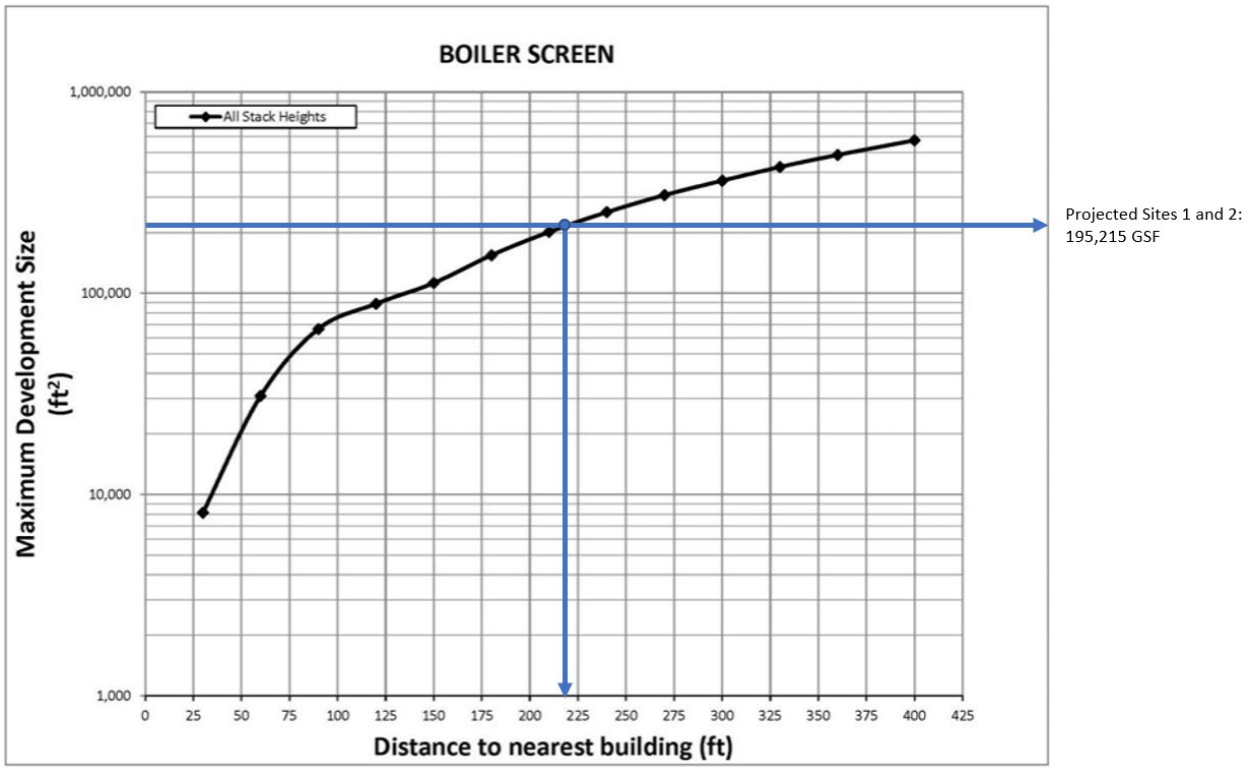
Figure 2.8-1: The project increment buildings, existing buildings footprint and roof heights, and not yet developed development sites associated with the CEQR action 431 Concord Avenue (CEQR #: 21DCP007X)



Project-on-Existing

For the project-on-existing screening analysis, the project increment buildings were analyzed as a single 195,215 GSF building, which is the floor area of Projected Development Site 1 and Projected Development Site 2 combined, excluding the parking facilities GSF. A height of 111 feet was assumed, which is the Projected Development Site 1 proposed building height, and the most conservative approach (applying the lowest project increment building). **Figure 2.8-2** (based on Figure 17-3 of the *CEQR Technical Manual*) shows the project-on-existing screening analysis.

Figure 2.8-2: Project-on-Existing Minimum Distance Screening Nomograph



As seen in **Figure 2.8-2**, the project increment buildings gsf, excluding their parking garage(s) floor area(s), intersects the curve for HVAC system(s) at a distance of 220 feet.

While there are no existing buildings similar or greater in height in the 400-foot area surrounding Projected Development Sites 1 and 2, there is a recently effectuated rezoning on the western side of Concord Avenue at 431 Concord Avenue (C 200274 ZMX, N 200275 ZRX, effective May 27, 2021). The Affected Area of this rezoning includes Block 2578, lots p/o 15, p/o 16, p/o 18. The known development induced by this rezoning would include a 11-story, 115-foot tall, 87,369 GSF (5.51 FAR) Quality Housing residential building on lots 16 and 18. The development facilitated by 431 Concord Avenue rezoning would be of similar or greater height and would be located 55 feet west of the Projected Development Sites. Therefore, a detailed analysis is required for this building.

Project-on-Project

Projected Development Site 1 (Proposed Development 111-foot-tall building) abuts Projected Development Site 2 (RWCDS 115-foot-tall building), and they are similar in height. Therefore, the screening analysis is not applicable, and detailed analysis is required for the Projected Development Site 1 on Projected Development Site 2 and vice versa scenarios.

Detailed Analysis

Lakes Environmental, Inc. MPI version 22112 executable was used in the AERMOD detailed analysis. The MPI executable takes advantage of computers with multiple processors, reducing run-time significantly. Lakes Environmental, Inc. adjusted the US EPA AERMOD source code and recompiled the model to parallelize the processing of receptors. The latest MPI executable (used in the analysis) modified EPA's AERMOD latest executable model version 22112. The AERMOD model incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of both surface and elevated sources, and both simple and complex terrain. The model was run with the regulatory default option, where applicable, and for with and without downwash effects options, where the Building Profile Input Program (BPIP) was run with the downwash effect enabled. All analyses were conducted using five consecutive years of meteorological data (2017-2021), obtained from the NYSDEC. Surface data used in the analysis is from LaGuardia Airport, and upper air data is from Brookhaven station, New York. The meteorological data provided hour-by-hour wind speeds and directions, stability states, and temperature inversion elevations over the 5-year period. Population in the Bronx County, obtained from the New York City Department of City Planning (DCP) 2020 annual report, was specified to account for the effects of increased surface heating from an urban area on pollutant dispersion under stable atmospheric conditions.

Natural gas would be the type of fossil fuel, if any, used in Projected Development Sites 1 and 2 HVAC systems. Projected Development Site 1 HVAC system will be equipped with 15 parts per million (ppm) low NOx burners and Projected Development Site 2 with 30 ppm low NOx burners. The pollutants of concern of natural gas-fueled boilers are NO_2 and $PM_{2.5}$. Each Projected Development Site HVAC system's total energy capacity was calculated based on the development gsf, excluding its parking garage gsf, and an energy consumption rate of 60.3 thousand Btu per gsf[12] (natural gas consumption rate of 59.1 ft^3 per gsf per year, using natural gas heating value of 1,020 Btu per ft^3). The NOx emission of the low-NOx hot water equipment was based on an emission factor for a 30-ppm burner obtained from the DCP. $PM_{2.5}$ emission rate was calculated based on emission factors published in the EPA AP-42 manual for external combustion sources (7.6 pounds per million square feet). All fuel was assumed to be consumed during the 100-day (or 2,400 hour) heating season. **Table 2.8-3** shows the project increment building's HVAC systems short-term and annual emission rates.

[12] Energy Information Administration (2022). "Table US1. Total Energy Consumption, Expenditures, and Intensities, 2005 Part 1: Housing Unit Characteristics and Energy Usage Indicators." *2005 Residential Energy Consumption Survey: Energy Consumption and Expenditures Tables.*

Table 2.8-3: Project increment buildings HVAC Systems Short-term and Annual Emission Rates

Site ID	Floor Area Served by the HVAC System (gsf), and Building Height (ft)	Boiler Specs.	Pollutant	Averaging Time	Emission Rate (g/s)
Projected Development Site 1	165,840 gsf; 111 ft	Natural Gas low-NOx (15 ppm)	NO_2	1-hour	9.56E-03
				Annual	2.62E-03
			$PM_{2.5}$	24-hour	3.91E-03
				Annual	1.07E-03
Projected Development Site 2	29,374 gsf; 115 ft	Natural Gas low NOx (30ppm)	NO_2	1-hour	3.38E-03
				Annual	9.27E-04
			$PM_{2.5}$	24-hour	6.93E-04
				Annual	1.90E-04

The boilers stacks' diameters and exit temperatures were estimated based on values obtained from the New York City Department of Environmental Protection (DEP) "CA Permit" database for the corresponding boiler sizes (i.e., rated heat input or million Btu per hour).[13] Boiler stacks were initially placed 3 feet above the roofline and as close as possible to the receiving building. A stack set back distance and/or raising the stack was specified if impact was predicted.

The Development Sites were modeled as buildings that cover their entire lot area(s) (wall façade placed on the outer lot line(s)) and raise to the heights shown in **Table 2.8-3**. Buildings in the surrounding area were accounted for in the downwash effect on plume dispersions (BPIP). Receptors on the receiving building(s) were placed on all wall façade from the ground floor to the rooftop height in spaced intervals. Over Projected Development Site 1 receptors were also placed in a grid above the rooftop. For the project-on-existing scenario, receptors were placed on the 115-foot-tall development associated with the 431 Concord Avenue Rezoning (CEQR # 21DCP007X) increment building, located at 431-439 Concord Avenue (Block 2578, Lots 16 and 18).

The U.S. Geological Service (USGS) National Elevation Dataset (NED) 1/3 arc-second resolution (GeoTIFF dataset) was used to process buildings' base elevations. The base elevations of receptors and stacks were set to their buildings' base elevations. Existing buildings in the area were accounted for in the model.

The project-on-existing 1-hour NO_2 concentration was predicted using a Tier 1 approach. The project-on-project 1-hour NO_2 concentration(s) was predicted using a Tier 2 approach, where the national default minimum and maximum NO_2/NOx ratios were applied. For determining compliance with the 1-hour NO_2 standard, the EPA has developed a three-tiered modeling approach. Tier 1 approach assumes a full conversion of NOx to NO_2, which is the most conservative approach. Tier 2 Ambient Ratio Method 2 (ARM 2) assumes ambient equilibrium between NO and NO_2. ARM 2 adjusts the modeled NOx concentrations based on an empirical

[13] DEP "CA Permit" database obtained from the New York City Department of City Planning, February 2020.

relationship between ambient NOx and ambient NO_2 concentrations. Tier 3, which is the most precise approach, accounts for the chemical transformation of NO emitted from the stack to NO_2 within the source plume using hourly ozone background concentrations.

NO_2 and SO_2 modeled concentrations were added to the background concentrations, and the results evaluated with the NAAQS. $PM_{2.5}$ modeled concentrations were evaluated with the *de minimis* for stationary source. The HVAC dispersions analysis results are shown in **Table 2.8-4**.

Table 2.8-4: HVAC Dispersion Analysis Results

Pollutant	Modeled Concentration ($\mu g/m^3$)	Background Concentration ($\mu g/m^3$)	Evaluated Concentration ($\mu g/m^3$)	Threshold Concentration ($\mu g/m^3$)	Standard
Project-on-Project: Projected Development Site 1 on Projected Development Site 2					
1-hour NO_2	74.12	110.54	184.7	188	NAAQS
Annual NO_2	0.68	31.8	33	100	NAAQS
24-hour $PM_{2.5}$	6.36	19.7	6.4	7.65	*de minimis*
Annual $PM_{2.5}$	0.28	7.3	0.28	0.3	*de minimis*
Project-on-Project: Projected Development Site 2 on Projected Development Site 1					
1-hour NO_2	68.82	110.54	179.4	188	NAAQS
Annual NO_2	0.90	31.8	33	100	NAAQS
24-hour $PM_{2.5}$	3.10	19.7	3.1	7.65	*de minimis*
Annual $PM_{2.5}$	0.18	7.3	0.18	0.3	*de minimis*
Project-on-Existing: Cumulative at the CEQR action 431 Concord Avenue (21DCP007X) associated development					
1-hour NO_2	38.61	110.54	149.2	188	NAAQS
Annual NO_2	0.29	31.8	32	100	NAAQS
24-hour $PM_{2.5}$	1.33	19.7	1.3	7.65	*de minimis*
Annual $PM_{2.5}$	0.07	7.3	0.07	0.3	*de minimis*

Conclusion

As seen in **Table 2.8-4**, NO_2 and SO_2 predicted concentrations are within the NAAQS and $PM_{2.5}$ concentrations do not exceed the *de minimis*. These results were predicted with certain restrictions to ensure that no impact would occur. The stacks' restrictions, specified in the E-Designation language below, is as follows:

(E) Designation (E-756)

<u>Block 2577, Lots 9 and 14 (Projected Development Site 1)</u>: Any new residential, commercial, community facility, or light industrial and manufacturing use development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating and air conditioning (HVAC) system and hot water equipment and must be fitted with low NOx (15 ppm) burners, ensure the HVAC system and hot water equipment stack is located at the building's highest level and at a minimum of 121 feet above grade, and that the stack is located

at least 145 feet from the western lot line of Block 2577, Lot 9 facing Concord Avenue to avoid any potential significant adverse air quality impacts.

Block 2577, Lots 7 and 8 (Projected Development Site 2): Any new residential or community facility development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating and air conditioning (HVAC) system and hot water equipment and must be fitted with low NOx (30 ppm) burners, ensure the HVAC system and hot water equipment stack is located at the building's highest level and at a minimum of 118 feet above grade, and that the stack is located at least 20 feet from the eastern lot line of Block 2577, Lot 8 facing Wales Avenue and at least 20 feet from the northern lot line of Block 2577, Lot 8 facing 145th Street to avoid any potential significant adverse air quality impacts.

With the above E-Designation in place, HVAC systems would not result in any violations of the ambient air quality standards. Therefore, there is no reason to believe that the Proposed Actions HVAC systems would potentially cause significant adverse air quality impacts, and further assessment is not warranted.

2.8.2.2 Industrial Emissions

Preliminary Screening

The Proposed Actions would introduce a sensitive land use into the area. Accordingly, a preliminary screening was conducted to determine if there are any potential sources of industrial process emissions that could affect project occupants. Industrial sources were identified through a site visit within a 400-foot study area and the DEP CATS and NYSDEC databases search.

400-Foot Study Area

The Affected Area is located within an M1-2 zoning district, and the surrounding area features predominantly manufacturing uses with a mix of community facility and residential uses as well as mixed commercial and residential buildings, transportation and utility uses, and vacant land.

The 400-foot radius was screened for potential sources of industrial emissions and is shown below in **Figure 2.8-3** and **Table 2.8-5**. The preliminary screening of the 400-foot study area included a review of NYC DEP and USEPA[14] Air Quality Permits issued within 400 feet of the Affected Area, as well as a field observation and desktop review to affirm the uses present at each site and identify any sites with the potential for unpermitted industrial process emissions.

As shown in **Table 2.8-5** and further discussed below, of the twenty-three (23) sites evaluated as part of the initial industrial source screening, six (6) sites were identified for detailed analysis.

[14] Sources of information reviewed included the USEPA's Envirofacts database[1], EPA, Envirofacts Data Warehouse, http://oaspub.epa.gov/enviro/ef_home2.air

Figure 2.8-3: 400-Foot Industrial Emissions Screening

Table 2.8-5: Industrial Screening - 400 Foot Study Area

Site ID	Block	Lot	Address	Owner Name	Land Use	Active Industrial Permits	Expired Industrial Permits	Active Permit Owners	Expired Permit Owners	Current Use	Notes
1	2577	27	452 Concord Ave	Saps Concord Realty Inc	Industrial & Manufacturing	Na	Na	Na	Na	Warehouse	Screens Out
2	2576	15	441 Southern Blvd	441-445 Southern Blvd. LLC	Industrial & Manufacturing	Na	Na	Na	Na	Digital Printing	Screens Out (see associated narrative for this site)
3	2576	17	431 Southern Blvd	Kyung H Park	Industrial & Manufacturing	Na	Na	Na	Na	Jewelry Wholesaler	Screens Out
4	2576	1	785 East 144 St	Finkwalk Special Opportunities LLC	Industrial & Manufacturing	Na	Na	Na	Na	Restaurant Supply Store	Screens Out
5	2576	25	791 East 144 St	543 P & S Management CP	Industrial & Manufacturing	Na	Na	Na	Na	D.S. Ironworks and Welding	Potential Emission Source
6	2600	1	430 Southern Blvd	430 Southern Boulevard LLC	Industrial & Manufacturing	Na	Na	Na	Na	K&B Furniture Inc.	Screens Out (see associated narrative for this site)
7	2600	28	450 Southern Blvd	Pino Realty	Industrial & Manufacturing	Na	Na	Na	Na	Corbel Communication	Screens Out
8	2599	35	828 East 144 St	Tri-State Industries, Corp	Industrial & Manufacturing	Na	PB006702	Na	Tri-State Industries	Foam products Inc., bakery, and Kosher grocery store	Screens Out (see associated narrative for this site)
9	2575	65	387 Southern Blvd	Hearst Communications, Inc.	Industrial & Manufacturing	Na	Na	Na	Na	Appears Vacant - Previously Occupied by Hearst Communications.	Screens Out
10	2573	91	391 Concord Ave	391 Concord Avenue, Inc.	Industrial & Manufacturing	Na	Na	Na	Na	Vacant	Screens Out
11	2578	1	420 Jackson Ave	Zero International Realty Company Inc	Industrial & Manufacturing	Na	Na	Na	Na	Warehouse	Screens Out
12	2578	21	415 Concord Ave	Zero International Realty Company Inc	Industrial & Manufacturing	Na	Na	Na	Na	ProMaster Security Gate and Doors; Legacy Manufacturing, Deltrex USA, Zero International Inc.	Potential Emission Source
13	2577	61	451 Wales Ave	Civic SB LLC	Transportation & Utility	Na	Na	Na	Na	J&RR Autorepair Center	Potential Emission Source
14	2576	8	436 Wales Ave	Yashar Partners Inc	Transportation & Utility	Na	Disapproved - PB012208	Na	Professional Auto Body Corp*	Professional Auto Body Corp./First Class Repairs Inc.	Potential Emission Source
15	2576	23	421 Southern Blvd	Ramos, Mauricio J	Transportation & Utility	Na	Na	Na	Na	W&B Auto Repair Inc	Screens Out (see associated narrative for this site)
16	2577	36	470 Concord Ave	Serra Juan	Parking Facilities	Na	Na	Na	Na	Fenced off parking (operating)	Screens Out
17	2557	60	449 Jackson Ave	Park Jackson LLC	Parking Facilities	Na	Na	Na	Na	Fenced off parking (operating)	Screens Out
18	2574	70	390 Concord Ave	Safeguard Chemical Corp	Commercial & Office Buildings	Na	Na	Na	Na	NCM USA	Screens Out (see associated narrative for this site)
19	2576	21	427 Southern Blvd	A.M.M. Realty LTD.	Parking Facilities	Na	Na	Na	Na	Garbage Collection Service	Screens Out
20	2577	31	458 Concord Ave	Acevedo, Moises	Transportation & Utility	Na	Na	Na	Na	Auto Body	Potential Emission Source
21	2576	14	445 Southern Blvd	441-445 Southern Blvd. LLC	Transportation & Utility	Na	Na	Na	Na	Fenced off parking (operating)	Screens Out
22	2578	15	441 Concord Ave	Concord Avenue Realty, LLC	Transportation & Utility	Na	Na	Na	Na	Diallo Auto Repair	Screens Out (see associated narrative for this site)
23	2582	1	457 Southern Blvd	Jeremiaz Cortez Rubys Car Care, LLC	Transportation & Utility	Na	Na	Na	Na	Auto Parts/Auto Repair Facility	Potential Emission Source

Site ID corresponds to **Figure 2.8-3** above

- *Site 2: 441 Southern Boulevard – Block 2576, Lot 15*

  Site 2 is occupied by Spectral Masters Digital Imaging, Inc. According to the company's website, printing is done with Epson 9900 Inkjet Printer, which is a low-emission inkjet printer. As such, the facility was screened out.

- *Site 5: 791 East 144th Street – Block 2576, Lot 25*

  Site 5, which is occupied by D.S. Iron Works & Welding, operates approximately 180 feet southeast of the Affected Area. There are no active or expired industrial air quality permits at this location. DS Iron Works and Welding specializes in welding and wrought iron works. Accordingly, further analysis of this site is warranted.

- *Site 6: 430 Southern Boulevard – Block 2600, Lot 1*

  Site 6 is occupied by K&B Furniture Inc., and operates approximately 372 feet east of the Affected Area. There are no active or expired industrial air quality permits at this location. This facility is a wholesaler and warehouse, and does not manufacture furniture on-site. Accordingly, no further analysis of this site is warranted.

- *Site 8: 828 East 144th Street – Block 2599, Lot 35*

  Site 8 is occupied by Foam Products Inc. a foam distributer, as well as a bakery and a Kosher grocery store. The Site has a NYC DEP processing permit for a generator (permit ID PA006702). Permit PA006702, registered owner Lucky Polyethylene Manufacturing Co. Inc., expired in 2008. However, as per NYC DEP guidelines, the emission source was evaluated further as the permit could be renewed. PA006702 shows that the generator is associated with 2 emission points (stacks). The Site Plans (see **Appendix E**) show that the stacks are located close to the northwest corner of the building, and the stacks can also be seen in Google Street View. As such, the stacks are approximately 500 feet from the nearest Projected Development Site (Projected Development Site 1), and outside the 400-foot study area. Therefore, no further analysis of this site is warranted.

- *Site 12: 415 Concord Avenue – Block 2578, Lot 21*

  Site 12 is occupied by ProMaster Security Gate and Doors, Legacy Manufacturing, Deltrex USA, and Zero International Inc. Of these facilities, ProMaster Security Gate and Doors and Legacy Manufacturing were identified as likely ironworks facilities. Accordingly, further analysis of this site is warranted.

- *Site 13: 451 Wales Avenue – Block 2577, Lot 61*

  Site 13 is occupied by J&RR Autorepair Center and operates approximately 100 feet north of the Affected Area. There are no active or expired industrial air quality permits at this location. However, upon further investigation of this facility, Equity discovered they

advertise onsite painting. Accordingly, further analysis of this site is warranted and assumed emissions from the site will be from an auto paint spray booth.

- *Site 14: 436 Wales Avenue – Block 2576, Lot 8*

  Site 14 is occupied by Professional Auto Body Corp./First Class Auto Repairs Inc. and is located approximately 90 feet east of the Affected Area. An application was submitted by Professional Auto Body Corp on 12/20/2019 under permit ID PB012208 for an Autobody Spraybooth. The Application was disapproved. However, the facility has an expired DEP permit PB012208 (expiration 9/15/2017) registered to First Class Auto Collision Center for an auto spray area. Accordingly, further analysis of this site is warranted.

- *Site 15: 421 Southern Boulevard – Block 2576, Lot 23*

  Site 15 is occupied by W&B Auto Repair Inc., located approximately 270 feet southeast of the Affected Area. There are no active or expired industrial air quality permits at this location. The facility was contacted on October 14th, 2022 by phone, and indicated that W&B does not have a spray booth. Clients are referred off-site to an alternative location if auto-spraying is required. Accordingly, no further analysis of this site is warranted.

- *Site 18: 390 Concord Avenue – Block 2574, Lot 70*

  The facility is occupied by NCM-USA. According to the company's website, the facility is a state-of-the-art radiopharmaceutical manufacturing facility, and commercial radiopharmacy. The business has an NYSDEC permit (Permit No. 2-6007-0089/00001). According to the facility Annual Emission Report (see attached document), referenced in the NYSDEC DECinfo Locater database, the facility monitors the radiation in the exhaust stream. The Annual Emission Report also includes dosimetry (a device that records the radiation dose received) data for the roof space. In addition and according to the facility Annual Emission Report, the facility operates well within the permit limit.

  The New York City Department of City Planning, the lead agency for this project, is contacted for guidance on the air quality analysis for this facility with this application.

- *Site 20: 458 Concord Avenue – Block 2577, Lot 31*

  Site 20 is occupied by an Auto Body/General Mechanic facility and operates approximately 150 feet north of the Affected Area. There are no active or expired industrial air quality permits at this location. However, upon further investigation of this facility, Equity discovered they advertise onsite painting. Accordingly, further analysis of this site is warranted and assumed emissions from the site will be from an auto paint spray booth.

- *Site 22: 441 Concord Avenue – Block 2578, Lot 15*

Site 22 is occupied by Diallo Auto Repair, located approximately 60 feet west of the Affected Area. There are no active or expired industrial air quality permits at this location. The facility was contacted on October 14th, 2022 by phone, and indicated that they do not have a spray booth. Accordingly, no further analysis of this site is warranted.

- *Site 23: 457 Southern Boulevard – Block 2582, Lot 1*

  Site 23 is occupied by Cortez Car Auto Parts/Auto Repair and operates approximately 155 feet north of the Affected Area. There are no active or expired industrial air quality permits at this location. However, upon further investigation of this facility, Equity discovered they advertise onsite painting. Accordingly, further analysis of this site is warranted and assumed emissions from the site will be from an auto paint spray booth.

1,000-Foot Study Area

A search of the EPA Envirofacts ICIS-AIR database and the Toxics Release Inventory (TRI) was conducted for all parcels within the 400 and 1000-foot Study Area. The Envirofacts ICIS Air Database contains compliance and permit data for stationary sources of air pollution (such as electric power plants, steel mills, factories, and universities) regulated by EPA, state and local air pollution agencies. The Toxics Release Inventory (TRI) is a publicly available database containing information on toxic chemical releases and other waste management activities in the United States.

The search did not identify any large or major sources of industrial emissions or odor-producing facilities within 1,000 feet of the Affected Area. As such, no further analysis of large or major emissions sources is warranted.

Industrial Source - Detailed Analysis

Professional Auto Body Corp./First Class Auto Repairs Inc. – Emission Profile

The Professional Auto Body Corp./First Class Auto Repairs Inc. auto body repair facility is located within 400 feet of the Development Sites. The facility has an expired DEP permit PB012208 for auto body refinishing. Emission from spray-painting processing comprises of particulate and solvents, which are volatile organic compounds (VOCs). The particulate (solids) binds to the sprayed article, giving it the desired look and color. However, some amount of the sprayed solids is over-sprayed and could be emitted to the outside air. VOCs evaporate during the spraying and while the coating substance dries. Permit PB012208 included the particulate (New York identification number NY079-00-0) and VOC (Mew York identification number NY998-00-0) 1-hour and annual emissions. **Table 2.8-6** shows the Professional Auto Body Corp./First Class Auto Repairs Inc. particulates and VOC emissions, and hour per day activities.

Table 2.8-6: Professional Auto Body Corp./First Class Auto Repairs Inc. particulates and VOC emissions specified in DEP permit PB012208

Particulate (NY079-00-0)		VOC (NY998-00-0)		Activity Rate
(lb/hr)	(lb/yr)	(lb/hr)	(lb/yr)	
0.013	23.4	0.124	223.2	8 (hr/day), 250 (day/yr)

Particulate emissions shown in **Table 2.8-6** include PM, PM_{10} and $PM_{2.5}$ combined. The particle size distribution ($PM_{10}/PM_{2.5}$) from the spray-painting processing emission was obtained from the EPA *AP-42 Manual Appendix B.1-12, Automobile and Light-Duty Truck Surface Coating Operations: Automobile Spray Booths (Water-Base Enamel)*. In addition, the facility hour par day activity was used to calculate the 24-hour average emission. **Table 2.8-7** shows the Professional Auto Body Corp./First Class Auto Repairs Inc. short-term and annual particulate emissions.

Table 2.8-7: Professional Auto Body Corp./First Class Auto Repairs Inc. $PM_{2.5}$ and PM_{10} Emissions

Process Activity	$PM_{2.5}$			PM_{10}	
	(lb/hr)	(lb/day)	(lb/yr)	(lb/hr)	(lb/day)
Auto body spray painting	0.0037	0.030	6.7	0.0061	0.049

Material safety data sheets (MSDSs) of basecoat, primer, clearcoat, and clearcoat hardener, included in the DEP permit PB012208 were used to derive the chemicals that make up the VOCs group. The clearcoat to hardener mixing ratio of 4 parts to 1 part, respectively, based on clearcoat 5185 – Original Klearkote 4.4 VOC Safety Data Sheet, was used to calculate the as applied clearcoat chemical composition by percent weight. For analysis purposes, it was assumed that each chemical is emitted at its maximum potential regardless of the coating compound sprayed. This approach results in a combined chemical percent weight that exceeds 100 percent (conservative approach). **Table 2.8-8** shows the Professional Auto Body Corp./First Class Auto Repairs Inc. chemicals that make up the VOC emission.

Table 2.8-8: Professional Auto Body Corp./First Class Auto Repairs Inc. VOCs Emissions

Chemical	CAS No.	Percent Weight	Emission	
			(lb/hr)	(lb/yr)
Isopropyl Alcohol	67-63-0	10.0%	0.0124	22.3
Acetone	67-64-1	18.0%	0.0223	40.1
N-Butyl Alcohol	71-36-3	5.0%	0.0062	11.2
Pseudocumene	95-63-6	0.6%	0.0007	1.3
Ethylbenzene	100-41-4	10.0%	0.0124	22.3
Styrene Monomer	100-42-5	0.2%	0.0002	0.4
Propyleneglycol Monomethyl Ether Acetate	108-65-6	5.0%	0.0062	11.2
Toluene	108-88-3	30.0%	0.0372	67.0
Isobutyl Acetate	110-19-0	20.0%	0.0248	44.6
Methyl n-amyl ketone	110-43-0	12.9%	0.0160	28.7
Butyl Acetate	123-86-4	30.0%	0.0372	67.0
Limestone	471-34-1	5.0%	0.0062	11.2
Hexamethylene diisocyanate	822-06-0	0.2%	0.0002	0.4
Xylene	1330-20-7	20.0%	0.0248	44.6
Carbon black	1333-86-4	2.0%	0.0025	4.5
Titnium dioxide	13463-67-7	10.0%	0.0124	22.3
Talc	14807-96-6	35.0%	0.0434	78.1
2-(2-hydroxy-3,5-di-(tert)-amylphenyl) benzotriazole	25973-55-1	8.0%	0.0099	17.9
Hexamethylene diisocyanate polymer	28182-81-2	7.0%	0.0087	15.6
Isocyanate polymer	53880-05-0	5.0%	0.0062	11.2
Light aromatic petroleum solvent	64742-95-6	2.0%	0.0025	4.5
Acrylic resin	---	20.0%	0.0248	44.6
	Total	**256%**	**0.317**	**571**

As seen in **Table 2.8-8**, the VOC percent weight sums to 256 percent, yielding more than double the hourly and annual emission rates specified in the DEP permit PB012208.

Auto Body Facilities Operating with no DEP/NYSDEC Permit – Emission Profile

The J&R.R Auto Repair Center, Auto Body & General Mechanic, and Cortez Car Auto Parts / Auto Repair auto body repair facilities, located within 400 feet of the Development Sites, operate with no DEP or NYSDEC permit. As previously mentioned, emission from spray-painting processing comprises of particulate and solvents. Particulate and VOC emissions of the facility operating with no NYSDEC or DEP permit were based on coating compound consumption rate of 0.125 gallon per hour during 4 hour per day activity, based on the New York City Department of City Planning (DCP) guidance on similar project analysis, and a maximum of 55 gallon per year consumption rate, which is the maximum allowable usage of facilities operating with no Air Facility Registration Certificate with the NYSDEC (a facility is required to obtain a permit from the

NYSDEC to spray more than 55 gallon per year). **Table 2.8-9** shows the facilities' emission profile and hour per day activities.

Table 2.8-9: J&R.R Auto Repair Center, Auto Body & General Mechanic, and Cortez Car Auto Parts / Auto Repair particulates and VOC emissions

Facility	Particulate		VOC		Activity Rate
	(lb/hr)	(lb/yr)	(lb/hr)	(lb/yr)	
J&R.R Auto Repair Center	0.081	35.8	0.775	341	4 (hr/day), 250 (day/yr)
Auto Body & General Mechanic	0.081	35.8	0.775	341	4 (hr/day), 250 (day/yr)
Cortez Car Auto Parts / Auto Repair	0.081	35.8	0.775	341	4 (hr/day), 250 (day/yr)

Particulate emissions shown in **Table 2.8-9** include PM, PM_{10} and $PM_{2.5}$ combined. The particle size distribution ($PM_{10}/PM_{2.5}$) from the spray-painting processing emission was obtained from the EPA *AP-42 Manual Appendix B.1-12, Automobile and Light-Duty Truck Surface Coating Operations: Automobile Spray Booths (Water-Base Enamel)*. In addition, the facility hour par day activity was used to calculate the 24-hour average emission. **Table 2.8-10** shows the J&R.R Auto Repair Center, Auto Body & General Mechanic, and Cortez Car Auto Parts / Auto Repair short-term and annual particulate emissions.

Table 2.8-10: J&R.R Auto Repair Center, Auto Body & General Mechanic, and Cortez Car Auto Parts / Auto Repair $PM_{2.5}$ and PM_{10} Emissions

Process Activity	$PM_{2.5}$			PM_{10}	
	(lb/hr)	(lb/day)	(lb/yr)	(lb/hr)	(lb/day)
J&R.R Auto Repair Center	0.0232	0.093	10.2	0.038	0.151
Auto Body & General Mechanic	0.0232	0.093	10.2	0.038	0.151
Cortez Car Auto Parts / Auto Repair	0.0232	0.093	10.2	0.038	0.151

The chemicals that make up the VOCs group by percent weight were derived from the DEP permit PW001217. The DEP permit PW001217, registered to Alex's Auto Body, is a comprehensive DEP certificate that includes paint, clearcoats, reducer, and thinner (as applied coating compound). **Table 2.8-11** shows the J & R.R Auto Repair Center, Auto Body & General Mechanic, and Cortez Car Auto Parts / Auto Repair chemicals that make up the VOC emission.

Table 2.8-11: J&R.R Auto Repair Center, Auto Body & General Mechanic, and Cortez Car Auto Parts / Auto Repair VOCs Emissions

Chemical	CAS No.	J&R.R Auto Repair Center		Auto Body & General Mechanic		Cortez Car Auto Parts / Auto Repair	
		(lb/hr)	(lb/yr)	(lb/hr)	(lb/yr)	(lb/hr)	(lb/yr)
Isopropyl Alcohol	67-63-0	0.0111	4.5	0.0111	4.5	0.0111	4.5
Acetone	67-64-1	0.1313	57.9	0.1313	57.9	0.1313	57.9
Butanone	78-93-3	0.0481	20.8	0.0481	20.8	0.0481	20.8
Benyzl Butyl Phthalate	85-68-7	0.0055	2.7	0.0055	2.7	0.0055	2.7
Ethylbezene	100-41-4	0.0055	2.1	0.0055	2.1	0.0055	2.1
4-Methylpentan	108-10-1	0.0037	1.5	0.0037	1.5	0.0037	1.5
2-Methoxy-1-Methylethyl Acetate	108-65-6	0.0277	12.4	0.0277	12.4	0.0277	12.4
Methylcyclohexane	108-87-2	0.0166	7.2	0.0166	7.2	0.0166	7.2
Toluene	108-88-3	0.0980	43.5	0.0980	43.5	0.0980	43.5
Isopropyl Acetate	110-19-0	0.0203	9.1	0.0203	9.1	0.0203	9.1
Heptan-2-one	110-43-0	0.0018	0.6	0.0018	0.6	0.0018	0.6
N-Butyl Acetate	123-86-4	0.2811	123.7	0.2811	123.7	0.2811	123.7
Heptane	142-82-5	0.0481	21.1	0.0481	21.1	0.0481	21.1
Ethyl 3-Ethoxypropionate	763-69-9	0.0092	4.2	0.0092	4.2	0.0092	4.2
Xylenes	1330-20-7	0.0277	12.7	0.0277	12.7	0.0277	12.7
Ligroine	8032-32-4	0.0277	12.4	0.0277	12.4	0.0277	12.4
2-(2H-Benzotriazol-2-yl)-4,6-Ditertpentylphenol	25973-55-1	0.0037	1.5	0.0037	1.5	0.0037	1.5
Solvent Naphtha	64742-89-8	0.0074	3.0	0.0074	3.0	0.0074	3.0

Ironworks Facilities – Emission Profile

ProMaster Security Gate and Doors and Legacy Manufacturing, located at Site 12, and D.S. Iron Works & Welding, located at Site 5, were identified as ironworks facilities. The facilities have no DEP permits; therefore, emission was based on the Kendi Iron Works' DEP permit PB39705 (0.002 pounds per hour during 8-hour activity per day, 4 pounds per year). This DEP permit is for 4

stations of welding and metal fabrication. The contaminant associated with the operation is total particulate, with the New York State identification number NY149-00-0, which is particulate. According to the EPA AP-42 manual, most of the particulate matter produced by welding is submicron in size and, as such, all particulate was considered to be $PM_{2.5}$. **Table 2.8-12** shows the ProMaster Security Gate, Doors and Legacy Manufacturing, and D.S. Iron Works & Welding short-term and annual particulate emissions.

Table 2.8-12: ProMaster Security Gate, Doors and Legacy Manufacturing, and D.S. Iron Works & Welding $PM_{2.5}$ Emissions

Process Activity	$PM_{2.5}$		
	(lb/hr)	(lb/day)	(lb/yr)
ProMaster Security Gate	0.002	0.016	4.0
Doors and Legacy Manufacturing	0.002	0.016	4.0
Iron Works & Welding	0.002	0.016	4.0

Air Dispersion Analysis

AERMOD was used to predict the VOC chemicals concentrations emitted from the Professional Auto Body Corp./First Class Auto Repairs Inc. spray booth. The spray booth stack location, visible in satellite imagery, was included in the DEP permit PB012208 (approximately 135 feet from Projected Development Site 1). The stack was placed 3 feet above the roof and the *CEQR Technical Manual* default stack diameter and exit velocity were specified in the AERMOD model. The stack exit temperature was included in the DEP permit. Receptors around the Projected Development Sites were placed from ground floor to rooftop height in spaced intervals. A generic emission rate of 1 gram per second was specified in the model, and the maximum between the no/with downwash effect options output concentrations (1-hour or annual) were multiplied by the actual emission. The AERMOD model and other model inputs are discussed in the HVAC detailed analysis.

The *2021 CEQR Technical Manual* Industrial Source Screen methodology was used to predict all other pollutants concentrations. The *CEQR Technical Manual* Industrial Source Screen methodology can be used to predict pollutant concentration emitted from a single source at various distances (from 30 to 400 feet) and at different averaging times (1-hour, 3-hour, 8-hour, 24-hour, and annual averaging times). The distance between each facility and the nearest Development Site to the facility was used in the screening analysis, except the Professional Auto Body Corp./First Class Auto Repairs Inc. spray booth stack (location specified in the DEP permit PB012208).

Cumulative concentrations of pollutants emitted from multiple facilities were predicted by adding the concentration from each facility. The criteria pollutants dispersion analysis results are presented in **Table 2.8-13**.

Table 2.8-13: Criteria pollutants cumulative dispersion analysis results

Criteria Pollutant	Threshold Standard	Modeled Concentration ($\mu g/m^3$)	Background Concentration ($\mu g/m^3$)	Ambient Concentration ($\mu g/m^3$)	Threshold Criteria ($\mu g/m^3$)
$PM_{2.5}$ 24-Hour	NAAQS	5.09	19.7	24.8	35
$PM_{2.5}$ Annual	NAAQS	0.28	7.3	7.6	12
PM_{10} 24-Hour	NAAQS	6.5	31	38	150

As seen in **Table 2.8-13**, $PM_{2.5}$ and PM_{10} concentrations are within the NAAQS.

Table 2.8-14 shows the cumulative VOC air dispersion analysis results.

As seen in **Table 2.8-14**, the noncriteria pollutants concentrations are within the SGC/AGC standard. In addition, the cumulative inhalation cancer risk for the HAPs and the other carcinogenic contaminant is 0.15 (less than 10), and the multi contaminant Hazardous Index is 0.08 (less than 2) for the non-carcinogenic pollutants. Therefore, no adverse air quality impact is predicted at the project increment buildings from existing industrial source emissions in the study area.

Table 2.8-14: Noncriteria pollutants cumulative dispersion analysis result

Contaminant	CAS No.	1-Hour (μg/m³)		Annual (μg/m³)	
		Conc. (2)	SGC	Conc. (2)	AGC
Isopropyl Alcohol	67-63-0	34.3	98000.0	0.09	7000.0
Acetone	67-64-1	346.2	180000.0	0.85	30000.0
N-Butyl Alcohol	71-36-3	3.0	---	0.01	1500.0
Butanone	78-93-3	122.8	13000.0	0.29	5000.0
Benyzl Butyl Phthalate (2)	85-68-7	14.2	---	0.04	0.42
Pseudocumene	95-63-6	0.3	---	0.002	60.0
Ethylbenzene (1)	100-41-4	20.1	---	0.06	1000.0
Styrene Monomer (1)	100-42-5	0.1	17000.0	0.001	1000.0
4-Methylpentan (1)	108-10-1	9.4	31000.0	0.02	3000.0
2-Methoxy-1-Methylethyl Acetate	108-65-6	73.9	36850.0	0.19	2000.0
Methylcyclohexane	108-87-2	42.5	---	0.10	3800.0
Toluene (1)	108-88-3	268.3	37000.0	0.69	5000.0
Isopropyl Acetate	110-19-0	63.9	71300.0	0.18	565.0
Heptan-2-one	110-43-0	12.4	---	0.05	550.0
N-Butyl Acetate	123-86-4	736.1	71300.0	1.80	565.0
Heptane	142-82-5	122.8	210000.0	0.29	3900.0
Limestone	471-34-1	3.0	---	0.01	---
Ethyl 3-Ethoxypropionate (1)	763-69-9	23.6	140.0	0.06	64.0
Hexamethylene diisocyanate (1)	822-06-0	0.12	0.30	0.001	0.010
Xylene (1)	1330-20-7	82.8	22000.0	0.23	100.0
Carbon black	1333-86-4	1.2	---	0.01	7.0
Ligroine	8032-32-4	70.9	---	0.17	900.0
Titanium dioxide	13463-67-7	6.0	---	0.03	24.0
Talc	14807-96-6	20.9	---	0.10	4.8
2-(2-hydroxy-3,5-di-(tert)-amylphenyl) benzotriazole	25973-55-1	14.2	---	0.04	---
Hexamethylene diisocyanate	28182-81-2	4.2	4.5	0.02	0.40
Isocyanate polymer	53880-05-0	3.0	---	0.01	---
Solvent Naphtha	64742-89-8	18.9	---	0.04	3200.0
Light aromatic petroleum solvent	64742-95-6	1.2	---	0.01	100.0
Acrylic resin	---	11.9	---	0.06	---

Note:
1. Indicates a HAP
2. Indicates an AGC equivalent to one in a million excess cancer risk.
3. Cumulative concentration is the sum of concentrations from emission at each facility.

Conclusion

As indicated above no significant adverse air quality impact was predicted from existing industrial sources in the area. In addition, no large industrial emission sources were identified within the 1,000-foot Study Area. Therefore, there does not appear to be any potentially significant impact associated with existing air toxics on project occupants. Based on the analysis above, conditions associated with the Proposed Actions HVAC systems would not result in any violations of the ambient air quality standards. To ensure that no impact would occur, an E-Designation with stack height restrictions should be placed on Projected Development Sites 1 and 2 as outlined below. As 3,874 GSF of light industrial use is proposed on the cellar and first floor levels of Projected Development Site 1, to preclude the potential for adverse air quality impacts on the residential, community facility and commercial uses in the same building or the existing sensitive receptors within 400 feet from the Projected Development Site 1, an E-Designation should be placed on Projected Development Sites 1 as follows:

(E) Designation (E-756)

Block 2577, Lots 9 and 14 (Projected Development Site 1):

To preclude any potential significant adverse air quality impacts from light industrial uses, special features that go beyond the normal construction practices must be installed at this site.

a. **A licensed architect or engineer must certify with the Department of Buildings, and provide proof of filing to OER, that the manufacturing use on the above-referenced property will adhere to the following restrictions:**

   (i) The manufacturing use in the building does not have a New York City or New York State environmental rating of "A", "B" or "C" under Section 24–153 of the New York City Administrative Code for any process equipment requiring a New York City Department of Environmental Protection C of O or New York State Department of Environmental Conservation state facility air permit; and

   (ii) is not required, under the City Right-to-Know Law, to file a Risk Management Plan for Extremely Hazardous Substances.

b. **The emission stack of the proposed light industrial/manufacturing uses developed pursuant to Section 74-962 of the Zoning Resolution of the City of New York must be located at the building's highest tier and at least 123 feet above grade.**

c. **Install an odor/vapor barrier and a modified mechanical ventilation system.**

   (i) The mechanical ventilation prevention system will be comprised of a mechanical ventilation system designed to operate in parallel and separate from the mechanical ventilation system of the residential, community facility and commercial uses, providing fresh air to, and exhaust from, the light industrial floors (cellar and first floors), with vents running above the roof line of the highest floor.

(ii) An odor/vapor barrier will be installed at the structural slab and/or partition walls separating the manufacturing and residential/community facility/commercial spaces eliminating vapor exchange across interior partitions.

Any other permitted processes must provide an air quality analysis to OER in order to demonstrate that such process would not cause a significant adverse air quality impact.

Block 2577, Lots 7 and 8 (Projected Development Site 2):

Any new residential or community facility development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating and air conditioning (HVAC) system and hot water equipment and must be fitted with low NOx (30 ppm) burners, ensure the HVAC system and hot water equipment stack is located at the building's highest level and at a minimum of 118 feet above grade, and that the stack is located at least 20 feet from the eastern lot line of Block 2577, Lot 8 facing Wales Avenue and at least 20 feet from the northern lot line of Block 2577, Lot 8 facing 145th Street to avoid any potential significant adverse air quality impacts.

2.9 Noise

2.9.1 Introduction

Equity Environmental Engineering, LLC (Equity) conducted Noise Monitoring in support of the Proposed Actions. The Proposed Actions would allow noise-sensitive development in an area where vehicular traffic is the predominant source of noise. Therefore, the Proposed Actions warrant an assessment of the potential for adverse effects on project occupants from ambient noise. The Affected Area is surrounded by East 145th Street to the north, Wales Avenue to the east, East 144th Street to the South, and Concord Avenue to the West.

East 145th Street is a two-way east-west bound street with one moving lane in each direction and curbside parking. Concord Avenue is a two-way north-south bound street with one moving lane in each direction and curbside parking. East 144th Street is a two-way east-west bound street with one moving lane in each direction and curbside parking. Wales avenue is a two-way north-south bound street with one moving lane in each direction and curbside parking. Local intersections are controlled by stop signs and traffic signals.

The Projected Developments would not create a significant stationary noise generator. However, project-generated traffic would double existing vehicular traffic on nearby roadways. Therefore, the noise assessment presented in this chapter consists of three parts:

- A Preliminary Noise Passenger Car Equivalent (PCE) Screening Analysis to determine whether project-generated traffic will increase existing Noise PCEs on adjacent roadways by greater than 100%.
- A Detailed Noise Passenger Car Equivalent Analysis to determine the potential impacts on surrounding noise-sensitive receptors due to project-generated traffic, and to determine future with-action noise levels inclusive of project-generated traffic.
- A determination of the level of attenuation necessary to ensure that interior noise levels satisfy City Environmental Quality Review (CEQR) requirements.

2.9.2 Framework of Noise Analysis

Noise is defined as any unwanted sound, and sound is defined as any pressure variation that the human ear can detect. Humans can detect a large range of sound pressures, from 20 to 20 million micropascals, but only those air pressure variations occurring within a particular set of frequencies are experienced as sound. Air pressure changes that occur between 20 and 20,000 times a second, stated as units of Hertz (Hz), are registered as sound.

Because the human ear can detect such a wide range of sound pressures, sound pressure is converted to sound pressure level (SPL), which is measured in units called decibels (dB). The decibel is a relative measure of the sound pressure with respect to a standardized reference quantity. Because the dB scale is logarithmic, a relative increase of 10 dB represents acoustic energy that is 10 times higher. However, humans do not perceive a 10-dB increase as 10 times louder. Instead, they perceive it as twice as loud.

Sound is often measured and described in terms of its overall energy, taking all frequencies into account. However, the human hearing process is not the same at all frequencies. Humans are less sensitive to low frequencies (less than 250 Hz) than mid-frequencies (500 Hz to 1,000 Hz) and are most sensitive to frequencies in the 1,000- to 5,000-Hz range. Therefore, noise measurements are often adjusted, or weighted, as a function of frequency to account for human perception and sensitivities. The most common frequency weightings used are the A- and C-weightings. These weight scales were developed to allow sound level meters, which use filter networks to approximate the characteristic of the human hearing mechanism, to simulate the frequency sensitivity of human hearing. The A-weighting is the most commonly used for environmental measurements, and sound levels measured using this weighting are denoted as dBA. The letter "A" indicates that the sound has been filtered to reduce the strength of very low and very high frequency sounds, much as the human ear does. C-weighting gives nearly equal emphasis to sounds of most frequencies. Mid-range frequencies approximate the actual (unweighted) sound level, while the very low and very high frequency bands are significantly affected by C-weighting. **Table 2.9-1** notes the decibel levels of common noise sources.

Table 2.9-1: Noise Levels of Common Sources

Sound Source	SPL (dB(A))
Air Raid Siren at 50 feet	120
Maximum Levels at Rock Concerts (Rear Seats)	110
On Platform by Passing Subway Train	100
On Sidewalk by Passing Heavy Truck or Bus	90
On Sidewalk by Typical Highway	80
On Sidewalk by Passing Automobiles with Mufflers	70
Typical Urban Area	60-70
Typical Suburban Area	50-60
Quiet Suburban Area at Night	40-50
Typical Rural Area at Night	30-40
Isolated Broadcast Studio	20
Audiometric (Hearing Testing) Booth	10
Threshold of Hearing	0
Notes: A change in 3dB(A) is a just noticeable change in SPL. A change in 10 dB(A)Is perceived as a doubling or halving in SPL.	
Source: 2021 CEQR Technical Manual	

The following is typical of human response to relative changes in noise level:

- 3-dBA change is the threshold of change detectable by the human ear;
- 5-dBA change is readily noticeable; and
- 10-dBA change is perceived as a doubling or halving of the noise level.

The SPL that humans experience typically varies from moment to moment. Therefore, various descriptors are used to evaluate noise levels over time. Some typical descriptors are defined below.

- L_{eq} is the continuous equivalent sound level. The sound energy from the fluctuating SPLs is averaged over time to create a single number to describe the mean energy, or intensity level. High noise levels during a measurement period will have a greater effect on the L_{eq} than low noise levels. L_{eq} has an advantage over other descriptors because L_{eq} values from various noise sources can be added and subtracted to determine cumulative noise levels.
- $L_{eq(24)}$ is the continuous equivalent sound level over a 24-hour time period.
- L_{max} is the highest SPL measured during a given period of time. It is useful in evaluating L_{eqs} for time periods that have an especially wide range of noise levels.
- L_{dn} is the day-night equivalent sound level, defined as a 24-hour continuous Leq with a 10 dB adjustment added to all hourly noise levels recorded between the hours of 10 PM and 7 AM. This 10 dB addition accounts for the extra sensitivity people have to noise during typical sleeping hours.
- DNL is the annual average day-night average sound level. Aircraft noise around airports is usually mapped out in terms of DNL, which are normally depicted as noise contours on a map.

The sound level exceeded during a given percentage of a measurement period is the percentile-exceeded sound level (L_X). Examples include L_{10}, L_{50}, and L_{90}. L_{10} is the A-weighted sound level that is exceeded 10% of the measurement period.

The decrease in sound level caused by the distance from any single noise source normally follows the inverse square law (i.e., the SPL changes in inverse proportion to the square of the distance from the sound source). In a large open area with no obstructive or reflective surfaces, it is a general rule that at distances greater than 50 feet, the SPL from a point source of noise drops off at a rate of 6 dB with each doubling of distance away from the source. For “line” sources, such as vehicles on a street, the SPL drops off at a rate of 3 dBA with each doubling of the distance from the source. Sound energy is absorbed in the air as a function of temperature, humidity, and the frequency of the sound. This attenuation can be up to 2 dB over 1,000 feet. The drop-off rate also will vary with both terrain conditions and the presence of obstructions in the sound propagation path.

2.9.3 Noise Standards and Guidelines

In 1983, the New York City Department of Environmental Protection (NYCDEP) adopted the City Environmental Quality Review (CEQR) noise exposure guidelines for exterior noise levels. Noise standards classify noise exposure into four categories based on noise level limits and land use,

for vehicular traffic, rail, and aircraft noise sources: Acceptable, Marginally Acceptable, Marginally Unacceptable and Clearly Unacceptable. For proposed projects that introduce receptors, potential significant impacts on the newly created receptor relate to absolute noise limits, as shown in **Table 2.9-2** below. If a proposed project is within an area where the project noise levels exceed the marginally acceptable limit, the project would be subject to mitigation measures necessary to bring its interior noise levels down to a level of 25 dB(A) or more below the maximum marginally acceptable levels (by receptor type) for external exposure.

Table 19-3 of the *CEQR Technical Manual* (**Table 2.9-3** below) defines attenuation requirements for buildings based on exterior noise exposure levels. Recommended noise attenuation values for residential buildings are designed to maintain interior L_{10} noise levels 45 dBA or below and interior L_{dn} noise levels 40 dBA or below, depending on the noise sources.

The Proposed Actions would change the zoning in the Project Area to a Special Mixed-Use District (MX) that allow manufacturing and residential uses. Zoning Resolution (ZR) Section 123-32-Environmental Conditions requires that all new dwelling units (DUs) in Special Mixed-Use Districts be provided with a minimum of 35 dBA window-wall attenuation to maintain an interior noise level of 45 dBA or less. The 35 dBA window-wall attenuation is for a closed-window condition; consequently, a means of alternate ventilation that does not degrade the acoustical performance of the building façade is required for all residential developments. However, it is possible to review and alter the minimum attenuation requirements via a process overseen by the New York City Mayor's Office of Environmental Remediation (OER), which could be undertaken at a later time.

Table 2.9-2: Noise Exposure Guidelines for Use in City Environmental Impact Review

Receptor Type	Time Period	Acceptable General External Exposure	Airport[3] Exposure	Marginally Acceptable General External Exposure	Airport[3] Exposure	Marginally Unacceptable General External Exposure	Airport[3] Exposure	Clearly Unacceptable General External Exposure	Airport[3] Exposure
1. Outdoor area requiring serenity and quiet[2]		$L_{10} \leq 55$ dBA	----------DNL ≤ 60 dBA----------		----------60 < DNL ≤ 65 dBA----------		(I) 65 < DNL ≤ 75 dBA		---------- 75 dBA < DNL ----------
2. Hospital, nursing home		$L_{10} \leq 55$ dBA		$55 < L_{10} \leq 65$ dBA		$65 < L_{10} \leq 80$ dBA		$L_{10} > 80$ dBA	
3. Residence, residential hotel, or motel	(7 AM to 10 PM)	$L_{10} \leq 65$ dBA		$65 < L_{10} \leq 70$ dBA		$70 < L_{10} \leq 80$ dBA		$L_{10} > 80$ dBA	
	(10 PM to 7 AM)	$L_{10} \leq 55$ dBA		$55 < L_{10} \leq 70$ dBA		$70 < L_{10} \leq 80$ dBA		$L_{10} > 80$ dBA	
4. School, museum, library, court, house of worship, transient hotel or motel, public meeting room, auditorium, out-patient public health facility		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)	
5. Commercial or office		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)	
6. Industrial, public areas only[4]	Note 4	Note 4		Note 4		Note 4		Note 4	

Notes:

(i) In addition, any new activity shall comply with Impact Thresholds detailed in Section 410.

[1] Measurements and projections of noise exposures are to be made at appropriate heights above site boundaries as given by American National Standards Institute (ANSI) Standards; all values are for the worst hour in the time period.

[2] Tracts of land where serenity and quiet are extraordinarily important and serve as important public need, and where the preservation of these qualities is essential for the area to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions of parks, or open spaces dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet. Examples are grounds for ambulatory hospital patients and patients and residents of sanitariums and nursing homes.

[3] One may use the FAA-approved DNL contours supplied by the Port Authority of New York and New Jersey (PANYNJ), or the noise contours may be computed from the federally approved Aviation Environmental Design Tool (AEDT) Computer Model using flight data supplied by the PANYNJ.

[4] External Noise Exposure standards for industrial areas of sounds produced by industrial operations other than operating motor vehicles or other transportation facilities are spelled out in the New York City Zoning Resolution, Sections 42-20 and 42-21. The referenced standards apply to M1, M2, and M3 manufacturing districts and to adjoining residence districts (performance standards are listed by octave bands).

Sources: New York City Department of Environmental Protection (adopted policy 1983).

Table 2.9-3: Attenuation Values to Achieve Acceptable Interior Noise Levels[15]

	Marginally Unacceptable				Clearly Unacceptable
Vehicular Traffic	70 < L10 ≤ 73	73 < L10 ≤ 76	76 < L10 ≤ 78	78 < L10 ≤ 80	80 < L10
Aircraft[A]	65 < DNL ≤ 68	68 < DNL ≤ 71	71 < DNL ≤ 73	73 < DNL ≤ 75	75 < DNL
Train	65 < Ldn ≤ 68	68 < Ldn ≤ 71	71 < Ldn ≤ 73	73 < Ldn ≤ 75	75 < Ldn
Attenuation[B]	(i) 28 dB(A)	(ii) 31 dB(A)	(iii) 33 dB(A)	(iv) 35 dB(A)	See Note c

Note:

A. DNL descriptor based on average values of Ldn over a year period.
B. The above composite window-wall attenuation values are for residential dwellings and community facility development. Commercial office spaces and meeting rooms would be 5 dB(A) less in each category. All of the above categories require a closed window situation and hence an alternate means of ventilation.
C. The required attenuation value is the difference between Lbuild and Linterior, using the appropriate noise descriptor Where:
Lbuild is the projected noise level under the build condition rounded up to the whole number
Linterior is the designed interior noise level (45 dB(A) for vehicular noise, 40 dB(A) for aircraft and train noise)

2.9.4 Noise Monitoring Results

Measurement Location and Equipment

Because the predominant noise sources in the area of the proposed project consist of vehicular traffic, noise monitoring was conducted during peak weekday vehicular travel periods (AM, Midday, PM) on a typical midweek day on Thursday, May 20, 2021. Wind speeds were mild during monitoring. Pursuant to *CEQR Technical Manual* Methodology, measurements were conducted for 20-minute periods during each of the peak periods at each monitoring location at the Affected Area: Location One (1) was on the Concord Avenue frontage of the Project Site; Location Two (2) was on the East 145th Street frontage of the Project Site; and Location Three (3) was located on the Wales Avenue frontage of the Project Site. The noise monitoring locations are shown in **Figure 2.9-1** and **Figures 2.9-2** through **2.9-4**.

Noise monitoring was conducted using a Type 1 Casella CEL-633 sound level meter with wind screen. The monitor was placed on a tripod at a height of approximately four feet above the ground, away from any other noise-reflective surfaces. The monitor was calibrated prior to and following each monitoring session. Periods of peak vehicular traffic around the Affected Area constitute a worst-case condition for noise. Traffic volumes and vehicle classifications were

[15] Source: *2021 CEQR Technical Manual*

documented for each monitoring session at Location 1, 2, and 3, respectively. Noise meter calibration certification and back up data are provided in **Appendix F**.

Figure 2.9-1: Noise Monitoring Location Map

Figure 2.9-2: Location 1 – Concord Avenue

Figure 2.9-3: Location 2 – East 145th Street

Figure 2.9-4: Location 3 – Wales Avenue

Existing Conditions

Table 2.9-4 to **Table 2.9-6** below contain the results for the measurements taken at Location 1, Location 2, and Location 3, respectively.

Table 2.9-4: Noise (dB) Levels at Location 1

Thursday, May 20, 2021			
Time	**7:40 am – 8:00 am**	**12:00 pm – 12:20 pm**	**4:30 pm – 4:50 pm**
L_{max}	92.4	71.1	76.2
L_{10}	60.5	58.5	59.0
L_{eq}	64.7	56.0	57.5
L_{50}	53.0	53.0	56.0
L_{90}	50.5	50.5	55.0
L_{min}	48.1	48.4	53.9

Note: **Bold** denotes L_{10} or L_{eq} noise level exceedances, according to Table 19-2 of the CEQR Technical Manual

Table 2.9-5: Noise (dB) Levels at Location 2

Thursday, May 20, 2021			
Time	**8:03 am – 8:23 am**	**12:22 pm – 12:42 pm**	**4:52 pm – 5:12 pm**
L_{max}	72.9	72.9	78.4
L_{10}	56.0	55.5	63.5
L_{eq}	54.9	54.0	60.0
L_{50}	51.0	50.5	55.0
L_{90}	49.0	48.5	49.0
L_{min}	47.4	46.2	47.0

Note: **Bold** denotes L_{10} or L_{eq} noise level exceedances, according to Table 19-2 of the CEQR Technical Manual

Table 2.9-6: Noise (dB) Levels at Location 3

Thursday, May 20, 2021			
Time	**8:26 am – 8:46 am**	**12:45 pm – 1:05 pm**	**5:15 pm – 5:35 pm**
L_{max}	70.9	89.5	95.9
L_{10}	58.5	64.5	**71.0**
L_{eq}	56.8	65.0	**71.4**
L_{50}	55.5	55.5	57.5
L_{90}	54.0	53.0	53.0
L_{min}	52.2	50.7	51.5

Note: **Bold** denotes L_{10} or L_{eq} noise level exceedances, according to Table 19-2 of the CEQR Technical Manual

Tables 2.9-7 through **2.9-9** contain the traffic volumes and vehicle classifications for the morning, noon, and evening monitoring sessions.

Table 2.9-7: Traffic Volumes and Vehicle Classifications – Location 1

	7:40 am – 8:00 am	12:00 pm – 12:20 pm	4:30 pm – 4:50 pm
Car	10	5	8
SUV	13	5	10
Medium Truck	0	0	0
Heavy Truck	0	0	0
Bus	0	0	0
Train	0	0	0

Table 2.9-8: Traffic Volumes and Vehicle Classifications – Location 2

	8:03 am – 8:23 am	12:22 pm – 12:42 pm	4:52 pm – 5:12 pm
Car	0	7	9
SUV	2	6	6
Medium Truck	1	1	1
Heavy Truck	0	0	0
Bus	0	0	0
Train	0	0	0

Table 2.9-9: Traffic Volumes and Vehicle Classifications – Location 3

	8:26 am – 8:46 am	12:45 pm – 1:05 pm	5:15 pm – 5:35 pm
Car	8	17	15
SUV	12	20	13
Medium Truck	1	2	3
Heavy Truck	0	0	1
Bus	0	0	0
Train	0	0	0

2.9.5 Mobile Sources

Preliminary Noise Passenger Car Equivalent (PCE) Screening Analysis

Pursuant to Section 111 of the *2021 CEQR Technical Manual*, mobile sources are those noise sources that move in relation to a noise-sensitive receptor—principally automobiles, buses, trucks, aircraft, and trains. Each has its own distinctive noise character, and, consequently, an associated set of noise assessment descriptors.

For Mobile Sources, an initial noise assessment may be appropriate if a Proposed Action would generate additional project-generated vehicular traffic or where a nearby receptor would potentially be impacted by high ambient noise levels. Receptors are generally the subject of most

noise impact analyses. A noise-sensitive location (known as a "receptor") is usually defined as an area where human activity may be adversely affected when noise levels exceed predefined thresholds of acceptability or when noise levels increase by an amount exceeding predefined thresholds of change. If the Proposed Action would include noise-sensitive use, then the Development Site itself should also be considered a receptor. Pursuant to Section 332.1 of the *2021 CEQR Technical Manual*, the below values can be used to calculate vehicular noise using projections:

- Each Automobile or Light Truck: 1 Noise PCE
- Each Medium Truck: 13 Noise PCEs
- Each Bus: 18 Noise PCEs
- Each Heavy Truck: 47 Noise PCEs

A preliminary Noise PCE screening was conducted to determine if the Proposed Actions would result in an increase to existing Noise PCE values by 100 percent or more. This screening assesses the Noise PCE values of the vehicles and trucks projected to arrive on-site during AM, Midday, and PM peak hours, compared to the Noise PCE values of existing background traffic recorded during noise monitoring at Location 1 and Location 2, where project-generated vehicles are expected to traverse. As project-generated vehicle trips would not pass Wales Avenue, future Noise PCEs along Wales Avenue would be relatively similar to existing condition and it is assumed that the existing traffic noise levels would be representative of future traffic noise levels at Monitoring Location 3. Therefore, no further analysis is warranted for Monitoring Location 3.

This screening analysis was performed based on the project-generated Auto/Taxi and Truck vehicle assignments for the weekday AM, MD and PM peak hours shown in **Section 2.7.3**: Transportation. For the purposes of this screening analysis, all project-generated trucks were assumed to be medium. The existing 20-minute traffic volumes at Locations 1 and 2 shown in **Tables 2.9-7** and **Table 2.9-8** above were multiped by 3 to reflect a one-hour period.

Preliminary Noise PCE Screening Conclusion

As indicated below in **Table 2.9-10** through **Table 2.9-11**, the Proposed Action(s) would increase existing Noise PCE values by greater than 100% at Monitoring Location 1 during the weekday AM, MD, and PM peak hours, respectively. Accordingly, further analysis is warranted at Monitoring Location 1.

As indicated below in **Table 2.9-12** through **Table 2.9-13**, the Proposed Action(s) would not increase existing Noise PCE values by greater than 100% at Monitoring Location 2 during the weekday AM, MD, or PM peak hours. As there would not be any doubling of existing Noise PCEs, existing noise levels would be representative of future noise levels at Monitoring Location 2. Accordingly, no further analysis is warranted at Monitoring Location 2.

Table 2.9-10: Location 1 Noise PCE Screen

With Action Noise PCE Value									
	AM Existing Vehicle Counts (1 hour)	AM Project Generated Vehicle Trips	With-Action AM Noise PCE Value	MD Existing Vehicle Counts (1 hour)	MD Project Generated Vehicle Trips	With-Action MD Noise PCE Value	PM Existing Vehicle Counts (1 hour)	PM Project Generated Vehicle Trips	With-Action PM Noise PCE Value
Car/Taxi	30	68	99	15	67	82	24	60	84
Van/Light Truck/SUV	39	0	39	15	0	15	30	0	30
Medium Truck	0	2	25	0	2	25	0	0	5
Heavy Truck	0	0	0	0	0	0	0	0	0
Bus	0	0	0	0	0	0	0	0	0
Total Noise PCE	**69**	**90**	**163**	**30**	**95**	**123**	**54**	**64**	**120**

*Existing 20-minute vehicle counts multiplied by 3 to reflect peak hour equivalent
**Decimal values are displayed as rounded values

Table 2.9-11: Location 1 Noise PCE Findings

Peak Hour	Existing	No Action	With Action	Increment	% Increase
AM Noise PCE	**69**	**70**	**163**	**93**	**135%**
MD Noise PCE	**30**	**30**	**123**	**92**	**307%**
PM Noise PCE	**54**	**55**	**120**	**65**	**120%**

Table 2.9-12: Location 2 Noise PCE Screen

With Action Noise PCE Value									
	AM Existing Vehicle Counts (1 hour)	AM Project Generated Vehicle Trips	With-Action AM Noise PCE Value	MD Existing Vehicle Counts (1 hour)	MD Project Generated Vehicle Trips	With-Action MD Noise PCE Value	PM Existing Vehicle Counts (1 hour)	PM Project Generated Vehicle Trips	With-Action PM Noise PCE Value
Car/Taxi	0	8	8	21	7	28	27	4	31
Van/Light Truck/SUV	6	0	6	18	0	18	18	0	18
Medium Truck	3	0	42	3	0	42	3	0	40
Heavy Truck	0	0	0	0	0	0	0	0	0
Bus	0	0	0	0	0	0	0	0	0
Total Noise PCE	**45**	**8**	**55**	**78**	**9**	**88**	**84**	**5**	**90**

*Existing 20-minute vehicle counts multiplied by 3 to reflect peak hour equivalent
**Decimal values are displayed as rounded values

Table 2.9-13: Location 2 Noise PCE Findings

Peak Hour	Existing	No Action	With Action	Increment	% Increase
AM Noise PCE	**45**	**46**	**55**	**10**	**22%**
MD Noise PCE	**78**	**79**	**88**	**9**	**11%**
PM Noise PCE	**84**	**85**	**90**	**5**	**5%**

Detailed Noise Passenger Car Equivalent (PCE) Analysis

Future No-Action Conditions

A growth rate to the 2026 Build Year was applied to the calculated Existing PCEs at Location 1 to reflect traffic growth, and its associated noise. According to *CEQR Technical Manual*, *Table 16-4*, the annual background growth rate for the Bronx is 0.25% from 1-5 years.

Noise levels under No-Action Conditions were calculated using the existing $L_{eq}(1)$ noise measurement results at Location 1 pursuant to the logarithmic equation provided in Equation 19-1 of the *2021 CEQR Technical Manual*. $L_{10}(1)$ values were calculated by adding the difference between the $L_{10}(1)$ and $L_{eq}(1)$ descriptors found to exist in the measurement program (see **Table 2.9-4**) to the calculated No-Action $L_{eq}(1)$ noise level. The results of the Future No-Action Noise PCE Analysis for Location 1 are shown below in **Table 2.9-15**.

Future With-Action Conditions

The calculated total Noise PCEs derived from the incremental With-Action traffic projected to traverse past Location 1 were converted to Noise PCEs, and the resulting noise levels under With-Action Conditions were calculated for Location 1 pursuant to CEQR methodology. The With-Action Noise Levels and corresponding attenuation requirements are shown below in **Table 2.9-16**.

Detailed Noise PCE Analysis Conclusion

During daytime hours (between 7 AM and 10 PM), nuisance levels for noise are generally considered to be more than 45 dB(A) indoors and 70 to 75 dB(A) outdoors. Typical construction techniques used in the past (including typical single-glazed windows) provide a minimum of approximately 20 dB(A) of noise attenuation from outdoor to indoor areas. In view of these factors and for the purposes of determining a significant impact during daytime hours, it is reasonable to consider 65 dB(A) L_{eq} (1) as an absolute noise level that should not be significantly exceeded.

For example, if the No-Action noise level is 60 dB(A) L_{eq} (1) or less, a 5 dB(A) L_{eq} (1) or greater increase would be considered significant. If the No-Action noise level is 61 dB(A) L_{eq} (1), the maximum incremental increase would be 4 dB(A), since an increase higher than this would result in a noise level higher than the 65 dB(A) L_{eq} (1) threshold and is considered significant. Similarly, if the No-Action noise level is 62 dB(A) L_{eq} (1) or more, a 3 dB(A) L_{eq} (1) or greater change is considered significant.

As shown below in **Table 2.9-16**, the Proposed Actions would result in an L_{eq} increase of 3.7, 6.1, and 3.4 at Location 1 during the AM, Midday, and PM peak hours, respectively, when compared to the Future No-Action L_{eq}. Accordingly, the Proposed Actions would result in an L_{eq} increase above the threshold of 3 dB(A) during the AM peak hour, and 5 dB(A) during the midday peak hour at Location 1.

While these noise increases would be considered significant, as shown in **Table 2.9-17**, the highest projected future With-Action L10 noise level at Location 1 would be 64.6 dB(A) during the midday peak hour. Given that the existing building facades of surrounding noise receptor buildings would provide at least 25 dB(A) of window/wall attenuation, the highest interior L10 noise level at receptor building along Concord Avenue would be within the acceptable interior noise limit of 45 dB(A) for residential uses. Thus, the potential impact at existing receptors would be considered fully mitigated by the existing building facade condition and, therefore, would not be considered a significant adverse noise impact.

Table 2.9-14: Location 1 Detailed PCE Analysis Existing Conditions

Receptor/Station ID	Hour/Weekday	Existing Condition						
		Auto	Medium	Heavy	Bus	PCE	Leq	L_{10}
Location 1	AM	69.0	0.0	0.0	0.0	69.0	64.7	60.5
	MD	30.0	0.0	0.0	0.0	30.0	56.0	58.5
	PM	54.0	0.0	0.0	0.0	54.0	57.5	59.0

Table 2.9-15: Location 1 Detailed PCE Analysis No-Action Conditions

Receptor/Station ID	Hour/Weekday	No-Action Condition 2026							
		Auto	Medium	Heavy	Bus	PCE	Leq	L_{10}	Change over Existing
Location 1	AM	69.9	0.0	0.0	0.0	69.9	64.8	60.6	0.1
	MD	30.4	0.0	0.0	0.0	30.4	56.1	58.6	0.1
	PM	54.7	0.0	0.0	0.0	54.7	57.6	59.1	0.1

Table 2.9-16: Location 1 Detailed PCE Analysis With-Action Conditions

Receptor/Station ID	Hour/Weekday	With-Action Condition 2026							
		Auto	Medium	Heavy	Bus	PCE	Leq	L_{10}	Change over No-Build
Location 1	AM	138.0	1.9	0.0	0.0	162.9	68.4	64.2	3.7
	MD	97.4	1.9	0.0	0.0	122.6	62.1	64.6	6.1
	PM	114.7	0.4	0.0	0.0	119.7	61.0	62.5	3.4

Table 2.9-17: Location 1 Future No-Action and Future With-Action Noise Levels

Receptor/Station ID	Hour	Existing L_{10}	Existing Category	NB Delta	NB L_{10}	No Build Category	Build Delta	Build L_{10}	Build Category	CEQR criteria dB(A)	Building Attenuation Required
Location 1	AM	60.5	ACCEPTABLE	0.1	60.6	ACCEPTABLE	3.7	64.2	ACCEPTABLE	45	-
	MD	58.5	ACCEPTABLE	0.1	58.6	ACCEPTABLE	6.1	64.6	ACCEPTABLE	45	-
	PM	59.0	ACCEPTABLE	0.1	59.1	ACCEPTABLE	3.4	62.5	ACCEPTABLE	45	-

2.9.6 Stationary Sources

The *CEQR Technical Manual* states that based upon previous studies, unless existing ambient noise levels are very low and/or stationary source levels are very high (and there are no structures that provide shielding), it is unusual for stationary sources to have significant impacts at distances beyond 1,500 feet. A detailed analysis may be appropriate if the proposed project would: cause a substantial stationary source (i.e., unenclosed mechanical equipment for manufacturing or building ventilation purposes, playground, etc.) to be operating within 1,500 feet of a receptor, with a direct line of sight to that receptor; or introduce a receptor in an area with high ambient noise levels resulting from stationary sources, such as unenclosed manufacturing activities or other loud uses. Machinery, mechanical equipment, heating, ventilating and air-conditioning units, loudspeakers, new loading docks, and other noise associated with building structures may also be considered in a stationary source noise analysis. Impacts may occur when a stationary noise source is near a sensitive receptor and is unenclosed.

It is assumed that the building mechanical systems (i.e., HVAC systems) would be designed to meet all applicable noise regulations and standards (i.e., Subchapter 5, §24-227 of the New York City Noise Control Code, the New York City Department of Buildings Code) to avoid producing levels that would result in any significant increase in ambient noise levels.

2.9.7 Conclusion

The *2021 CEQR Technical Manual* Table 19-2 contains noise exposure guidelines. For a residential use such as would occur under the Proposed Actions, an L_{10} of between 65 and 70 dB(A) is identified as marginally acceptable general external exposure. An L_{10} of between 70 and 80 dB(A) is identified as marginally unacceptable general external exposure.

For conservative analysis, in the event that L_{eq} noise level is higher than L_{10} noise level, L_{eq} would be used to determine attenuation purposes as long as such high L_{eq} is not considered atypical. The highest L_{10} at Location 1 was 60.5 dB(A) at AM period and the highest recorded L_{eq} at Location 1 was 64.7 dB(A) during the AM period. The highest future with-action L_{10} at Location 1 would be 64.7 dB(A) during the MD period and the highest future with-action L_{eq} at Location 1 would be 68.4 dB(A) during the AM period. Considering that L_{eq} value is higher than the L_{10} value, L_{eq} of 68.4 dB(A) would be used to represent noise impact and determine attenuation at this Location.

Considering the results of the detailed noise PCE analysis, the future with-action L_{eq} at Location 1 would be 68.4 dB(A) during the AM period. The highest recorded L_{10} at Location 2 was 63.5 dB(A) during the PM period. The highest recorded L_{eq} at Location 3 was 71.4 dB(A) during the PM period and the highest recorded L_{10} at Location 3 was 71.0 dB(A) during the PM period.

Based on the above results, a 28 dB(A) window/wall attenuation would be required for community facility and commercial office spaces along Wales Avenue and East 145th Street within 50 feet of Wales Avenue. No other facades containing community facility and commercial office spaces would require attenuation. This is shown in **Figure 2.9-5** below. The Proposed

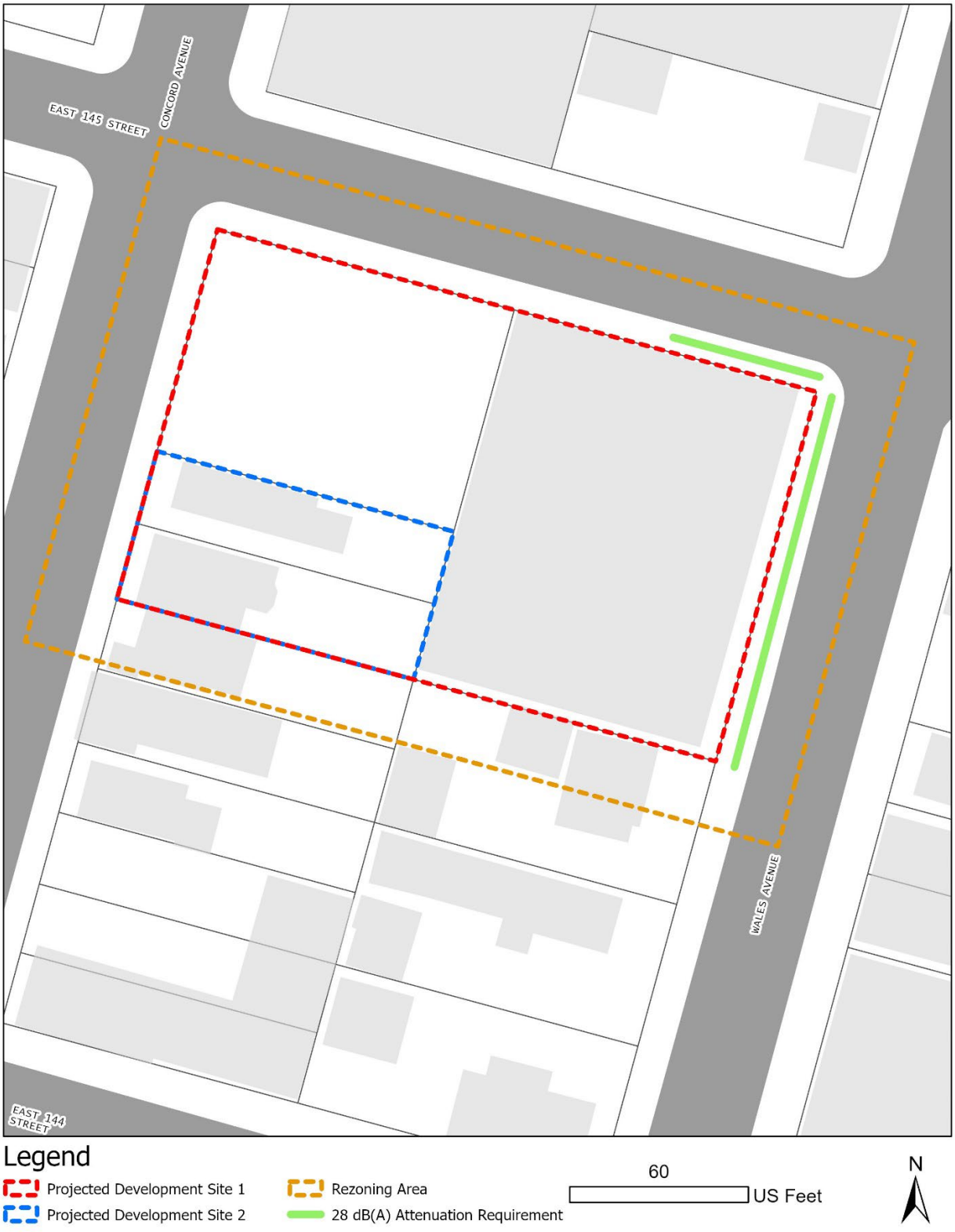
Actions would change the zoning in the Project Area to a Special Mixed-Use District (MX) that allow manufacturing and residential uses. Zoning Resolution (ZR) Section 123-32-Environmental Conditions requires that all new dwelling units (DUs) in Special Mixed-Use Districts be provided with a minimum of 35 dBA window-wall attenuation to maintain an interior noise level of 45 dBA or less. The 35 dBA window-wall attenuation is for a closed-window condition; consequently, a means of alternate ventilation that does not degrade the acoustical performance of the building façade is required for all residential developments. However, it is possible to review and alter the minimum attenuation requirements via a process overseen by the New York City Mayor's Office of Environmental Remediation (OER), which could be undertaken at a later time.

A Noise E-Designation will be placed on Projected Development Site 1 in order to ensure there are no significant adverse impacts related to noise.

E-756

Projected Development Site 1 (Block 2577 / Lots 9, 14): In order to ensure an acceptable interior noise environment, future community facility and commercial office spaces must provide a closed-window condition with a minimum attenuation of 28 dB(A) on facades facing Wales Avenue and facades facing East 145th Street within 50 feet of Wales Avenue in order to maintain an interior L_{10} noise level not greater than 45 dB(A) for community facility uses and not greater than 50 dB(A) for commercial office uses as illustrated in the EAS. In order to maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning.

Figure 2.9-5: Noise Attenuation Requirements



*Attenuation Requirements for Community Facility uses only. Commercial Office Spaces may take a 5 dB(A) reduction. New dwelling units are subject to Zoning Resolution (ZR) Section 123-32

2.10 Neighborhood Character

According to the *2021 CEQR Technical Manual*, a neighborhood character assessment considers how elements of the environment combine to create the context and feeling of a neighborhood and how a project may affect that context and feeling. Thus, to determine a project's effects on the neighborhood character, the elements that contribute to a neighborhood's context and feeling are considered together. These elements may include Land Use, Zoning, Public Policy, Socioeconomic Conditions, Open Space, Historic and Cultural Resources, Urban Design, Visual Resources, Shadows, Transportation, and Noise. The Study Area for a preliminary analysis of Neighborhood Character is typically consistent with the Study Areas in the relevant technical areas under CEQR that contribute to the defining elements of the neighborhood. The Study Area should generally extend to a 400-foot radius around the Affected Area.

2.10.1 Preliminary Analysis

Existing Conditions

The Affected Area is located within the Mott Haven neighborhood of Bronx, CD 1. The area is bounded by East 145th Street to the north, Wales Avenue to the east, Lot 5 and the southern portion of lot 20 to the south, and Concord Avenue to the west. East 145th Street is an east-west, two-way right-of-way with one moving lane of traffic in each direction and curbside parking. Concord Avenue and Wales Avenue are south-to-north two-way rights-of-way with one moving lane of traffic in each direction and curbside parking.

The built form in the Study Area varies by use, and primarily includes two- to six-story multi-family walkup and elevator residential buildings, one- to two-story manufacturing buildings, four schools (Mott Haven Community High School (P.S.557), JM Rapport School for Career Development (P.S. 754), Neighborhood Charter School: Bronx, and The American Dream School) ranging from three to four stories in height, a one-story commercial building, parking lots and vacant parcels. Concord Avenue and Wales Avenue do not have significant commercial activity and are more residential in character north of East 145th Street and more industrial south of East 145th Street. The closest commercial corridors are located along East 149th Street and Southern Boulevard, outside of the 400-foot Study Area.

The Surrounding Area features a regular traffic grid to the west of Southern Boulevard and irregular grid to the east of Southern Boulevard as a result of the direction change of Southern Boulevard to the north from E 145th Street. Sidewalks within the Affected Area, ranging from 8 feet to 13 feet wide, are in fair condition with paved surfaces, sufficient street trees, and regular streetlights throughout the Study Area except for the newly improved sidewalks within the adjacent Block 2574, which are in excellent condition. Most of the intersections within the 400-foot Study Area are controlled by two-way or all-way stop signs and feature clear crossing markings on the controlled legs. The area is also well-served by transit. The E 143 St – St Mary's St subway station with service from the 6 Train is located approximately 800 feet away from the Affected Area. There are two bus lines (Bx17/ Bx19) that are accessible to users in the area.

The Projected Development Site 1 includes Applicant-controlled Lots 9 and 14. According to a survey conducted by the Applicant, Lot 9 is a 7,774-SF corner lot (varies from ZOLA's 7,758 SF) corner lot with frontages on East 145 Street and Concord Avenue. The lot is a surface lot classified as an unlicensed parking lot. Lot 14 is a 12,774-SF corner lot with frontages on East 145 Street and Wales Avenue. The lot is currently improved with a one-story 12,500 GSF manufacturing building constructed in 1931.

The Projected Development Site 2 includes Applicant-controlled Lots 7 and 8. Lot 7 is a 2,500-SF interior lot with 25 feet of frontage on Concord Avenue. The lot is currently improved with a two-story, two-family, 1,500 GSF residential building constructed in 1901. Lot 8 is a 2,500-SF interior lot with 25 feet of frontage on Concord Avenue. The lot is currently improved with a two-story, two-family, 1,904 GSF residential building constructed in 1901.

Other non-Applicant-controlled lots within the Affected Area include p/o lot 6 and p/o lot 20. Lot 6 is a 2,500-SF lot with frontage on Concord Avenue. The lot is currently improved with a 1.5-story, two-family 1,638 GSF residential building constructed in 1901. Lot 20 is a 5,000-SF lot with frontage on Wales Avenue. The lot is currently improved with a two-story, two-family, 1,305 GSF residential building constructed in 1901 and two other one-story supplementary structures. Only approximately 50% of lot 20 is within the Affected Area.

Future No-Action Condition

Under Future No-Action Conditions, Projected Development Site 1 (Lots 9 and 14) and Projected Development Site 2 (Lots 7 and 8) would remain in the existing condition. It is expected that in the future, without the Proposed Actions, the existing uses within the Study Area would mostly remain with the exception of a new charter school at 447 Wales Avenue and a new development projected on Block 2578, Lots 16 and 18 as a result of a recently effectuated rezoning on the western side of Concord Avenue at 431 Concord Avenue (C 200274 ZMX, N 200275 ZRX, effective May 27, 2021). The school will be 73 feet tall across six stories and have a total of 45,979 square feet of interior space. The school is designed to accommodate 504 students from grades nine through 12. The new development projected on Block 2578, Lots 16 and 18 would be an 11-story, 115-foot-tall, 87,369-GSF (5.51 FAR) Quality Housing residential building with approximately 93 residential dwelling units and 29 accessory parking spaces on the first/ground floor of the building. The projected development at 431 Concord Avenue is an example of a larger building and residential uses being approved in the Study Area via ULURP by the City Council.

Future With-Action Condition

The Proposed Actions would rezone Block 2577, Lots p/o 6, 7, 8, 9, 14, and the northern portion of Lot 20 from an M1-2 to an R7D/M1-4 (MX) zoning district. Under the With-Action condition, the proposed R7D/M1-4 (MX) district would permit a maximum of 5.6 FAR for residential use (MIH area), 2.0 FAR for commercial uses, 4.2 for community facility uses, and 2.0 FAR for manufacturing uses. The maximum building height within the R7D/M1-4 (MX) zoning district is 115 feet after a setback from the base height of up to 95 feet. Buildings must have a 10-foot

setback above the maximum base height on a wide street and a 15-foot setback on a narrow street before rising to a maximum of 11 floors. The Proposed Actions also include a Zoning Text Amendment to Appendix F (Inclusionary Housing designated areas and Mandatory Inclusionary Housing areas) to add a Mandatory Inclusionary Housing (MIH) area coterminous with the Affected Area and the addition of R7D to the Special "MX 18 – Community District 1, The Bronx" row in the table within Section 123-63 (Maximum Floor Area Ratio and Lot Coverage Requirements for Zoning Lots Containing Only Residential Buildings in R6, R7, R8 and R9 Districts). Off-street parking is required for 50 percent of the residential dwelling units but is not required for income-restricted housing units within the Transit Zone.

Under Future With-Action conditions, two Projected Development Sites were identified within the Affected Area:

- Projected Development Site 1 (Lots 9 and 14) would be developed with a single 174,709 GSF (138,413 ZSF, 6.94 FAR) mixed-use building with 100% lot coverage. The building would contain approximately 7,187 GSF (6,634 ZSF, 0.33 FAR) of community facility use, 10,258 GSF (7,602 ZSF, 0.38 FAR) of light industrial and manufacturing use, 4,526 GSF (3,301 ZSF, 0.17 FAR) of local retail and 30,730 GSF (25,597 ZSF,1.28 FAR) of office use (1.13 total commercial FAR), and 113,139 GSF (95,279 ZSF, 4.78 FAR) of residential use of which 100,586 GSF (95,279 ZSF, 4.78 FAR) would be above the cellar level (residential lobby on the ground floor and residential units on floors 4 to 11) yielding approximately 120 dwelling units (assuming 837 GSF per DU on average) and 12,553 GSF would be in the cellar used as storage space and technical rooms. Among the 120 dwelling units, 25-30% (30-36 units) would be affordable pursuant to MIH at an average of 60-80% AMI depending on the Option selected. An 8,869-SF below-grade parking lot would contain approximately 48 spaces. The building would be 11 stories tall and rise to 115 feet with a base height of 95 feet. At the base height of 95 feet, there would be a 15-foot setback on Concord Avenue, 145th Street and Wales Avenue, as these streets are considered to be narrow (less than 75 feet wide). A 10-foot mechanical bulkhead would be assumed for the Development Site for a conservative shadows analysis under CEQR. One curb cut would be proposed on Concord Avenue.
- Projected Development Site 2 (Lots 7 and 8) would be developed with a single 34,979 GSF (27,648 ZSF, 4.93 FAR) mixed-use building with 100% lot coverage. The building would contain approximately 13,121 GSF (12,020 ZSF, 2.14 FAR) of residential use and 16,253 GSF (15,628 ZSF, 2.79 FAR) of community facility use (potentially medical office). There would be approximately 15 dwelling units (assuming 850 SF per DU on average), 25-30% (4 units) of which would be affordable pursuant to MIH at an average of 60-80% AMI depending on the Option selected. The 5,604-SF cellar would contain a parking lot with six parking spaces, mechanical rooms, and bike storage. The building would be 11 stories tall and rise to 115 feet with a base height of 95 feet. At the base height of 95 feet, there would be a 15-foot setback on Concord Avenue. A 10-foot mechanical bulkhead would be assumed for the development

site for a conservative shadows analysis under CEQR. One curb cut would be proposed on Concord Avenue.

The proposed rezoning of the Affected Area to R7D/M1-4 (MX) would be compatible with the R7D district across Concord Avenue in terms of the permitted residential uses and the overall bulk. The proposed MX district would serve as a transition between the adjacent to the Affected Area residential districts (R7D and R7-1) to the north and west and the manufacturing district (M1-2) to the east and south of the Affected Area. The proposed development would also improve the pedestrian experience by providing a mixture of ground floor uses, including local retail, office lobby, and residential lobby on E 145th Street, and local retail and community facility on Wales Avenue.

In order to determine the Proposed Actions' potential effects on neighborhood character, the elements that contribute to the neighborhood's context and feeling are considered both separately and cumulatively. The examination focuses on whether a defining feature of the neighborhood's character may be significantly affected, as further described below:

- **Land Use, Zoning, and Public Policy:** The density and uses permitted by the Proposed Actions would facilitate the increased utilization of the lots within the Affected Area. The proposed R7D/M1-4 (MX) zoning district would be compatible with the R7D district across Concord Avenue in terms of the permitted residential uses and the overall bulk. The proposed MX district would serve as a transition between the adjacent to the Affected Area residential districts (R7D and R7-1) to the north and to the west and manufacturing district (M1-2) to the east and the south of the Affected Area. The Proposed Actions would facilitate the development of new housing on the Projected Development Sites. Moreover, the proposed Zoning Text Amendment to Appendix F to add Mandatory Inclusionary Housing (MIH) to the Affected Area would allow for residential growth with affordable housing and contribute to Housing New York 2.0, the City's plan to build or preserve 300,000 affordable homes by 2026. The Proposed Actions would not result in material changes to existing regulations or policy. Therefore, no potentially significant adverse impacts related to Land Use, Zoning, and Public Policy would occur as a result of the Proposed Actions.
- **Open Space:** The Proposed Actions would result in a decrease of the OSR within the Study Area from 0.984 acres per 1,000 residents in the Future No-Action Condition to 0.976 in the Future With-Action Condition, a decrease of approximately 0.81%. Pursuant to the *2021 CEQR Technical Manual*, when the OSR range falls between 0.51 and 1, a maximum decrease of two percent in Open Space Ratio between the Future No-Action and Future With-Action Conditions does not require further analysis. Further, the Affected Area is within a Walk to a Park service area, indicating all future projected residents are within a reasonable walking distance to public Open Spaces.

- **Shadows:** Proposed Actions would not affect the vitality or usage of the sunlight-sensitive resources identified within the Study Area, and significant adverse impacts from shadows would not result from the Proposed Actions.
- **Historic and Cultural Resources:** There are no existing Architectural or Archeological Resources within the Affected Area (see **Appendix B: LPC letter dated May 18, 2021**). The Cultural Resource Information System (CRIS) online resource has indicated two eligible architectural resources within the Study Area: S/NR eligible PS 754, JM Rapport School for Career Development at 470 Jackson Avenue and S/NR eligible PS 557, Mott Haven Community High School at 455 Southern Boulevard. As discussed in **Section 2.4.1**, the Proposed Actions would not introduce significant adverse impacts to architectural resources within the Study Area. Accordingly, no indirect impacts to architectural resources would occur as a result of the Proposed Actions.
- **Urban Design and Visual Resources:** The development facilitated by the Proposed Actions would not adversely impact any of the constituent urban design elements or impact the overall character of the neighborhood. It would not adversely change the pedestrian experience, nor would it negatively affect the vitality, walkability, or the visual character of the area.
- **Hazardous Materials:** With the remedial measures in place (see **Section 862.6**), the potential for significant environmental impact associated with hazardous materials would be mitigated for Projected Development Site 1. To preclude the potential for significant adverse impact on Projected Development Site 1 (should the Applicant decide to leave the City Voluntary Cleanup Program) and Projected Development Site 2, an E-Designation (E-756) will be placed to assure that testing and mitigation will be performed, as necessary, before any future development and/or soil disturbance. Further hazardous materials assessments should be coordinated through the Mayor's Office of Environmental Remediation (OER). With these provisions in place, the Proposed Actions would not result in the potential for significant adverse impact related to Hazardous Materials.
- **Transportation:** Based on the detailed Traffic Analysis, all approaches and movements would continue to function at LOS B or better in all four analysis peak hours under With-Action conditions. The Proposed Project would generate fewer than 200 subway trip-ends and fewer than 200 MTA bus trip-ends during all identified peak hours. Based on the detailed assignment of pedestrian trips, no pedestrian elements would exceed Level 2 Screening thresholds. Therefore, the Proposed Actions would not result in a development that would have significant adverse impact on transportation within the Study Area.
- **Air Quality:** No significant adverse air quality impact was predicted in the refined mobile source HDDVs analysis for the most affected intersection. Therefore, there is no reason to believe that the project-increment traffic associated with the Proposed Actions would result in any potentially significant adverse mobile source air quality impact.

HVAC systems would not result in any violations of the ambient air quality standards with the proposed E-Designation in place. Therefore, there is no reason to believe that the Proposed Actions HVAC systems would potentially cause significant adverse air quality impacts, and further assessment is not warranted.

No significant adverse air quality impact was predicted from existing industrial sources in the area. In addition, no large industrial emission sources were identified within the 1,000-foot Study Area. Therefore, there does not appear to be any potentially significant impact associated with existing air toxics on project occupants. However, as 3,874 GSF of light industrial use is proposed on the cellar and first floor levels of Projected Development Site 1, to preclude the potential for adverse air quality impacts on the residential, community facility and commercial uses in the same building or the existing sensitive receptors within 400 feet from the Projected Development Site 1, and E-Designation is proposed on Projected Development Site 1.

- **Noise:** Based on the detailed noise PCE analysis (see **Section 2.9.5**), a 28 dB(A) window/wall attenuation would be required for community facility and commercial office spaces along Wales Avenue. No other facades containing community facility and commercial office spaces would require attenuation. A Noise E-Designation (E-756) would be placed on Projected Development Site 1 (Block 2577 / Lots 9, 14): In order to ensure an acceptable interior noise environment, future community facility and commercial office spaces must provide a closed-window condition with a minimum attenuation of 28 dB(A) on facades facing Wales Avenue in order to maintain an interior noise level of 45 dB(A). In order to maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning.

  With the E-Designation in place, no potentially significant adverse impacts related to noise would occur as a result of the Proposed Actions.

2.10.2 Conclusion

As discussed above, the proposed rezoning of the Affected Area to R7D/M1-4 (MX) would be compatible with the R7D district across Concord Avenue in terms of the permitted residential uses and the overall bulk. The proposed MX district would serve as a transition between the adjacent to the Affected Area residential districts (R7D and R7-1) to the north and west and the manufacturing district (M1-2) to the east and south of the Affected Area. The development that would be facilitated by the Proposed Actions would be compatible with the surrounding uses and would not change any of the determining elements of the Study Area. Therefore, the Proposed Actions would not result in a significant adverse impact to the Neighborhood Character. There would be no combination of moderate effects of two or more of the above technical areas that cumulatively may negatively affect Neighborhood Character within the Study Area.

2.11 Construction

According to the *2021 CEQR Technical Manual*, construction impacts may be analyzed for any project that involves construction or could induce construction. For construction activities not related to in-ground disturbance, short-term construction generally does not warrant a detailed construction analysis. For example, the use of a property for construction staging activities is likely to only warrant analysis if this activity continues for a period of several years. Consideration of several factors, including the location and setting of the project in relation to other uses and intensity of construction activities are used to determine if a project's construction activities warrant analysis in one or more of the following technical areas:

- Transportation
- Air Quality or Noise
- Historic and Cultural Resources
- Hazardous Materials
- Natural Resources
- Open Space
- Socioeconomic Conditions
- Community Facilities
- Land Use and Public Policy
- Neighborhood Character

A preliminary construction analysis may be required because the proposed development would result in the following:

- Construction activities are considered long-term (last longer than two years); or
- Short term construction activities would directly affect a technical area, such as impeding the operation of a community facility.
- Result in the closing, narrowing, impeding of traffic, transit, or obstruction of pedestrian or vehicular routes in proximity to critical land uses.
- Construction of multiple buildings where there is a potential for on-site receptors on buildings completed before the final build-out.
- The operation of several pieces of diesel equipment in a single location at peak construction.
- Closure of a community facility or disruption in its services.

- Disturbance of a site containing or adjacent to a site containing natural resources.
- Construction on multiple development sites in the same geographic area, such that there is the potential for several construction timelines to overlap or last for more than two years overall.

Analysis Framework

Future No-Action Condition

The No-Action Condition for the Affected Area would be the same as the existing conditions. The Affected Area contains Projected Development Site 1 (Lots 9 and 14) and Projected Development Site 2 (Lots 7 and 8). There are no records of construction work permit applications submitted by the Applicant on the DOB website. As such, it is assumed that under the No-Action Scenario, existing conditions would continue on both Projected Development Sites.

The non-Applicant owned Lots 6 and 20 do not pass the soft site criteria established by the *CEQR Technical Manual*, Chapter 2. Despite the fact the lots are built to substantially less than the maximum allowable FAR, because of the small lot size (below the CEQR Technical Manual soft site threshold of 5,000 square feet), Lots 6 and 20 are not considered likely to be redeveloped under No-Action Conditions. In addition, the Proposed Actions would only affect approximately 50% of Lot 20.

Future With-Action Condition

The RWCDS is consistent with the Applicant's proposal to use a Zoning Lot Merger (ZLM) involving Lots 7, 8, 9, and 14 to apply 8,777 ZSF of the Development Rights of Projected Development Site 2 (Lots 7 and 8) to Projected Development Site 1 (lots 9 and 14). The Applicant-controlled lots 7, 8, 9, and 14 would be merged into a 25,548-SF zoning lot within the proposed R7D/M1-4 (MX) district. Approximately 604 square feet of lot area would also be conveyed from Lot 9 to Lot 8 to match the fence line against the existing retaining wall serving as a factual boundary between tax Lots 8 and 9. Additionally, to provide a conservative analysis when considering the combination of Projected Development Sites 1 and 2, a maximum FAR of 6.5 was utilized as described below.

Projected Development Site 1 (Lots 9 and 14)

Under Future With-Action Conditions, it is assumed that Projected Development Site 1 would be developed with a single 174,709 GSF (138,413 ZSF, 6.94 FAR) mixed-use building with 100% lot coverage. The building would contain approximately 7,187 GSF (6,634 ZSF, 0.33 FAR) of community facility use, 10,258 GSF (7,602 ZSF, 0.38 FAR) of light industrial and manufacturing use, 4,526 GSF (3,301 ZSF, 0.17 FAR) of local retail and 30,730 GSF (25,597 ZSF,1.28 FAR) of office use (1.13 total commercial FAR), and 113,139 GSF (95,279 ZSF, 4.78 FAR) of residential use of which 100,586 GSF (95,279 ZSF, 4.78 FAR) would be above the cellar level (residential lobby on the ground floor and residential units on floors 4 to 11) yielding approximately 120 dwelling units (assuming 837 GSF per DU on average) and 12,553 GSF would be in the cellar used as storage

space and technical rooms. Among the 120 dwelling units, 25-30% (30-36 units) would be affordable pursuant to MIH at an average of 60-80% AMI depending on the Option selected. An 8,869-SF below-grade parking lot would contain approximately 48 spaces. The building would be 11 stories tall and rise to 115 feet with a base height of 95 feet. At the base height of 95 feet, there would be a 15-foot setback on Concord Avenue, 145th Street and Wales Avenue, as these streets are considered to be narrow (less than 75 feet wide). A 10-foot mechanical bulkhead would be assumed for the Development Site for a conservative shadows analysis under CEQR. One curb cut would be proposed on Concord Avenue.

Projected Development Site 2 (Lots 7 and 8)

Under Future With-Action Conditions, it is assumed that Projected Development Site 2 would be developed with a single 34,979 GSF (27,648 ZSF, 4.93 FAR) mixed-use building with 100% lot coverage. The building would contain approximately 13,121 GSF (12,020 ZSF, 2.14 FAR) of residential use and 16,253 GSF (15,628 ZSF, 2.79 FAR) of community facility use (potentially medical office). There would be approximately 15 dwelling units. The 5,604-SF cellar would contain a parking lot with six parking spaces, mechanical rooms, and bike storage. The building would be 11 stories tall and rise to 115 feet with a base height of 95 feet. At the base height of 95 feet, there would be a 15-foot setback on Concord Avenue. A 10-foot mechanical bulkhead would be assumed for the development site for a conservative shadows analysis under CEQR. One curb cut would be proposed on Concord Avenue.

Overall, the merged zoning lot consisting of Lots 7, 8, 9, and 14 would include 209,688 GSF (166,061 ZSF, 6.5 FAR) of mixed-use development consisting of 126,260 GSF (107,299 ZSF, 4.20 FAR) of residential use, 35,256 GSF (28,898 ZSF, 1.13 FAR) of commercial use, 23,440 GSF (22,262 ZSF, 0.87 FAR) of community facility use, and 10,258 GSF (7,602 ZSF, 0.38 FAR) of manufacturing use. There would be a total of 135 dwelling units, and 14,473 SF of below-grade parking would be provided over the two Projected Sites containing approximately 54 parking spaces, with two curb cuts constructed on Concord Avenue.

Build Year

The build year for the analysis is anticipated to be 2026 in consideration of an 18-month CEQR review period and a 7-month ULURP process. The proposed construction schedules for each site can be found in **Appendix G**.

Construction Schedule

- Projected Development Site 1 is anticipated to begin with demolition and site clearance in October 2024, with exterior work expected to be completed by October 2025. Major construction-related activities would conclude with elevators, interior shell and core in December 2025. Lastly, Temporary Certificate of Occupancy (TCO) is anticipated by June 2026.

- Projected Development Site 2 is anticipated to begin demolition and site clearance on in June 2025, with exterior work expected to be completed by April 2026. Major construction-related activities would conclude with elevators, interior shell and core in May 2026. Lastly, Temporary Certificate of Occupancy (TCO) is anticipated by August 2026.

Beginning with demolition and clearance on Projected Development Site 1 in October 2024, and ending with interior finishes and fit-out on Projected Development Site 2 in July 2026, the total duration of construction is anticipated to be 22 months. Because the construction activities would last for fewer than 24 months, the Proposed Actions would not result in significant impacts to the adjacent community.

Analysis

Transportation

According to the *CEQR Technical Manual*, a number of factors should be considered before determining whether a preliminary assessment of the effect of construction on transportation is needed including:

- Whether the project's construction would be located in a Central Business District (CBD) or along an arterial or major thoroughfare;
- Whether the project's construction activities would require closing, narrowing, or otherwise impeding moving lanes, roadways, key pedestrian facilities, parking lanes and/or parking spaces, bicycle routes and facilities, bus lanes or routes, or access points to transit; and
- Whether the project would involve construction on multiple development sites in the same geographic area, such that there is the potential for several construction timelines to overlap, and last for more than two years overall.

Projected Development Site 1 has frontages on Concord Avenue, E 145th Street, and Wales Avenue, all of which are local roads. Projected Development Site 2 has a single frontage along Concord Avenue. No construction activities would occur on along a CBD, arterial, or major thoroughfare. Further, the total duration of construction on both Projected Development Sites would not last for more than two years overall.

Any potential closure of the sidewalks adjacent to the Projected Development Sites would be considered a short-term routine closure that would be addressed by a permit and pedestrian access plan issued by the NYC DOT Office of Construction Mitigation and Coordination at the time of closure. Changes to moving traffic lanes are not expected.

There are four schools (Mott Haven Community High School (P.S.557), JM Rapport School for Career Development (P.S. 754), Neighborhood Charter School: Bronx, and The American Dream

School), two of which are S/NR eligible architectural resources (Mott Haven Community High School (P.S.557), JM Rapport School for Career Development (P.S. 754) within the 400-foot radius of the Projected Development Sites. However, the current pavement markings for crosswalks leading to and from the surrounding community facility uses would facilitate the avoidance of the potentially impacted sidewalk segments around the Affected Area. Therefore, the Proposed Actions would not disrupt the flow of pedestrians.

Considering the above, construction of the Development Sites would not be expected to result in significant adverse impacts on transportation.

Air Quality

Demolition, excavation, and foundation activities, which often generate the highest levels of air emissions, would be temporary and limited in duration and would take approximately 4.7 months for Projected Development Site 1 (beginning in October 2024, and ending in February 2025), and 3.6 months for Projected Development Site 2 (beginning in June 2025, and ending in September of 2025). These activities would be spread out over two locations on the block and would not overlap. In addition, any heavy equipment associated with the construction of the buildings (such as a crane) would operate from at least two different locations during construction.

As with most construction projects in the City, the proposed project would require the operation of several pieces of diesel equipment at one time during the heavier periods of construction, such as demolition and excavation. However, as stated in the *CEQR Technical Manual*, all the necessary measures would be implemented to ensure compliance with the NYC Air Pollution Control Code regulating construction-related dust emissions. Based on the project size and the construction work involved, construction activities for the Proposed Actions would not be considered out of the ordinary or exceptional in terms of intensity and would be of a relatively short duration (less than 2 years). Therefore, based on the above and with the implementation of emissions control measures that are required by local law, the construction of the development sites would not result in any significant adverse impacts on air quality.

Noise

While increases in ambient noise levels due to construction exceeding the CEQR impact criteria for two years or less may be noisy and intrusive, they are not considered to be significant adverse noise impacts. As described above, construction of the development sites would occur over a relatively short time period of approximately 22 months. In addition, as discussed above, demolition, excavation, and foundation activities, and superstructure activities, which are the noisiest construction activities, would be temporary and limited in duration and would take approximately 4.7 months for Projected Development Site 1 (beginning in October 2024, and ending in February 2025), and 3.6 months for Projected Development Site 2 (beginning in June 2025, and ending in September of 2025).

Construction noise is regulated by the NYC Noise Control Code and by EPA's noise emission standards for construction equipment. These local and federal requirements mandate that certain classifications of construction equipment and motor vehicles meet specified noise emission standards; that construction activities be limited to weekdays between the hours of 7AM and 6PM; and that construction materials be handled and transported in such a manner as not to create unnecessary noise. If weekend or after hour work is necessary, permits would be required to be obtained, as specified in the NYC Noise Control Code. Therefore, no significant noise impacts would occur as a result of the project construction.

Historic and Cultural Resources

The assessment of construction impacts on historic and cultural resources considers the possibility of physical damage to any architectural or archaeological resources identified in the project's historic and cultural resources assessment.

Pursuant to Chapter 22, Section 300 of the *2021 CEQR Technical Manual*, if a project's construction activities are located within 400 feet of a historic or cultural resource, potential hazards should be assessed, such as whether certain character-defining elements of a structure, including but not limited to rooftops or stained-glass windows, could be impacted by falling objects from an adjacent construction site.

The City has two procedures for avoidance of damage to historic structures from adjacent construction:

1. All buildings are provided some protection from accidental damage through New York City Department of Buildings (DOB) controls that govern the protection of any adjacent properties from construction activities, under Building Code Section 27-166 (C26-112.4). For all construction work, Building Code section 27-166 (C26-112.4) serves to protect buildings by requiring that all lots, buildings, and service facilities adjacent to foundation and earthwork areas be protected and supported in accordance with the code requirements.

2. The second protective measure applies only to designated NYCL and S/NR listed historic buildings that are located within 90 linear feet of a proposed construction site. For these structures, the DOB's Technical Policy and Procedure Notice (TPPN) #10/88 is applicable. The DOB's TPPN 10/88 supplements the standard building protections afforded by the Building Code C26-112.4 by requiring, among other things, a monitoring program to reduce the likelihood of construction damage to adjacent LPC-designated or S/NR-listed resources (within 90 feet), and to detect at an early stage the beginnings of damage so that construction procedures can be changed.

If the project is not located within 90 feet of a historic or cultural resource that is NYC-landmark eligible, eligible for the State and National Register of Historic Places, or within an eligible New

York City Historic District, then no special protections apply. Therefore, the potential for physical disturbance and adverse impacts on those historic and cultural resources should be disclosed.

The Cultural Resource Information System (CRIS) online resource has indicated two eligible architectural resources within the Study Area:

- S/NR eligible PS 754, JM Rapport School for Career Development at 470 Jackson Avenue;
- S/NR eligible PS 557, Mott Haven Community High School at 455 Southern Boulevard.

Therefore, an analysis on the potential impacts of the Proposed Actions on the identified architectural resources related to construction is warranted and is discussed below (see also **Section 2.4.1**).

S/NR eligible PS 577 Mott Haven Community High School

- Projected Development Site 1 is within 90 feet of S/NR eligible PS 557, Mott Haven Community High School at 455 Southern Boulevard. Mott Haven Community High School is a 3-story brick building constructed in 1931, altered in 2007 and 2012, and located about 86 feet away from Projected Development Site 1. To mitigate any possible construction impact on S/NR-listed properties within a 90-foot radius, a special protective measure TPPN #10/8 applies. TPPN #10/88 requires a monitoring program to reduce the likelihood of construction damage to adjacent NYCLs and NR-listed properties (within 90 feet) and to detect at an early stage the beginnings of damage so that construction procedures can be changed. Therefore, no construction impacts from Projected Development Site 1 to S/NR eligible PS 557, Mott Haven Community High School would occur.
- Projected Development Site 2 is located 208 feet southwest of S/NR eligible PS 557, Mott Haven Community High School, at 455 Southern Boulevard. PS 557 is buffered from Projected Development Site 2 by the adjacent intervening building on Projected Development Site 1 and is further buffered by the intersection of East 145th Street and Wales Avenue. Accordingly, Projected Development Site 2 would not introduce adverse construction-related impacts to S/NR eligible PS 557, Mott Haven Community High School from ground-borne construction period vibrations, falling debris, and/or collapse. Therefore, significant adverse impacts to this resource would not occur as a result of the Proposed Actions, and further analysis is not warranted.

S/NR eligible 470 Jackson Ave, P.S. 754, JM Rapport School for Career Development

- Projected Development Site 1 is located 97 feet southeast of S/NR eligible PS 754, JM Rapport School for Career Development at 470 Jackson Avenue. PS 754 is buffered from Projected Development Site 1 by the intersection of East 145th Street and Concord Avenue. Accordingly, Projected Development Site 1 would not introduce adverse construction-related impacts to S/NR eligible PS 754 from ground-borne construction

period vibrations, falling debris, and/or collapse. Therefore, significant adverse impacts from Projected Development Site 1 on this resource would not occur, and further analysis is not warranted.

- Projected Development Site 2 is located 158 feet southeast of S/NR eligible PS 754, JM Rapport School for Career Development at 470 Jackson Avenue. PS 754 is partially buffered from Projected Development Site 2 by the adjacent intervening building on Projected Development Site 1 and is further buffered by the intersection of East 145th Street and Concord Avenue. Accordingly, Projected Development Site 2 would not introduce adverse construction-related impacts to S/NR eligible PS 754, JM Rapport School for Career Development ground-borne construction period vibrations, falling debris, and/or collapse. Therefore, significant adverse impacts to this resource would not occur because of the Proposed Actions, and further analysis is not warranted.

2.11.1 Conclusion

As was discussed above, construction of the Development Sites would not be expected to result in significant adverse impacts on each of the relevant technical areas. Construction activities at the Development Sites would be completed in a relatively short time period of approximately 22 months and would be performed subject to relevant EPA, DEP, DOT and DOB codes and regulations. With these construction control and protective measures, no impacts to Transportation, Air Quality, Noise, or Historic and Cultural Resources would occur. Therefore, the Proposed Actions would not have any significant adverse construction impacts, and further analysis is not required.

TECHNICAL MEMORANDUM
438 Concord Avenue Rezoning
CEQR No. 23DCP092X

June 20, 2024

I. INTRODUCTION

The New York City Department of City Planning is proposing a citywide zoning text amendment, the City of Yes for Housing Opportunity ("CHO") (CEQR No. 24DCP033Y) to expand opportunities for housing within all zoning districts, and across all 59 of the City's Community Districts. These changes to the City's Zoning Resolution would enable more housing and a wider variety of housing types in every neighborhood, from the lowest-density districts to the highest, to address the housing shortage and high cost of housing in New York City. It is anticipated that this proposed zoning text amendment would be referred into public review in Spring 2024. This project may be affected by the proposals included in the text amendment, and in order to present a conservative environmental analysis, this Technical Memorandum examines whether the analysis conclusion of the EAS proposed would be altered by CHO.

The Applicant, BronxCo, LLC, is seeking the approval of a zoning map amendment from an M1-2 to an R7D/M1-4 (MX) zoning district. The Applicant also proposes a zoning text amendment to Appendix F of the Zoning Resolution (ZR) to map a Mandatory Inclusionary Housing (MIH) area (the "Proposed Actions") and the addition of R7D to the Special "MX 18 – Community District 1, The Bronx" row in the table within Section 123-63 (Maximum Floor Area Ratio and Lot Coverage Requirements for Zoning Lots Containing Only Residential Buildings in R6, R7, R8 and R9 Districts). The Proposed Actions would affect a 150-foot-deep rectangular area of approximately 30,548 SF including Block 2577, Lots p/o 6, 7, 8, 9, 14, and p/o 20 (the "Affected Area"), in the Mott Haven neighborhood of Bronx, Community District 1.

The Proposed Actions would facilitate a proposal by the Applicant to develop a new 174,709 gross square foot (gsf), 138,412 zoning square foot (zsf), mixed-use residential, commercial, community facility, and light manufacturing building on Lots 9, and 14. The building would include 35,256 GSF (28,898 ZSF) of commercial space, 7,187 GSF (6,634 ZSF) of community facility space, 10,258 GSF (7,602 ZSF) of manufacturing space, and 113,139 GSF (95,279 ZSF) of residential floor area with 87 dwelling units, 25-30% (22-26 units) of which would be affordable pursuant to MIH. The development would include an 8,869 GSF parking garage at the cellar level with 43 residential accessory parking spaces. Lots 7 and 8 would not be redeveloped.

For the purposes of presenting a conservative analysis, the EAS analyzed two projected developments sites.

The RWCDS is consistent with the Applicant's proposal to use a Zoning Lot Merger (ZLM) involving Lots 7, 8, 9, and 14 to apply 8,777 ZSF of the Development Rights of Projected Development Site 2 (Lots 7 and 8) to Projected Development Site 1 (Lots 9 and 14). The Applicant-controlled Lots 7, 8, 9, and 14 would be merged into a 25,548-SF zoning lot within the proposed R7D/M1-4 (MX) district. Approximately 604 square feet of lot area would also be conveyed from Lot 9 to Lot 8 to match the fence line against the existing retaining wall serving as a factual boundary between tax Lots 8 and 9. Additionally, to provide a conservative analysis when considering the combination of Projected Development Sites 1 and 2, a maximum FAR of 6.5 was utilized as described below.

Projected Development Site 1 (Lots 9 and 14)

The RWCDS for Projected Development Site 1 (Lots 9 and 14) is consistent with the Applicant's proposal in terms of the proposed uses and their respective floor areas. For the purposes of a conservative analysis, the RWCDS adopts a dwelling unit factor of 837 GSF/DU, resulting in a total of 120 dwellings units and 48 residential parking spaces (50% of market-rate dwelling units). The building height is assumed to be 115 SF (11 floors), which is the maximum permitted under the proposed zoning regulation.

It was assumed that in the future with the Proposed Actions Projected Development Site 1 would be developed with a single 174,709 GSF (138,413 ZSF, 6.94 FAR) mixed-use building with 100% lot coverage. The building would contain approximately 7,187 GSF (6,634 ZSF, 0.33 FAR) of community facility use, 10,258 GSF (7,602 ZSF, 0.38 FAR) of light industrial and manufacturing use, 4,526 GSF (3,301 ZSF, 0.17 FAR) of local retail and 30,730 GSF (25,597 ZSF,1.28 FAR) of office use (1.45 total commercial FAR), and 113,139 GSF (95,279 ZSF, 4.78 FAR) of residential use of which 100,586 GSF (95,279 ZSF, 4.78 FAR) would be above the cellar level (residential lobby on the ground floor and residential units on floors 4 to 11) yielding approximately 120 dwelling units (assuming 837 GSF per DU on average) and 12,553 GSF would be in the cellar used as storage space and technical rooms. Among the 120 dwelling units, 25-30% (30-36 units) would be affordable pursuant to MIH at an average of 60-80% AMI depending on the Option selected. For the purposes of Early Childhood Programs analysis, 20% of residential floor area (24 units) is assumed to be affordable at or below 60% AMI. An 8,869-SF below-grade parking lot would contain approximately 48 spaces. The building would be 11 stories tall and rise to 115 feet with a base height of 95 feet. At the base height of 95 feet, there would be a 15-foot setback on Concord Avenue, 145th Street and Wales Avenue, as these streets are considered to be narrow (less than 75 feet wide). A 10-foot mechanical bulkhead would be assumed for the Development Site for a conservative shadows analysis under CEQR. One curb cut would be proposed on Concord Avenue.

Projected Development Site 2 (Lots 7 and 8)

Under Future With-Action Conditions, it was assumed that Projected Development Site 2 (Lots 7 and 8) would be developed with a single 34,979 GSF (27,648 ZSF, 4.93 FAR) mixed-use building with 100% lot coverage. The building would contain approximately 13,121 GSF (12,020 ZSF, 2.14 FAR) of residential use and 16,253 GSF (15,628 ZSF, 2.79 FAR) of community facility use (potentially medical office). There would be approximately 15 dwelling units (assuming 850 SF per DU on average), 25-30% (4 units) of which would be affordable pursuant to MIH at an average of 60-80% AMI depending on the Option selected. For the purposes of Early Childhood Programs analysis, 20% of residential floor area (3 units) is assumed to be affordable at or below 60% AMI. The 5,604-SF cellar would contain a parking lot with six parking spaces, mechanical rooms, and bike storage. The building would be 11 stories tall and rise to 115 feet with a base height of 95 feet. At the base height of 95 feet, there would be a 15-foot setback on Concord Avenue. A 10-foot mechanical bulkhead would be assumed for the development site for a conservative shadows analysis under CEQR. One curb cut would be proposed on Concord Avenue.

Overall, the RWCDS included 209,688 GSF (166,061 ZSF, 6.5 FAR) of mixed-use development consisting of 126,260 GSF (107,299 ZSF, 4.20 FAR) of residential use, 35,256 GSF (28,898 ZSF, 1.13 FAR) of commercial use, 23,440 GSF (22,262 ZSF, 0.87 FAR) of community facility use, and 10,258 GSF (7,602 ZSF, 0.38 FAR) of manufacturing use. There would be a total of 135 dwelling units, 25-30% (34-40 units) of which would be affordable pursuant to MIH at an average of 60-80% AMI depending on the Option selected. For the purposes of Early Childhood Programs analysis, 20% of residential floor area (27 units) is assumed to be affordable at or below 60% AMI. 14,473 SF of below-grade parking over the two Development Sites would contain approximately 54 parking spaces. A total of two curb cuts would be constructed on Concord Avenue.

II. DESCRIPTION OF CITY OF YES FOR HOUSING OPPORTUNITY

The proposed Housing Opportunity text amendment seeks to enable more housing and wider variety of housing types in all neighborhoods citywide, from the lowest-density districts to the highest, to address the housing shortage and high cost of housing in New York City. The proposed text amendment comprises project components in four broad categories: Medium- and High-Density proposals in R6-R10 districts and equivalents; Low-Density proposals in R1-R5 districts and equivalents; Parking proposals, which span the full range of districts and densities; and assorted other changes in line with project goals. In general, these changes will apply in underlying zoning districts, Special Districts, and other geographies that modify underlying zoning, with limited adjustments to reflect planning goals in specific areas.

To create more housing and more types of housing, the proposed text amendment includes components that fall into four major proposal areas – 1: Medium- and High-Density Districts, 2: Low-Density Districts, 3: Parking, and 4: Other Initiatives that are miscellaneous, citywide in nature, and align with overall project goals. Because the Proposed Actions would result in an R7D district, it would fall into the medium- and high- density district category.

Medium- and high-density districts (R6 through R10) are typically mapped in areas where transit access, job access, infrastructure, and other factors make such densities appropriate. Housing in these areas generally consists of multifamily housing that includes income-restricted affordable housing, rent-regulated housing, and market-rate housing that ranges from modest and relatively inexpensive to some of the most expensive housing in the world. The proposed text amendment would increase housing opportunities in these areas by increasing affordable and supportive floor area ratios (FARs) in all medium- and high-density districts; expanding eligibility for the City's adaptive reuse regulations to a broader range of buildings, such as struggling office districts; enabling small and shared apartment models to take pressure off family-sized units; and simplifying infill regulations for campuses and other zoning lots with existing buildings. Where necessary, the proposed text amendment would also adjust building envelopes to ensure that typical sites can accommodate the additional floor area provided for affordable and supportive housing. This incremental increase in capacity would only be available for affordable and supportive housing.

As discussed in detail in the City of Yes for Housing Opportunity Draft Scope of Work, the proposed zoning text amendment would not change the allowable FAR for this project's proposed zoning district from 5.6 in R7D districts (pursuant to Mandatory Inclusionary Housing). CHO's proposed Universal Affordability Preference ("UAP") would not increase the allowable developable floor area for the proposed project. However, CHO would change the maximum height analyzed for the proposed R7D district from 115 feet to 125 feet, permitting a 10-foot increase.[1]

[1] *City of Yes for Housing Opportunity Draft Scope of Work (CEQR No. 24DCP033Y).* September 29, 2023.

III. ANALYSIS FRAMEWORK

This Technical Memorandum provides a preliminary assessment of the effects of CHO on the Proposed Actions and details how CHO would affect the analysis and conclusions presented in the EAS. The City of Yes for Housing Opportunity proposal as presented in the Draft Scope of Work would not change the allowable FAR for this project's proposed zoning district. CHO would change the maximum height analyzed in the EAS for the proposed M1-4/R7D district from 115 feet to 125 feet. No parking spaces would be required because CHO proposes to eliminate parking requirements for new residential developments. The two Projected Development Sites would maximize the available FAR. As shown in **Table 1**, under the proposed zoning text amendment, the maximum permitted building height in the proposed R7D/M1-4 (MX) district would increase from 115 feet to 125 feet. No changes to the maximum permitted FAR in R7D districts would occur as a result of the proposed zoning text amendment.

Future No-Action Condition

In the future without the Proposed Actions, no development would occur within the Affected Area. City of Yes for Housing Opportunity would not alter the No-Action Condition.

Future With-Action Condition

City of Yes for Housing Opportunity would modify the With-Action Condition analyzed in the EAS by facilitating the development of an additional 10 feet of building height.

Table 1. Comparison of Existing, Proposed, and Potential Zoning

	EXISTING	PROPOSED	POTENTIAL CHO ZONING TEXT AMENDMENT
	M1-2	R7D/M1-4 (MX)	R7D/M1-4 (MX)
Use Groups	4-14, 16-17	1-14, 16-17	1-14, 16-17
Maximum FAR	2.0 Manufacturing 2.0 Commercial 4.8 Community Facility	5.6 Residential 2.0 Manufacturing 2.0 Commercial 4.2 Community Facility	5.6 Residential 2.0 Manufacturing 2.0 Commercial 4.2 Community Facility
Maximum Building Height	Sky Exposure Plane	115 feet	125 feet

As shown in **Table 2**, under the proposed zoning text amendment, the With-Action condition would include a total of approximately 126,260 GSF of residential uses (135 DUs of which 34-40 DUs would be affordable), 10,258 GSF of manufacturing uses, 35,256 GSF of commercial uses, and 23,440 GSF of community facility uses. The building heights for the Projected Development Sites would increase to 125 feet. Compared to the development program analyzed in the EAS; the proposed zoning text amendment would result in an additional 10-foot maximum building height. There would be no change to the maximum residential, manufacturing, commercial, or community facility floor areas.

Table 2. Comparison of the permitted floor area and maximum building height

	ANALYZED IN THE WITH ACTION CONDITION	PROPOSED CHO ZONING TEXT AMENDMENT MODIFICATIONS	NET DIFFERENCE
Residential gsf	126,260	126,260	**No change**
Manufacturing gsf	10,258	10,258	**No change**
Commercial gsf	35,256	35,256	**No change**
Community Facility gsf	23,440	23,440	**No change**
Building Height	115 feet	125 feet	**+10 feet**

IV. ASSESSMENT OF POTENTIAL IMPACTS

For environmental analysis purposes, this Technical Memorandum will compare the RWCDS program analyzed in the EAS with the future conditions under the proposed CHO zoning text amendment. As the proposed CHO zoning text amendment would not result in additional permitted FAR in R7D districts, the conclusions for the density related impact categories, such as Open Space and Transportation, analyzed in the EAS would remain unchanged. Therefore, the proposed zoning text amendment would not result in any new impacts in those technical areas. For site specific impacts related to Hazardous Materials, Air Quality, and Noise, the same proposed (E) designation requirements identified for the Projected Development Sites would be warranted under the proposed zoning text amendment. For technical analyses reliant on building bulk and height, such as Shadows and Urban Design and Visual Resources, the permitted under CHO maximum building height would be larger than the building height analyzed in the EAS. Therefore, the assessment in this section focuses on the technical areas with the potential for new impacts as a result of the proposed CHO zoning text amendment.

Urban Design and Visual Resources

The Urban Design and Visual Resources assessment provided in the EAS analyzed the 115-foot-tall buildings on the Projected Development Sites and concluded that the Proposed Actions would not result in significant adverse impacts. The proposed zoning text amendment would not allow for any additional FAR for inclusionary housing in R7D districts; however, it would permit an additional 10 feet of maximum height, increasing from 115 feet to 125 feet.

The slight increase in height facilitated by CHO would result in a negligible change in building appearance that would not negatively affect the pedestrian experience. The potential additional height would not obstruct any significant visual resources. The potential change in building height enabled by CHO would not result in a significant adverse impact to Urban Design and Visual Resources, thus no further analysis is warranted.

Shadows

With the proposed zoning text amendment, the maximum permitted building height would increase by 10 feet reaching 125 feet. For a conservative analysis of Shadows, both Projected Development Sites 1 and 2 are projected to include 10-foot bulkheads to accommodate rooftop mechanical space. This would result in a total potential building height of 135 feet increasing the maximum shadow radius from the 537.5 feet analyzed in the EAS to approximately 580.5 feet. Therefore, an assessment of how the increase in height would affect shadows analysis results is warranted.

Absent the proposed CHO zoning text amendment, the Detailed Shadow Analysis provided in **Section 2.3** of the EAS showed that the Proposed Rezoning from M1-2 to R7D/M1-4 (MX) would result in incremental shadows on I-Am-Park and St. Mary's Park. In the December 21st analysis period, the new shadows created by the Projected Developments cover the southern half of I-Am-Park and basketball courts for a limited time (from 8:51 am to 9:25 am). In the March 21st/September 21st analysis period, the incremental shadows cover a portion of the basketball courts and playground on the eastern portion of St. Mary's Park for a limited amount of time (from 7:36 am to 8:06 am). In the May 6th/August 6th analysis period, the shadows created by the Projected Developments cover a portion of the baseball field and walking path on the eastern portion of St. Mary's Park for a limited amount of time (from 6:27 am to 6:50 am). In the June 21st analysis period, the incremental shadows cover a portion of the baseball field and walking path on the eastern portion of St. Mary's Park for a limited amount of time (from 5:57 am to 6:20 am). The durations of the incremental shadows generated by the projected development without CHO are shown in Table 3.

In the future with the proposed CHO zoning text amendment, the maximum permitted building height would increase by 10 feet to a maximum height of 135 feet. Accordingly, a new shadow screening assessment is provided below.

Table 3: Detailed Shadow Analysis Results without CHO

Analysis Day	21-Dec	March 21 / September 21	May 6 / August 6	21-Jun
Timeframe Window	8:51 a.m. - 2:53 p.m.	7:36 a.m. - 4:29 p.m.	6:27 a.m. - 5:18 p.m.	5:57 a.m. - 6:01 p.m.
Sunlight Sensitive Resource 1	**St. Mary's Park**			
Shadow enter - exit times	-	7:36 am - 8:06 am	6:27 am - 6:50 am	5:57 am - 6:20 am
Incremental Shadow Duration	-	30 Minutes	23 Minutes	23 Minutes
Sunlight Sensitive Resource 2	**I-Am-Park**			
Shadow enter - exit times	8:51 am - 9:25 am	-	-	-
Incremental Shadow Duration	34 Minutes	-	-	-
Note: Daylight savings time not used				

Tier 1 Shadow Screening Assessment

Under the future with CHO, the Projected Development Sites 1 and 2 could be developed with new buildings having a maximum height of 135 feet. Therefore, the longest action-induced shadow would be approximately 580.5 feet (4.3 x 135 feet) in length. As shown in **Figure 1**, the same two sunlight-sensitive resources, St. Mary's Park (Sunlight Sensitive Resource 1) and I-Am-Park (Sunlight Sensitive Resource 2) lie within the expanded longest shadow Study Area. Accordingly, a Tier 2 shadow screening assessment is required.

Tier 2 Shadow Screening Assessment

For a Tier 2 screening assessment, sunlight-sensitive resources within the triangular area cannot be shaded by new Projected Development Sites and are screened out. As shown in **Figure 2**, the Tier 2 screening assessment shows that St. Mary's Park (Sunlight Sensitive Resource 1) and I-Am-Park (Sunlight Sensitive Resource 2) are outside of the -108/+180-degree triangular area south of the Projected Sites where no shadow can be cast. Accordingly, a Tier 3 shadow screening assessment is required.

Tier 3 Shadow Screening Assessment

Three-dimensional computer modeling was used for the Tier 3 screening assessment under future with CHO. As shown in **Figures 3** to **6** below, shadows from the Projected Developments would reach the sunlight-sensitive resource, I-Am-Park (Sunlight Sensitive Resource 2), on December 21st (Winter Solstice) and reach St. Mary's Park on March 21st/September 21st (Vernal and Autumnal Equinox), May 6th / August 6th, and June 21st (Summer Solstice). Therefore, a detailed shadow analysis is required to determine the incremental shadows on St. Mary's Park (Sunlight Sensitive Resource 1) and I-Am-Park (Sunlight Sensitive Resource 2).

Figure 1: Tier 1 Shadows Screening Assessment

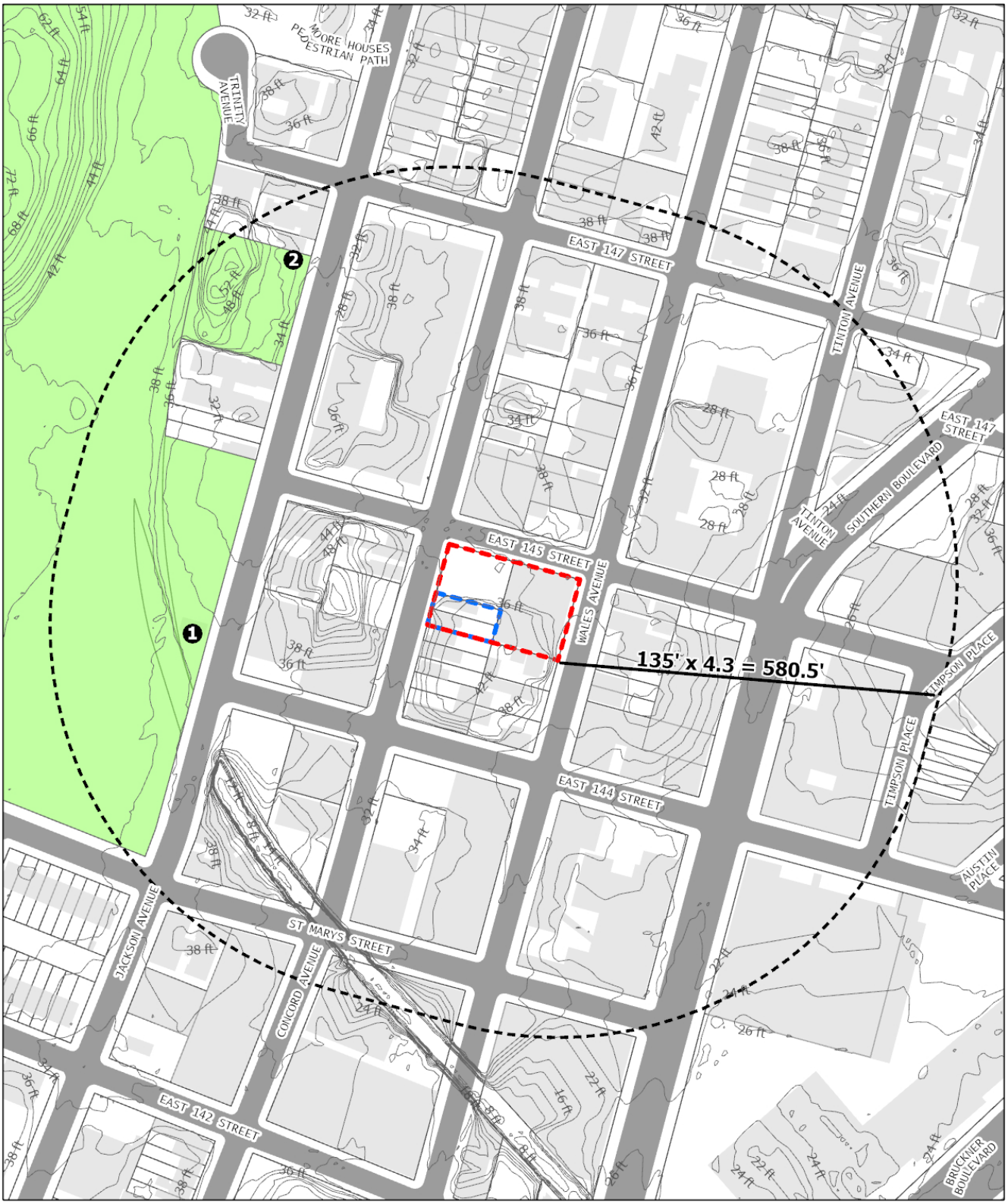


Figure 2: Tier 2 Shadows Screening Assessment

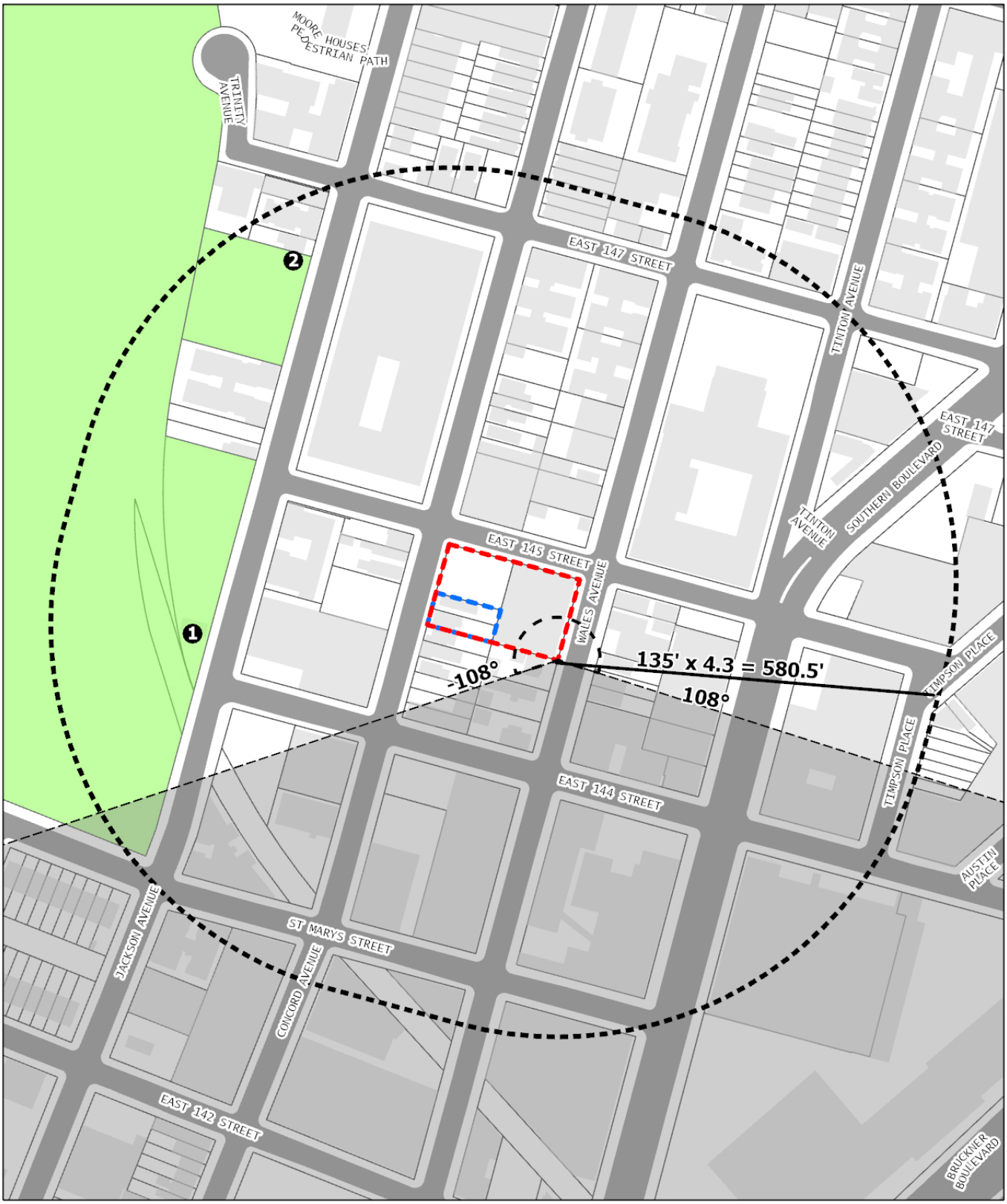


Figure 3: Tier 3 Shadows Screening December 21st (Winter Solstice)

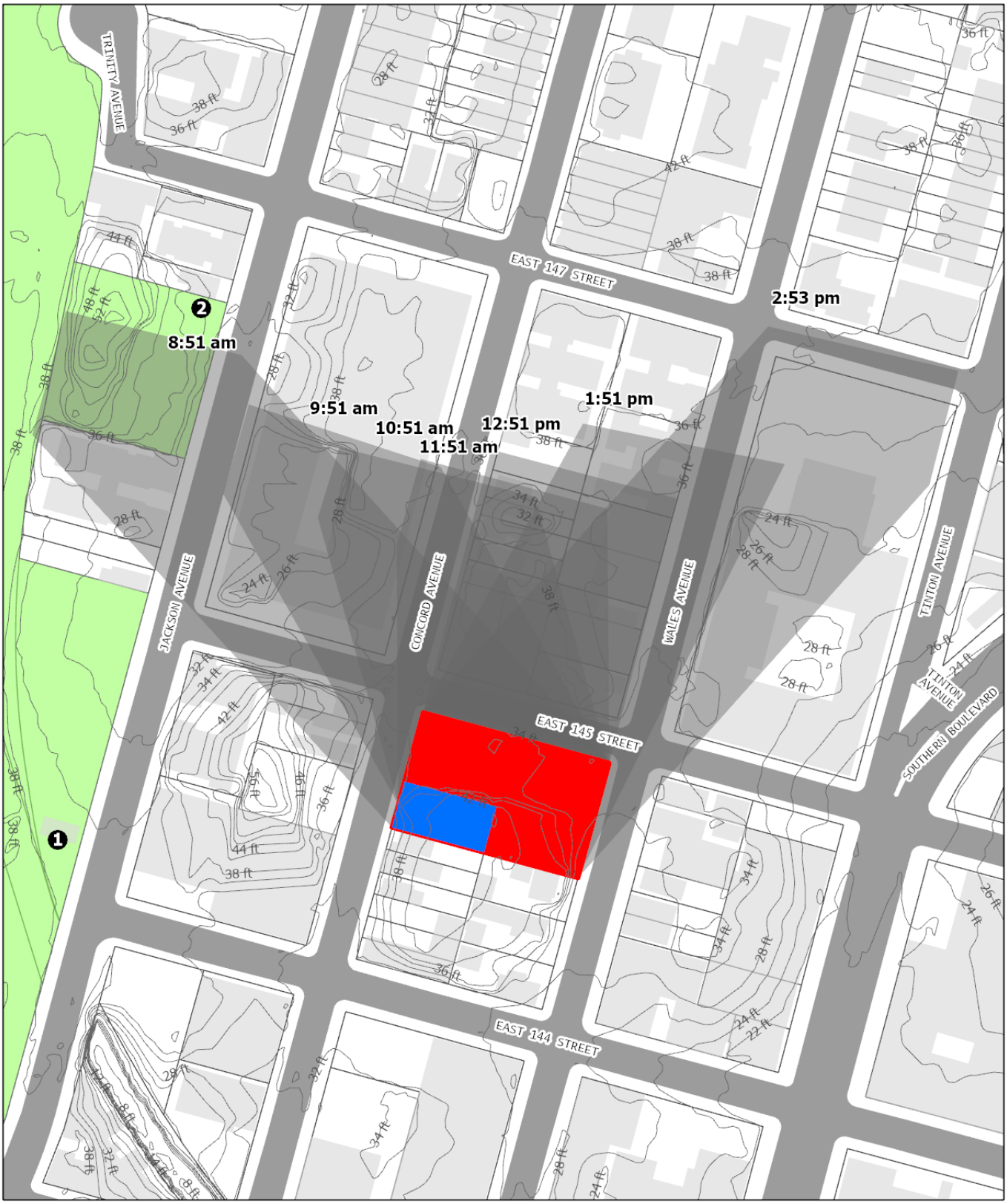


Figure 4: Tier 3 Shadows Screening March 21st/September 21st (Vernal and Autumnal Equinox)

Figure 5: Tier 3 Shadow Screening May 6th/August 6th

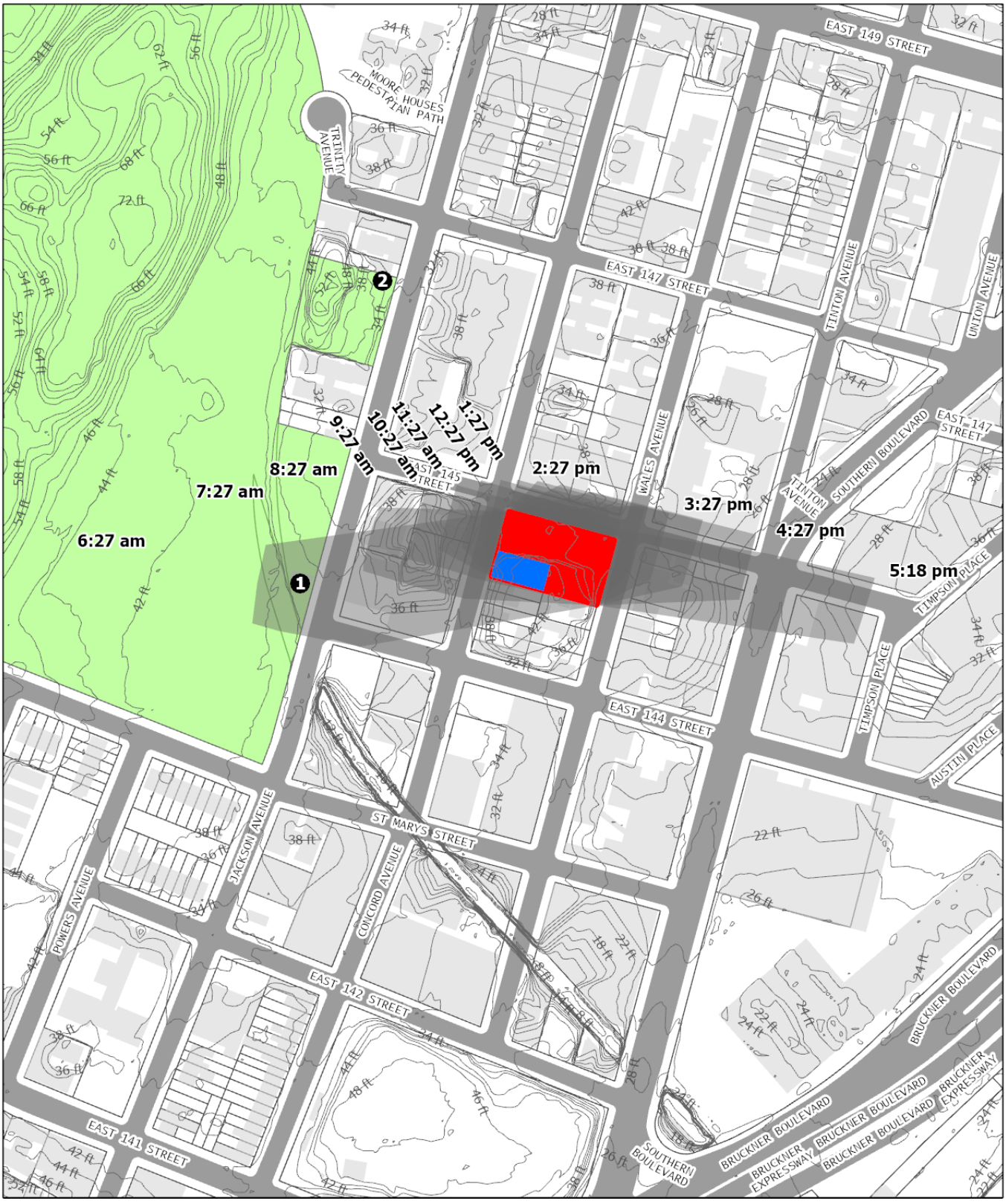


Figure 6: Tier 3 Shadow Screening June 21st (Summer Solstice)

Detailed Shadow Analysis

The results of the detailed shadow analyses on the identified resources of concern are summarized in **Table 4**. The incremental shadows cast by the Projected Development Sites are shown below in **Figures 7** to **10**.

Based on the findings of the Detailed Shadow Analysis, in the future with CHO, the Proposed Actions would result in incremental shadows on I-Am-Park during the December 21st analysis period. Shadows cast from the Projected Development Sites during the representative day in December enter I-Am-Park at 8:51 am and leave the park at 9:30 am. The total Incremental Shadow Duration on December 21st is 39 Minutes, which leaves 5 hours and 23 minutes of the parks unaffected sunlight exposure.

Based on the findings of the Detailed Shadow Analysis, the Proposed Actions would result in incremental shadows on St. Mary's Park during the March 21st / September 21st analysis period. Shadows cast from the Projected Developments during the representative day in March / September enter St. Mary's Park at 7:36 am and leave the park at 8:15 am. The total Incremental Shadow Duration on March 21st / September 21st is 39 Minutes, which leaves 8 hours and 14 minutes of the parks unaffected sunlight exposure.

Based on the findings of the Detailed Shadow Analysis, the Proposed Actions would result in incremental shadows on St. Mary's Park during the May 6th / August 6th analysis period. Shadows cast from the Projected Developments during the representative day in May / August enter St. Mary's Park at 6:27 am and leave the park at 7:00 am. The total Incremental Shadow Duration on May 6th / August 6th is 33 Minutes, which leaves 10 hours and 18 minutes of the parks unaffected sunlight exposure.

Based on the findings of the Detailed Shadow Analysis, the Proposed Actions would result in incremental shadows on St. Mary's Park during the June 21st analysis period. Shadows cast from the Projected Developments during the representative day in June enter St. Mary's Park at 5:57 am and leave the park at 6:30 am. The total Incremental Shadow Duration on June 21st is 33 Minutes, which leaves 11 hours and 31 minutes of the parks unaffected sunlight exposure.

Table 4. Detailed Shadow Analysis Results in The Future With CHO

Analysis Day	**21-Dec**	**March 21 / September 21**	**May 6 / August 6**	**21-Jun**
Timeframe Window	8:51 a.m. - 2:53 p.m.	7:36 a.m. - 4:29 p.m.	6:27 a.m. - 5:18 p.m.	5:57 a.m. - 6:01 p.m.
Sunlight Sensitive Resource 1	**St. Mary's Park**			
Shadow enter - exit times	-	7:36 am - 8:15 am	6:27 am - 7:00 am	5:57 am - 6:30 am
Incremental Shadow Duration	-	39 Minutes	33 Minutes	33 Minutes
Sunlight Sensitive Resource 2	**I-Am-Park**			
Shadow enter - exit times	8:51 am - 9:30 am	-	-	-
Incremental Shadow Duration	39 Minutes	-	-	-
Note: Daylight savings time not used				

Figure 7: Incremental Shadows December 21st, 8:51 a.m.

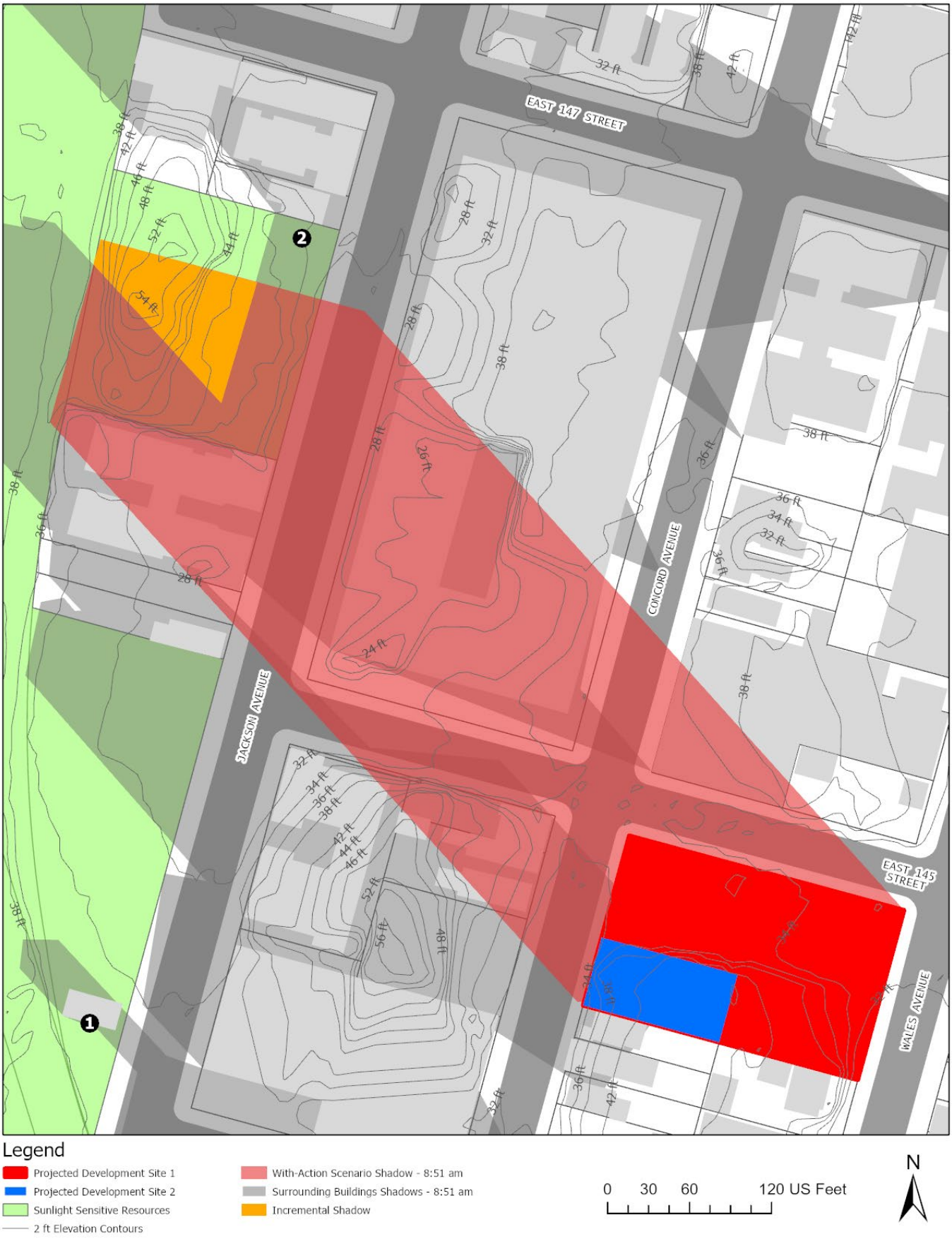


Figure 8: Incremental Shadows March 21st / September 21st, 7:36 a.m.

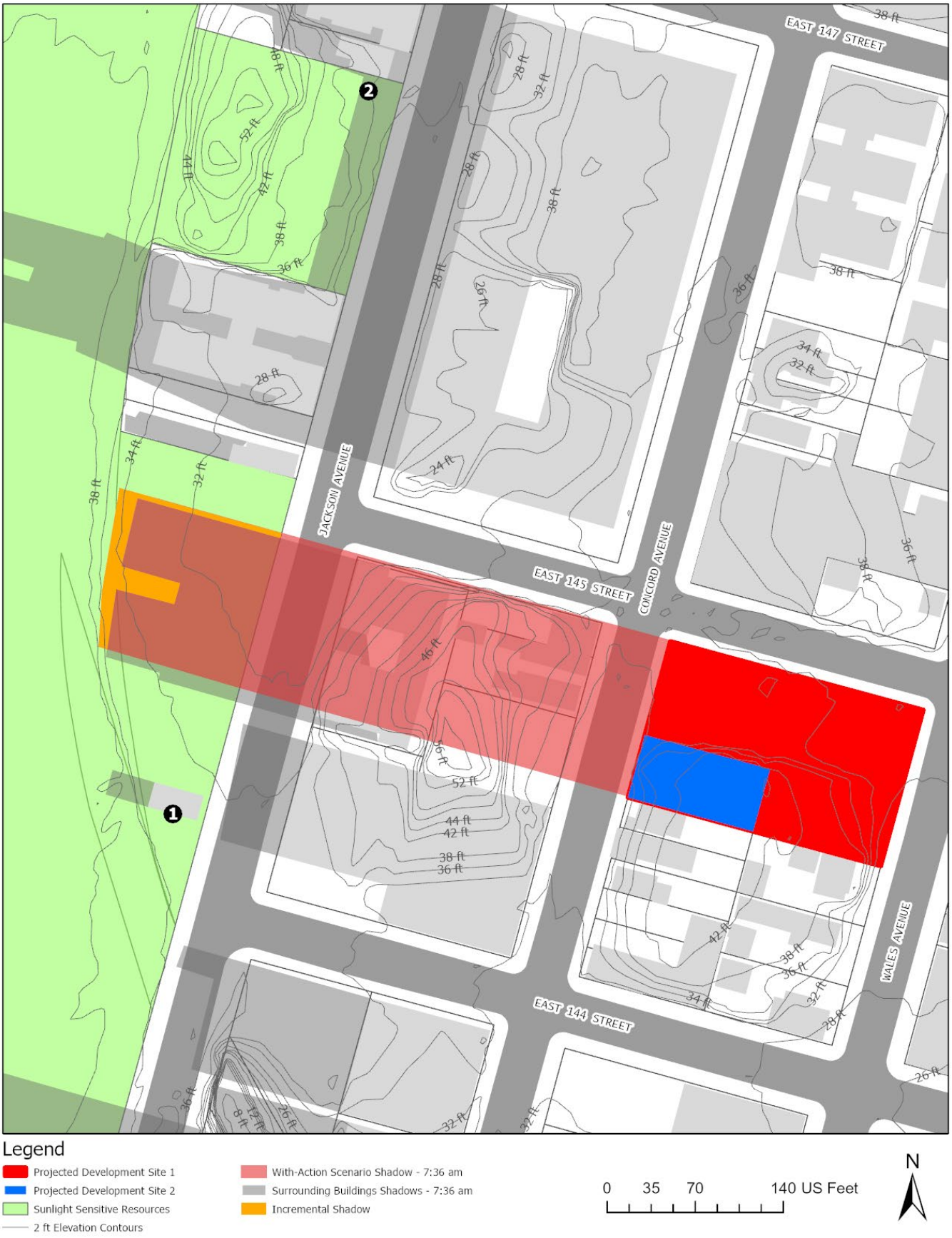


Figure 9: Incremental Shadows May 6th / August 6th, 6:27 a.m.

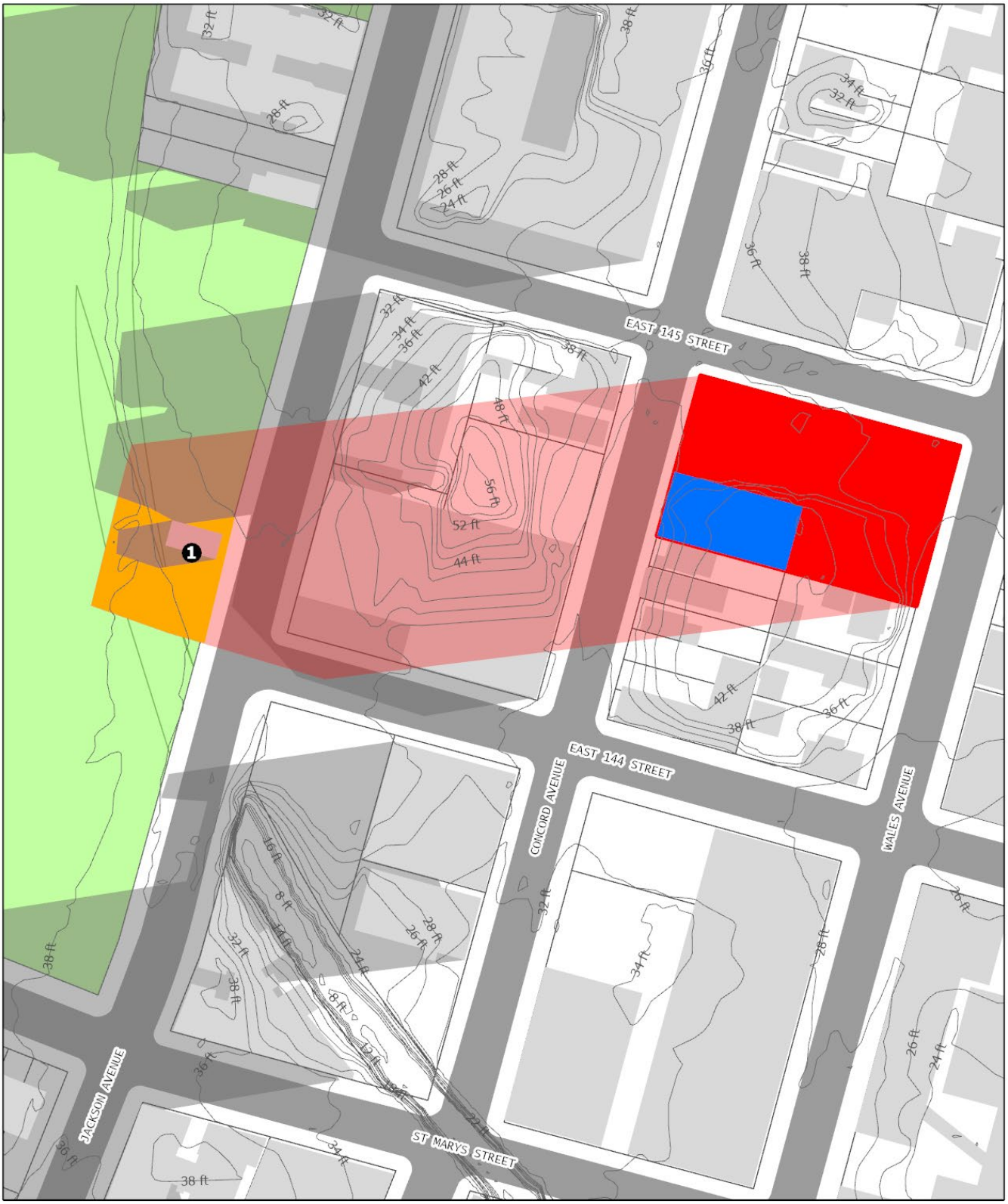
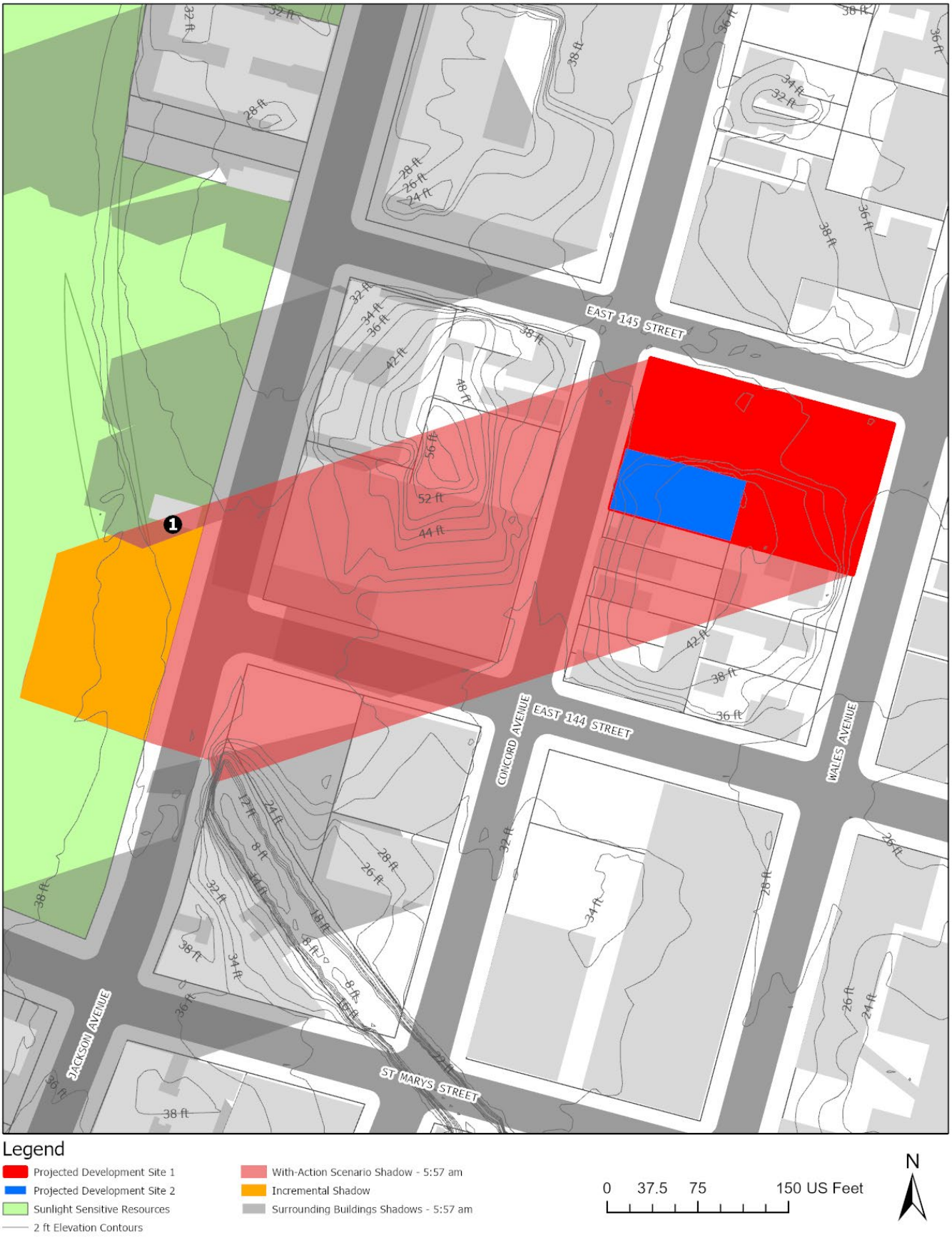


Figure 10: Incremental Shadows June 21st, 5:57 a.m.



Determination of the CHO-facilitated Shadow Significance

As was concluded in the EAS, in the future without the proposed CHO zoning text amendment, the Proposed Actions would not affect the vitality or usage of the sunlight-sensitive resources identified within the Study Area. The shadows generated by the Projected Developments would cover a small fraction of the parks for a limited amount of time.

In the future with CHO, the maximum permitted building height would increase by 10 feet resulting in the increased shadow exposure of the identified Open Space resources. Based on the analysis above, the increase in the duration of the incremental shadows facilitated by CHO and affecting I-Am-Park on December 21st would be 5 minutes. The increase in the duration of the incremental shadows facilitated by CHO and affecting St. Mary's Park would be 9 minutes on March 21 /September 21, 10 minutes on May 6 / August 6, and 10 minutes on June 21st. The increases in the durations of incremental shadows affecting the sunlight-sensitive resources are shown in **Table 5**.

Table 5. Incremental shadow duration increase facilitated by CHO

Analysis Day	**21-Dec**	**March 21 / September 21**	**May 6 / August 6**	**21-Jun**
Timeframe Window	8:51 a.m. - 2:53 p.m.	7:36 a.m. - 4:29 p.m.	6:27 a.m. - 5:18 p.m.	5:57 a.m. - 6:01 p.m.
Sunlight Sensitive Resource 1	**St. Mary's Park**			
Incremental Shadow Duration Increase	-	9 Minutes	10 Minutes	10 Minutes
Sunlight Sensitive Resource 2	**I-Am-Park**			
Incremental Shadow Duration Increase	5 Minutes	-	-	-
Note: Daylight savings time not used				

With a slight increase in the duration of the incremental shadows affecting the identified sunlight-sensitive resources, the proposed CHO zoning text amendment would result in a negligible change in the parks' sunlight exposure under the With-Action Scenario. Therefore, the conclusions of the EAS would not change as a result of the potential change in the incremental shadows facilitated by CHO, as the changes would not result in significant adverse impacts related to shadows.

Summary Conclusion

This technical memorandum assesses how the City of Yes for Housing Opportunity proposal would potentially alter the analysis of the Proposed Actions and conclusions presented in the corresponding Environmental Assessment Statement for the 438 Concord Avenue Rezoning. The City of Yes for Housing Opportunity proposal as presented in the Draft Scope of Work would not change the allowable FAR for this project's proposed zoning district. However, the CHO would change the maximum height analyzed in the EAS for the proposed R7D/M1-4 (MX) district from 115 feet to 125 feet. No parking spaces would be required because CHO proposes to eliminate parking requirements for new residential developments.

This Technical Memorandum concludes that potential changes facilitated by CHO would not affect the conclusions presented in the EAS which found no significant adverse impacts.

APPENDIX A

AGENCY CORRESPONDENCE

NYC Landmarks Preservation Commission

1 Centre Street
9th Floor North
New York, NY 10007

Voice (212)-669-7700
Fax (212)-669-7960
http://nyc.gov/landmarks

ENVIRONMENTAL REVIEW

Project number: DEPARTMENT OF CITY PLANNING / LA-CEQR-X
Project: 438 CONCORD REZONING
Date Received: 5/14/2021

Properties with no Architectural or Archaeological significance:

1) 422 CONCORD AVENUE, BBL: 2025770005
2) 428 CONCORD AVENUE, BBL: 2025770006
3) 432 CONCORD AVENUE, BBL: 2025770007
4) 434 CONCORD AVENUE, BBL: 2025770008
5) 438 CONCORD AVENUE, BBL: 2025770009
6) 435 WALES AVENUE, BBL: 2025770014
7) 429 WALES AVENUE, BBL: 2025770020

Gina Santucci

5/18/2021

SIGNATURE DATE

Gina Santucci, Environmental Review Coordinator

File Name: 35624_FSO_DNP_05182021.docx

APPENDIX B

ILLUSTRATIVE ARCHITECTURAL PLANS

Martin della Paolera Architects 65 Saint Felix Street, Brooklyn NY11217 Marina della Paolera ADE HMONP	**438 CONCORD AVENUE BRONX, NY 10045**	08-22-2023 SCALE	TITLESHEET

DRAWING LIST

Sheet Index	
Lay…	**Layout Name**
	TITLESHEET
A - 00	DRAWING LIST
A - 01	SITE DATA
A - 02	SITE LOCATION
A - 03	LAND USE IN SITE AREA
A - 04	PROPOSED LAND USE
A - 05	SITE SURVEY LOT 9
A - 06	SITE SURVEY LOT 8
A - 07	PART OF LOT 9 TO BE TRANSFERR…
A - 08	SITE SURVEY LOT 7
A - 09	SITE SURVEY LOT 14
A - 10	INITIAL SKETCHES
A - 11	DIAGRAMS
A - 12	DIAGRAMS
A - 13	ZONING ANALYSIS
A - 14	FLOOR AREA
A - 15	RESIDENTIAL AREAS PER FLOOR
A - 16	MIH AREAS
A - 17	MIH APARTMENT DISTRIBUTION
A - 18	OTHER AREAS
A - 19	SITE PLAN
A - 20	CELLAR PLAN
A - 21	FIRST FLOOR PLAN
A - 22	2ND FLOOR PLAN
A - 23	3RD FLOOR PLAN
A - 24	4TH FLOOR PLAN
A - 25	5TH FLOOR PLAN
A - 26	6TH TO 9TH FLOOR PLAN
A - 27	10TH FLOOR PLAN
A - 28	ROOF PLAN
A - 29	BULKHEAD PLAN
A - 30	NORTH EAST ELEVATION
A - 31	NORTH WEST ELEVATION
A - 32	SOUTH EAST ELEVATION
A - 33	SOUTH WEST ELEVATION
A - 34	BUILDING SECTION
A - 35	BUILDING SECTION
A - 36	BUILDING SECTION
A - 37	BUILDING SECTION
A - 38	CONCORD AVENUE AXONOMETRI…
A - 39	WALES AVENUE AXONOMETRIC VI…
A - 40	REAR AXONOMETRIC VIEW

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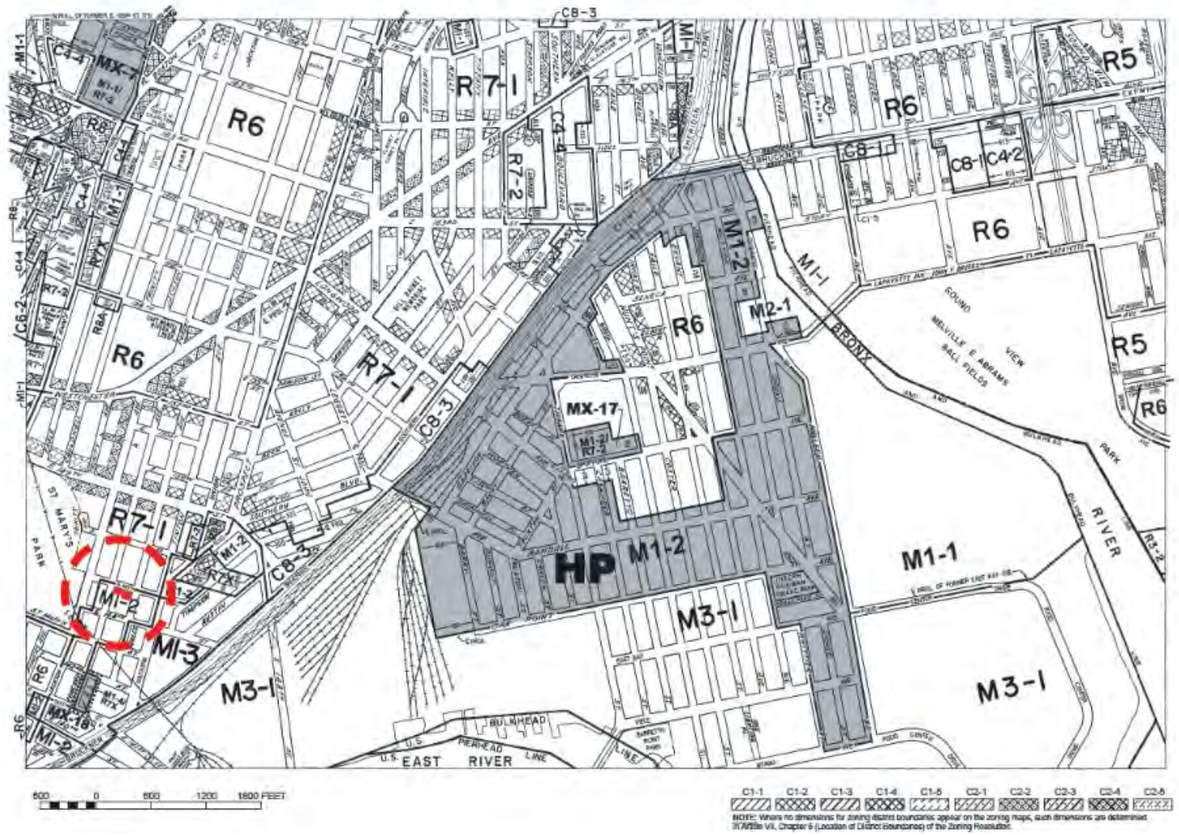
SCALE

DRAWING LIST

A - 00



SITE DATA

ADDRESS	438 Concord Avenue, Bronx, NY10045 (Lot 9) 435 Wales Avenue, Bronx, NY10045 (Lot 14) 434 Concord Avenue, Bronx, NY10045 (Lot 8) 432 Concord Avenue, Bronx, NY11045 (Lot 7)
BLOCK, LOT	2577, 9 2577, 14 2577, 8 2577, 7
ZONING DISTRICT	M1-2
ZONING MAP	6C
COMMUNITY DISTRICT	Bronx Community District 1
LOT DIMENSIONS	Lot 9: Rectangular 77'-8 13/16" x 100'-0" Lot 14: Rectangular 127'- 8 7/8" x 100'-0" Lot 8: Rectangular 25' x 100' Lot 7: Rectangular 25' x 100'
LOT AREA	Lot 9: 7,774 SF per survey (- 604 SF to be transfered to lot 8) Lot 14: 12,774 SF per survey Lot 8: 2,500 SF per survey (+ 604 SF to receive from lot 9) Lot 7: 2,500 SF per survey Total area: 25,548 SF
FEMA FIRM MAP	3604970091F, ZONE X, area of minimal flood hazard
LANDMARK BUILDING	NO
LITTLE "E" DESIGNATION	NO
LANDMARK DESIGNATED BUILDING WITHIN 90'-0" RADIUS OF SITE SUBJECT TO TPPN 10/88	NO
M. T. A. / AMTRAK APPROVAL	NO SITE > 200 FT FROM SUBWAY
HISTORIC DISTRICT	NO
PROPOSED ZONING	Special Mixed Use District (MX) - R7D / M1-4
QUALITY HOUSING	YES

	ZONING DISTRICT	**PROPOSED ZONING**
	M1-2	R7D/M1-4
USES	4-14, 16, 17	2-14, 16, 17
MAX FAR BY USE		
MANUFACTURING	2	2
RESIDENTIAL*	0	5.6
TOTAL MAX FAR	2	5.6
HEIGHT		
BASE	60' - 4 STORIES	95'**
MAX HEIGHT	DEFINED BY SKY EXPOSURE PLANE	115' - 11 STORIES**
OTHER		
PARKING REQUIREMENTS	NONE REQUIRED	50% OF DWELLING UNITS
LOADING REQUIREMENTS	NONE FOR SMALLER BUSINESSES, REDUCED FOR LARGER	NONE FOR SMALLER BUSINESSES, REDUCED FOR LARGER

*Includes Mandatory Inclusionary Housing
**With Qualifying Ground Floor

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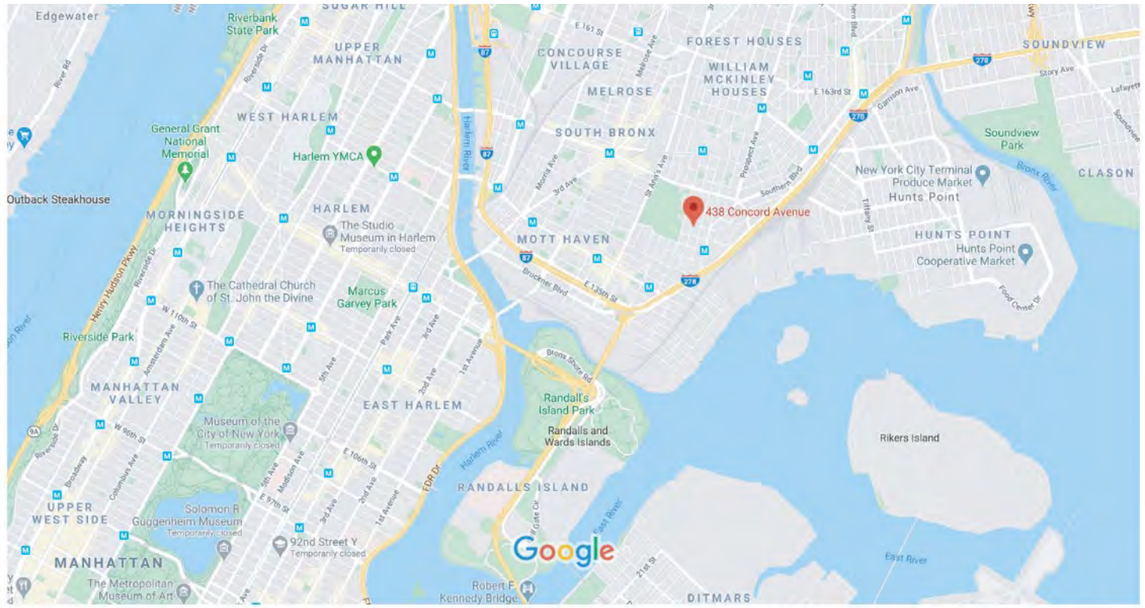
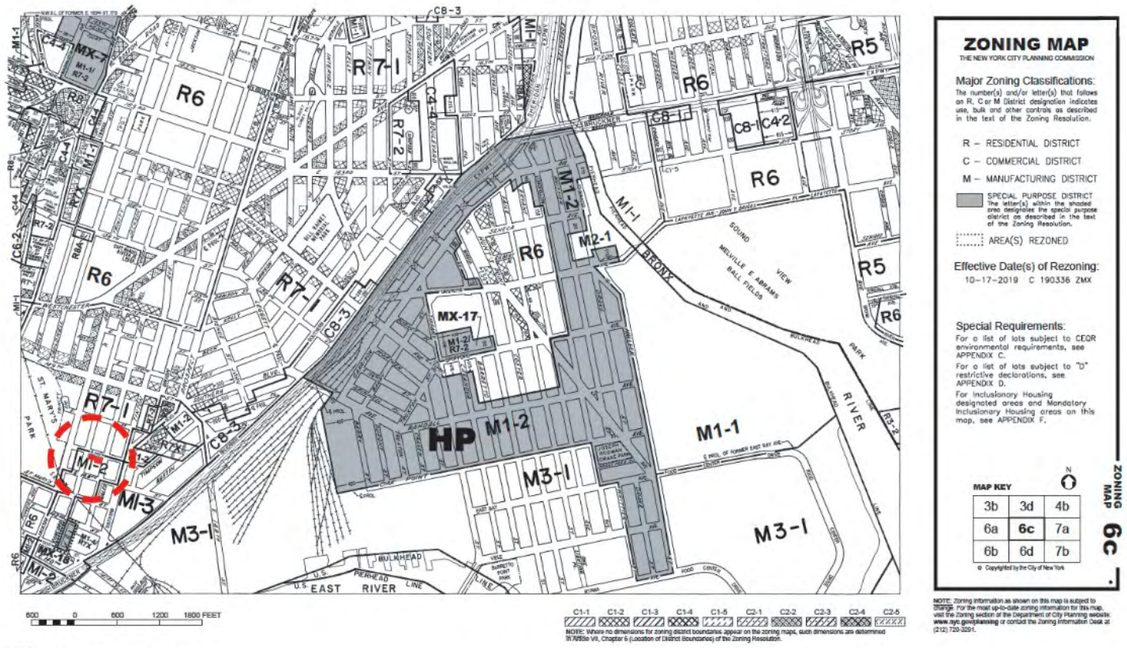
SITE DATA

A - 01



Map data ©2020 Google 2000 ft

1 SITE LOCATION



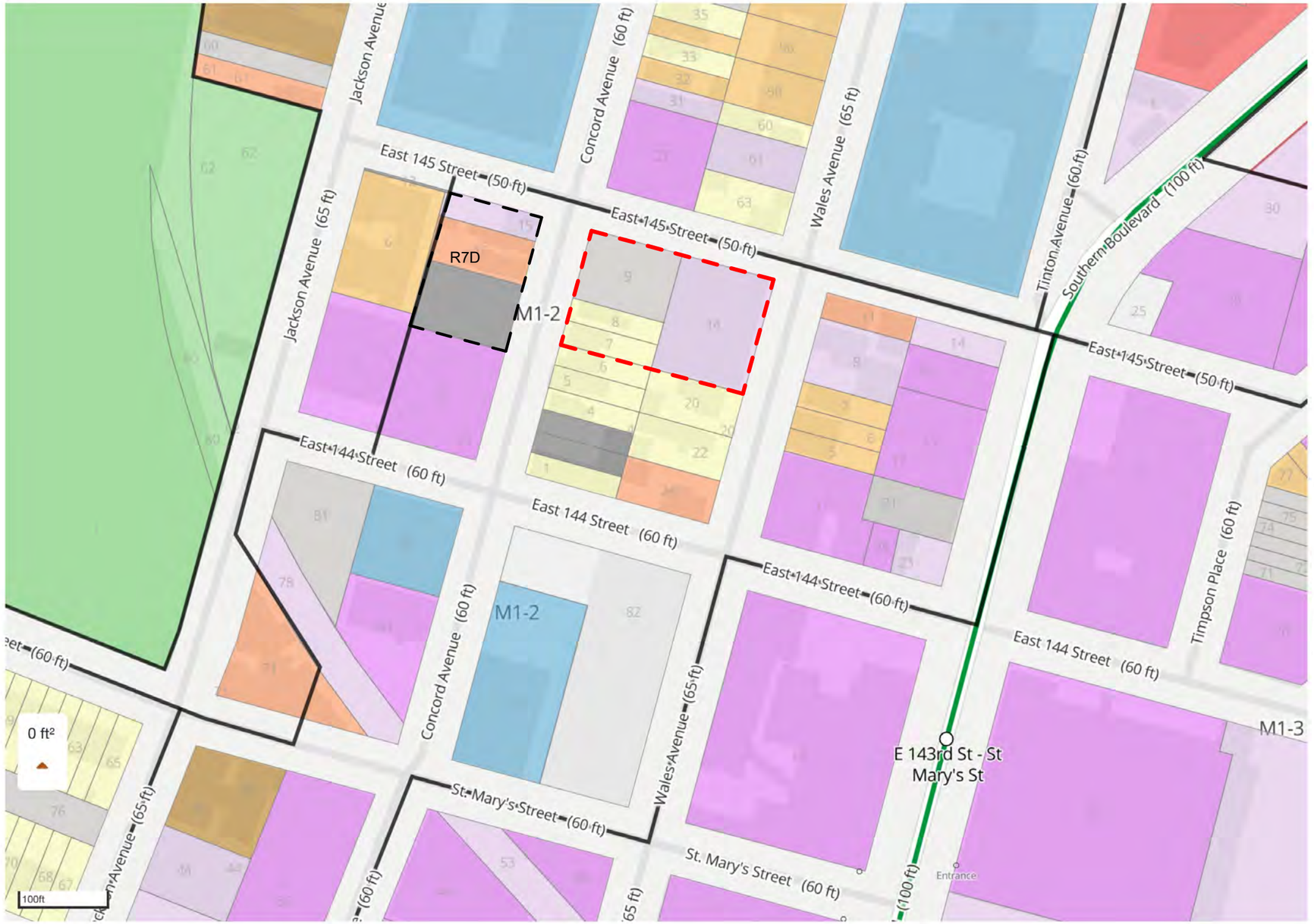
2 ZONING MAP

Imagery ©2020 Google, Map data ©2020 200 ft

3 AERIAL VIEW OF SITE AREA

4 STREET VIEW: CONCORD AVE. AND 145TH ST.

Martin della Paolera Architects 65 Saint Felix Street, Brooklyn NY11217 Marina della Paolera ADE HMONP	**438 CONCORD AVENUE BRONX, NY 10045**	08-22-2023 SCALE	SITE LOCATION **A - 02**



Zoning and Land Use

Tax Lots

- One & Two Family Buildings
- Multi-Family Walk-Up Buildings
- Multi-Family Elevator Buildings
- Mixed Residential & Commercial Buildings
- Commercial & Office Buildings
- Industrial & Manufacturing
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking Facilities
- Vacant Land
- Other

Zoning Districts

- Commercial Districts
- Manufacturing Districts
- Residence Districts
- Parks
- Battery Park City

Commercial Overlays

- C1-1 through C1-5
- C2-1 through C2-5

Basemaps

- Subways
- Building Footprints

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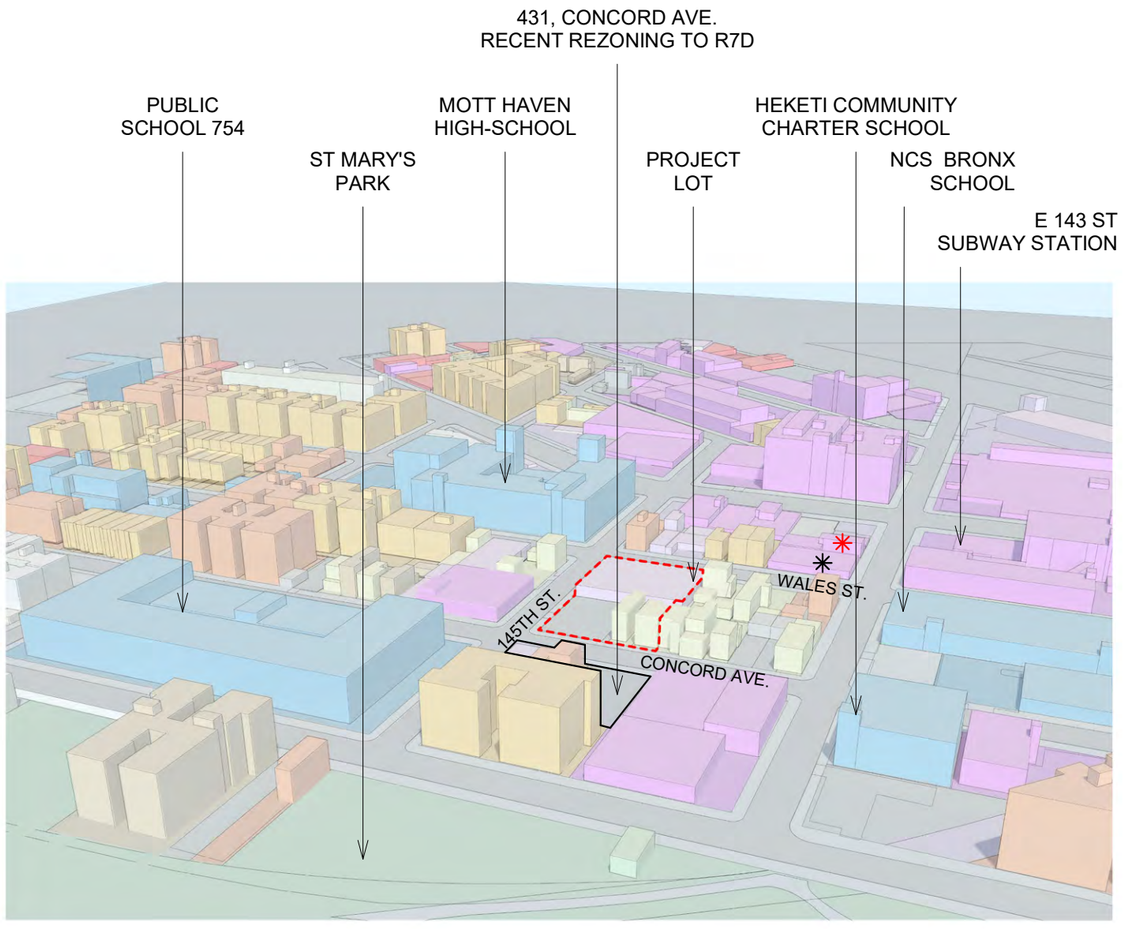
SCALE **AS SHOWN**

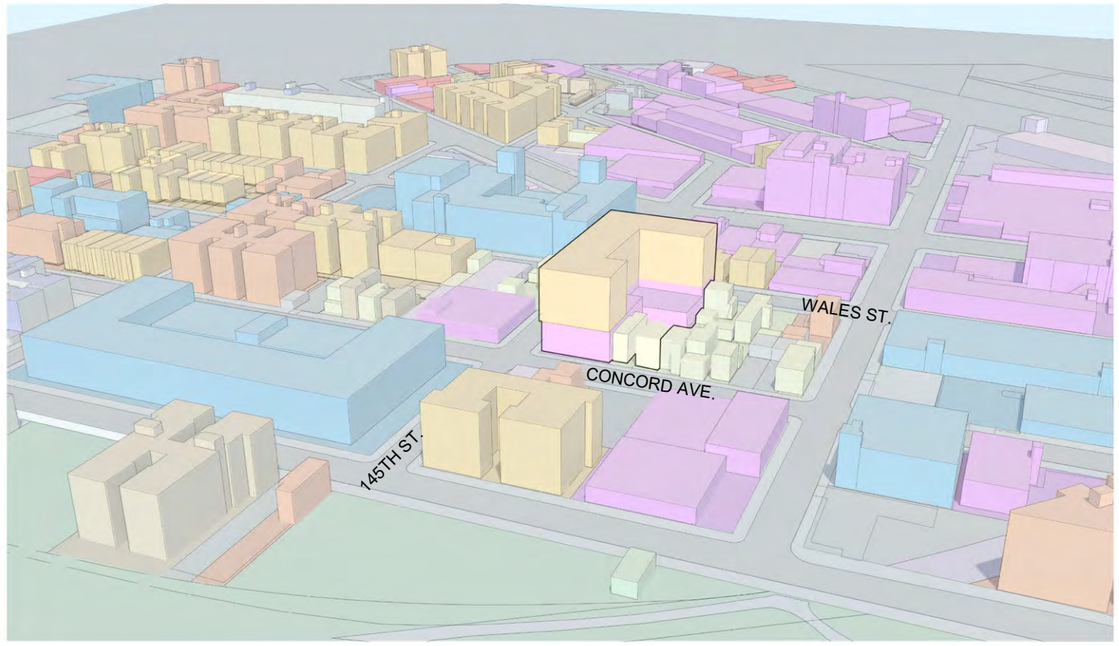
LAND USE IN SITE AREA

A - 03

- One & Two Family Buildings
- Multi-Family Walk-Up Buildings
- Multi-Family Elevator Buildings
- Mixed Residential & Commercial Buildings
- Commercial & Office Buildings
- Industrial & Manufacturing
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking Facilities
- Vacant Land
- Other



Existing Land Use



Proposed Land Use

✳ 785 E 144 ST - Warehouse - Owner : My Hub Studios

✳ 789 E 144 ST - Commercial Unit + 2 Residential Units (grandfather residential use) - Owner : My Hub Studios

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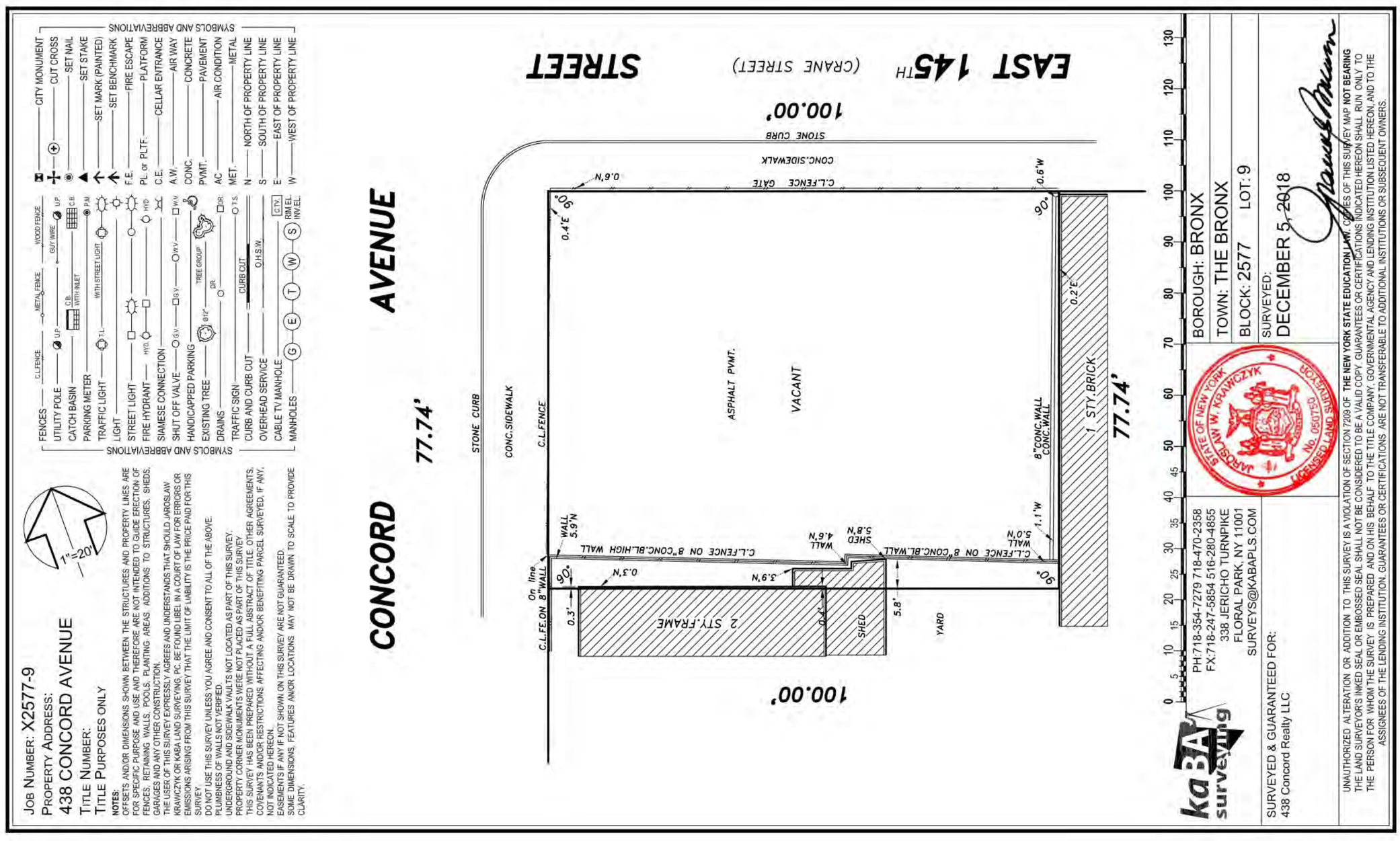
PROPOSED LAND USE

A - 04



Martin della Paolera Architects 65 Saint Felix Street, Brooklyn NY11217 Marina della Paolera ADE HMONP	**438 CONCORD AVENUE BRONX, NY 10045**	08-22-2023 SCALE	SITE SURVEY LOT 9

A - 05

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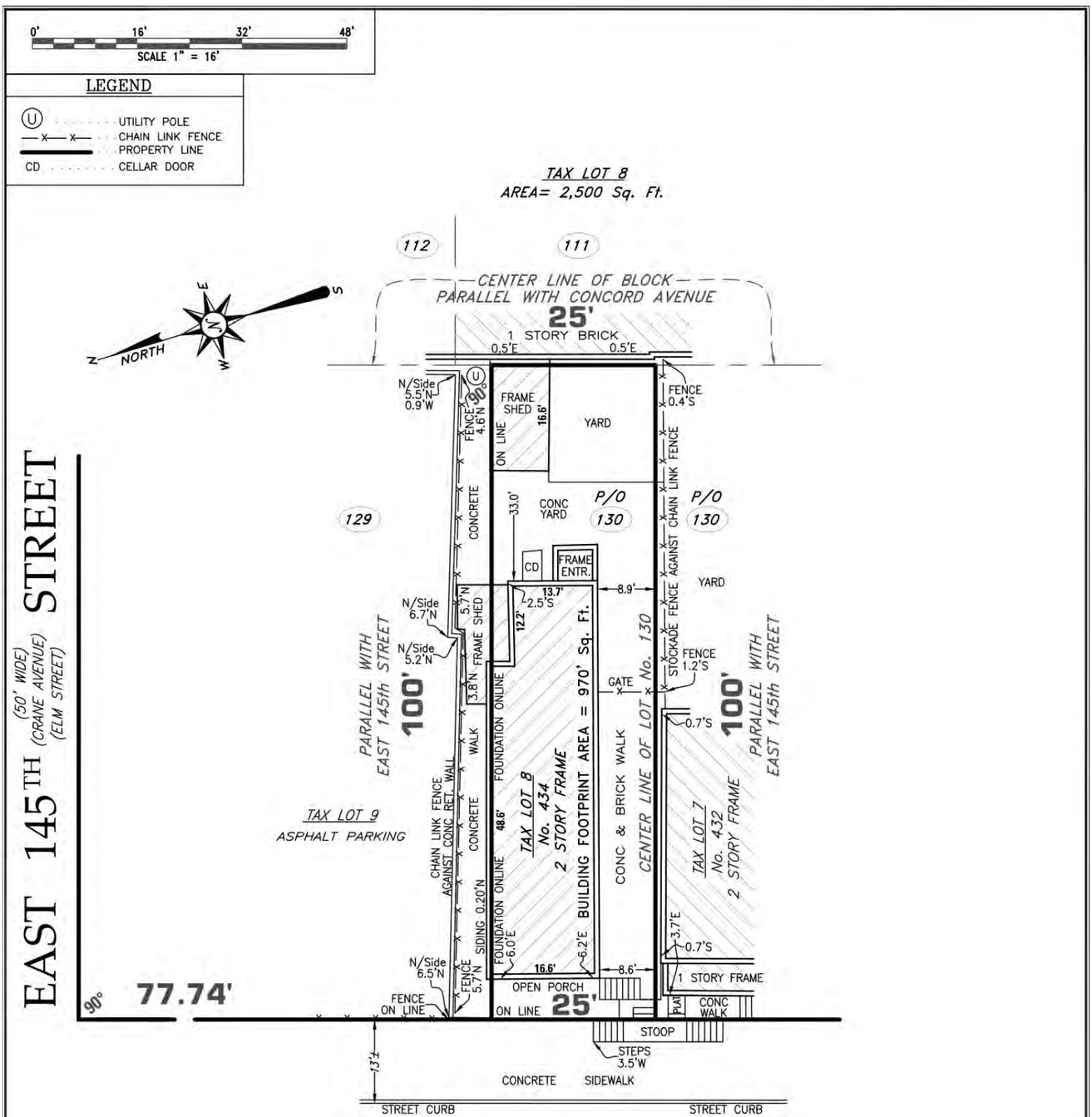
SITE SURVEY LOT 8

A - 06



DESIGNATED AS PART OF LOT No. 129 & THE NORTHERLY HALF OF LOT No. 130
ON "MAP OF WILTON, PORT MORRIS AND EAST MORRISANIA"
FILED ON SEPTEMBER 29, 1857 AS MAP No. 31 IN THE WESTCHESTER COUNTY CLERK'S OFFICE

GENERAL NOTES

1. This is to certify that there are no visible streams or natural water courses in the property as shown on this survey.

AS-BUILT SURVEY

Date of Survey: June 3, 2021

PROPERTY SITUATED AT
434 CONCORD AVENUE
BOROUGH & COUNTY OF BRONX
CITY & STATE OF NEW YORK

Tax Block: 2577
Tax Lot: 8

NY Land Surveyor P.C.
Records of: Earl B. Lovell - S.P. Belcher Inc.
77-15 164 Street, Fresh Meadows, NY 11366
Tel: 718-591-6600 Tel: 212-732-1575
nylandsurveyor@gmail.com Fax: 631-930-3292
www.nylandsurveyor.com

XE1399

UNAUTHORIZED ALTERATION OR ADDITION TO THIS SURVEY IS A VIOLATION OF SECTION 7209, OF THE NEW YORK STATE EDUCATIONAL LAW. COPIES OF THIS SURVEY NOT BEARING THE LAND SURVEYOR'S INKED SEAL OR EMBOSSED SEAL SHALL NOT BE CONSIDERED TO BE A VALID TRUE COPY. CERTIFICATIONS INDICATED HEREON SHALL RUN ONLY TO THE PERSON FOR WHOM THE SURVEY IS PREPARED AND ON HIS BEHALF TO THE TITLE COMPANY, GOVERNMENTAL AGENCY AND LENDING INSTITUTION LISTED HEREON, AND TO THE ASSIGNEES OF THE LENDING INSTITUTION. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.

Ramzan Alli License No. 050457

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SCALE

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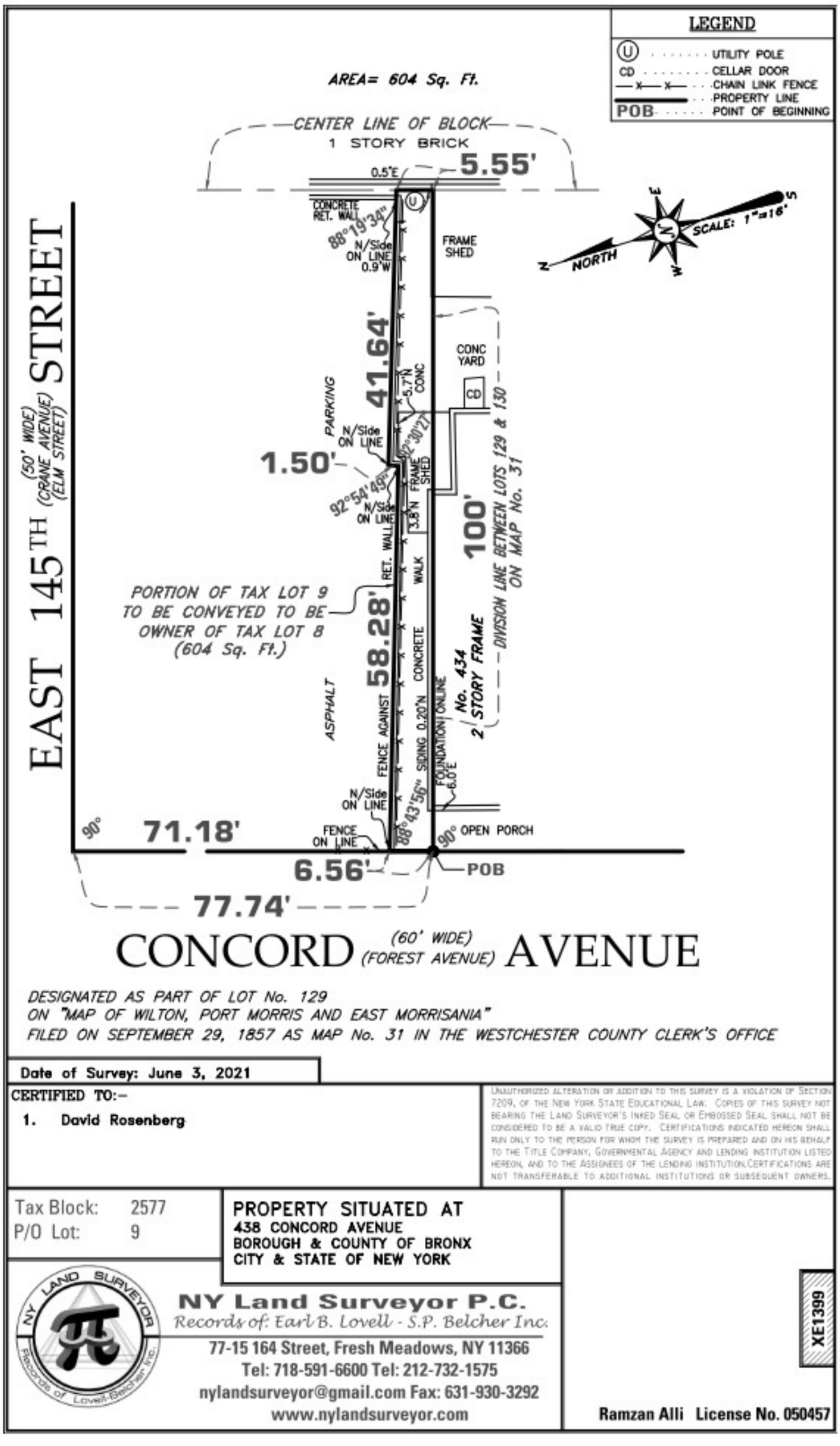
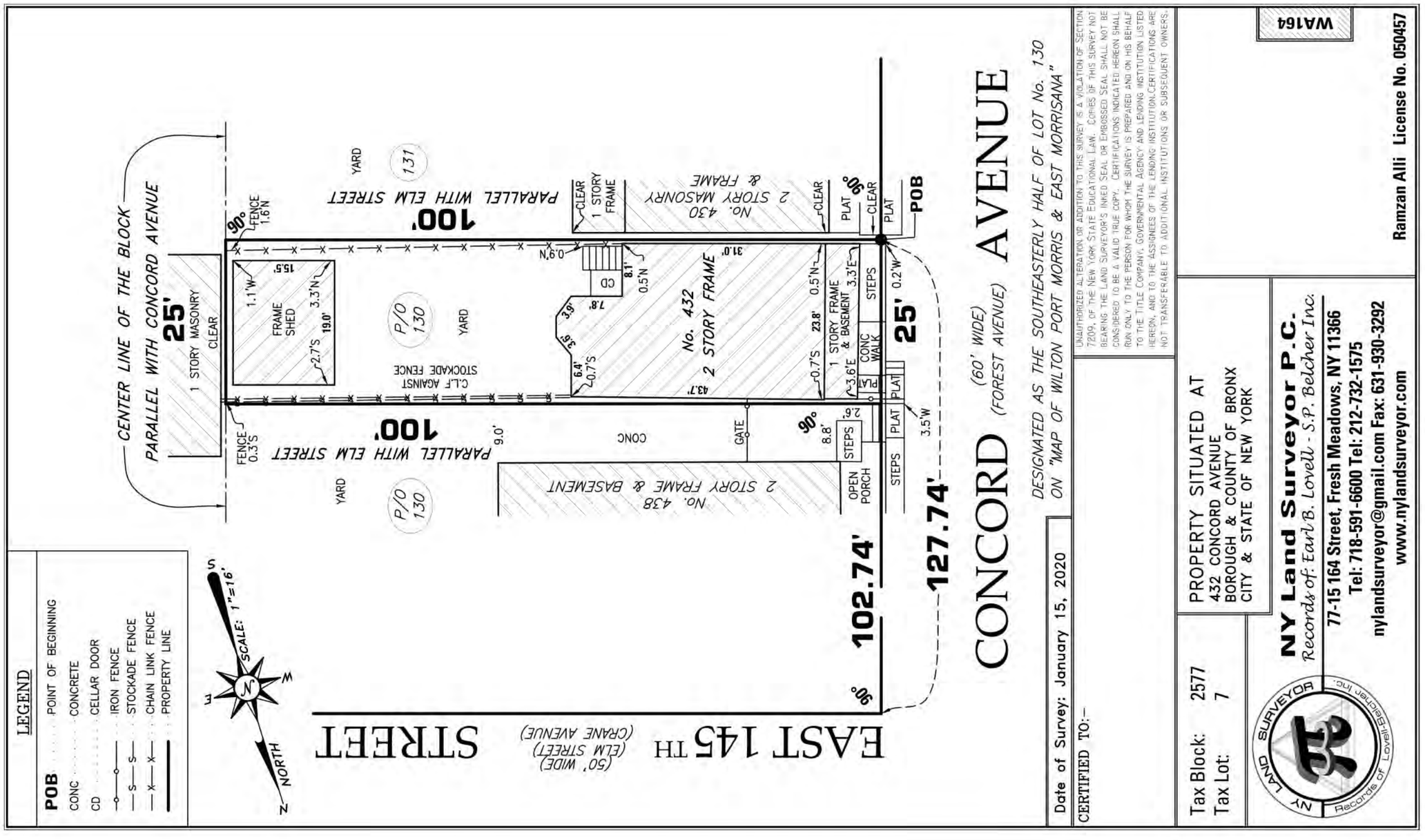
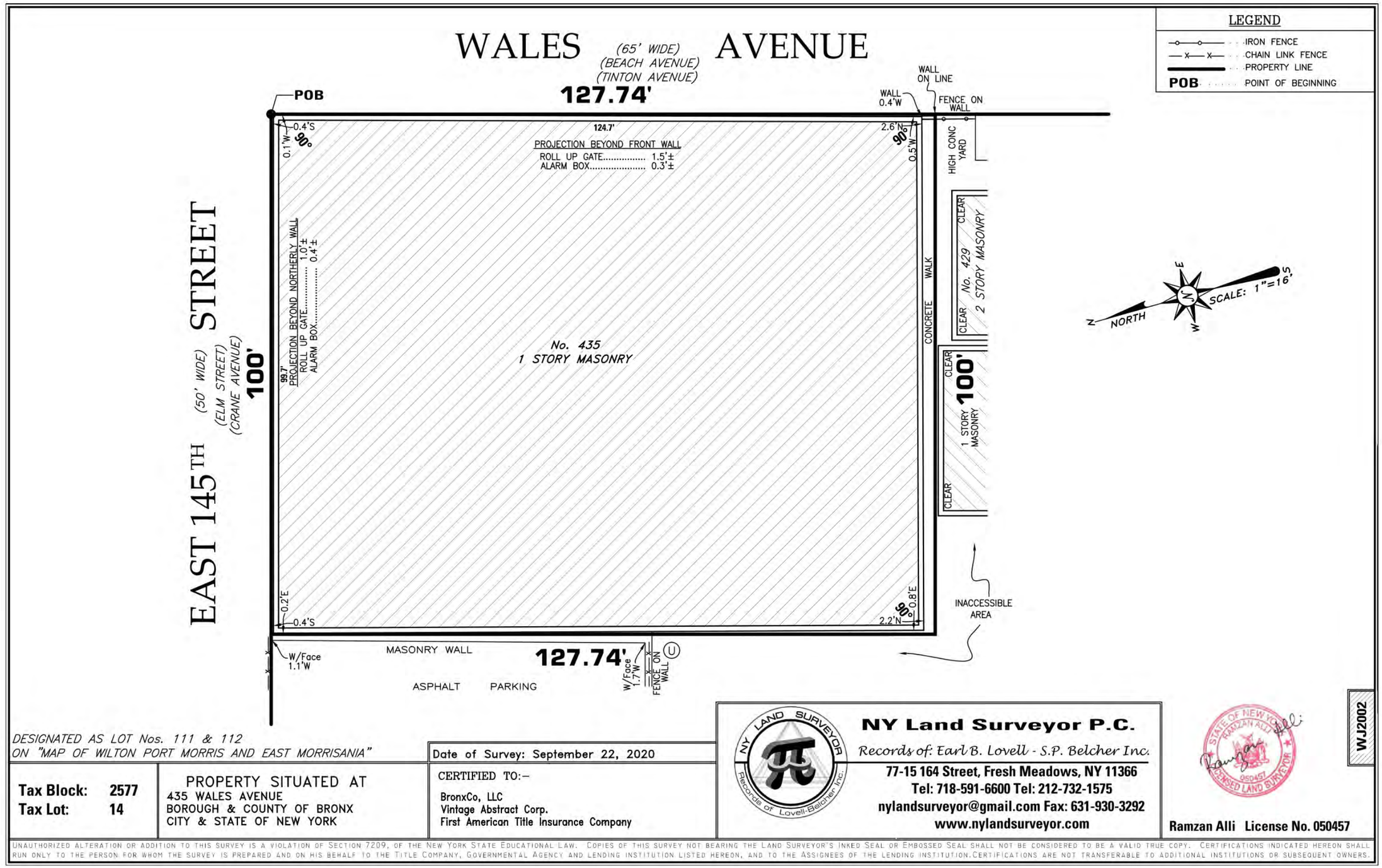
PART OF LOT 9 TO BE TRANSFERRED

A - 07





Martin della Paolera Architects 65 Saint Felix Street, Brooklyn NY11217 Marina della Paolera ADE HMONP	**438 CONCORD AVENUE** **BRONX, NY 10045**	08-22-2023 SCALE	SITE SURVEY LOT 7 **A - 08**



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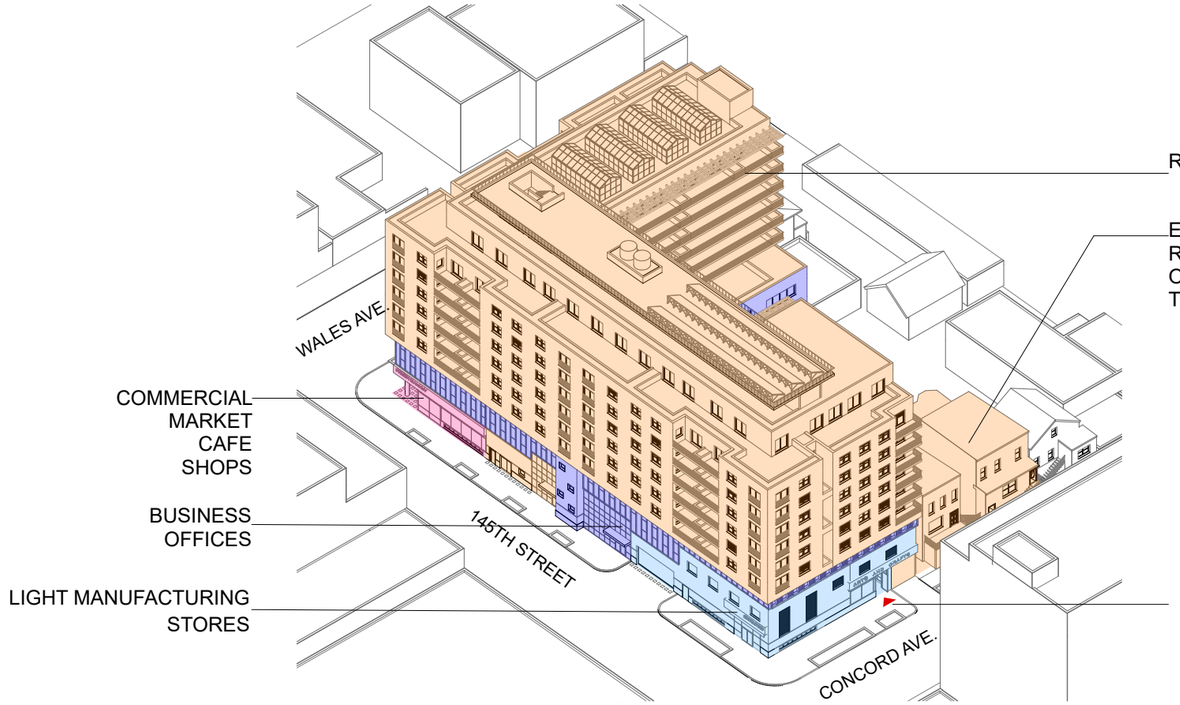
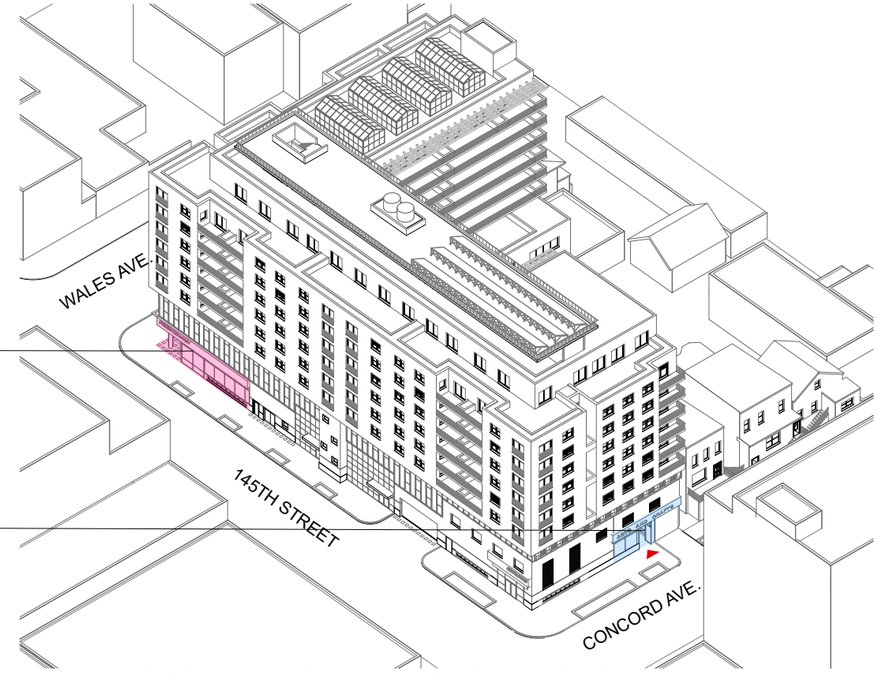
SCALE

SITE SURVEY LOT 14

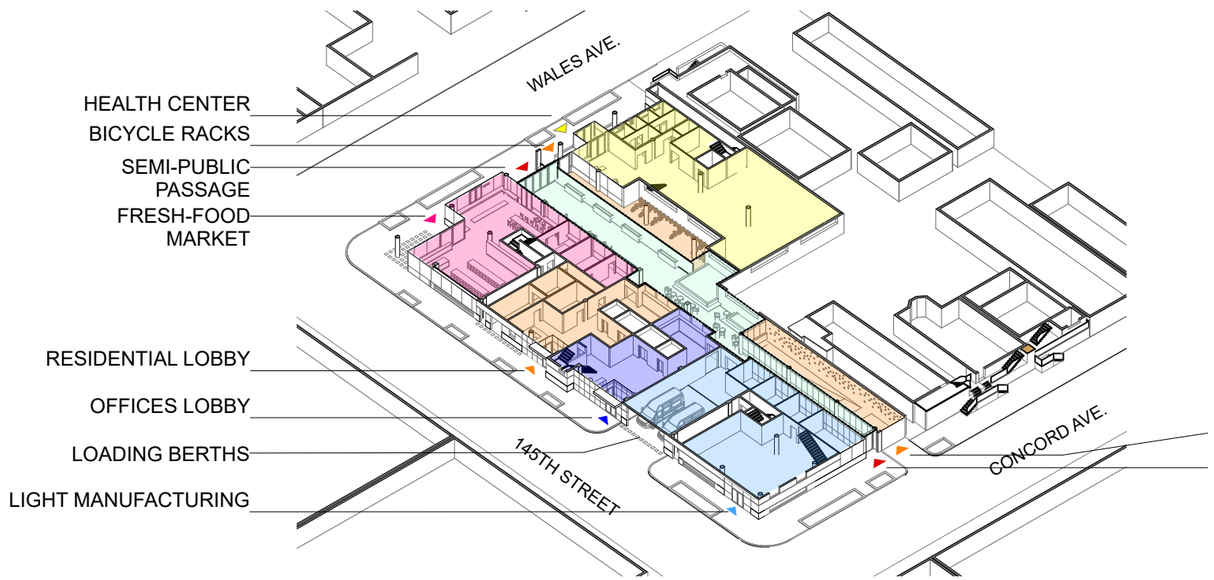
A - 09



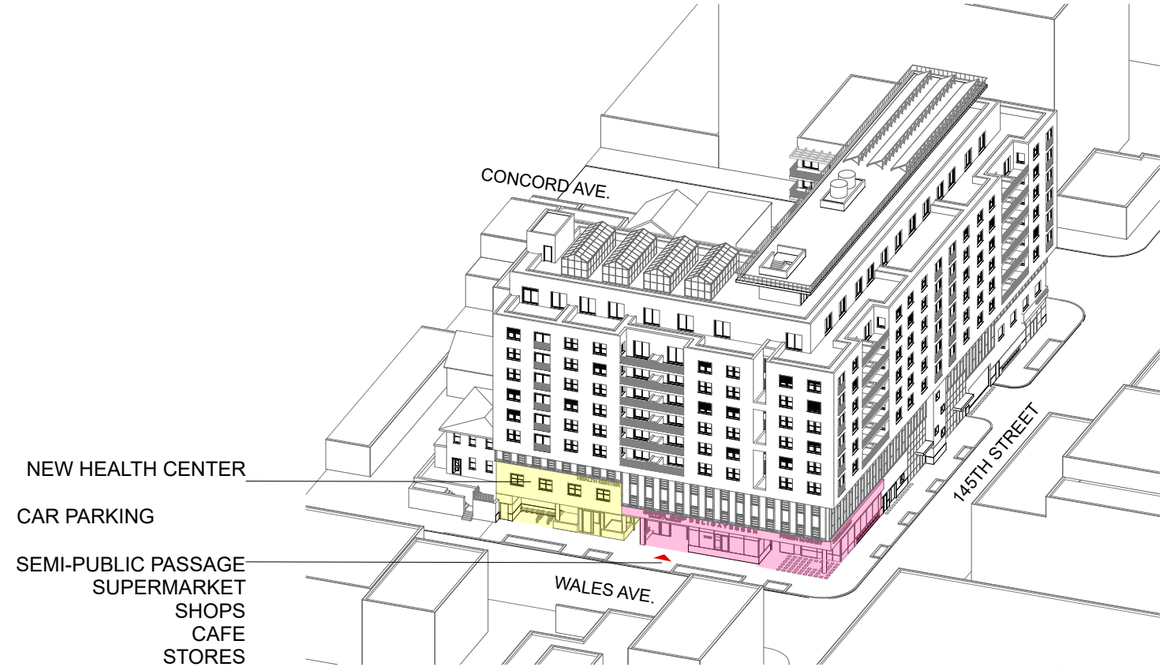
A MIXED-USE BUILDING



NEW SHOPS AND A SEMI-PUBLIC PASSAGE



FIRST FLOOR ENTRANCES



NEW COMMUNITY FACILITY AND A SEMI-PUBLIC PASSAGE

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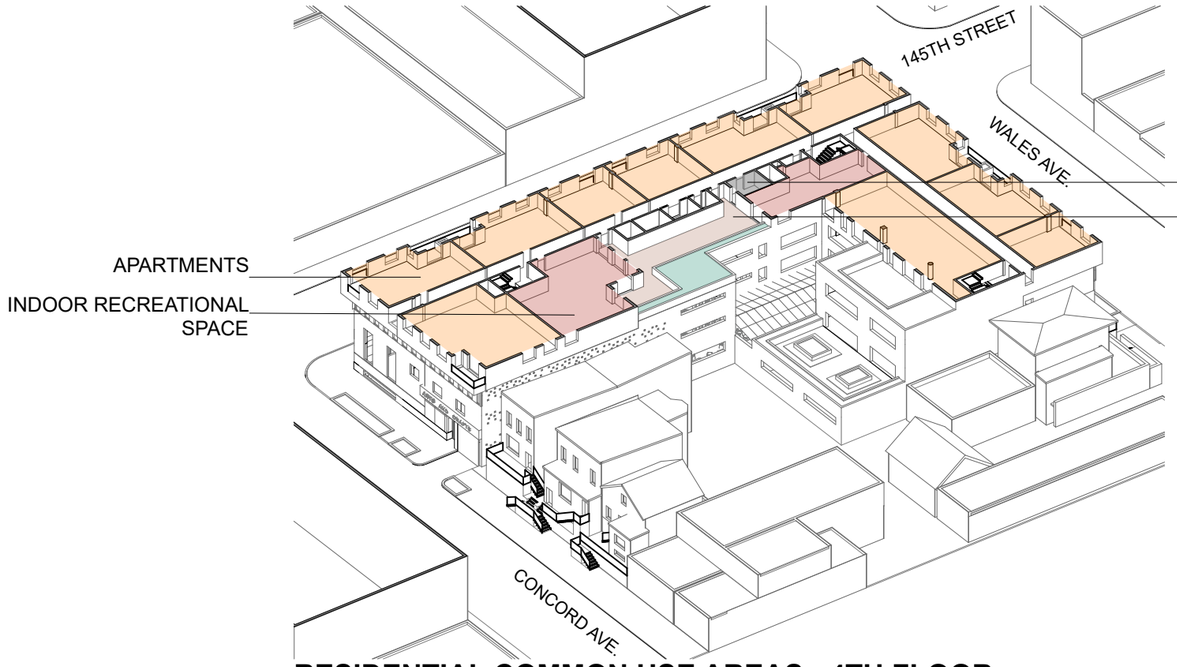
08-22-2023

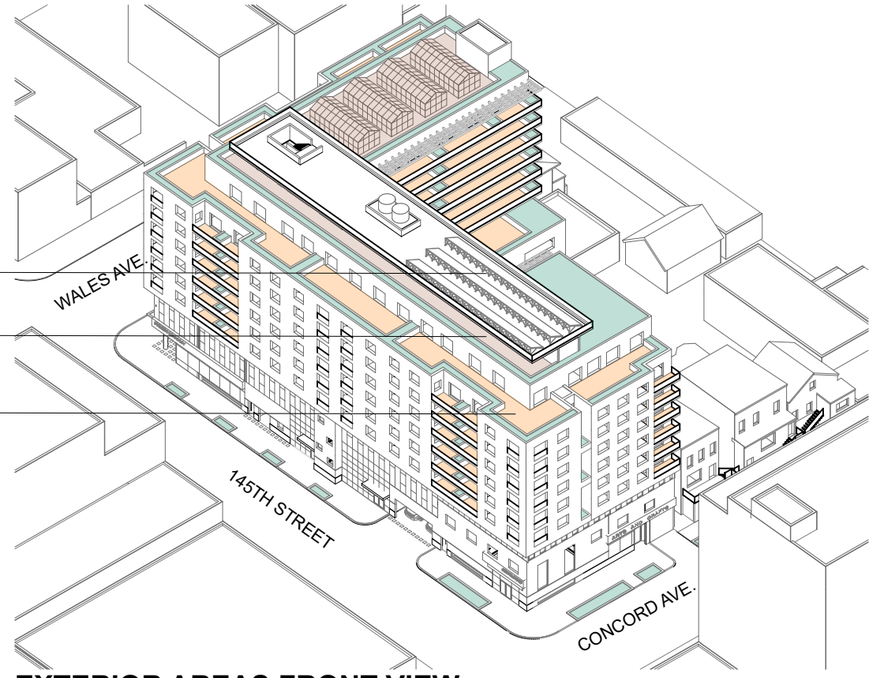
SCALE

DIAGRAMS

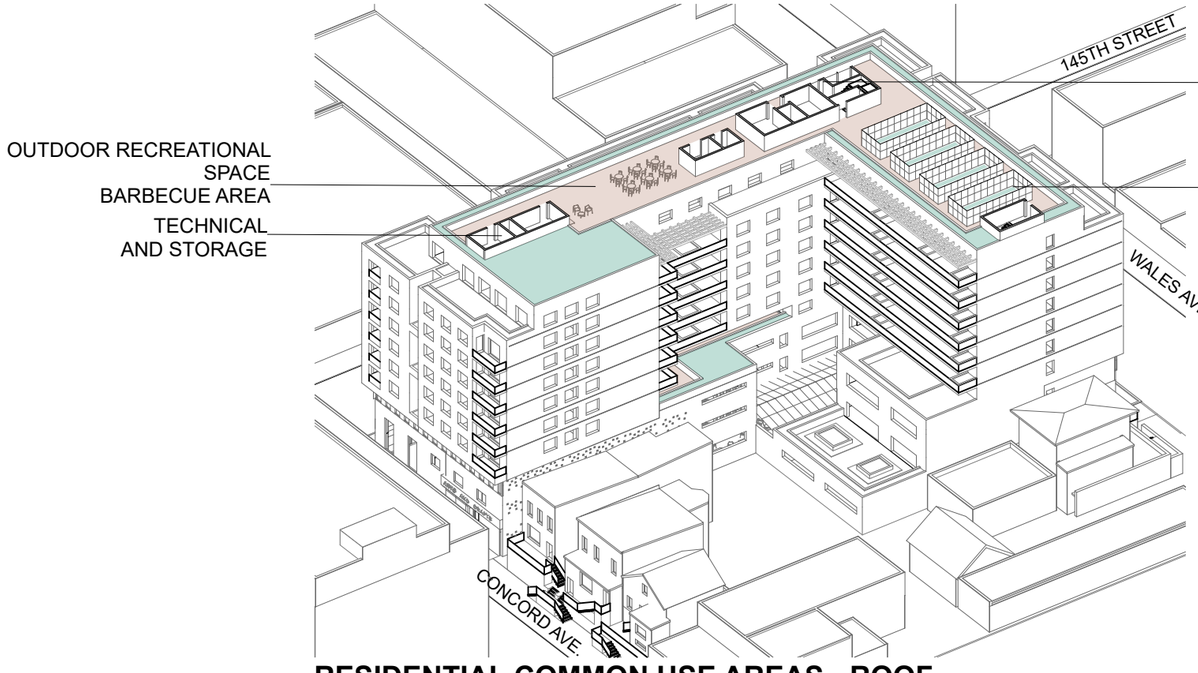
A - 10



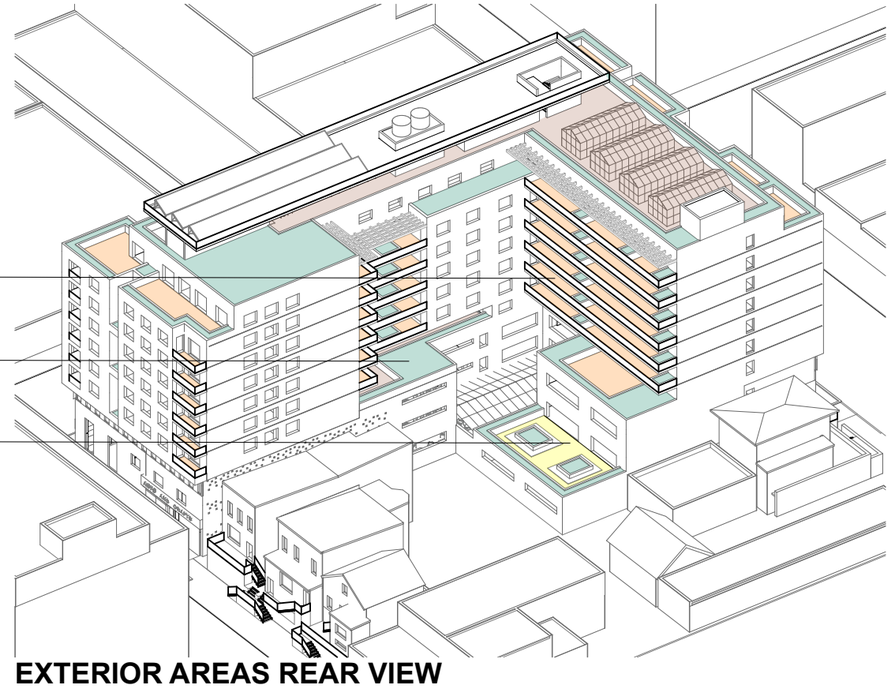
RESIDENTIAL COMMON USE AREAS - 4TH FLOOR



EXTERIOR AREAS FRONT VIEW



RESIDENTIAL COMMON USE AREAS - ROOF



EXTERIOR AREAS REAR VIEW

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08-22-2023

SCALE

DIAGRAMS

A - 11

SECTION		TITLE OF SECTION	ZONING REGULATION - SUMMARY	ALLOWED AND / OR REQUIRED	PROVIDED
USE GROUPS	ZR: 123-20 ZR: 22-00 ZR: 42-00 ZR: 123-31	USE GROUPS LOCATION OF USES IN MIXED USE BUILDING	IN SPECIAL MIXED USE DISTRICTS, ALL USES PERMITTED IN THE DESIGNATED RESIDENCE DISTRICT AND ALL USES PERMITTED IN THE DESIGNATED M1 DISTRICT SHALL BE PERMITTED, EXCEPT AS SUPERSEDED, MODIFIED OR SUPPLEMENTED BY THIS SECTION (123-20). PERMITTED USE GROUPS: 1-14, 16-17 IN ANY BUILDING OR PORTION OF A BUILDING OCCUPIED BY RESIDENTIAL USES, COMMERCIAL OR MANUFACTURING USES MAY BE LOCATED ONLY ON A STORY BELOW THE LOWEST STORY OCCUPIED BY DWELLING UNITS. IF COMMERCIAL OR MANUFACTURING USES ON THE SAME STORY, OR ON A STORY HIGHER THAN THAT OCCUPIED BY DWELLING UNITS, PROVIDED THAT THEY HAVE SEPARATE DIRECT ACCESS TO THE STREET, AND ARE NOT LOCATED DIRECTLY OVER ANY PORTION OF A BUILDING CONTAINING DWELLING UNITS.	SINGLE & MULTI-FAMILY RESIDENTIAL USES , TRANSIENT RESIDENTIAL, AND COMMUNITY FACILITIES, VARIETY OF CUSTOM MANUFACTURING ACTIVITIES AND SEMI-INDUSTRIAL USES, VARIETY OF COMMERCIAL AND BUSINESS USES. COMMERCIAL AND MANUFACTURING USES TO BE LOCATED ON A STORY BELOW THE LOWEST STORY OCCUPIED BY DWELLING UNITS OR TO HAVE SEPARATED ACCESS TO THE STREET AND NOT BE LOCATED OVER ANY PORTION OF DWELLING UNITS.	USE GROUP 2 - RESIDENTIAL , OK USE GROUP 6 - RETAIL AND OFFICES , OK USE GROUP 9 - CUSTOM MANUFACTURING ACTIVITIES SUCH AS : > Food Production Cluster □ Confectionery manufacturing from purchased chocolate □ Cookie, cracker, & pasta manufacturing □ Breweries □ Confectionery wholesalers □ Wine & liquor wholesalers ... > Arts & Crafts Manufacturing Cluster □ Commercial screen printing (Consumer goods/retail focus – not print shops) □ Pottery product manufacturing □ Ornamental & architectural metalwork manufacturing ... > Research & Development in the Hard Sciences (No hazardous materials) USE GROUP 4 - COMMUNITY FACILITY, OK MULTIPLE DWELLING BUILDING: THE LOWEST STORY OCCUPIED BY DWELLING UNITS IS THE FOURTH FLOOR. COMMERCIAL AND MANUFACTURING USES ARE LOCATED ON FIRST, SECOND AND THIRD FLOORS EXCLUSIVELY. TOWN HOUSES TO REMAIN: HAVE SEPARATE DIRECT STREET ACCESS THAN THE MULTIPLE DWELLING BUILDING.
LOT COVERAGE F.A.R.	ZR: 123-64 ZR: 23-154 (b)	MAXIMUM FLOOR AREA RATIO AND LOT COVERAGE REQUIREMENTS FOR ZONING LOTS CONTAINING MIXED USE BUILDINGS. FLOOR AREA REGULATIONS FOR DEVELOPMENTS PROVIDING INCLUSIONARY HOUSING	LOT COVERAGE REQUIREMENTS SHALL NOT APPLY. THE MAXIMUM TOTAL FLOOR AREA IN A MIXED USE BUILDING SHALL BE THE MAXIMUM FLOOR AREA PERMITTED FOR EITHER THE COMMERCIAL, MANUFACTURING, COMMUNITY FACILITY OR RESIDENTIAL USE WHICHEVER PERMITS THE GREATEST AMOUNT OF FLOOR AREA. IN INCLUSIONARY HOUSING DESIGNATED AREAS, THE MAXIMUM FLOOR AREA RATIO PERMITTED SHALL BE THE BASE FLOOR AREA RATIO SET FORTH IN SECTION 23-154 (INCLUSIONARY HOUSING). SUCH BASE FLOOR AREA RATIO MAY BE INCREASED TO THE MAXIMUM FLOOR AREA RATIO SET FORTH IN SUCH SECTION ONLY THROUGH THE PROVISION OF AFFORDABLE HOUSING, PURSUANT TO SECTION 23-90, INCLUSIVE. (1) MANUFACTURING AND COMMERCIAL (SECTION 43-12) MAX FAR = 2 (2) COMMUNITY FACILITY (SECTIONS 24-10, 24-11) MAX FAR = 4.20 (3) RESIDENTIAL USES WITH INCLUSIONARY HOUSING (SECTION 23-154) MAX RESIDENTIAL FAR = 5.6	MAX TOTAL ZFA [25,548 x 5.60] = 143,069 SF MAX MANUFACTURING AND COMMERCIAL ZFA [25,548 x 2.00] = 51,096 SF MAX COMMUNITY FACILITY ZFA [25,548 x 4.20] = 107,301 SF. MAX RESIDENTIAL ZFA (INCLUDING INCLUSIONARY HOUSING) [25,548 x 5.60] = 143,069 SF	TOTAL ZFA PROVIDED = 141,852 SF, OK MANUFACTURING AND COMMERCIAL = LIGHT MANUFACTURING 7,602 SF + OFFICES 25,597 SF + COMMERCIAL 3,301 SF = 36,500 SF, OK COMMUNITY FACILITY = 6,634 SF, OK TOTAL RESIDENTIAL = 95,279 + 1,940 (EXISTING HOUSE LOT 8) + 1,500 (EXISTING HOUSE LOT 7) = 98,719 SF, OK AFFORDABLE HOUSING = 24,797 SF (25%)
DENSITY	ZR: 23-22	MAXIMUM NUMBER OF DWELLING UNITS	MAX. NO OF DWELLING UNITS (D.U.) EQUALS THE MAX. ALLOWABLE RESIDENTIAL FLOOR AREA DIVIDED BY THE APPLICABLE DENSITY FACTOR R7: [MAX. ALLOWABLE RES. FLR AREA - NON-RESIDENTIAL FLR. AREA] / 680	98,805 SF / 680 = 145 D.U.'s	PROVIDED = 87 D.U.'s + 4 EXISTING = 91 D.U.'s, OK
MIN LOT SIZE REQS.	ZR: 23-32	MINIMUM LOT AREA OR LOT WIDTH FOR RESIDENCES	(a) THE MINIMUM LOT WIDTH MUST BE 18 FEET IN R7D DISTRICTS (b) THE MINIMUM LOT ARE MUST BE 1,700 SQUARE FEET IN R7D DISTRICTS	LOT WIDTH = 127.74' LOT AREA = 25,548 SF	SITE COMPLIES REFER TO SURVEY
YARD REGULATIONS	ZR: 23-531 ZR: 123-65	MIN. REQUIRED REAR YARDS SPECIAL YARD REGULATIONS FOR MIXED-USE BUILDINGS	(B) FOR ZONING LOTS CONTAINING QUALITY HOUSING BUILDINGS, NO REAR YARD REGULATIONS SHALL APPLY TO ANY ZONING LOT THAT INCLUDES A THROUGH LOT PORTION THAT IS CONTIGUOUS ON ONE SIDE TO TWO CORNER LOT PORTIONS AND SUCH ZONING LOT OCCUPIES THE ENTIRE BLOCK FRONTAGE OF A STREET. NO FRONT YARDS OR SIDE YARDS ARE REQUIRED IN SPECIAL MIXED USE DISTRICTS.	-	-
HEIGHT & SETBACK REGULATIONS	ZR: 23-60 ZR: 23-664	HEIGHT & SETBACK REGULATIONS	IN CONTEXTUAL DISTRICT R7D THE MAXIMUM BASE HEIGHT, MAXIMUM BUILDING HEIGHT FOR QUALITY HOUSING BUILDINGS WITH QUALIFYING GROUND FLOORS AND INCLUSIONARY HOUSING ARE SET FORTH IN TABLE 1 OF SECTION 23-664. AT BASE HEIGHT, SETBACK OF AT LEAST 15' FOR NARROW STREETS.	MAX BASE HEIGHT = 95'-0" MAX BLDG. HEIGHT = 115'-0" SETBACK AT CONCORD AVE. = 15'-0" SETBACK AT 145TH ST. = 15'-0" SETBACK AT WALES AVE. = 15'-0"	92'-0" PROVIDED, COMPLIES 111'-0" PROVIDED, COMPLIES 15'-6" PROVIDED, COMPLIES 15'-0" PROVIDED, COMPLIES 15'-0" PROVIDED, COMPLIES
STREET WALL LOCATION	ZR: 23-661	STREET WALL LOCATION FOR QUALITY HOUSING BUILDINGS (a) (d)	(a) STREET WALL SHALL BE LOCATED NO CLOSER TO THE STREET LINE THAN THE CLOSEST ADJACENT BUILDING THAT IS WITHIN 25 FEET. (d) STREET WALL SHALL NOT BE LOCATED CLOSER TO THE STREET LINE THAN THE FURTHEST PORTION OF SUCH EXISTING ADJACENT STREET WALL THAT IS AT LEAST 5 FEET IN WIDTH.	DEPTH OF ADJ. BLDG. ON CONCORD AVENUE = 0'-0" DEPTH OF ADJ. BLDG. ON 145TH STREET = 0'-0" DEPTH OF ADJ. BLDG. ON WALES AVENUE = 2'-0"	DEPTH ON CONCORD AVE. : 2'-0", COMPLIES DEPTH ON 145TH STREET : 2'-0", COMPLIES DEPTH ON WALES AVE. : 2'-0", COMPLIES
VEHICULAR PARKING	ZR: 25-11 ZR: 25-13 ZR: 25-162 ZR: 44-20 ZR: 44-52	GENERAL PROVISIONS MAXIMUM SIZE OF ACCESSORY GROUP PARKING FACILITIES MAXIMUM SPACES FOR RESIDENCES PARKING SPACES REQUIRED ACCESSORY OFF-STREET PARKING SPACES FOR MANUFACTURING, COMMERCIAL OR COMMUNITY FACILITY USES REQUIRED ACCESSORY OFF-STREET LOADING BERTHS	IN R7D DISTRICTS ACCESSORY OFF STREET PARKING SPACE MAY BE PROVIDED FOR RESIDENCES NO GROUP PARKING FACILITY SHALL CONTAIN MORE THAN 200 OFF-STREET PARKING SPACES. NOT MORE THAN ONE OFF-STREET PARKING SPACE SHALL BE PROVIDED FOR EVERY 300 SF OF LOT AREA IN R7D. IN R7D FOR ZONING LOTS OF MORE THAN 10,000 SF ACCESSORY PARKING SPACES SHALL BE PROVIDED FOR AT LEAST 50% OF THE TOTAL NUMBER OF RESIDENCES. M1-4 TYPE OF USES LISTED IN ZR-44-20 - NONE REQUIRED USE GROUPS 6A, 6C, 9A, 9B: FIRST 8,000 SF NO LOADING BERTH REQUIRED, NEXT 17,000 SF ONE LOADING BERTH REQUIRED, NEXT 15,000 SF ONE LOADING BERTH REQUIRED.	MAX # OF SPACES = 200 SPACES NUMBER OF DWELLINGS : 87 APARTMENTS 87 x .50 = 43 43 SPACES REQUIRED MANUFACTURING/COMMERCIAL FLOOR AREA = 35,516 SF, 2 LOADING BERTHS REQUIRED	43 SPACES PROVINDED IN UNDERGROUND PARKING 43 SPACES PROVIDED, OK 2 LOADING BERTHS PROVIDED, OK

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ZONING ANALYSIS

A - 12

LOT AREA	25,548 SF
FAR	5.6
MAXIMUM ZONING FLOOR AREA ALLOWED	143,069 SF
FLOOR AREA PROVIDED	141,852 SF (includes 3,440 SF - existing houses to remain)

	Manufacturing			Commercial			Business			Community Facility			Residential			Total Gross	Total Floor	Residential					
	Gross Area	Deductions	Floor Area	Gross Area	Deductions	Floor Area	Gross Area	Deductions	Floor Area	Gross Area	Deductions	Floor Area	Gross Area	Deductions	Floor Area	Area	Area	Studio	1BR	2BR	3BR	4BR	Total
Cellar	2,186	2,186	0	986	986	0	4,173	4,173	0	0	0	0	12,553	12,553	0	19,897	0						
1ST FL	3,673	231	3,443	3,541	240	3,301	2,209	128	2,081	3,760	330	3,430	4,795	2,742	2,052	17,977	14,306						
2nd FL	4,399	240	4,159				7,804	303	7,501	3,428	223	3,205			0	15,631	14,865						
3rd FL							16,544	530	16,014						0	16,544	16,014						
4th FL													15,219	4,000	11,219	15,219	11,219	1	2	6	1	1	11
5th FL													15,701	1,210	14,491	15,701	14,491	1	2	8	3	0	14
6th FL													15,784	1,210	14,574	15,784	14,574	1	2	8	3	0	14
7th FL													15,701	1,210	14,491	15,701	14,491	1	2	8	3	0	14
8th FL													15,784	1,210	14,574	15,784	14,574	1	2	8	3	0	14
9th FL													15,701	1,210	14,491	15,701	14,491	1	2	8	3	1	15
10th FL													9,868	934	8,934	9,868	8,934			1	2	2	5
ROOF													904	450	454	904	454						
TOTAL	10,258	2,657	7,602	4,526	1,226	3,301	30,730	5,133	25,597	7,187	553	6,634	122,008	26,729	95,279	174,710	138,412	6	12	47	18	4	87
																		7%	14%	54%	21%	5%	

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FLOOR AREA

A - 13

RESIDENTIAL AREAS PER FLOOR			
Level	**Name**	**Apartment Gross Area (SF)**	**Apartment Net Area (SF)**
4TH FLOOR	STUDIO	489,25	469,68
4TH FLOOR	1BR	575,89	552,85
4TH FLOOR	1BR	575,89	552,85
4TH FLOOR	2BR	781,29	750,04
4TH FLOOR	2BR	787,81	756,30
4TH FLOOR	2BR	799,79	767,80
4TH FLOOR	2BR	799,81	767,82
4TH FLOOR	2BR	799,81	767,82
4TH FLOOR	2BR	800,21	768,20
4TH FLOOR	3BR	1 194,58	1 146,80
4TH FLOOR	4BR	1 525,63	1 464,60
		9129,96 sq ft	**8764,76 sq ft**
5TH FLOOR	STUDIO	490,21	470,60
5TH FLOOR	1BR	575,89	552,85
5TH FLOOR	1BR	575,89	552,85
5TH FLOOR	2BR	781,29	750,04
5TH FLOOR	2BR	787,81	756,30
5TH FLOOR	2BR	799,79	767,80
5TH FLOOR	2BR	799,81	767,82
5TH FLOOR	2BR	799,81	767,82
5TH FLOOR	2BR	800,21	768,20
5TH FLOOR	2BR	938,92	901,36
5TH FLOOR	2BR	946,99	909,11
5TH FLOOR	3BR	1 140,03	1 094,43
5TH FLOOR	3BR	1 195,43	1 147,61
5TH FLOOR	3BR	1 229,96	1 180,76
		11862,04 sq ft	**11387,55 sq ft**
6TH FLOOR	STUDIO	490,21	470,60
6TH FLOOR	1BR	575,89	552,85
6TH FLOOR	1BR	575,89	552,85
6TH FLOOR	2BR	781,29	750,04
6TH FLOOR	2BR	787,81	756,30
6TH FLOOR	2BR	799,79	767,80
6TH FLOOR	2BR	799,81	767,82
6TH FLOOR	2BR	799,81	767,82
6TH FLOOR	2BR	800,21	768,20
6TH FLOOR	2BR	938,92	901,36
6TH FLOOR	2BR	946,99	909,11
6TH FLOOR	3BR	1 140,03	1 094,43
6TH FLOOR	3BR	1 195,43	1 147,61
6TH FLOOR	3BR	1 229,96	1 180,76
		11862,04 sq ft	**11387,55 sq ft**
7TH FLOOR	STUDIO	490,21	470,60
7TH FLOOR	1BR	575,89	552,85
7TH FLOOR	1BR	575,89	552,85

RESIDENTIAL AREAS PER FLOOR			
Level	**Name**	**Apartment Gross Area (SF)**	**Apartment Net Area (SF)**
7TH FLOOR	2BR	781,29	750,04
7TH FLOOR	2BR	787,81	756,30
7TH FLOOR	2BR	799,79	767,80
7TH FLOOR	2BR	799,81	767,82
7TH FLOOR	2BR	799,81	767,82
7TH FLOOR	2BR	800,21	768,20
7TH FLOOR	2BR	938,92	901,36
7TH FLOOR	2BR	946,99	909,11
7TH FLOOR	3BR	1 140,03	1 094,43
7TH FLOOR	3BR	1 195,43	1 147,61
7TH FLOOR	3BR	1 229,96	1 180,76
		11862,04 sq ft	**11387,55 sq ft**
8TH FLOOR	STUDIO	490,21	470,60
8TH FLOOR	1BR	575,89	552,85
8TH FLOOR	1BR	575,89	552,85
8TH FLOOR	2BR	781,29	750,04
8TH FLOOR	2BR	787,81	756,30
8TH FLOOR	2BR	799,79	767,80
8TH FLOOR	2BR	799,81	767,82
8TH FLOOR	2BR	799,81	767,82
8TH FLOOR	2BR	800,21	768,20
8TH FLOOR	2BR	938,92	901,36
8TH FLOOR	2BR	946,99	909,11
8TH FLOOR	3BR	1 140,03	1 094,43
8TH FLOOR	3BR	1 195,43	1 147,61
8TH FLOOR	3BR	1 229,96	1 180,76
		11862,04 sq ft	**11387,55 sq ft**
9TH FLOOR	2BR D	314,49	301,91
9TH FLOOR	STUDIO	490,21	470,60
9TH FLOOR	4BR D	557,78	535,46
9TH FLOOR	1BR	575,89	552,85
9TH FLOOR	1BR	575,89	552,85
9TH FLOOR	2BR	781,29	750,04
9TH FLOOR	2BR	787,81	756,30
9TH FLOOR	2BR	799,79	767,80
9TH FLOOR	2BR	799,81	767,82
9TH FLOOR	2BR	799,81	767,82
9TH FLOOR	2BR	800,21	768,20
9TH FLOOR	2BR	938,92	901,36
9TH FLOOR	3BR	1 140,03	1 094,43
9TH FLOOR	3BR	1 195,43	1 147,61
9TH FLOOR	3BR	1 229,96	1 180,76
		11787,32 sq ft	**11315,81 sq ft**
10TH FLOOR	2BR D	612,61	588,11
10TH FLOOR	4BR D	916,96	880,28

RESIDENTIAL AREAS PER FLOOR			
Level	**Name**	**Apartment Gross Area (SF)**	**Apartment Net Area (SF)**
10TH FLOOR	2BR	1 003,57	963,43
10TH FLOOR	3BR	1 084,17	1 040,80
10TH FLOOR	3BR	1 208,87	1 160,51
10TH FLOOR	4BR	1 255,27	1 205,06
10TH FLOOR	4BR	1 523,70	1 462,75
		7605,15 sq ft	**7300,94 sq ft**
		75970,59 sq ft	**72931,71 sq ft**

RESIDENTIAL AREAS COMMON		
Level	**Name**	**Area**
CELLAR	STORAGE	1,261.70
CELLAR	PARKING AREA	8,868.96
		10,130.66 sq ft
FIRST FLOOR	SERVICE	396.40
FIRST FLOOR	COMPACTOR	120.42
FIRST FLOOR	RESIDENTIAL LOBBY	994.82
		1,511.64 sq ft
4TH FLOOR	REFUSE ROOM	31.68
4TH FLOOR	LAUNDRY	99.89
4TH FLOOR	INDOOR RECREATIONAL SPACE	1,926.88
4TH FLOOR	OUTDOOR RECREATIONAL SPACE	961.90
4TH FLOOR	CORRIDOR	1,382.56
		4,402.91 sq ft
5TH FLOOR	REFUSE ROOM	32.20
5TH FLOOR	CORRIDOR	1,382.56
		1,414.76 sq ft
6TH FLOOR	REFUSE ROOM	32.20
6TH FLOOR	CORRIDOR	1,382.56
		1,414.76 sq ft
7TH FLOOR	REFUSE ROOM	32.20
7TH FLOOR	CORRIDOR	1,382.56
		1,414.76 sq ft
8TH FLOOR	REFUSE ROOM	32.20
8TH FLOOR	CORRIDOR	1,382.56
		1,414.76 sq ft
9TH FLOOR	REFUSE ROOM	32.20
9TH FLOOR	CORRIDOR	1,382.56
		1,414.76 sq ft
10TH FLOOR	REFUSE ROOM	32.25
10TH FLOOR	CORRIDOR	568.69
		600.94 sq ft
ROOF	STORAGE	44.90
ROOF	BATHROOM	286.41
ROOF	GREENHOUSE	989.96
		1,321.27 sq ft

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RESIDENTIAL AREAS PER FLOOR

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MANDATORY INCLUSIONARY HOUSING

Option 1: At least 25% of residential FAR.

MIH APARTMENTS			
Level	**Name**	**Apartment Gross Area (SF)**	**Apartment Net Area (SF)**
4TH FLOOR	1BR	575,89	552,85
4TH FLOOR	1BR	575,89	552,85
4TH FLOOR	2BR	799,81	767,82
4TH FLOOR	2BR	799,81	767,82
4TH FLOOR	3BR	1 194,58	1 146,80
4TH FLOOR	4BR	1 525,63	1 464,60
	6	**5471,61 sq ft**	**5252,74 sq ft**
5TH FLOOR	STUDIO	490,21	470,60
5TH FLOOR	1BR	575,89	552,85
5TH FLOOR	1BR	575,89	552,85
5TH FLOOR	2BR	799,81	767,82
5TH FLOOR	2BR	799,81	767,82
5TH FLOOR	2BR	946,99	909,11
5TH FLOOR	3BR	1 140,03	1 094,43
	7	**5328,63 sq ft**	**5115,48 sq ft**
6TH FLOOR	STUDIO	490,21	470,60
6TH FLOOR	1BR	575,89	552,85
6TH FLOOR	1BR	575,89	552,85
6TH FLOOR	2BR	799,81	767,82
6TH FLOOR	2BR	799,81	767,82
6TH FLOOR	2BR	799,81	767,82
6TH FLOOR	2BR	946,99	909,11
6TH FLOOR	3BR	1 140,03	1 094,43
	7	**5328,63 sq ft**	**5115,48 sq ft**
7TH FLOOR	2BR	799,81	767,82
7TH FLOOR	2BR	799,81	767,82
	2	**1599,62 sq ft**	**1535,64 sq ft**
8TH FLOOR	2BR	799,81	767,82
8TH FLOOR	2BR	799,81	767,82
	2	**1599,62 sq ft**	**1535,64 sq ft**
	24	**19328,11 sq ft**	**18554,98 sq ft**

	MIH Floor Area	
	Residential Area	**MIH Floor Area**
1st FL	2,052	513
2nd FL		
3rd FL		
4th FL	11,219	6731
5th FL	14,491	6666
6th FL	14,574	6704
7th FL	14,491	2029
8th FL	14,574	2040
9th FL	14,491	0
10th FL	8,934	0
ROOF	454	113
TOTAL	**95,279**	**24797**

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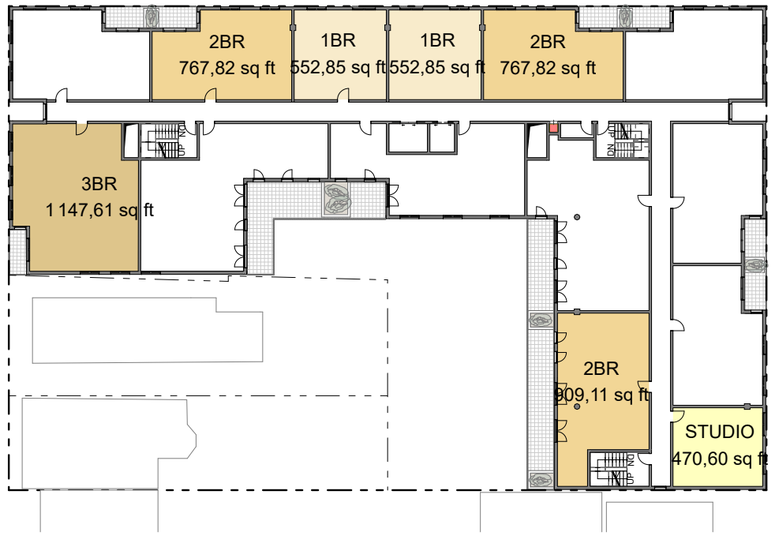
MIH AREAS

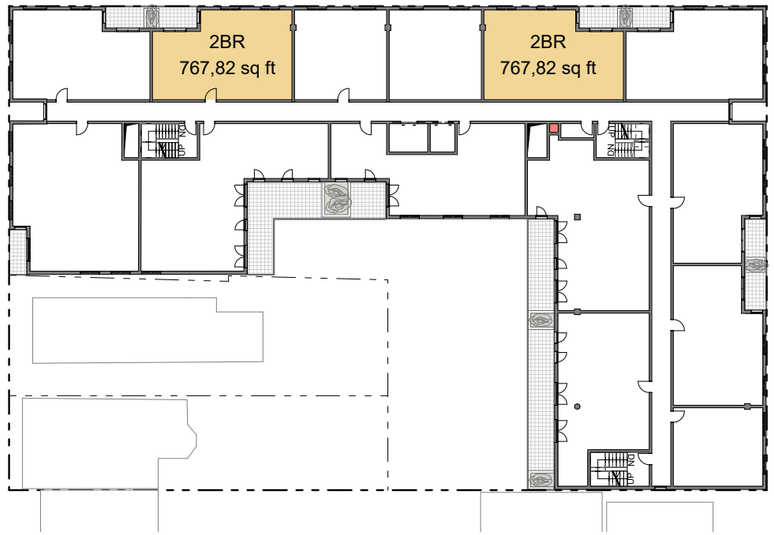
A - 15

MANDATORY INCLUSIONARY HOUSING

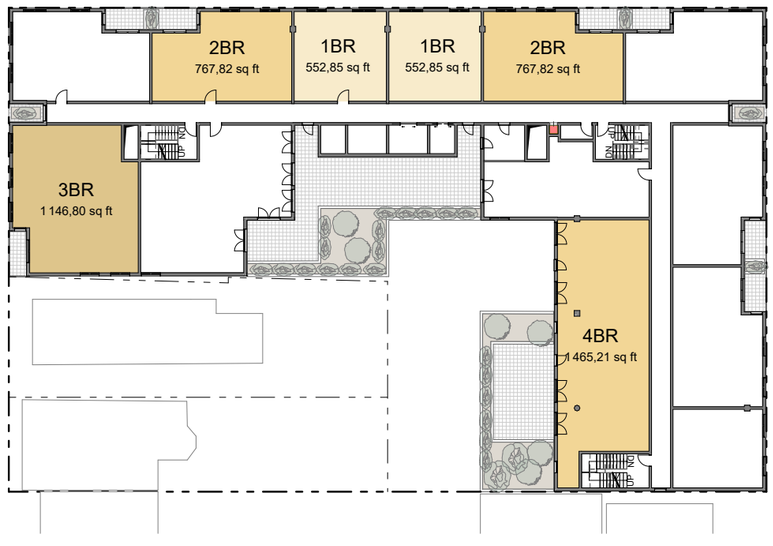
Option 1: At least 25% of residential FAR.



5TH-6TH FLOORS



7TH-8TH FLOORS



4TH FLOOR

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MIH APARTMENT DISTRIBUTION

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MANUFACTURING AREAS (NET AREAS)		
Level	**Name**	**Area**
CELLAR	WORKSHOP	1 855,45
		1855,45 sq ft
FIRST FLOOR	STORE	645,88
FIRST FLOOR	WORKSHOP	1 228,42
		1874,30 sq ft
2ND FLOOR	WORKSHOP	3 945,14
		3945,14 sq ft
		7674,89 sq ft

COMMERCIAL AREAS (NET AREAS)		
Level	**Name**	**Area**
CELLAR	MARKET	883,05
		883,05 sq ft
FIRST FLOOR	BAKERY	362,88
FIRST FLOOR	CAFE DELI	978,21
FIRST FLOOR	MARKET	1 077,52
		2418,61 sq ft
		3301,66 sq ft

BUSINESS AREAS (NET AREAS)		
Level	**Name**	**Area**
CELLAR	STUDIO	1 676,58
		1676,58 sq ft
FIRST FLOOR	OFFICE LOBBY	1 083,83
		1083,83 sq ft
2ND FLOOR	ARCHIVE	273,67
2ND FLOOR	BATHROOM	509,13
2ND FLOOR	CORRIDOR	1 473,89
2ND FLOOR	EAT AND RELAX	339,64
2ND FLOOR	OFFICE	3 560,59
		6156,92 sq ft
3RD FLOOR	ARCHIVE	287,96
3RD FLOOR	BATHROOM	509,13
3RD FLOOR	CORRIDOR	2 066,25
3RD FLOOR	EAT AND RELAX	339,36
3RD FLOOR	OFFICE	9 388,33
3RD FLOOR	OPEN SPACE AREA	1 554,95
		14145,98 sq ft
		23063,31 sq ft

COMMUNITY FACILITY AREA (NET AREAS)		
Level	**Name**	**Area**
FIRST FLOOR	COMMUNITY FACILITY	3 405,43
		3405,43 sq ft
2ND FLOOR	COMMUNITY FACILITY	2 916,88
		2916,88 sq ft
		6322,31 sq ft

COMMON USE AREAS (NET AREAS)		
Level	**Name**	**Area**
CELLAR	BATHROOM	342,60
CELLAR	CORRIDOR	1 209,47
		1552,07 sq ft
FIRST FLOOR	EGRESS	393,19
FIRST FLOOR	SEMI PUBLIC PASSAGEWAY	2 384,59
		2777,78 sq ft
		4329,85 sq ft

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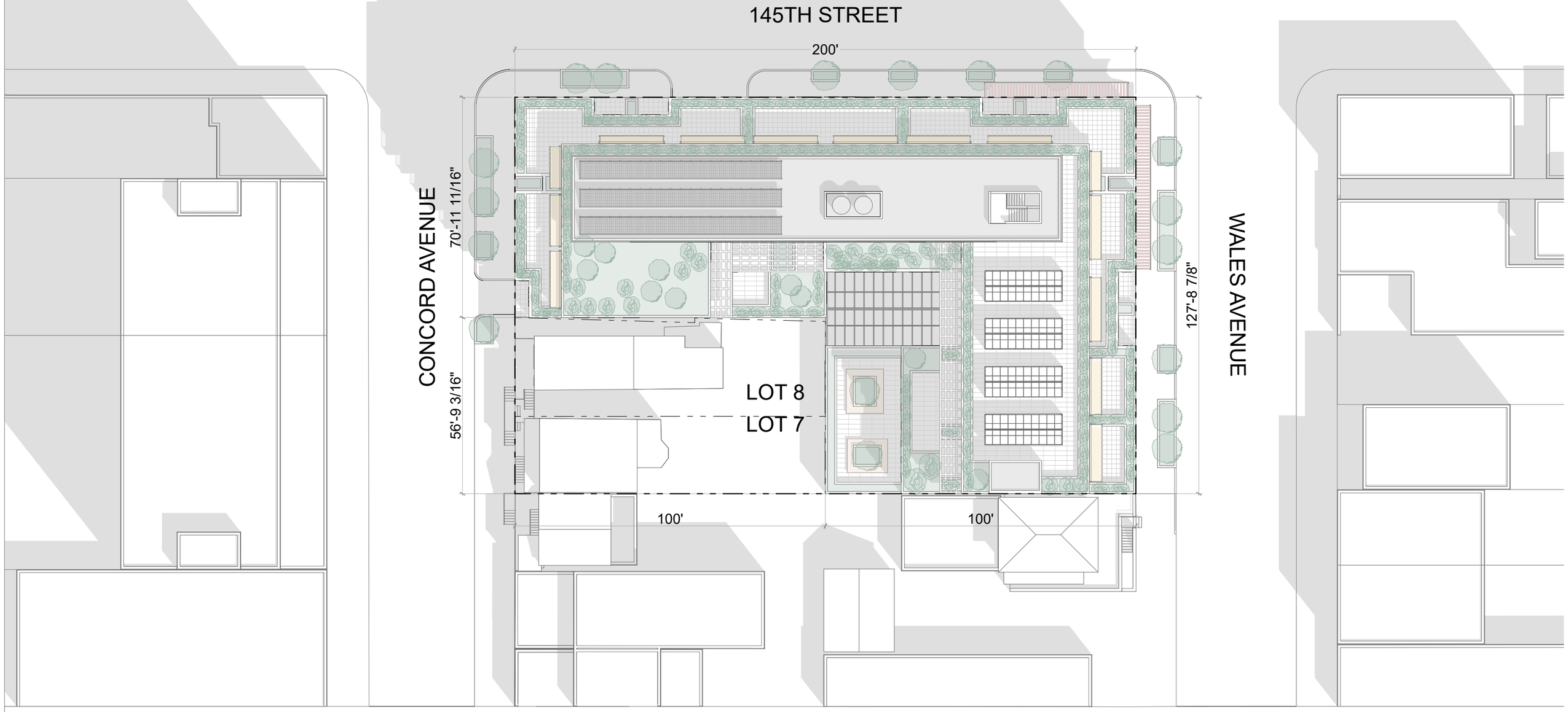
08-22-2023

SCALE

OTHER AREAS (NET AREA)

A - 17



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BRONX, NY 10045

08-22-2023

SCALE 1" = 30'

SITE PLAN

A - 18

145TH STREET

200'

5'-1" 19'-11" 25' 25' 25' 25' 25' 25' 19'-11" 5'-8"

ZENITHAL LIGHT

LIGHT MANUFACTURING WORKSHOP
1 855,45 sq ft

ZENITHAL LIGHT

STUDIO
279,43 sq ft

ZENITHAL LIGHT

STUDIO
279,43 sq ft

METER ROOMS

TECHNICAL
538,64 sq ft

UP

TECHNICAL
411,75 sq ft

ZENITHAL LIGHT

STUDIO
279,43 sq ft

STUDIO
279,43 sq ft

ZENITHAL LIGHT

STUDIO
279,43 sq ft

STUDIO
279,43 sq ft

ZENITHAL LIGHT

MARKET
883,05 sq ft

-9'-0"

TECHNICAL
325,64 sq ft

UP

UP

STORAGE
1 261,70 sq ft

UP

-9'-0"

-17'-0"

PARKING AREA
8 868,96 sq ft

ACCESSORY AUTOMATED
PARKING GARAGE
43 SPACES

Underground construction subject
to soil studies results

-17'-0"

LOT 8

LOT 7

CONCORD AVENUE

WALES AVENUE

5'-8" 25' 70'-11 15/16" 25' 15'-3 15/16" 56'-8 15/16" 25' 25' 25' 127'-8 7/8" 25' 22'-7/8"

100' 100'

Martin della Paolera Architects 65 Saint Felix Street, Brooklyn NY11217 Marina della Paolera ADE HMONP	**438 CONCORD AVENUE** **BRONX, NY 10045**	08-22-2023 SCALE 1/16" = 1'-0"	CELLAR PLAN **NOTE: GEOTECHNICAL ENGINEERING REPORT REQUESTED**

A - 19

145TH STREET

200'

5'-1" | 19'-11" | 25' | 25' | 25' | 25' | 25' | 25' | 19'-11" | 5'-1"

CONCORD AVENUE

WALES AVENUE

70'-11 15/16"

5'-8" | 25' | 25' | 15'-3 15/16"

5'-8" | 25' | 25' | 25' | 25' | 127'-8 7/8"

56'-8 15/16"

LIGHT MANUFACTURING WORKSHOP
1 228,42 sq ft

double height

LOADING BERTHS

OFFICE LOBBY
1 083,83 sq ft

±0'-0"

double height

RESIDENTIAL LOBBY
994,82 sq ft

double height

SERVICE

COMPACTOR

MARKET
1 077,52 sq ft

OUTDOOR MARKET

STORE | STORE | STORE | STORE

MAIL | MAIL

BAKERY | OVEN

KITCHEN

CAFE DELI
978,21 sq ft

TAKE OUT

UP | DN

SEMI-PUBLIC PASSAGE

STORE AND WORKSHOP PASSAGE

CAR PARKING RESIDENTIAL

DN

sitting area

restricted access

glass roof above

restricted access

±0'-0"

SEMI-PUBLIC PASSAGE

RESIDENTIAL BICYCLE PARKING

RESIDENTIAL BICYCLES

LOT 8

LOT 7

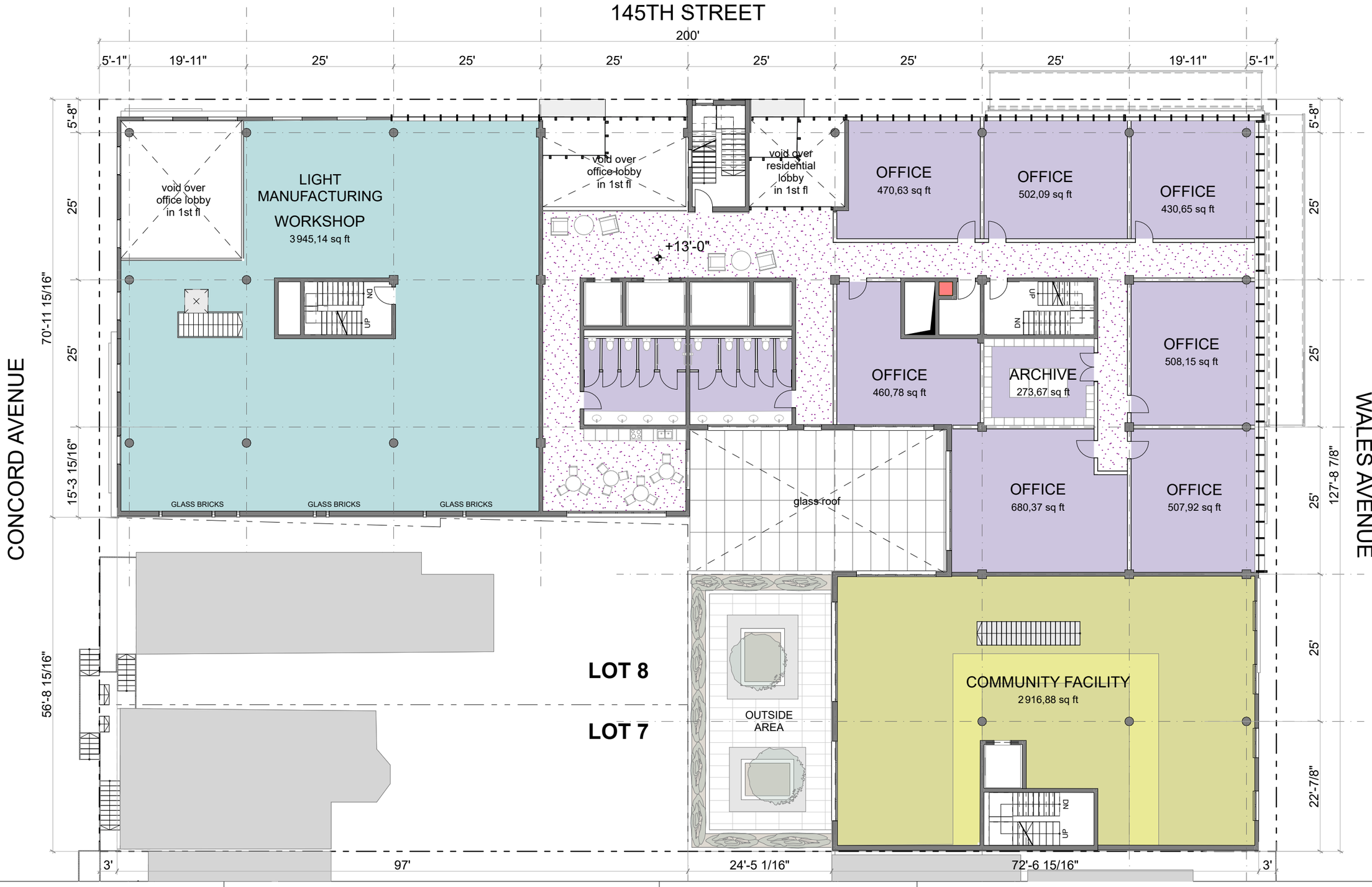
COMMUNITY FACILITY
3 405,43 sq ft

BICYCLES

UP

100' | 100'

Martin della Paolera Architects 65 Saint Felix Street, Brooklyn NY11217 Marina della Paolera ADE HMONP	**438 CONCORD AVENUE** **BRONX, NY 10045**	08-22-2023 SCALE 1/16" = 1'-0"	FIRST FLOOR PLAN **A - 20**



Martin della Paolera Architects 65 Saint Felix Street, Brooklyn NY11217 Marina della Paolera ADE HMONP	**438 CONCORD AVENUE** **BRONX, NY 10045**	08-22-2023 SCALE 1/16" = 1'-0"	2ND FLOOR PLAN **A - 21**

145TH STREET

200'

5'-1" | 19'-11" | 25' | 25' | 25' | 25' | 25' | 25' | 19'-11" | 5'-1"

CONCORD AVENUE

WALES AVENUE

70'-11 15/16"

5'-8" | 25' | 25' | 15'-3 15/16"

5'-8" | 25' | 25' | 22'-7/8"

127'-8 7/8"

56'-8 15/16"

OFFICE
913,83 sq ft

OFFICE
476,61 sq ft

OFFICE
358,20 sq ft

OFFICE
220,47 sq ft

OFFICE
501,86 sq ft

OFFICE
502,09 sq ft

OFFICE
569,60 sq ft

+23'-0"

OFFICE
1 168,35 sq ft

OPEN SPACE AREA
1 554,95 sq ft

GLASS BRICKS

GLASS BRICKS

UP

DN

OFFICE
459,95 sq ft

ARCHIVE
287,96 sq ft

UP

DN

OFFICE
508,15 sq ft

void over
roof 2nd fl

OFFICE
586,72 sq ft

OFFICE
507,92 sq ft

LOT 8

LOT 7

void over
2nd fl

OFFICE
1 801,58 sq ft

OFFICE
508,03 sq ft

OFFICE
443,92 sq ft

DN

UP

3' | 97' | 24'-5 1/16" | 72'-6 15/16" | 3'

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Marina della Paolera
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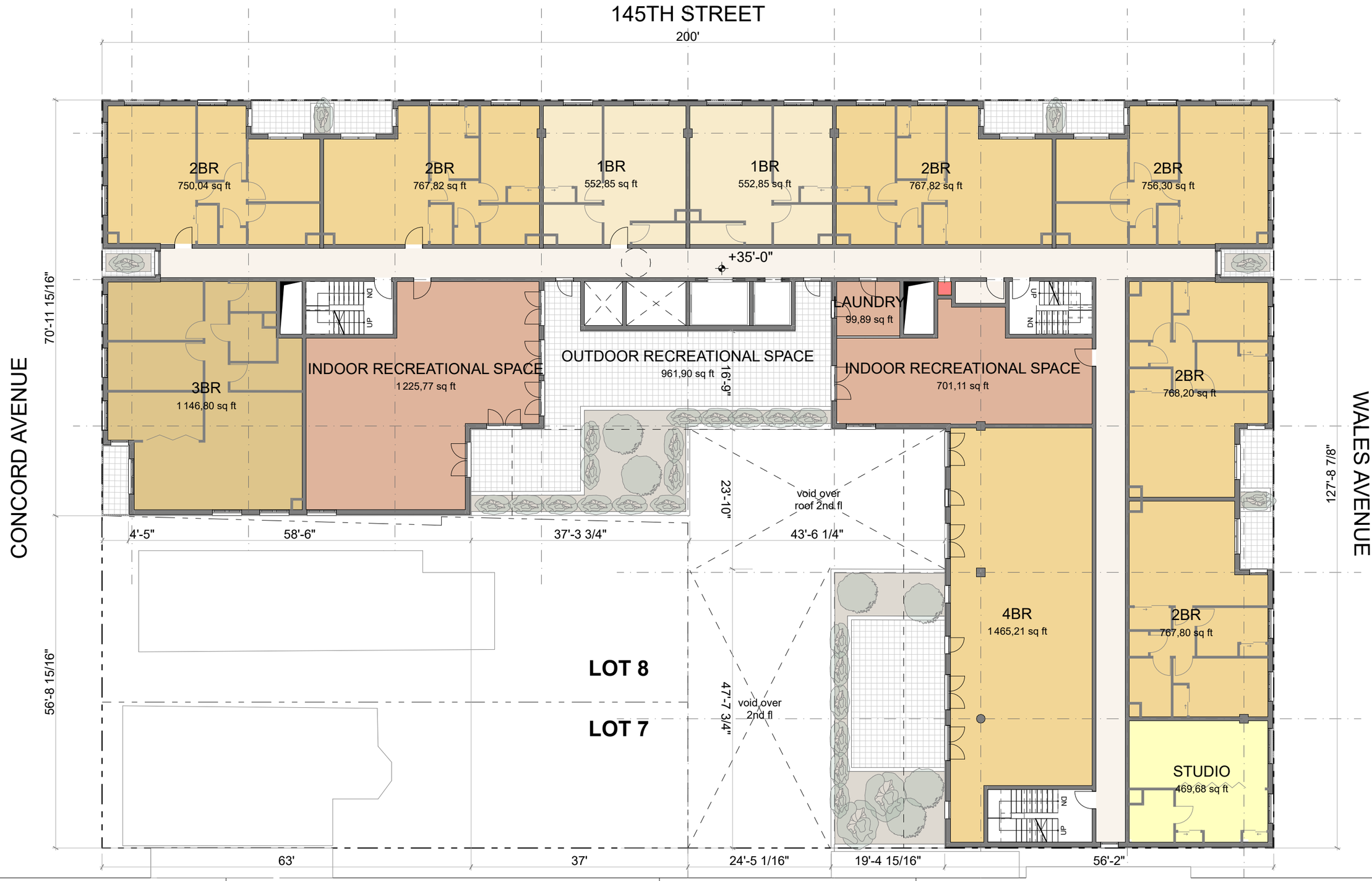
438 CONCORD AVENUE
BRONX, NY 10045

08-22-2023

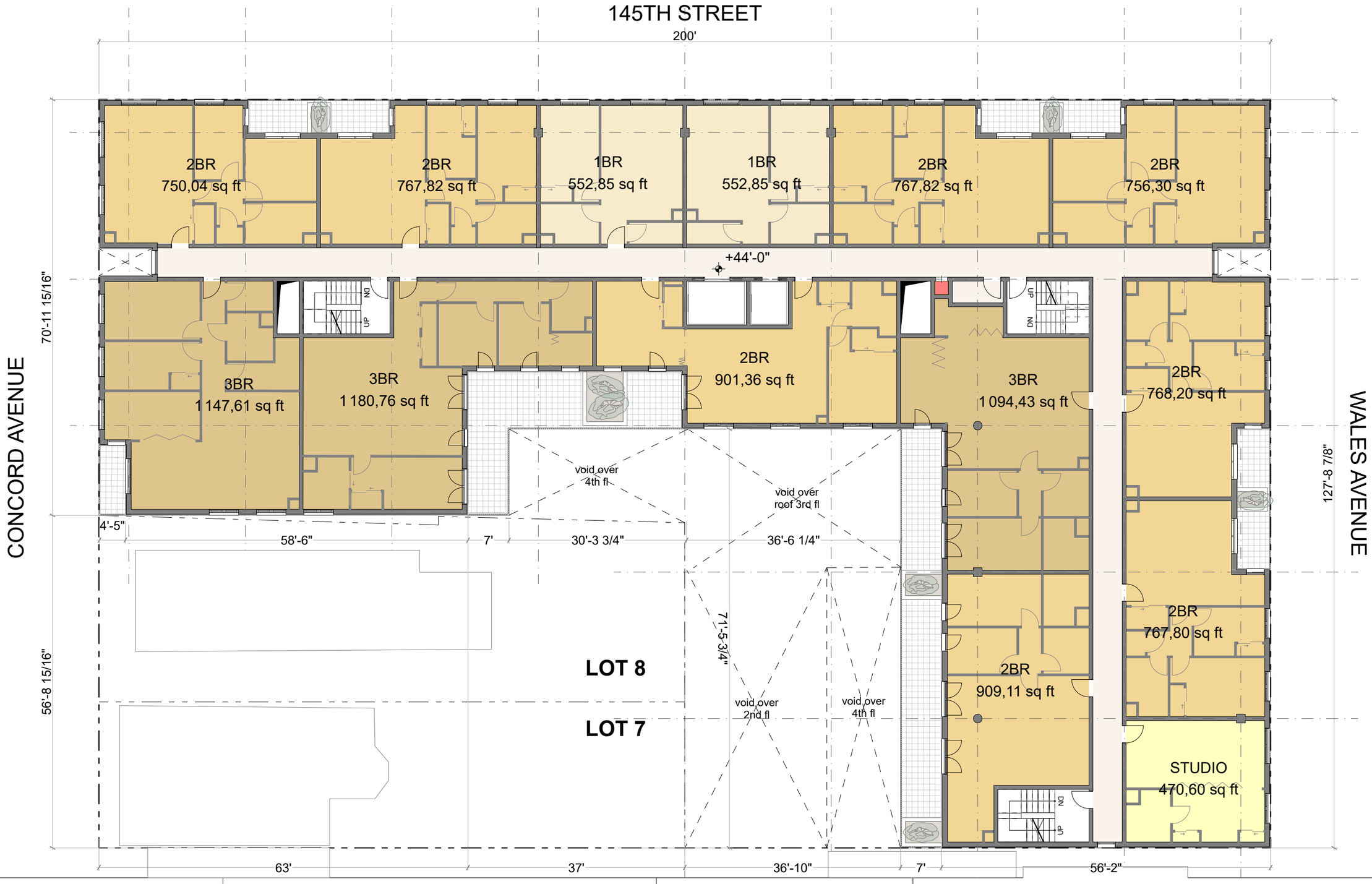
SCALE 1/16" = 1'-0"

3RD FLOOR PLAN

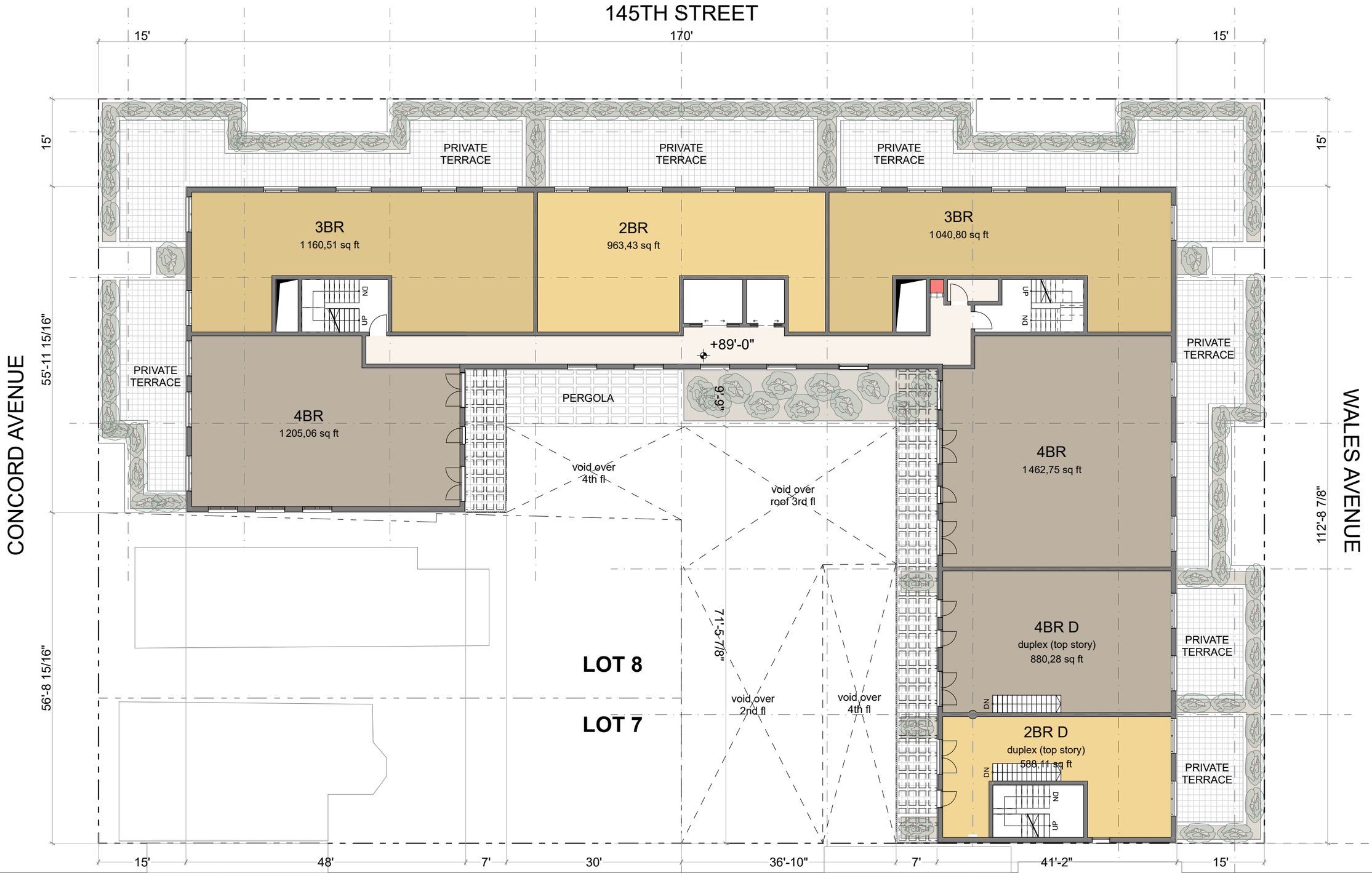
A - 22



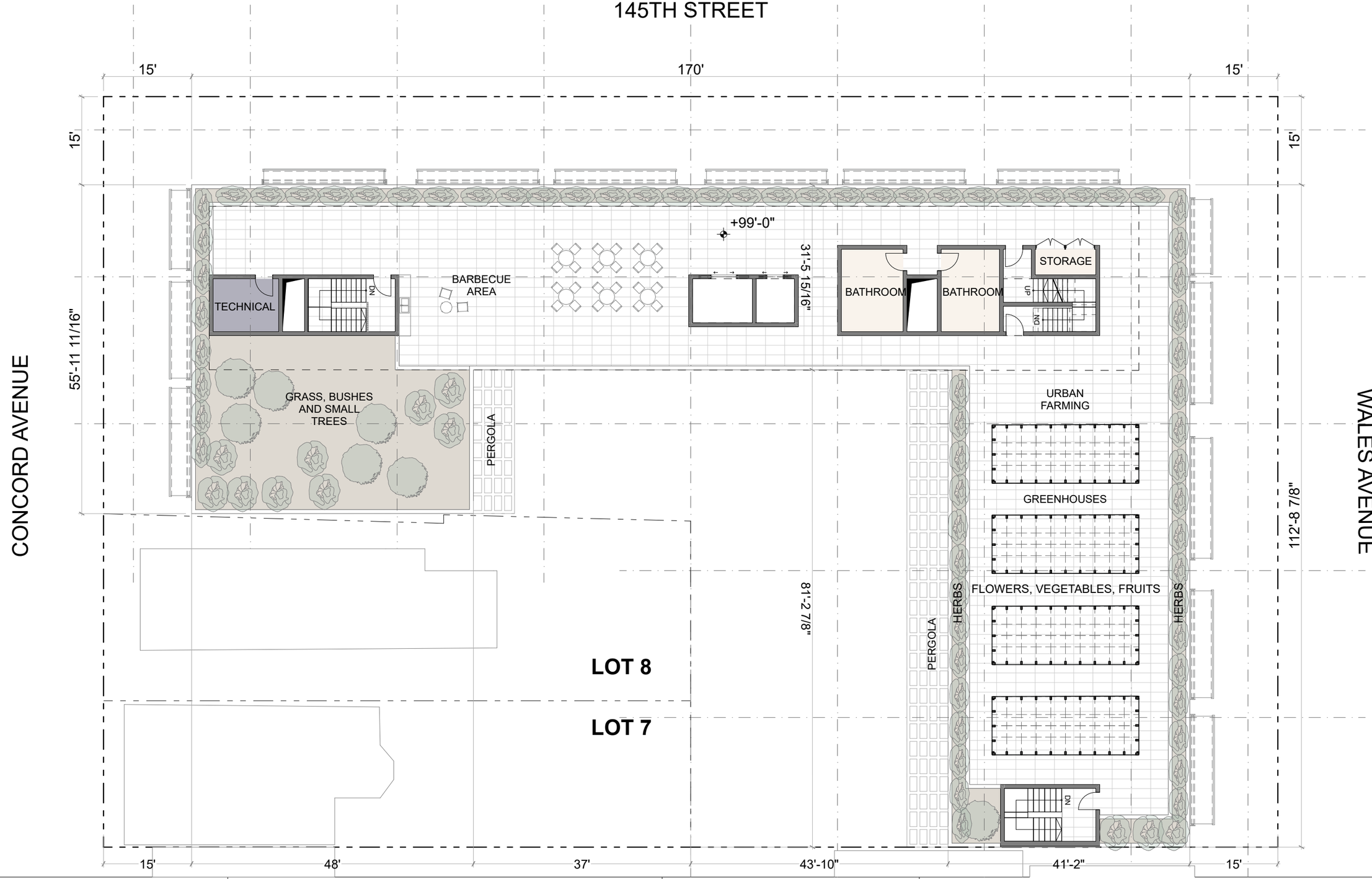
Martin della Paolera Architects 65 Saint Felix Street, Brooklyn NY11217 Marina della Paolera ADE HMONP	**438 CONCORD AVENUE** **BRONX, NY 10045**	08-22-2023 SCALE 1/16" = 1'-0"	4TH FLOOR PLAN **A - 23**



Martin della Paolera Architects 65 Saint Felix Street, Brooklyn NY11217 Marina della Paolera ADE HMONP	**438 CONCORD AVENUE** **BRONX, NY 10045**	08-22-2023 SCALE 1/16" = 1'-0"	5TH FLOOR PLAN TO 9TH FLOOR PLAN **A - 24**



Martin della Paolera Architects 65 Saint Felix Street, Brooklyn NY11217 Marina della Paolera ADE HMONP	**438 CONCORD AVENUE BRONX, NY 10045**	08-22-2023 SCALE 1/16" = 1'-0"	10TH FLOOR PLAN **A - 25**



Martin della Paolera Architects 65 Saint Felix Street, Brooklyn NY11217 Marina della Paolera ADE HMONP	**438 CONCORD AVENUE** **BRONX, NY 10045**	08-22-2023 SCALE 1/16" = 1'-0"	ROOF PLAN **A - 26**

WALES AVENUE

145TH STREET

CONCORD AVENUE

Martin della Paolera Architects
65 Saint Felix Street, Brooklyn NY11217

Marina della Paolera
ADE HMONP

438 CONCORD AVENUE
BRONX, NY 10045

08-22-2023

SCALE 1/16" = 1'-0"

NORTH EAST ELEVATION

A - 28

Martin della Paolera Architects 65 Saint Felix Street, Brooklyn NY11217 Marina della Paolera ADE HMONP	**438 CONCORD AVENUE** **BRONX, NY 10045**	08-22-2023 SCALE 1/16" = 1'-0"	NORTH WEST ELEVATION **A - 29**

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438 CONCORD AVENUE
BRONX, NY 10045

08-22-2023

SCALE 1/16" = 1'-0"

SOUTH EAST ELEVATION

A - 30

CONCORD AVENUE

WALES AVENUE

Martin della Paolera Architects
65 Saint Felix Street, Brooklyn NY11217
Marina della Paolera
ADE HMONP

438 CONCORD AVENUE
BRONX, NY 10045

08-22-2023

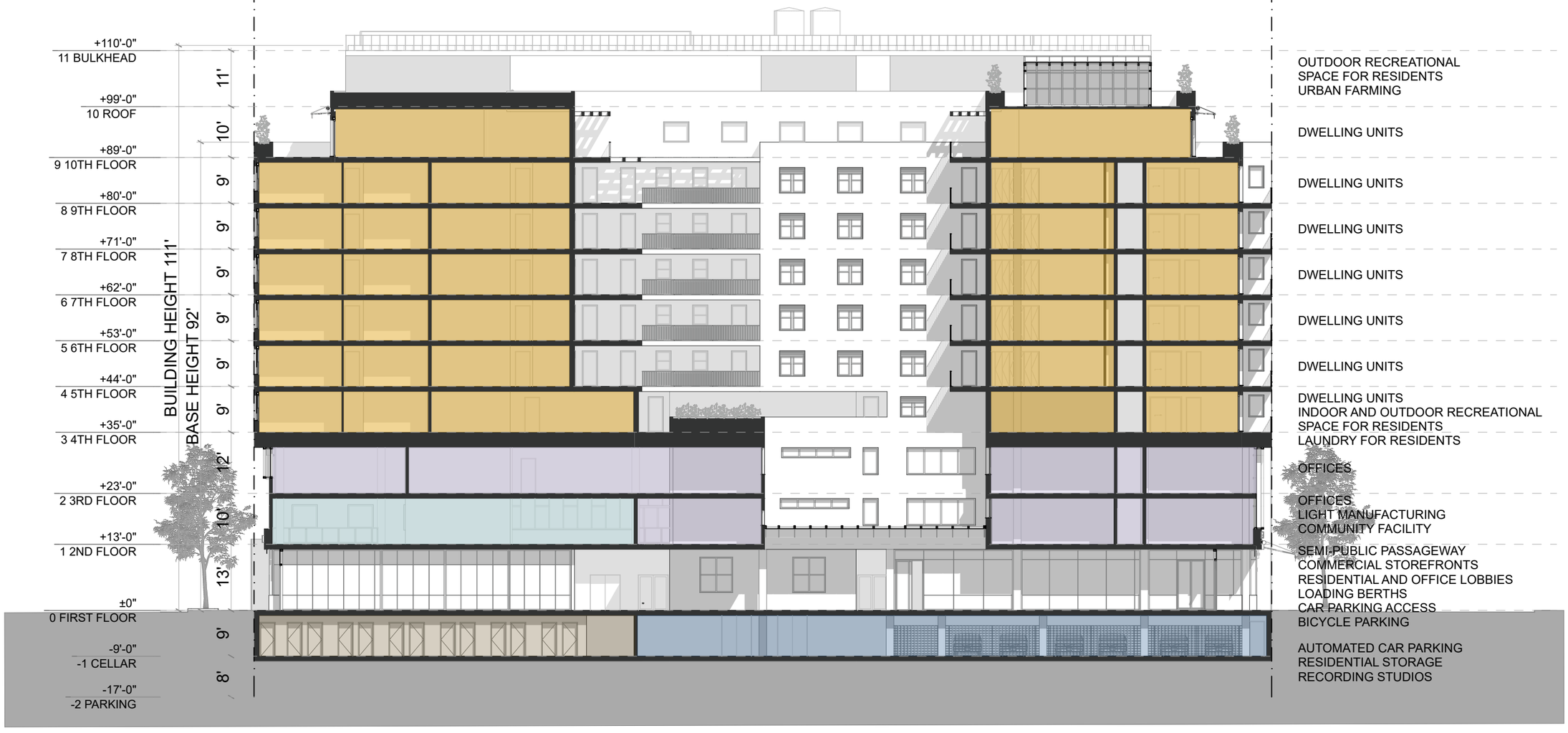
SCALE

SOUTH WEST ELEVATION

A - 31

CONCORD AVENUE

WALES AVENUE



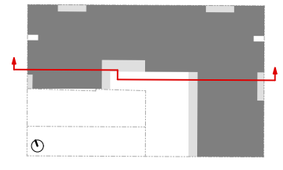
RESIDENTIAL

LIGHT MANUFACTURING

OFFICES

RESIDENTIAL STORAGE

CAR PARKING



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Marina della Paolera
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438 CONCORD AVENUE
BRONX, NY 10045

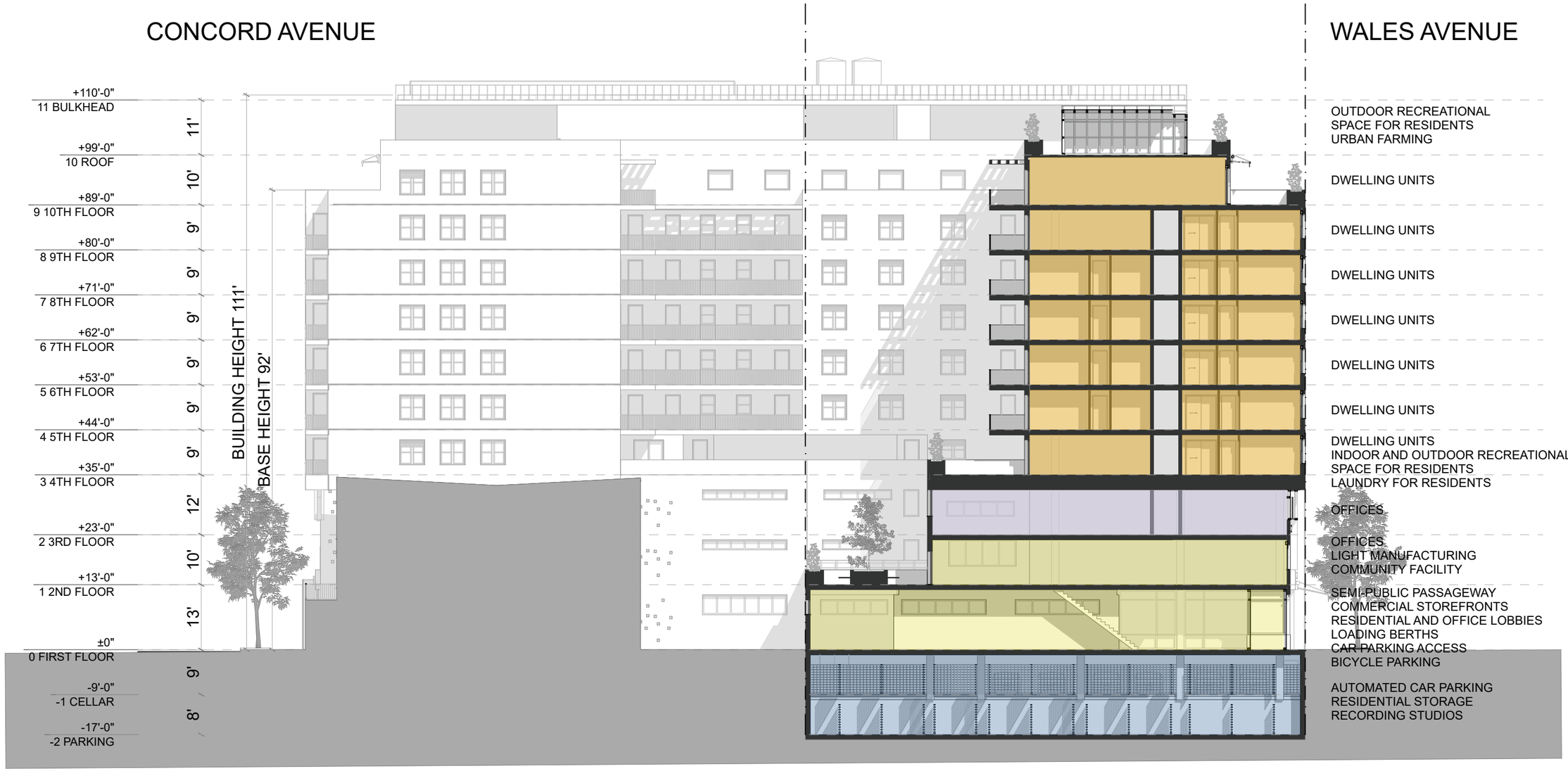
08-22-2023

SCALE 3/64" = 1'-0"

BUILDING SECTION

NOTE: GEOTECHNICAL ENGINEERING REPORT REQUESTED

A - 32



RESIDENTIAL

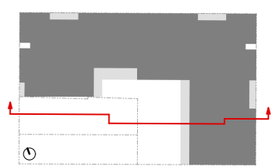
LIGHT MANUFACTURING

OFFICES

COMMUNITY FACILITY

RESIDENTIAL STORAGE

CAR PARKING



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Marina della Paolera
ADE HMONP

438 CONCORD AVENUE
BRONX, NY 10045

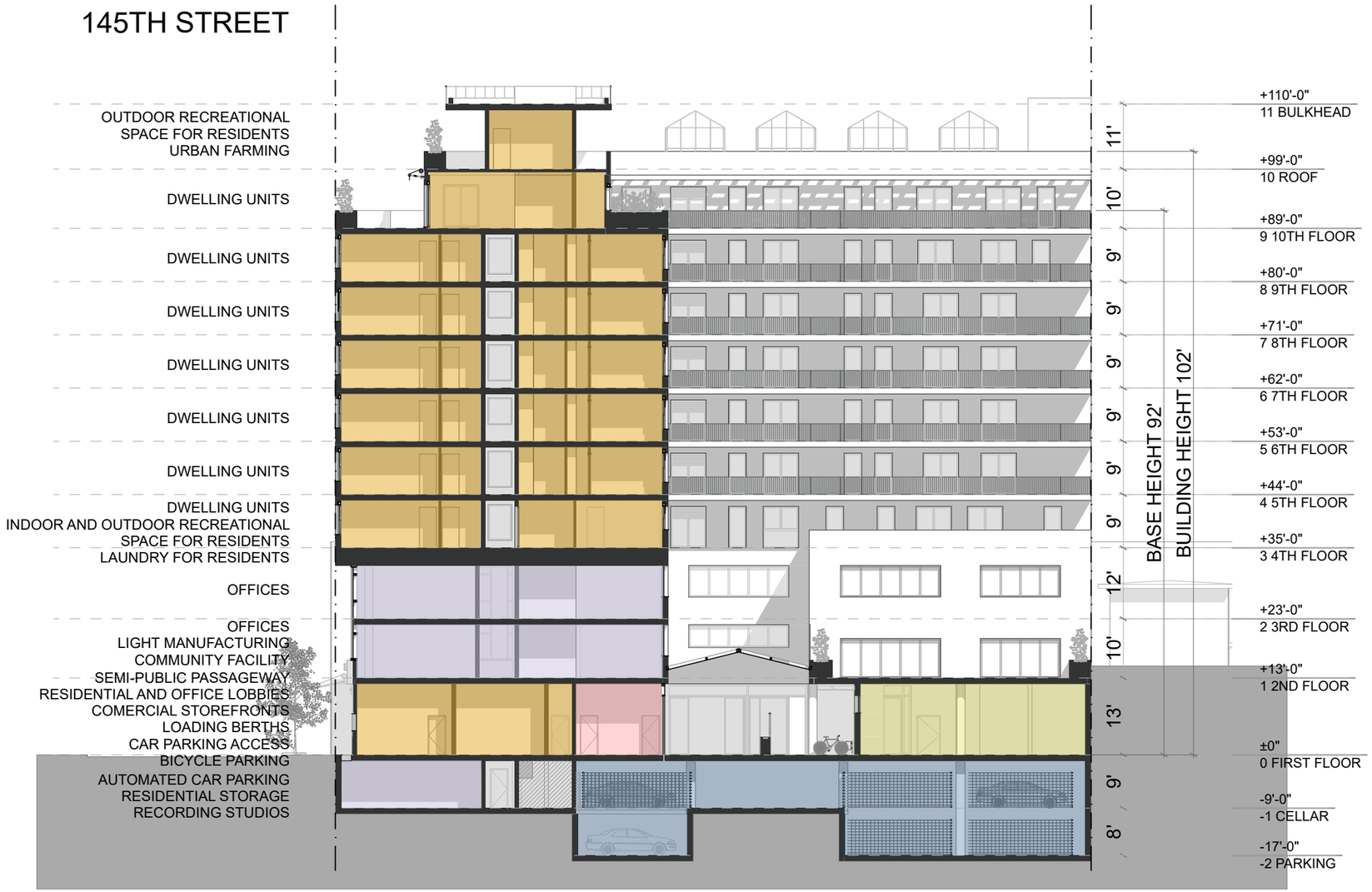
08-22-2023

SCALE 3/64" = 1'-0"

BUILDING SECTION

NOTE: GEOTECHNICAL ENGINEERING REPORT REQUESTED

A - 33



RESIDENTIAL

LIGHT MANUFACTURING

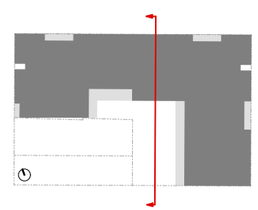
OFFICES

COMMUNITY FACILITY

COMMERCIAL

TECHNICAL

CAR PARKING



Martin della Paolera Architects
65 Saint Felix Street, Brooklyn NY11217
Marina della Paolera
ADE HMONP

438 CONCORD AVENUE
BRONX, NY 10045

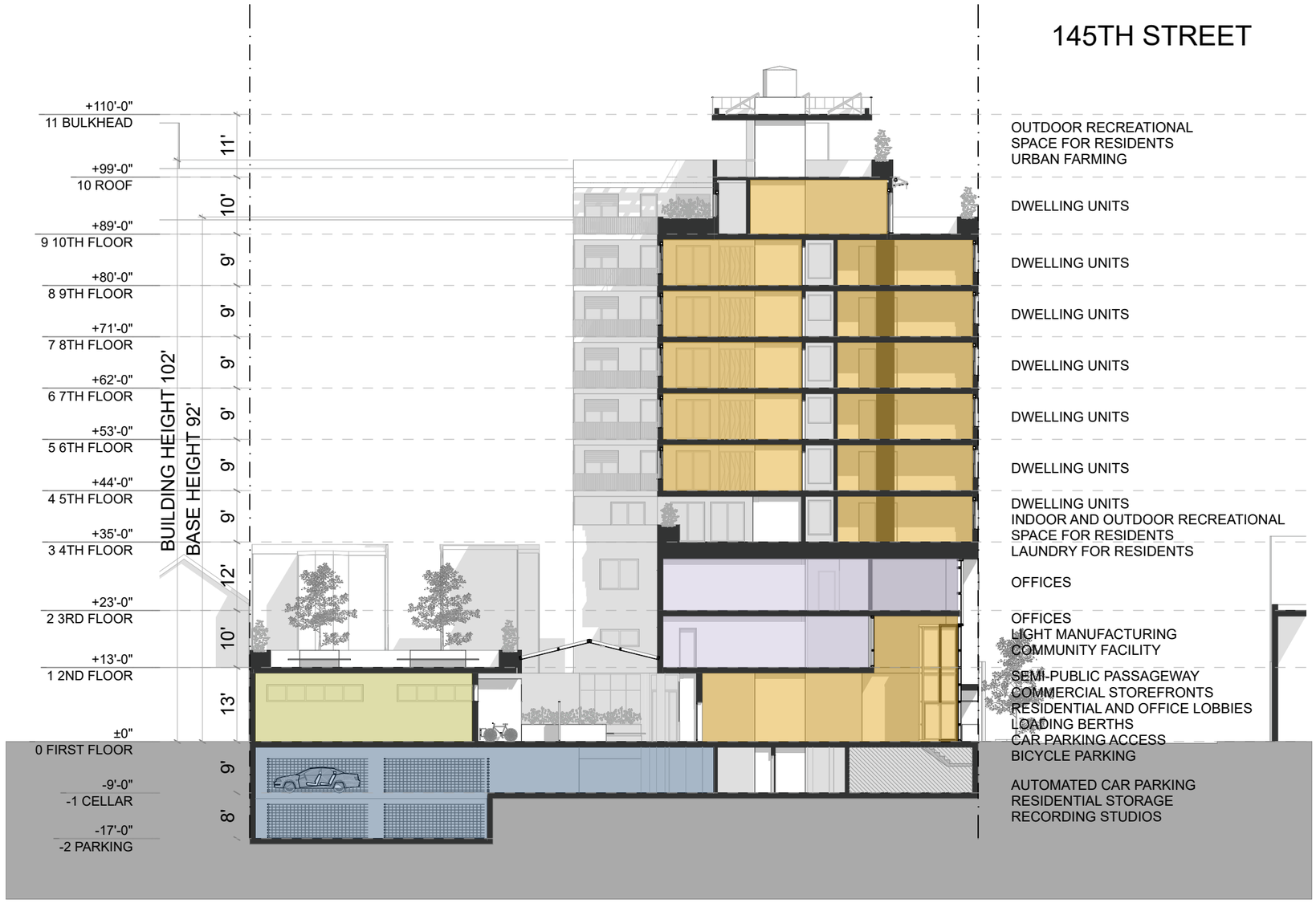
08-22-2023

SCALE 3/64" = 1'-0"

BUILDING SECTION

NOTE: GEOTECHNICAL ENGINEERING REPORT REQUESTED

A - 34



RESIDENTIAL

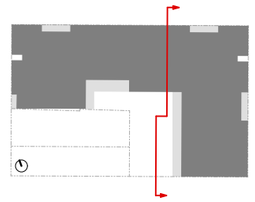
LIGHT MANUFACTURING

OFFICES

COMMUNITY FACILITY

TECHNICAL

CAR PARKING



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Marina della Paolera
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438 CONCORD AVENUE
BRONX, NY 10045

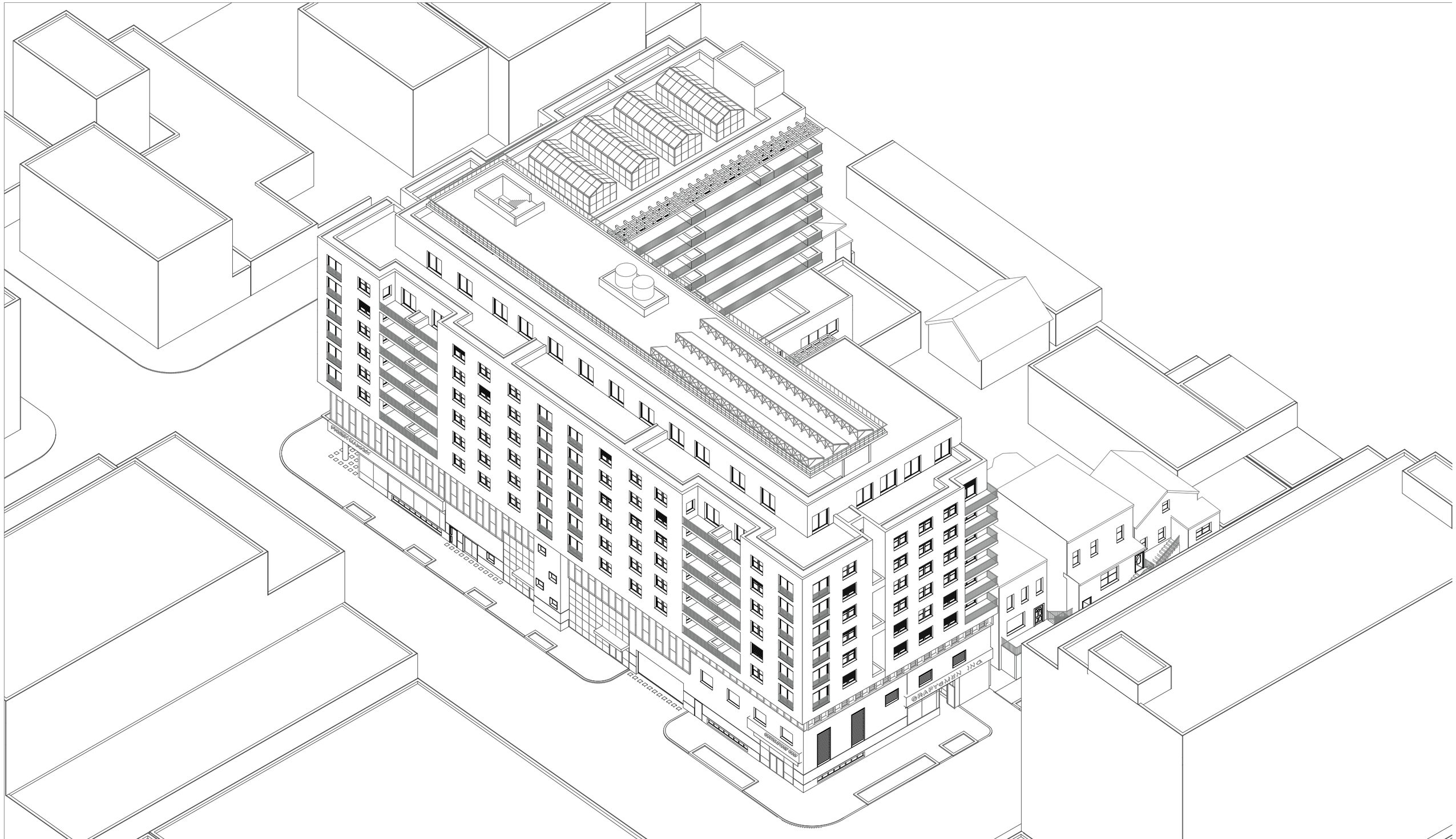
08-22-2023

SCALE 3/64" = 1'-0"

BUILDING SECTION

NOTE: GEOTECHNICAL ENGINEERING REPORT REQUESTED

A - 35



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Marina della Paolera
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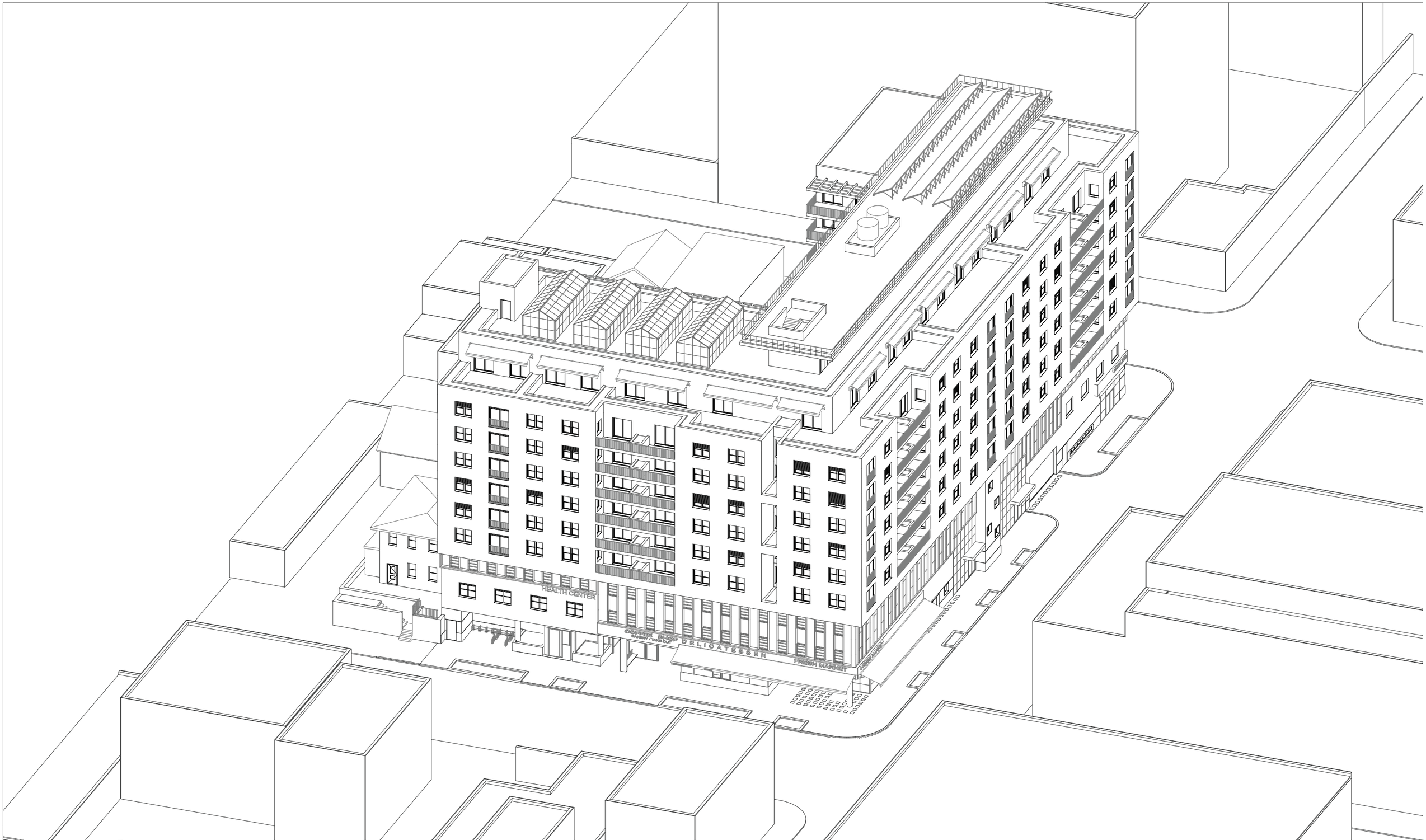
438 CONCORD AVENUE
BRONX, NY 10045

08-22-2023

SCALE

CONCORD AVENUE AXONOMETRIC VIEW

A - 36



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Marina della Paolera
ADE HMONP

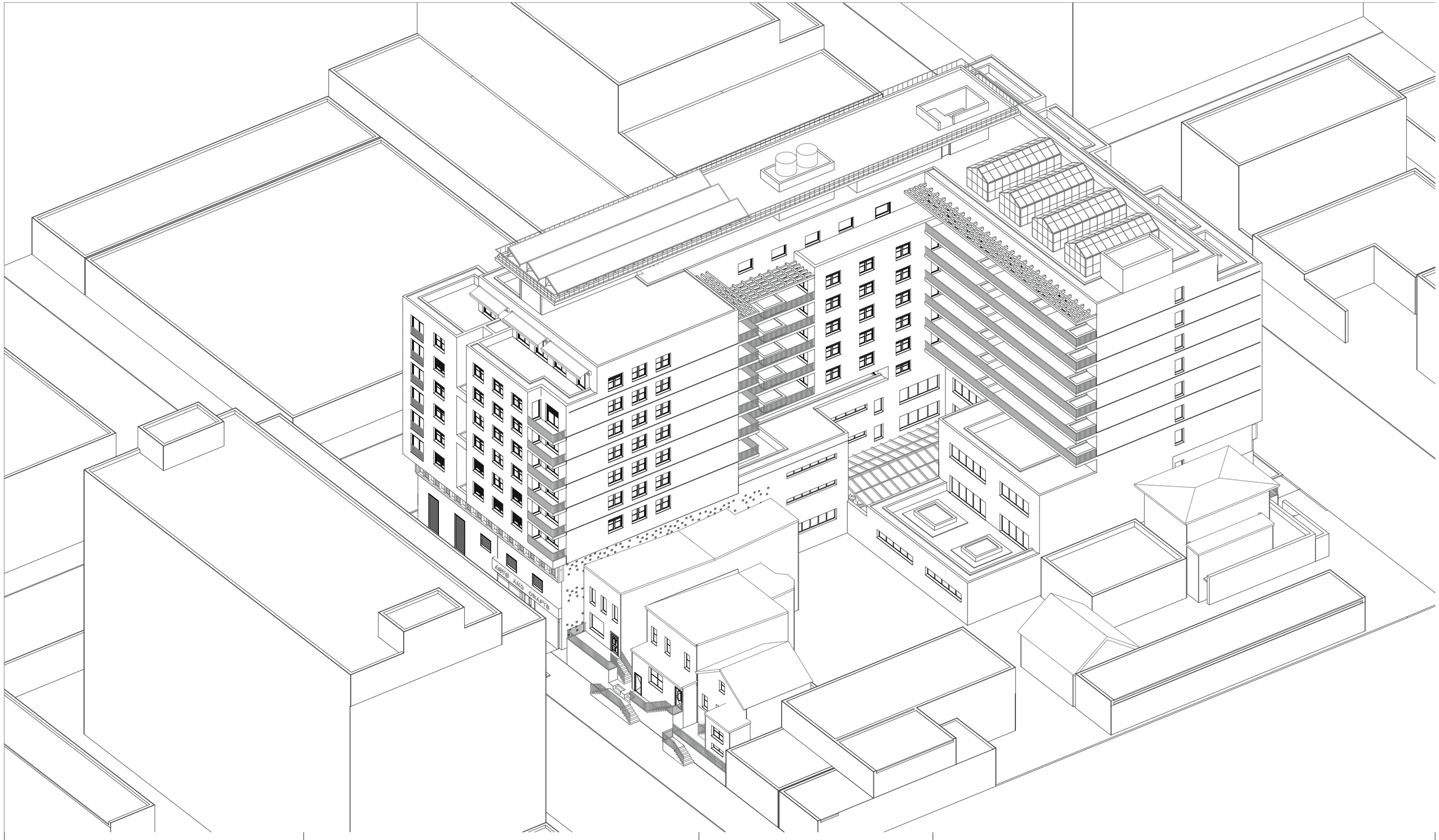
438 CONCORD AVENUE
BRONX, NY 10045

08-22-2023

SCALE

WALES AVENUE AXONOMETRIC VIEW

A - 37



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Marina della Paolera
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438 CONCORD AVENUE
BRONX, NY 10045

08-22-2023

SCALE

REAR AXONOMETRIC VIEW

A - 38

APPENDIX C

NYC HOUSING DATABASE BUILDING PERMITS

Completed DOB Permits Within 1/2-mile Study Area Since 2020

ID	Census Tract	Address	Job Type	Permit Year	Complete Year	Class A Initial Units	Class A Proposed Units	Class A Net Units	Ownership
1	27.02	617 East 140 Street	Alteration	2018	2020	1	2	1	Private For-Profit: Corporation
2	35	494 Jackson Avenue	New Building	2019	2020	0	16	16	Private For-Profit: Corporation
3	73	603 Jackson Avenue	New Building	2017	2020	0	25	25	Private For-Profit: Partnership

APPENDIX D-1

PHASE I ESA

PHASE I ENVIRONMENTAL SITE ASSESSMENT

438 Concord Avenue, Bronx, NY 10455
October 21, 2022

Prepared for:

Alejandro Waldman
65 Saint Felix Street, Brooklyn, NY 11217

Prepared by:

equity environmental engineering
WORKING TOGETHER TO DESIGN SOLUTIONS

500 International Drive, Suite 150
Mount Olive, New Jersey 07828
(973) 527-7451

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EXECUTIVE SUMMARY

Equity was retained by BronxCo, LLC to conduct a Phase I (Phase I Environmental Site Assessment) to identify RECs (Recognized Environmental Conditions) associated with current and prior site use at the property identified as 438 Concord Avenue Bronx, NY 10455 and 435 Wales Avenue, Bronx NY 10455. Equity conducted the assessment in accordance with the requirements of the ASTM (American Society for Testing and Materials) Standard E1527-21, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" and good professional practices.

A. Site Overview

The Subject Property is as follows:

Property Designation	438 Concord Avenue
Property Address	438 Concord Avenue, Bronx, New York 10455 435 Wales Avenue, Bronx, New York 10455
Parcel ID	Block 2577 / Lots 9 and 14
Parcel Size	Lot 9: 7,758 square feet Lot 14: 12,774 square feet
Number of Buildings	Lot 9: No buildings Lot 14: One building
Number of Stories	Lot 14: One story
Finished Area (SF)	Lot 14: 12,500 square feet
Date Constructed	Lot 14: 1931
Construction Type	Lot 14: Brick construction with concrete slab
Property Usage	Lot 9: Vehicle storage Lot 14: Auto body repair shop
Inspection Date	October 14, 2022
Weather Conditions	55°F, sunny, dry
Site Contact/Title	Alejandro Waldman/BronxCo, LLC.
Site Contact Phone	(646)-266-7447

B. Definitions

The ASTM Phase I Standard defines environmental conditions as follows:

- **Recognized Environmental Conditions (RECs)**
  The term "Recognized Environmental Condition" means the presence of hazardous substances or petroleum products in, on, or at the Subject Property due to a release to the environment; (2) the likely presence of hazardous substances or petroleum products in, on, or at the Subject Property due to a release or likely release to the environment; or (3) the presence of hazardous substances or petroleum products in, on, or at the Subject Property under conditions that pose a material threat of a future release to the environment.

- **Controlled Recognized Environmental Conditions (CRECs)**
  The term "Controlled Recognized Environmental Condition" is a recognized environmental condition affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities with hazardous substances or petroleum products allowed to remain in place subject to implementation of required controls (for example, activity and use limitations or other property use limitations).

- **Historical Recognized Environmental Conditions (HRECs)**
  The term "Historical Recognized Environmental Condition" is a previous release of hazardous substances or petroleum products affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities and meeting unrestricted use criteria established by the applicable regulatory authority or authorities without subjecting the subject property to any controls (for example, activity and use limitations or other property use limitations). A historical recognized environmental condition is not a recognized environmental condition.

- **Vapor Encroachment Conditions (VECs)**
  The term "Vapor Encroachment Condition" is a condition where the presence or likely presence of chemical of concern vapors in the subsurface of the target property caused by the release of vapors from contaminated soil and/or groundwater either on or near the target property.

- **De Minimis Conditions**
  The term "De Minimis Condition" is a condition related to a release that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. A condition determined to be a de minimis condition is not a recognized environmental condition nor a controlled recognized environmental condition.

- **Data Gaps**
  The term "Data Gap" is a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information. Data gaps may result from incompleteness in any of the activities required by this practice,

including, but not limited to site reconnaissance (for example, an inability to conduct the site visit), and interviews (for example, an inability to interview the key site manager, regulatory officials, etc.).

- **Key Site Manager**
  A key site manager is the person identified by the owner or operator of a Subject Property as having good knowledge of the uses and physical characteristics of the Subject Property.

C. Findings

The following environmental conditions were identified:

- **Recognized Environmental Conditions (RECs)**
  No RECs were identified as a result of this assessment.

- **Controlled Recognized Environmental Conditions (CRECs)**
  No Controlled RECs were identified as a result of this assessment.

- **Historical Recognized Environmental Conditions (HRECs)**
  No Historic RECs were identified as a result of this assessment.

- **Vapor Encroachment Conditions (VECs)**
  The EDR Vapor Encroachment database identified three records on the Subject Property. One record is under the FINDS (Facility Index System) database and two records are under the SSTS (Section Seven Tracking Systems) database. These records are included at the Subject Property due to the facility on 435 Wales Avenue (Safeguard Chemical Corp) being an Insecticide, Fungicide, and Rodenticide facility. There are numerous potential VECs (Vapor Encroachment Conditions) within 1/10 of a mile of the Subject Property that are related to multiple NY Spills cases, four E-Designation sites, and one EDR Hist Auto listing. All NY Spills cases have either been closed or are not significant enough to have affected the Subject Property. Therefore, all spill cases are not considered VECs. Three of the four E-Designation sites are within 0.021 miles of the Subject Property. The E-Designation sites are located at 439 Concord Avenue, 431 Concord Avenue, and 441 Concord Avenue. 439 and 431 Concord Avenue have the following E-Designation description: “exhaust stack location limitations”. The E-Designation site at 441 Concord Avenue lists descriptions relating to air quality (HVAC nitrogen oxides), exhaust stack limitations, and hazardous materials phase I and phase II testing protocol. Based on the E-Designation descriptions, these three sites are not considered VECs. The EDR Hist Auto site is 0.086 miles from the Subject Property. The EDR Hist Auto site is cross gradient of the Subject Property, therefore the EDR Hist Auto listing is not considered a VEC. Due to the records listed on the Subject Property, VECs cannot be ruled out. Details on the VECs can be found in Appendix C.

- **De Minimis Conditions**
  No De Minimis Conditions were identified as a result of this assessment.

- **Data Gaps**
  Equity did not identify any significant data gaps that would affect its ability to identify RECs associated with the Subject Property.

D. Conclusions

Equity's review of available information and observations of the Subject Property and surrounding properties indicates that no RECs, CRECs, HRECs, De Minimis Conditions, or Data Gaps were identified as a result of this assessment. However VECs could not be ruled out.

I. INTRODUCTION

A. Purpose

Equity was contracted by BronxCo, LLC to perform a Phase I Environmental Site Assessment of the referenced property in accordance with the ASTM (American Society for Testing and Materials) International Standard E1527-21, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. The ASTM International Standard satisfies the requirements of the USEPA's (United States Environmental Protection Agency's) All Appropriate Inquiry Standard, 40 CFR Part 312, which is required to qualify for certain landowner liability protections under the CERCLA (Comprehensive Environmental Response, Compensation and Liability Act). The ASTM Standard constitutes "all appropriate inquiry into previous ownership and uses of the property consistent with good commercial or customary practice." The investigation was conducted to identify RECs (Recognized Environmental Conditions), which are identified as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.

It is Equity's understanding that the proposed Project is part of the zoning map amendment process to rezone the Project area from the existing M1-2 zoning district to an R7X/M1-4 zoning district.

B. Scope-of-Services

The Phase I consisted of the following components:

1. Review of environmental and historical records
2. Site reconnaissance
3. Interviews
4. Report preparation

The environmental assessment is non-invasive and does not include any testing or sampling of materials, such as soil, water, air or building materials. The environmental assessment included a non-invasive (no sampling) evaluation of the potential for asbestos-containing materials, lead-based paint, and mold.

C. Significant Assumptions, Limitations and Exceptions

Unless noted, Equity assumes that the information obtained through the records review, site inspection, and interviews is correct. Equity does not warrant the accuracy of this information or warrant that any RECs that were not identified through the Phase I process do not exist on the Subject Property. RECs do not include De Minimis conditions that do not present a threat to human health or the environment, and that would not be subject to an enforcement action by government agencies.

D. Special Terms and Conditions

No Special Terms or Conditions apply to this project.

E. Reliance

This report is for the use and benefit of BronxCo LLC and any of their respective affiliates, agents, and advisors.

II. SITE DESCRIPTION

A. Location and Description

The Subject Property is identified as 438 Concord Avenue, Bronx, NY 10455 and 435 Wales Avenue, Bronx, NY 10455. The Subject Property is identified as Block 2577 / Lots 9 and 14 on the New York City Tax Map. Lot 14 is vested in BronxCo LLC and Lot 9 is vested in 100 West 33rd Street Corp. The Subject Property is two rectangular shaped lots between Concord Avenue and Wales Avenue. The Subject Property is located in the Mott Haven Neighborhood of The Bronx.

A USGS Site Location Map and Site Boundary Map are included as Figures 1 and 2.

B. Site and Vicinity Characteristics

The Subject Property is currently located in a M1-2 zoning district surrounded by mostly industrial and commercial uses. The Subject Property is located adjacent to General Baitoa to the north, Professional Auto Body to the east, Diallo Auto Repair to the west, and residences to the south. M1-2 zoning districts are manufacturing districts typically include light industrial uses. The manufacturing floor area ratio is 2.0 and the required accessory parking is 1 per 300 square feet.

C. Current Use of the Property

Lot 14 of the Subject Property is currently an autobody shop with two spray paint booths. Lot 9 is a paved fenced-in parking lot used to store vehicles.

D. Description of Structures, Improvements and Utilities

Currently, one building exists on Lot 14. The building is brick with wood framing.

Utilities at the property include the following:

1. Electricity

   Electricity is provided to the Subject Property located at 435 Wales Avenue, Bronx, NY by ConEd (Consolidated Edison Inc.). Electricity is not currently provided to the Subject Property located at 438 Concord Avenue, Bronx, NY

2. Water

Potable water is supplied by the City of New York at 435 Wales Avenue, Bronx, NY. Potable water is not currently supplied to the Subject Property located at 438 Concord Avenue, Bronx, NY. No groundwater drinking wells were reported or identified as a result of this assessment.

3. Sewers

Sanitary wastewater is discharged to the City of New York sewer system at 435 Wales Avenue, Bronx, NY.

4. Heat

An oil fired boiler currently exists at 435 Wales Avenue, Bronx, NY. However, the heating system has not worked for an unknown number of years according to the tenant at the property, Mr. Luis Fernando. Heat is not currently provided to the Subject Property located at 438 Concord Avenue, Bronx, NY.

E. Current Uses of Adjoining Properties

The following land uses are present at properties adjoining the Subject Property:

- North – East 145th Street, General Baitoa Automotive Warehouse, vacant lot
- East – Wales Avenue, Professional Auto Body, commercial, and residential
- South – Residential
- West – Concord Avenue, Diallo Auto Repair, and vacant lot with active construction

III. USER PROVIDED INFORMATION

The ASTM Standard defines the "User" as the person on whose behalf the Phase I is being conducted. The ASTM Standard requires the User to provide site information for the Phase I. Equity was not provided with the following information:

- Environmental liens (i.e., legal, deed notice) or Activity and Use Limitations (i.e., engineering controls, etc.).
- Specialized knowledge or commonly known information regarding current or historical hazardous material use on the Subject Property or adjoining properties, which would be considered a REC.
- Indications that the fair market value of the Subject Property was reduced due to environmental concerns.

IV. RECORDS REVIEW

A. Standard Environmental Record Sources

EDR of Shelton, Connecticut, was contracted by Equity to prepare an environmental database survey for the Subject Property and surrounding areas. A copy of the EDR report, which

summarizes the environmental concerns presented by nearby sites, is attached as Appendix C. The listing of a site on any of these databases is, in itself, not indicative of an existing environmental concern. Distance, geology, and groundwater flow gradient are the factors that determine the importance of a listed site to the soil and groundwater quality on the Subject Property. Equity has relied on distance from the listed site and topographical gradient to judge whether that site has the potential to affect the Subject Property.

According to the EDR environmental database search, the Subject Property was identified on 2 databases (Finds and SSTS). The following surrounding properties were identified in the federal and state databases within a one-mile search radius of the Subject Property and are identified as follow:

Database	Subject Property	0-1/8 Mile	1/8 – 1/4 Mile	1/4 – 1/2 Mile	1/2 – 1 Mile
RCRA-LQG		0	2	NR	NR
RCRA-SQG		3	6	NR	NR
NY SHWS		0	0	1	3
NY SWF/LF		0	0	5	NR
NY LTANKS		5	5	29	NR
NY UST		2	11	NR	NR
NY MOSF UST		0	0	1	NR
NY MOSF		0	0	1	NR
NY AST		14	21	NR	NR
NY TANKS		1	0	NR	NR
NY VCP		1	2	1	NR
NY BROWNFIELDS		0	0	2	NR
NY SWRCY		0	1	0	NR
NY SPILLS		27	NR	NR	NR
RCRA NonGen/NLR		20	38	NR	NR
FINDS	1	0	NR	NR	NR
NY DRYCLEANERS		0	4	NR	NR
NY E DESIGNATION		5	NR	NR	NR
NY MANIFEST		31	51	NR	NR
NJ MANIFEST		7	16	NR	NR
EDR Hist Auto		3	NR	NR	NR
EDR Hist Cleaner		1	NR	NR	NR
SSTS	2	NR	NR	NR	NR

The Subject Property was identified on the FINDS and SSTS (Section Seven Tracking Systems) database due to the facility on 435 Wales Avenue (Safeguard Chemical Corp) being an Insecticide, Fungicide, and Rodenticide facility. No other listings were associated with the Subject Property usage. The EDR Database identified 120 sites within 1/8 of a mile from the Subject Property. The

NY LTANKS database identified 5 sites; however, there are no open spill cases associated with the LTANK listings. The NY UST database identified 2 sites; however, there are no spills associated with the NY UST listings. The NY AST database identified 14 sites; however, there are no spills associated with the NY AST listings. NY TANKS database identified 1 site; however there are no spills associated with the NY TANKS listing. The NY SPILLS database identified 27 sites; however, after a review of the New York Department of Environmental Conservation (NYDEC) Spill Database all spills within 1/8 of a mile have been closed and are no longer a concern to the Subject Property. The EDR Hist Auto database identified 3 sites; Maddaloni John W (482 Tinton Avenue), R&L Citgo (459 Tinton Avenue), and Anpe Gas Service Station Inc (458 Southern Blvd). No spill cases are identified with the three listings; however the listings cannot be ruled out as a concern due to the nature of the sites. The EDR Hist Cleaner database identified 1 site, Edwards Dry Cleaners (497 Jackson avenue). No spill cases are identified with the three listings; however the listings cannot be ruled out as a concern due to the nature of the sites. Additional information regarding each of the individual properties identified in the databases listed above is provided in Appendix C.

B. Orphans Summary

The EDR Orphan Summary lists 17 properties that were included in certain federal or state environmental databases, but were reported by EDR to be unmapped due to insufficient address information. The listing of orphan sites within the database search was reviewed, cross referencing available address information with facility names. Upon review, it was determined that no orphan sites appear to be associated with the Subject Property or adjoining properties. The orphan sites provided by EDR are listed below:

- CE – E. 137th St. Station
- CE – E. 138th St. – Bronx Works (twice)
- Parking Lot
- Hutch Pkwy and Bruckner Expwy
- Bronxchester Ura Site 1A
- Brite Staff/Oak Point Properties
- Police Pistol Range
- I/A/O Wales Ave & East 145 St
- 214895; Navy St and Concord St
- East 145th Street and East River
- 180th St and Clinton Ave.
- St. Raymond's Cross Bronx, Hutch
- Hunt's Point/Hoe Ave
- Southern Blvd. and Longwood Ave
- Oak Point/Brite Star
- Serega Ave, Cross Bronx Expwy, Wes
- 214671; Jay St and Concord St

Additional information regarding the EDR Orphan Summary Report can be found in Appendix C.

C. City Environmental Quality Review "E" Designation

The "E" designations shown on the zoning maps function as indicators of the environmental review that must be conducted when the lots are developed in accordance with the regulations of the rezoned district. The City Planning Commission's rezoning actions, including environmental designations, were made effective upon the City Council's approval of the Zoning Map

Amendment. Based upon a review of the NYCDEP "E" Designation database on October 11, 2022, the Subject Property was not identified.

D. Physical Setting Source

The Subject Property is located in The Bronx and surrounded by primarily industrial and commercial uses. The ground surface at the site is predominantly level. Ground cover consists primarily of asphalt at 438 Concord Avenue, Bronx, NY and a brick building at 435 Wales Avenue, Bronx, NY. 438 Concord Avenue, Bronx, NY is accessed from the north via East 145 Street. 435 Wales Avenue is accessed from the north via East 145 Street and the East via Wales Avenue. Based on a review of the topographic map for the area, groundwater is inferred to flow to the southeast towards East River.

Based on the soil survey maps published by the USDA Soil Conservation Service (1994) and information provided in the EDR Report, the subsurface soils expected at the site include Urban Land, which is variable in texture and does not qualify as hydric soil. Urban land soils are those which have lost original characteristics due to human activity (construction, development, demolition, debris, etc.). The geologic age identification of the rock at the Subject Property is of the Paleozoic Era, Ordovician System, Middle Ordovician (Mohawkian) Series, (Code O2). No settling ponds, lagoons, surface impoundments, wetlands or natural catch basins were observed on the Subject Property during this investigation.

E. Historical Use Information on the Property

The historical sources reviewed indicate that the Subject Property has previously been undeveloped land, residential property, and a school bus parking area.

1. Sanborn Fire Insurance Maps

Equity reviewed 26 digital Sanborn Fire Insurance Maps from 1891 to 2007 provided by EDR, Inc. The Sanborn Fire Insurance Maps from 1928, 1968, and 1969 did not show the Subject Property and were not used for this section. Information derived from these maps is as follows:

Year	Subject Property	Surrounding Area
1891	The Subject Property is developed with multiple 2-3 story buildings labeled "Primary School No. 44"	The Surrounding areas is multiple residential dwellings.
1908	The Subject Property is developed with two 2-story dwellings, a 4-story vacant building, and a 2-story building labeled "Vacant Ruin"	The Surrounding Area is multiple residential dwellings.

Year	Subject Property	Surrounding Area
1935 and 1944	The Subject Property on the western portion is developed with two 2-story dwellings, a 4-story dwelling, and three 1-story auto garages (personal garages)	The Surrounding Area to the East is Wales Avenue with garages, Dwellings, and Commercial spaces (Auto Wrecking, Machine Shop, Auto Service Station). The north is 145th Street with Garages beyond. The south is developed with dwellings, and the west is Concord Avenue with dwellings and commercial facilities beyond.
1946	The Subject Property on the western portion is developed with a 4-story dwelling labeled "Apts", two 2-story dwellings, and three 1-story auto garages (personal garages)	Similar to previous years.
1947	The Subject Property on the western portion was divided from two lots to three lots and developed with a 4-story dwelling labeled "Apts", two 2-story dwellings, and two sheds.	Similar to previous year.
1951, 1977, 1978, 1980, 1981, 1984, 1986, 1989, 1991, and 1992	The Subject Property on the western portion is similar to the previous years. The Subject Property on the eastern portion is developed with a 1-story chemical warehouse labeled "Cutler-Hammer Inc."	The east is developed with dwellings, Auto repair facilities, and a wagon yard. The Northwest is developed with a Junior High School No. 155.
1993, 1994, 1995, 1996, 1998, 2001, 2002, 2003, 2004, 2005, 2006, and 2007	The Subject Property on the western portion is developed with two 2-story dwellings and vacant land. The Subject Property on the eastern portion is a 1-story chemical warehouse.	The Surrounding areas are developed with dwellings, commercial buildings, auto garages/repairs, and a Junior High School.

Copies of the Sanborn Fire Insurance Maps are provided as Appendix D.

2. USGS Topographic Maps

Equity reviewed a total of 11 historical Topographic Maps from 1897 to 2019 provided by EDR, Inc. Information derived from these maps is as follows:

Year	Subject Property
1897, 1898, and 1900	The Subject Property is developed. The area to the east of the Subject Property is Port Morris. There is a railroad to the east of the Subject Property.
1947, 1956, 1966, 1979, 1997, 2013, 2016, and 2019	The Subject Property is developed and the surrounding development has increased greatly. Port Morris to the east has been developed with fill material as there is developed land over a previous water body. There is a major roadway and railroad to the east of the Subject Property.

Copies of the USGS Topographic Maps are provided as Appendix E.

3. Historic Aerial Photographs

Equity reviewed a total 15 of aerial photographs spanning from 1924 to 2017 provided by EDR, Inc. The Subject Property is depicted in the aerials in its current state from 1994 to 2017. Information derived from the aerial photographs is as follows:

Year	Subject Property	Surrounding Area
1924	The Subject Property is developed on the Southwestern portion with residential dwellings.	The Surrounding Areas are developed with multiple residential dwellings.
1951, 1954, and 1961	The Subject Property is developed with residential dwellings on the western portion. The eastern portion of the Subject Property is developed with a large warehouse similar to current usage.	The Surrounding Areas are developed with multiple residential and commercial buildings.
1966, 1974, 1976, 1984, and 1991	The Subject Property is developed with residential dwellings on the western portion. The eastern portion of the Subject Property is developed with a large warehouse similar to current usage.	The Surrounding Areas are developed with multiple residential and commercial buildings. The property to the northwest is developed with a building comparable to the current Junior High School building.
1995, 2006, 2009, 2013, and 2017	The Subject Property is developed with residential dwellings on the southwestern portion.	Similar to the previous years.

Copies of the aerial photographs are provided as Appendix F.

4. City Directory

Equity reviewed local city directory listings provided by EDR, Inc. for the Subject Property and adjacent properties. Listings for the Subject Property include Moving and Shipping Corporation and residential dwellings between 1931 through 1976. The surrounding area is characterized by commercial, residential, and industrial listings. A few of the surrounding uses include IMW Distributrs Inc Bevrgs at 425 Concord Avenue; Los Conpadres Repair Shop, San Salvadore Auto Repr Shop Inc, Concord Ornamental Iron Works, and Tip Top Pickle Co at 439 Concord Avenue; Concord Carburetor, Concord Auto Body, Allied Auto Svce, E&H Auto Body & Fender Reprs, and Elevator Svce & Appliance Co at 439 Concord Avenue; Eden Transptn Systms Inc, Dynamic Operating Corp, Forest Maintenance Corp, Famous Cab Corp, Universal Carloading & Distr Co inc, and Overland Package Freight Svc Inc at 450 Concord Avenue; General Baitoa Equipment Company and General Baitoa Automotive at 745 East 145th Street. The City Directory report is included as Appendix G.

5. Regulatory File Review

Equity reviewed title information for the Subject Property contained in the New York City Zola database. Title to Lot 14 is vested in BronxCo LLC and Lot 9 is vested in 100 West 33rd Street. The Subject Property is identified as Block 2577/Lots 14 and 9.

According to the New York City DOB (Department of Buildings) website, Lot 14 has one complaint, seven DOB violations, nine jobs, and four actions. The complaint was related to non-conforming zoning, in which a residential building was doing auto repair. Six of the seven violations were dismissed. The one active violation is for the failure to file an annual boiler inspection report. The nine jobs were related to a spray and paint mixing room, installation of RPZ (reduced pressure zone) valves for sprinkler system, new certificate of occupancy, plan submitted to indicate existing use, and installation of DCDA (double check detector assembly) device. The four actions are related to new building construction, plumbing repair slip, and DOB violations.

According to the New York City DOB website, Lot 9 has four complaints, 16 DOB violations, one job, and three actions. The complaints were related to reckless demolition of the building, leaning retaining wall, cracked wall, and a vacant building with squatters. Nine of the 16 violations were dismissed. The seven active violations are related to boilers and construction. The one job is related to demolition of the building. The three actions were related to fire protection plans and miscellaneous listings.

Equity submitted a FOIL (Freedom of Information Law) request to the NYDEP (New York City Department of Environmental Protection), the NYDEC (New York State Department of Environmental Conservation), and the FDNY (New York Fire Department) on October 11, 2022. A response was received from the DEC on October 11, 2022. The DEC produced no responsive records. A response was a received from the DEP on October 21, 2022. The DEP produced no responsive records. A response from the FDNY was unavailable prior to the

completion of this report. In the event records of environmental concern are identified, this report will be amended and stakeholders will be notified.

Regulatory records are included in Appendix H.

6. Prior Environmental Assessments and Reports

Equity was not provided with any prior environmental assessments or reports.

F. Historical Use Information on Adjoining Properties

The following information summarizes the historical use of properties adjoining the Subject Property based on a review of the Sanborn Fire Insurance Maps and Historic Aerial Photographs.

- North – Auto repair facility
- East – Auto repair facility/commercial
- South – Auto repair facility
- West – Auto repair facility/commercial/residential

V. SITE RECONNAISSANCE

The Phase I Questionnaire completed for the Subject Property is provided in Appendix I.

A. Methodology and Limiting Conditions

John Vrabel/Project Manager Equity Environmental conducted the Phase I site inspection on October 14, 2022.

No limiting conditions such as weather or inaccessible areas were encountered during the completion of this assessment.

B. Onsite Operations/Manufacturing

Currently, 438 Concord Avenue, Bronx, NY is occupied by a fenced in vehicle storage lot with no buildings or structures present. 435 Wales Avenue is occupied by a single story auto body repair garage with two spray paint booths. There are functional filtration systems inside the spray paint booths at the Property that are attached to a main fan. Every 4-6 months the booths get cleaned and the filters are replaced.

Photographs of the Subject Property are provided in Appendix B.

C. Chemical and Petroleum Use and Storage (USTs, ASTs, and Containers)

Chemicals and petroleum products identified during the environmental site assessment at 435 Wales Avenue, Bronx, NY included multiple gasoline containers, two 55 gallon drums of motor oil, one 55 gallon drum of kerosene, numerous vehicle paints, hydraulic fluid used for nine hydraulically powered vehicle lifts, and multiple small containers of air compressor oil and

transmission fluid. Two ASTs used for motor oil were observed inside the garage. No USTs were identified during the site assessment.

One 2.5-gallon gasoline container was observed at 438 Concord Avenue, Bronx, NY. No USTs, ASTs, or other containers were observed at 438 Concord Avenue, Bronx, NY.

D. Solid and Hazardous Waste

Solid waste generated onsite is disposed of via the New York City Department of Sanitation trash removal services.

E. Releases or Spills

Staining was observed during the site reconnaissance at 435 Wales Avenue, Bronx, NY on the concrete floor in the northeast corner of the garage. The observed staining surrounded two large air compressors, two 55 gallon drums of motor oil, and two ASTs of motor oil.

Minor Staining spots were observed in the pavement at 438 Concord Avenue, Bronx, NY.

No pathways were observed near the stained areas that would allow a release to the environment. Therefore, the stained areas are not considered RECs.

F. Groundwater Wells

No potable, production, irrigation or monitoring wells were observed or determined through the assessment.

G. Surface Water, Stormwater Drainage and Wastewater Discharge

No storm water or surface water drainage was observed onsite. Sanitary wastewater is discharged to the City of New York sewer system at 435 Wales Avenue, Bronx, NY

H. Wetlands

Equity reviewed National Wetland Inventory maps included as a layer within the EDR Radius Map Report. No wetlands were identified within the Subject Property. The report is provided in Appendix C.

I. Polychlorinated Biphenyls (PCBs)

Nine hydraulically operated vehicle lifts were observed inside the garage at 435 Wales Avenue, Bronx, NY. No equipment likely to contain PCBs was observed during the site reconnaissance at 438 Concord Avenue, Bronx, NY.

J. Drains and Sumps

One long trench drain was observed inside the garage and a sump was observed in the boiler room boiler at 435 Wales Avenue, Bronx, NY. No drains or sumps were observed at 438 Concord

Avenue, Bronx, NY. Vehicles are washed in the area with the trench drain; it discharges to the city sewer system with no hazardous materials entering the drain.

K. Vapor Migration/Encroachment

The EDR Vapor Encroachment database identified three records on the Subject Property. One record is under the FINDS (Facility Index System) database and two records are under the SSTS (Section Seven Tracking Systems) database. These records are included at the Subject Property due to the facility on 435 Wales Avenue (Safeguard Chemical Corp) being an Insecticide, Fungicide, and Rodenticide facility. There are numerous potential VECs (Vapor Encroachment Conditions) within 1/10 of a mile of the Subject Property that are related to multiple NY Spills cases, four E-Designation sites, and one EDR Hist Auto listing. All NY Spills cases have either been closed or are not significant enough to have affected the Subject Property. Therefore, all spill cases are not considered VECs. Three of the four E-Designation sites are within 0.021 miles of the Subject Property. The E-Designation sites are located at 439 Concord Avenue, 431 Concord Avenue, and 441 Concord Avenue. 439 and 431 Concord Avenue have the following E-Designation description: “exhaust stack location limitations”. The E-Designation site at 441 Concord Avenue lists descriptions relating to air quality (HVAC nitrogen oxides), exhaust stack limitations, and hazardous materials phase I and phase II testing protocol. Based on the E-Designation descriptions, these three sites are not considered VECs. The EDR Hist Auto listing site is 0.086 miles from the Subject Property. The EDR Hist Auto site is cross gradient of the Subject Property, therefore the EDR Hist Auto listing is not considered a VEC. Due to the records listed on the Subject Property, VECs cannot be ruled out. Details on the VECs can be found in Appendix C.

L. Other Environmental Considerations

1. Asbestos Containing Materials

The EPA banned several types of asbestos in the late 1970s, but its use continued in some building applications through the 1980s. No signs of asbestos were observed during the site reconnaissance. An asbestos survey was not performed as part of this study.

2. Drinking Water

Potable water is supplied by the City of New York. A drinking water assessment was not performed as part of this study.

3. Lead-Based Paint

In 1978, EPA banned the manufacture and use of lead-based paint and lead-based paint products. A lead-based paint assessment was not performed as part of this study.

4. Mold

Two areas of roof damage resulting in water leaks were observed inside the garage at 435 Wales Avenue, Bronx, NY. However, no significant visual or olfactory signs of potential mold were identified. No significant visual or olfactory signs of potential mold were identified at

438 Concord Avenue, Bronx, NY during the site reconnaissance. A mold assessment was not performed as part of this study.

M. Off-Site Concerns

There were no offsite concerns, other than the VECs identified in Section K.

VI. INTERVIEWS

As part of the Phase I of the property assessment, Equity interviewed Luis Fernando, the property tenant at 435 Wales Avenue, Bronx, NY. Mr. Fernando provided limited information regarding the Subject Property operations and history. No in person interviews were conducted in relation to 438 Concord Avenue, Bronx, NY.

VII. RECOGNIZED ENVIRONMENTAL CONDITIONS (RECS)

Equity completed the Phase I of the Subject Property in accordance with the scope and limitations of ASTM Practice 1527-21. Any exceptions to, or deletions from, this practice are noted in appropriate sections of this report. RECs are defined as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. A CREC is a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of an NFA, no further action, letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). HRECs are RECs previously remediated to current unrestricted residential use applicable to regulatory standards. De Minimis Conditions are those that do not present a threat to human health or the environment, and would not be the subject of an enforcement action by a government agency. Data Gaps are a lack of, or inability to obtain information required by the practice that affects the ability of the environmental professional to identify RECs despite good faith efforts to gather the information.

A. Recognized Environmental Conditions (RECs)

No RECs were identified as a result of this assessment.

B. Controlled Recognized Environmental Conditions (CRECs)

No Controlled RECs were identified as a result of this assessment.

C. Historical Recognized Environmental Conditions (HRECs)

No Historic RECs were identified as a result of this assessment.

D. Vapor Encroachment Concerns (VECs)

The EDR Vapor Encroachment database identified three records on the Subject Property. One record is under the FINDS (Facility Index System) database and two records are under the SSTS (Section Seven Tracking Systems) database. These records are included at the Subject Property due to the facility on 435 Wales Avenue (Safeguard Chemical Corp) being an Insecticide, Fungicide, and Rodenticide facility. There are numerous potential VECs (Vapor Encroachment Conditions) within 1/10 of a mile of the Subject Property that are related to multiple NY Spills cases, four E-Designation sites, and one EDR Hist Auto listing. All NY Spills cases have either been closed or are not significant enough to have affected the Subject Property. Therefore, all spill cases are not considered VECs. Three of the four E-Designation sites are within 0.021 miles of the Subject Property. The E-Designation sites are located at 439 Concord Avenue, 431 Concord Avenue, and 441 Concord Avenue. 439 and 431 Concord Avenue have the following E-Designation description: “exhaust stack location limitations”. The E-Designation site at 441 Concord Avenue lists descriptions relating to air quality (HVAC nitrogen oxides), exhaust stack limitations, and hazardous materials phase I and phase II testing protocol. Based on the E-Designation descriptions, these three sites are not considered VECs. The EDR Hist Auto listing site is 0.086 miles from the Subject Property. The EDR Hist Auto site is cross gradient of the Subject Property, therefore the EDR Hist Auto listing is not considered a VEC. Due to the records listed on the Subject Property, VECs cannot be ruled out. Details on the VECs can be found in Appendix C.

E. De Minimis Conditions

No De Minimis Conditions were identified as a result of this assessment.

F. Data Gaps

Equity did not identify any significant data gaps that would affect its ability to identify RECs associated with the Subject Property.

Conclusions

Equity’s review of available information and observations of the Subject Property and surrounding properties indicates that no RECs, CRECs, HRECs, De Minimis Conditions, or Data Gaps were identified as a result of this assessment. However VECs could not be ruled out.

VIII. DEVIATIONS

Equity did not deviate from the scope of service outlined in Section I of this report.

IX. REFERENCES

The following references were used in the preparation of this report:

1. EDR Environmental Databases – October 11, 2022
2. Sanborn Fire Insurance Maps – October 11, 2022
3. Historical Topographic Maps – October 11, 2022
4. Aerial Photographs – October 11, 2022
5. City Directory – October 11, 2022
6. New York City Department of Buildings Website
7. New York City Zola Database

X. SIGNATURE(S) OF ENVIRONMENTAL PROFESSIONALS

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional, as defined in the USEPA All Appropriate Inquiry Standard, 40 CFR, Part 312.10. We have the specific qualifications based on education, training, and experiences to assess a property of the nature, history, and setting of the subject property. We have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR, Part 312.

Assessor :

John Vrabel
Project Manager

Assessor :

Christian DiGennaro
Junior Scientist

Assessor:

Kelly Florczak
Environmental Scientist

Environmental Professional:

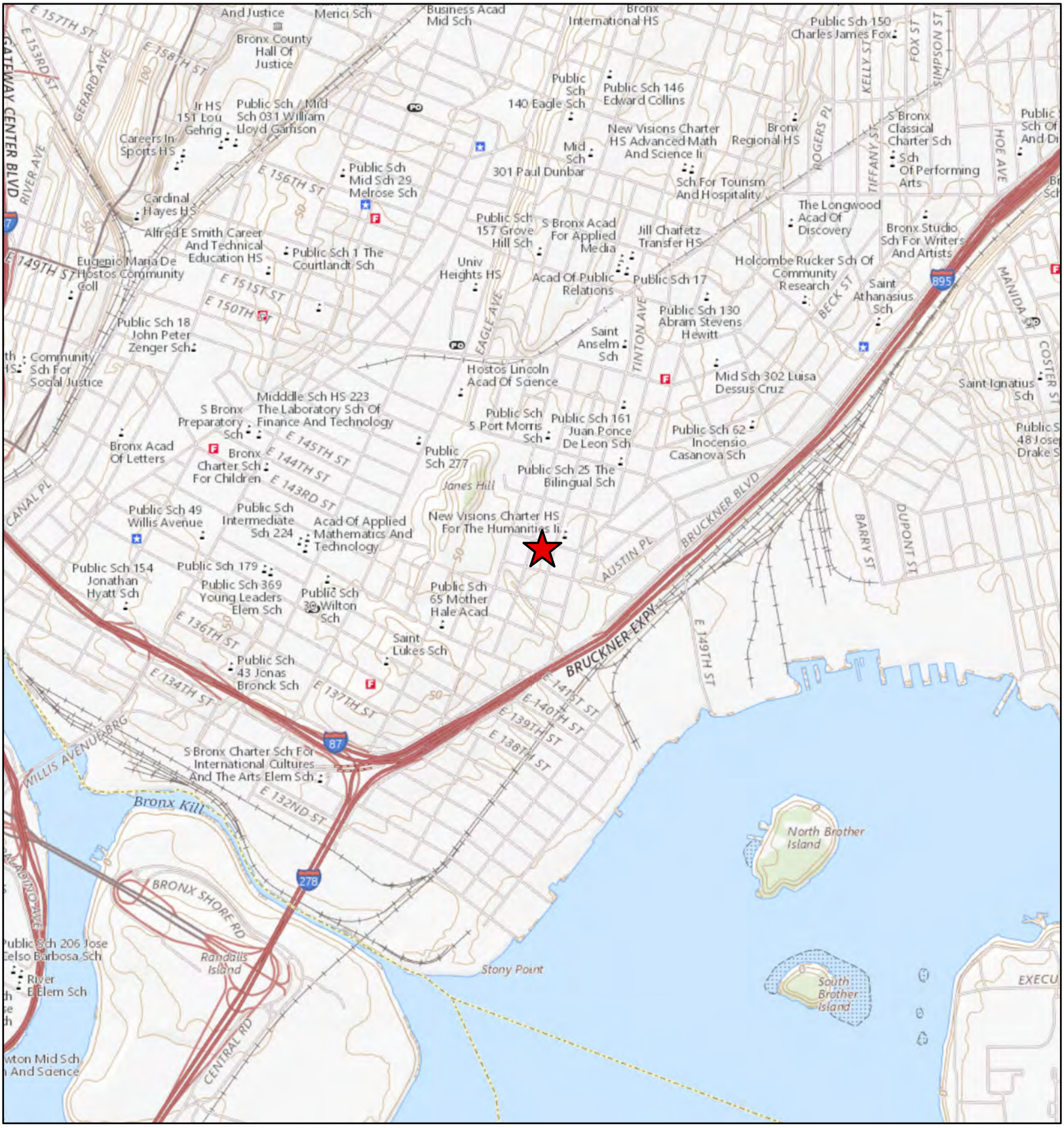
Bob Jackson
Managing Director

XI. QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

Qualifications of the Environmental Professionals are provided as Appendix J.

Appendix A

FIGURES



Legend

★ 438 Concord Avenue

N

0.5 Miles

Figure 1
Phase I ESA
USGS Site Location Map

438 Concord Avenue
Bronx, New York

equity environmental engineering
500 International Drive, Suite 150, Mount Olive, NJ 07828
Office: (973) 527-7451 / Fax: (973) 858-0280

DRAWN BY / DATE	REV / DATE	DRAWING NUMBER
GB/5.12.21		2021030-01

Legend

438 Concord Avenue

N

100

US Feet

Figure 2
Phase I ESA
Site Boundary Map

438 Concord Avenue
Bronx, New York

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Office: (973) 527-7451 / Fax: (973) 858-0280

DRAWN BY / DATE	REV / DATE	DRAWING NUMBER
GB/5.12.21		2021030-02

APPENDIX B

SITE PHOTOGRAPHS

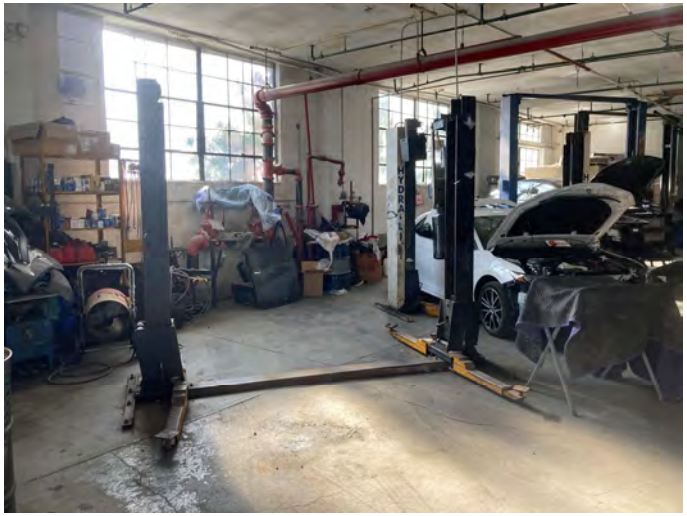
01 View of 435 Wales Avenue facing southwest.

02 View of a garage door at 435 Wales Ave facing south.

03 View of a garage door at 435 Wales Ave facing north.

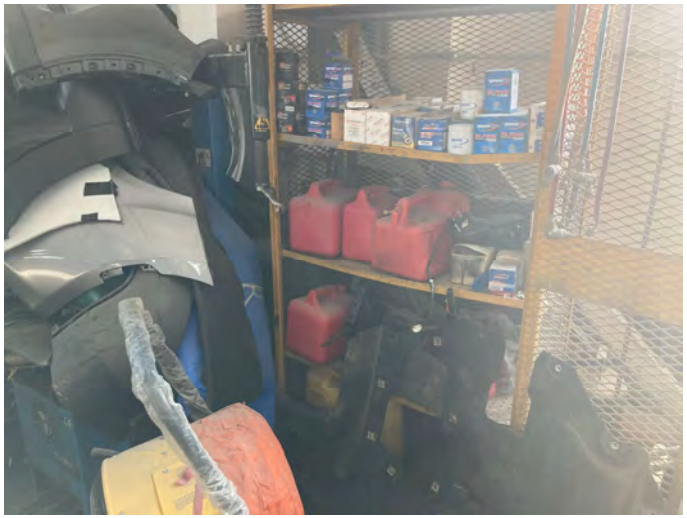
04 Two large air compressors inside the 435 Wales Avenue garage with staining present on the concrete floor.

05 Two 55 gallon drums and two ASTs used for motor oil inside the 435 Wales Avenue garage with staining present on the concrete floor.

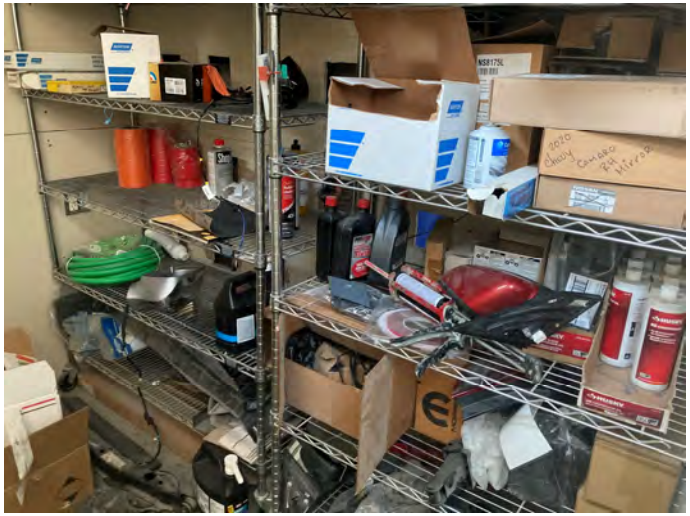


06 One of nine hydraulically operated vehicle lifts inside 435 Wales Avenue.

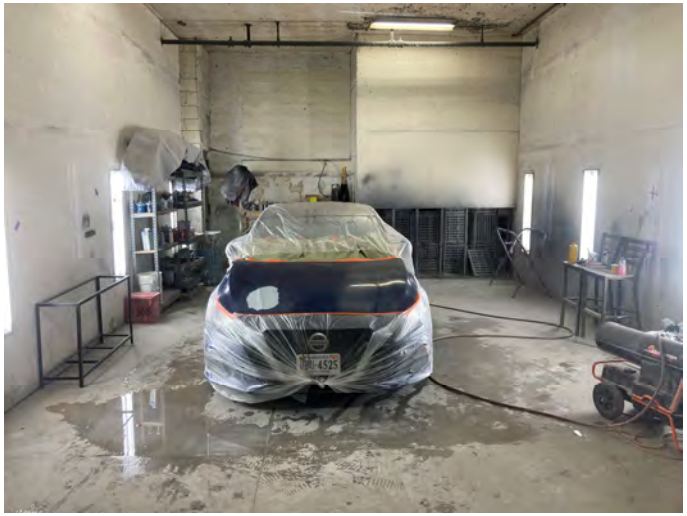
07 55 gallon drum of Kerosene inside 435 Wales Avenue.



08 Gasoline containers stored inside 435 Wales Avenue.



09 Transmission fluid and air compressor oil stored inside 435 Wales Avenue.



10 One of two paint booths and venting systems inside 435 Wales Avenue.

11 Hydraulic fluid container mounted on the side of a hydraulically operated vehicle lift inside 435 Wales Avenue.

12 Boiler and sump observed inside 435 Wales Avenue.

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15 Celling and water damage inside 435 Wales Avenue.

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17 View of 438 Concord Avenue facing south.

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19 Vehicles stored on the lot at 438 Concord Avenue.

20 Minor staining seen in the pavement at 438 Concord Avenue.

equity environmental engineering
A Division of GZA

PLANNING
GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION MANAGEMENT

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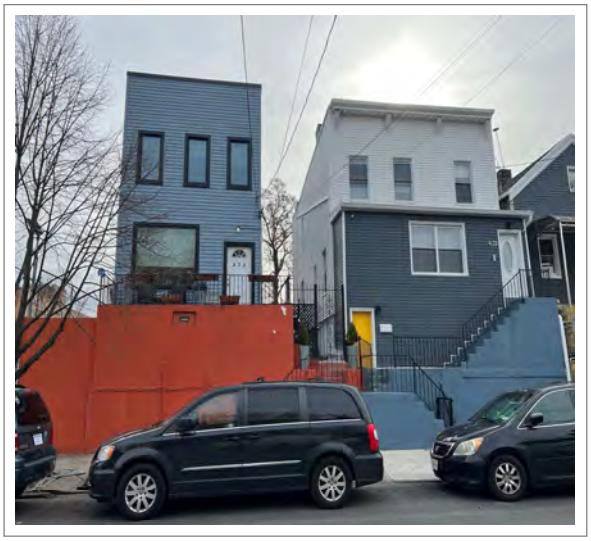
PHASE I ENVIRONMENTAL SITE ASSESSMENT
432-434 Concord Avenue
Bronx, New York

March 24, 2023
File No. 12.0077425.00



PREPARED FOR:
BronxCo LLC
Brooklyn, NY

Equity Environmental Engineering
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800-774-3300

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PLANNING
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Manhattan
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New York, NY 10001

March 24, 2023
File No. 12.0077425.00

BronxCo LLC
65 Saint Felix Street
Brooklyn, NY 11217

Attn.: Alejandro Waldman

Re: Phase I Environmental Site Assessment
432-434 Concord Avenue
Bronx, NY

Dear Mr. Waldman:

Pursuant to our change order dated March 1, 2023, to the professional services contract dated April 26, 2021, Equity Environmental Engineering – A Division of GZA GeoEnvironmental, Inc. is pleased to submit the appended Phase I Environmental Site Assessment Report for the above-referenced Subject Property. GZA completed this Phase I Environmental Site Assessment in general conformance with the guidelines described in ASTM International's *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM E1527-21).

We hope this satisfies your present needs. If you need additional information, please contact Kevin Williams at (973) 309-5855

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

Robert Jackson
Associate Principal/Environmental Professional

Stephen M. Kline
Consultant Reviewer

Kevin Williams
Vice President/Principal in Charge

Attachment: Phase I ESA Report

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EXECUTIVE SUMMARY

BronxCo LLC (also referred to herein as "Client" or "User") retained Equity Environmental Engineering – A Division of GZA GeoEnvironmental, Inc. (GZA) to perform a Phase I Environmental Site Assessment (ESA) of the target property located at 432-434 Concord Avenue (Subject Property). GZA performed this Phase I ESA in connection with the Client's rezoning application including the Subject Property.

This Phase I ESA was performed in general conformance with the scope and limitations of ASTM International's *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM E1527-21) and included our visual observation of the Subject Property; a review of historical information, environmental databases, and information provided by the User; and one or more interviews with a current representative of the Subject Property. GZA prepared this Phase I ESA Report in conformance with the limitations presented in **Section 14.0** and with the terms and conditions of our proposal dated April 26, 2021, which are included in **Appendix A**. Limiting conditions and/or deviations from ASTM E1527-21 are described in **Section 1.4** of this Phase I ESA Report.

The Subject Property is improved with two residential buildings. The Subject Property has been used for residential purposes since the first development on the Subject Property. The buildings are of stone construction with a concrete slab on grade foundation.

Based on the findings of our Phase I ESA and on our professional judgment, GZA has identified the following with respect to the Subject Property:

Recognized Environmental Conditions (RECs)

- In GZA's opinion, this Phase I ESA revealed no evidence of RECs in connection with the Subject Property.

Controlled Recognized Environmental Conditions (CRECs)

- In GZA's opinion, this Phase I ESA revealed no evidence of CRECs in connection with the Subject Property.

Historical Recognized Environmental Conditions (HRECs)

- In GZA's opinion, this Phase I ESA revealed no evidence of HRECs in connection with the Subject Property.

***De Minimis* Conditions**

- In GZA's opinion, the stain observed on the 432 Concord Avenue concrete patio, the rust staining in the 434 Concord Avenue basement storage area, and the staining on the east side of the 434 Concord Avenue basement are considered de minimis conditions.

Significant Data Gaps

In GZA's opinion, based on the information made available during this assessment, we did not encounter significant data gaps that affected our ability to identify RECs, CRECs, or HRECs at the Subject Property.

Business Environmental Risks

This Phase I ESA revealed the following Business Environmental Risks (BERs):

- GZA is not aware of whether another entity has performed a Lead Paint survey at the Subject Property. Due to the age of the building, Lead Paint may be present at the Subject Property.
- GZA is not aware of whether another entity has performed an asbestos survey at the Subject Property. Due to the age of the building, ACM may be present at the Subject Property.
- The presence of mold was identified on the east side of the basement at 434 Concord Avenue.
- According to the EPA's map of radon zones, Bronx County, New York falls within Zone 3. Zone 3 counties have a predicted average indoor radon screening level less than 2 pCi/L (yellow zones). It also should be noted that the EPA map is general in nature, and that wide variations of radon levels could be found in a particular zone.
- There is an unregistered AST in the basement of 434 Concord Avenue.
- Based on historical documentation and the regulatory database review, potential vapor encroachment concerns were identified at the Subject Property.

1.0 INTRODUCTION

This Phase I Environmental Site Assessment Report (Phase I ESA Report) presents the field observations, results, and opinions of the Phase I ESA conducted by Equity Environmental Engineering – A Division of GZA GeoEnvironmental, Inc. (GZA) for BronxCo LLC (also referred to herein as "Client" or "User") at the target property identified as 432-434 Concord Avenue, Bronx, New York (Subject Property). GZA prepared this Phase I ESA Report in conformance with the limitations presented in **Section 14.0** and with the terms and conditions of our proposal dated April 26, 2021, which are included in **Appendix A**. This Phase I ESA Report is subject to modification if GZA or another party develops subsequent information.

1.1 REASON FOR PERFORMING THE PHASE I ENVIRONMENTAL SITE ASSESSMENT

GZA understands that this Phase I ESA was requested as part of environmental due diligence in support of the proximate rezoning application including the Subject Property. We understand that this Phase I ESA is not funded with a federal grant under the US Environmental Protection Agency (EPA) Brownfield Assessment and Characterization Program or the US Small Business Administration, and that an evaluation of controlled substances at the Subject Property is not required.

1.2 PROJECT OBJECTIVES

We designed the Scope of Services described below in general conformance with ASTM International's *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM E1527-21). The objectives of this Phase I ESA were:

- To render an opinion as to whether surficial or historical evidence indicates the presence of recognized environmental conditions (RECs) that could result in the presence of hazardous substances or petroleum products in the environment, as defined in ASTM E1527-21; and

- To permit the User of this Phase I ESA to satisfy the requirements for qualifying for certain Landowner Liability Protections under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

1.3 DEFINITIONS

As defined in ASTM E1527-21:

- A REC is "(1) the presence of hazardous substances or petroleum products in, on, or at the subject property due to a release to the environment; (2) the likely presence of hazardous substances or petroleum products in, on, or at the subject property due to a release or likely release to the environment; or (3) the presence of hazardous substances or petroleum products in, on, or at the subject property under conditions that pose a material threat of a future release to the environment."

- A "Controlled REC" (CREC) is a REC "affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority…with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls…." This term applies to a site that has reached regulatory closure with the implementation of an engineering control, such as an impermeable cap, an institutional control, such as a deed restriction or activity and use limitation (AUL), and/or other property use limitation.

- A "historical recognized environmental condition" (HREC) is "a previous release of hazardous substances or petroleum products affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities and meeting unrestricted use criteria established by the applicable regulatory authority or authorities, without subjecting the subject property to any controls (for example, activity and use limitations or other property use limitations,)…"

- A "*de minimis* condition" is "a condition related to a release that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies." ASTM E1527-21 does not consider *de minimis* conditions to be RECs.

- A "data gap" is "a lack of or inability to obtain information required by [E1527-21] despite good faith efforts by the Environmental Professional to gather such information. Data gaps may result from incompleteness in any of the activities required by this practice…" A data gap is only considered significant if other information and/or the Environmental Professional's experience raises reasonable concerns involving the data gap.

- A "business environmental risk" (BER) is "a risk which can have a material environmental or environmentally driven impact on the business associated with the current or planned use of commercial real estate, not necessarily limited to those environmental issues required to be investigated [under ASTM E1527-21]." BERs may involve one or more of the non-scope considerations outlined in ASTM E1527-21 including, but not necessarily limited to, asbestos-containing building materials, lead paint, lead and arsenic in drinking water, radon, wetlands, cultural and historical resources, regulatory compliance, industrial hygiene, health and safety, indoor air quality, and mold.

1.4 SCOPE OF SERVICES

GZA's Scope of Services consisted of the following activities:

- A review of federal and State regulatory agency databases for the Subject Property and the minimum applicable search distances from the Subject Property;

- Contact with certain local regulatory agencies to inquire about environmental conditions at the Subject Property and in its vicinity;

- A review of the Subject Property history through available Standard Historical sources;

- A review of previous environmental reports prepared for the adjoining property;

- A site reconnaissance to observe current Subject Property conditions for evidence of recognized environmental conditions;

- The completion of a reconnaissance of the Subject Property vicinity;

- A review of adjoining properties to identify potential uses of hazardous substances or petroleum products;

- Interview(s) with the Key Site Manager, as well as certain other available occupants and major tenants, regarding the current and past Subject Property usage and facility operations;

- The preparation of this Phase I ESA Report presenting our findings.

In GZA's opinion, our ESA involved no significant deviations from ASTM E1527-21.

This Phase I ESA includes evaluations of the following environmental issues or conditions that ASTM E1527-21 considers non-scope considerations (see **Section 10.0**):

- Vapor Encroachment Assessment;
- Suspect Asbestos-Containing Material (ACM);
- Lead Paint;
- Mold; and
- Radon

2.0 DESCRIPTION OF SUBJECT PROPERTY AND VICINITY

GZA obtained the following information from our site reconnaissance, our research, and our interviews with people knowledgeable about the Subject Property. Photographs depicting the Subject Property conditions during GZA's reconnaissance are presented in **Appendix B**.

2.1 SUBJECT PROPERTY LOCATION

The Subject Property is at 432-434 Concord Avenue. The Subject Property is identified as Block 2577/Lots 7 and 8 on the New York City Tax Map. The Subject Property is approximately 5,000 square feet in size and adjoins Concord Avenue to the west, a vehicle storage lot to the north, an auto body repair shop to the east, and a residence to the south. The Subject Property is in a M1-2 zoning district surrounded by mostly industrial and commercial uses.

A topographic map showing the location of the Subject Property is provided as **Figure 1**.

2.2 DESCRIPTION OF SUBJECT PROPERTY AND BUILDINGS

The Subject Property consists of two, two-story residential buildings totaling approximately 3,200 square feet in gross floor area. A plan showing the Subject Property orientation and features is provided as **Figure 2**.Information regarding the Subject Property building(s) is provided in the tables below.

432 Concord Ave (Lot 8)

Feature	Description
Year of Construction	1901
Square Footage	1,694 square feet
# Stories/Basement	Two stories, basement
Heating/Cooling Systems	Natural gas boiler
Elevators	No

434 Concord Avenue (Lot 7)

Feature	Description
Street Address	434 Concord Avenue
Year of Construction	1901
Square Footage	1,508 square feet
# Stories/Basement	Two stories, basement
Heating/Cooling Systems	Natural gas boiler
Elevators	No

The following entities provide utilities to the Subject Property:

Service	Provider
Electricity	Consolidated Edison
Natural Gas	Natural gas boiler (Consolidated Edison)
Drinking Water	City
Sanitary Sewer Services	City
Other Services	None

2.3 CURRENT SUBJECT PROPERTY USE

At the time of GZA's site reconnaissance, the Subject Property was used for residential purposes.

2.4 ADJOINING PROPERTIES

The following table lists the properties that adjoin the Subject Property and describes their current use.

Direction	Street Address/Location	Name (as applicable) and Current Use
North	438 Concord Avenue	Vehicle storage lot for R&O collision
South	430 Concord Avenue	Residence
East	435 Wales Avenue	R & O Collision – auto body repair shop
West	431 Concord Avenue (across Concord Avenue)	Vacant lot

Chemicals and petroleum products would be anticipated at 435 Wales Avenue given its auto body repair use..

2.5 VICINITY PROPERTIES

As part of this Phase I ESA, GZA performed a reconnaissance of the immediate Subject Property vicinity. The Subject Property vicinity is mixed use with primarily commercial/residential use and light industrial use. The auto body repair shop adjoining the Subject Property to the east and Diallo Auto Repair at 441 Concord Avenue are potential Vapor Encroachment Conditions (VECs) concern. According to the Sanborn Fire Insurance Maps, the auto repair shop is first shown at that property in 1977. There is also an E-Designation record at the site that lists descriptions relating to air quality (HVAC nitrogen oxides), exhaust stack limitations, and hazardous materials phase I and phase II testing protocol.

3.0 PHYSICAL SETTING

The following subsections provide information regarding the general physiographic, geologic, hydrogeologic, and hydrologic conditions in the Subject Property vicinity.

3.1 REGIONAL PHYSIOGRAPHY

Based on a review of the U.S. Geological Survey topographic map Environmental Data Resources, Inc. (*EDR) Historical Topo Map 2019*, the Subject Property is situated at an approximate elevation of 40-50 feet above mean sea level. The topographic gradient near the Subject Property slopes downward to the southeast. The nearest water body is East River, which is located approximately 0.6 miles southeast of the Subject Property.

3.2 GEOLOGIC, HYDROGEOLOGIC, AND HYDROLOGIC CONDITIONS

Based on Third-Party Database Report and the web soil survey maps published by the USDA Soil Conservation Service, overburden at the Subject Property consists of urban land. Based on the 1992 Untied States Geological Service (USGS) publication Bedrock and Engineering Geologic Maps of Bronx County and Parts of New York and Queens Counties, New York (Bakersville 1992), bedrock near the Site consists of gray Manhattan schist, and we anticipate bedrock to be encountered at a depth 5-10 feet below street level. Based on the USGS Commission Bulletin GW-32 – Ground Water in Bronx, New York, and Richmond Counties, the estimated depth to groundwater is approximately 15-20 feet below ground surface (bgs). However, a perched water table may exist running on top of the bedrock surface. Based on local topography and surface water flow patterns, the inferred direction of groundwater flow is southeasterly. We subsequently refer to upgradient and downgradient properties in this Phase I ESA Report based on the inferred southeasterly direction of groundwater flow. However, the localized direction of groundwater flow near the Subject Property might vary because of underground utilities, subsurface preferential pathways, variations in weather, or heterogeneous geological and/or anthropogenic conditions.

4.0 HISTORICAL USE INFORMATION

The Subject Property history was developed from, “Standard Historical Sources,” as defined in ASTM E1527-21, from available files and from interviews with knowledgeable parties. ASTM indicates that, “all obvious uses of the property shall be identified from the present, back to the property’s first developed use, or back to 1940, whichever is earlier”. ASTM further indicates that, “data failure is not uncommon,” when trying to establish the historical use of a property. Specific information obtained from standard historical sources is contained in the following subsections, and **Appendix C** includes copies of relevant historical documents.

4.1 SUBJECT PROPERTY AND AREA HISTORY SUMMARY

According to the review of historical aerial photographs and Sanborn fire insurance maps, the Subject Property appears to have been developed with two residences and three garages before 1891. In approximately 1947, both residences increase in size and the garage no longer exist. The Subject Property has remained unchanged with its current buildings since 1947.

The Subject Property is in a predominantly residential and manufacturing/industrial area of the Bronx and is currently bounded to the north by a vehicle storage lot, to the west by Concord Avenue and a vacant lot, residence, to the south, and to the East by an auto body repair shop.

Historically, the area in the vicinity of the Site has consisted of residential and manufacturing/industrial properties.

4.2 AERIAL PHOTOGRAPH REVIEW

GZA consulted historical aerial photographs provided by EDR. The table below contains GZA's description of the Subject Property and vicinity properties as shown in the aerial photographs.

Year	Scale	Description of Subject Property	Description of Vicinity
1924	1" = 500'	The Subject Property is developed with two residences.	The surrounding areas are developed with multiple residential dwellings and apparent commercial/manufacturing buildings. There is a large park to the west of the Subject Property. An apparent train car yard is to the southeast of the Subject Property.
1951, 1954	1" = 500'	According to the 1947 Sanborn map, the two dwellings increase in size. The increase in size is shown first on the 1951 aerial photograph.	The surrounding vicinity is unchanged.
1961	1" = 500'	The Subject Property is unchanged.	Multiple buildings have been developed to the southeast near the coastline. There are several vehicle storage lots within a 1000-foot radius of the Subject Property.
1966, 1974, 1976	1" = 500'	The Subject Property is unchanged.	The property to the northwest is developed with a building comparable to the current Junior High School building. There are three large water tanks to the southeast of the Subject Property, near the water body. The train cars to the southeast are no longer present.
1984, 1991, 1995	1" = 500'	The Subject Property is unchanged.	The vacant lot to the south is now a parking lot. Construction activities are shown to southeast in the same area as the former train cars.
2006, 2011, 2015, 2019	1" = 500'	The Subject Property is unchanged.	The building on the adjoining property to the north has been removed. The adjoining property to the north is now a vehicle storage lot.

4.3 FIRE INSURANCE MAPS

GZA consulted historical Sanborn Fire Insurance Maps provided by EDR. The table below contains GZA's description of the Subject Property and vicinity properties as shown in the historical fire insurance maps.

Year	Description of Subject Property	Description of Vicinity
1891	There are five structures present on the Subject Property.	The surrounding area has mostly residential buildings. There is a primary school at the adjoining

Year	Description of Subject Property	Description of Vicinity
		property to the north. There is a hotel to the east of the Subject Property.
1908	There are two dwellings on the Subject Property.	The primary school adjoining the Subject Property to the north is now vacant. There is a building labeled "Vacant Ruins" on the adjoining property to the east. There is an iron works on the adjacent block to the east. There is a contractor's yard to the northwest. A wagon builder, ladder factory, and a building labeled "NY Derrick Co." are southeast of the Subject Property.
1935, 1944	Three garages were constructed along the eastern Subject Property boundary.	On the far south side of the same block as the Subject Property, there are two buildings labeled "Auto." The Surrounding Area to the East has dwellings and several light industrial/commercial uses (Auto Repair, Machinery storage, Auto Service Station, furniture factory, bed spring factory, fireproof door factory). There is a garage on the adjacent block to the west that has "2 – 550-gallon gas tanks buried". There are two additional garages that also have two tanks buried at each location to the north. There are several buildings used for storage to the south of the Subject Property. A High School has been constructed to the northeast. Two of the factory buildings to the east change the products they are producing in 1944.
1946	The Subject Property is unchanged.	One of the garages to the north has been repurposed as a motor freight station. Climatic Rainwear Co. is north of the Subject Property. U.S. Plywood Warehouse is constructed to the southeast.
1947	The two dwellings increase in size and the three garages no longer exist. The dwellings are separated into their own respective lots (Lot 7 and 8). Lot 8 has a dwelling and a shed, while Lot 7 has a dwelling and a building labeled "Storage".	Harkavy Beverage Co., Inc. is at the adjacent block to the west, along Concord Avenue. Two auto repair buildings exist to the north.
1951	The Subject Property is unchanged.	The adjoining lot to the east is developed with a 1-story chemical warehouse labeled "Cutler-Hammer Inc.". There is an auto repair shop to the east. The motor freight station has been repurposed as a taxi garage. A building labeled "Semi-Auto Repair exists south of the Subject Property.
1977, 1978, 1980, 1981, 1984, 1986, 1989, 1991, 1992	The Subject Property is unchanged.	Junior High School No. 155. has been constructed to the northwest. Harkavy Beverage Co., Inc. no longer exists. The Recreation Center no longer exists, starting in the 1984 Sanborn map. An auto body repair shop exists on the adjacent block to the west.

Year	Description of Subject Property	Description of Vicinity
1991, 1992, 1993, 1994, 1995, 1996, 1998, 2001, 2002, 2003, 2004, 2005, 2006, 2007	The Subject Property is unchanged.	An auto repair shop has been developed to the west of the Subject Property, another to the east of the Subject Property. The taxi garage is labeled as commercial starting in the 1995 Sanborn map. A playground has been developed at the High School to the northwest.

4.4 PROPERTY TAX FILES

GZA consulted property tax files available online at the NYC Gov. website. The files indicated that the Subject Property is identified as Block 2577/Lots 7 and 8 and is 0.12 acres in size. The current owner is listed as "BRONXCO LLC."

4.5 LAND TITLE RECORDS

The review of a title search helps to identify the historical use of the Subject Property, as well as applicable environmental liens and Activity and Use Limitations (AULs); ASTM identifies a title search as a User Responsibility. No title information was provided by the Client as part of the User's Responsibilities, and the completion of a title search was not included in the scope of this assessment. However, a limited AUL review conducted by EDR (refer to **Section 7.0**) did not identify an AUL associated with the Subject Property.

4.6 HISTORICAL USGS TOPOGRAPHIC MAPS

GZA reviewed historical USGS topographic maps provided by EDR. The table below contains GZA's description of the Subject Property and vicinity properties as shown on the historical topographic maps.

Year	Scale	Description of Subject Property	Description of Vicinity
1897, 1898, 1900	1' = 500'	The Subject Property is developed. The Subject Property sits at an approximate elevation of 40-50 feet above sea level.	Port Morris is east of the Subject Property. The nearest water body is approximately 0.20 miles east of the Subject Property. There is a railroad approximately 0.25 miles east of the Subject Property.
1947, 1956, 1966, 1979, 1997, 2013, 2016, 2019	1' = 500'	The Subject Property is developed.	Port Morris to the east has been developed with fill material as there is developed land over a previous water body. Oak Point Yard is to the east of the Subject Property and Mott Haven Yard is to the northwest. There is a roadway and railroad shown to the east of the Subject Property. Starting on the 1956 topographic map, there is a water treatment plant approximately 1.3 miles southeast of the Subject Property near Barretto Point.

4.7 CITY DIRECTORIES

GZA reviewed a city directory abstract provided by EDR. Addresses in the immediate vicinity of the Subject Property were reviewed for the Subject Property and adjoining properties. The table below contains GZA's description of the Subject Property and adjoining properties as presented in the city directory abstract.

Year(s)	Listings for Subject Property (432 Concord Avenue & 434 Concord Avenue)
1927-2020	Residential use

Year(s)	Listings for 438 Concord Avenue, adjoining property to the north
1976	Eldorado Moving and Shipping Corp.
1931-1971	Owners' names listed

Year(s)	Listings for 435 Wales Avenue, adjoining property to the east
2020	Manhattan Suns Towing

Year(s)	Listings for 430 Concord Avenue, adjoining property to the south
1971-2020	Owners' names listed

Year(s)	Listings for431 Concord Avenue, adjoining property to the west
1931-2010	Owners' names listed

Year(s)	Listings for 437 Concord Avenue, adjoining property to the west
1983-2017	Owners' names listed
1976	Eldorado Coffee Shop
1956-1965	Mrs. A Sette

In addition, the City Directory Abstract contained the following listings for vicinity properties which, based on GZA's experience at other properties, in our opinion are or might be associated with the use or storage of hazardous substances or petroleum products:

Property Name and Address	Year(s) of Listing	Distance and Direction from Subject Property	Property Listing
439 Concord Avenue	1983-2000	0.017 miles west	San Salvador Auto Repair Shop; Los Compadres Repair Shop
441 Concord Avenue	1956-1965	0.023 miles west	Auto body/auto service listings

4.8 BUILDING DEPARTMENT RECORDS

GZA reviewed building department records available from the New York City Department of Buildings (NYC DOB) Building Information System (BIS) for the Subject Property (lot 7 and lot 8) and the adjoining properties. No evidence of hazardous materials or petroleum usages at the Subject Property.

4.9 OTHER HISTORICAL RECORDS

GZA requested access to records available with the New York State Department of Environmental Conservation (NYSDEC), New York Fire Department (FDNY), and the New York City Department of Environmental Protection (NYCDEP) through a Freedom of Information Act (FOIA) request. The NYSDEC responded on March 6, 2023. The NYSDEC produced no responsive records; the FOIA request is now closed. Responses from NYCDEP and FDNY were not available within the timeframe allotted for this Phase I ESA.

5.0 PREVIOUS INVESTIGATIONS

Equity Environmental Engineering provided GZA with the following documents regarding previous site investigations which are included as **Appendix D**.

- **Phase I Environmental Site Assessment, Equity Environmental Engineering, October 21, 2022**

Equity Environmental Engineering prepared a Phase I ESA for the adjoining property north and to the east of the Subject Property. The Phase I ESA was completed at 438 Concord Avenue and 435 Wales Avenue on October 14, 2022.

The Phase I ESA completed at the Site revealed no evidence of RECs, CRECs, HRECs, De Minimis Conditions, or Data Gaps in connection with the Site; however, the following Vapor Encroachment Conditions (VECs) were identified in connection with 438 Concord Avenue and 435 Wales Avenue:

- The EDR Vapor Encroachment database identified three records on the 435 Wales Avenue and 438 Concord Avenue. One record is under the FINDS (Facility Index System) database and two records are under the SSTS (Section Seven Tracking Systems) database. These records are included at the Site due to the facility on 435 Wales Avenue (Safeguard Chemical Corp) being an Insecticide, Fungicide, and Rodenticide facility. There are numerous potential VECs (Vapor Encroachment Conditions) within 1/10 of a mile of the Subject Property that are related to multiple NY Spills cases, four E-Designation sites, and one EDR Hist Auto listing. All NY Spills cases have either been closed or are not significant enough to have affected the Subject Property. Therefore, all spill cases are not considered potential vapor encroachment concerns. Three of the four E-Designation sites are within 0.021 miles of the Site. The E-Designation sites are located at 439 Concord Avenue, 431 Concord Avenue, and 441 Concord Avenue. 439 and 431 Concord Avenue have the following E-Designation description: “exhaust stack location limitations.” The E-Designation site at 441 Concord Avenue lists descriptions relating to air quality (HVAC nitrogen oxides), exhaust stack limitations, and hazardous materials phase I and phase II testing protocol. Based on the E-Designation descriptions, these three sites are not considered VECs. The EDR Hist Auto site is 0.086 miles from the Subject Property. The EDR Hist Auto site is cross gradient of the Subject Property, therefore the EDR Hist Auto listing is not considered a potential VEC. Due to the records listed on the Subject Property, Potential VEC concerns could not be ruled out.

6.0 SITE RECONNAISSANCE

The purpose of GZA's site reconnaissance was to observe current Subject Property conditions for evidence of recognized environmental conditions that could result in the presence of hazardous substances or petroleum products in the environment at the Subject Property. GZA Project Scientist Christian DiGennaro, conducted a site reconnaissance at the Subject Property on March 3, 2023. Edwin Tohom and Edgar Tohom, tenants of the residences, accompanied GZA during the site reconnaissance. GZA documented its observations and photo-documented the pertinent features and/or areas of environmental concern which we reference in this Phase I ESA Report. Selected photographs are included in **Appendix B**, and **Figure 2** – **Subject Property Plan** depicts pertinent Site features.

Limitations to GZA's site reconnaissance, if any, are noted in **Section 1.4**.

The following table discusses features of potential environmental concern that we identified at the Subject Property.

Feature	Description
Aboveground storage tank (AST) systems	There is an approximately 200-gallon, inactive AST in the 434 Concord Avenue basement.
Underground storage tank (UST) systems	Not observed
Chemical or petroleum storage or handling areas	There are three cleaning supply closets between the two lots.
Chemical waste or petroleum waste storage or handling areas	Not observed
Dumpsters	Not observed
Floor drains, trenches, sumps, and associated piping	Not observed
Oil/water separators	Not observed
Storm water drains, grates and associated piping	Not observed
Drainage swales, culverts, impoundments, and surface water bodies	Not observed
Septic systems, leach fields, seepage pits, and dry wells	Not observed
Open pipe discharges	Not observed
Landfills and solid waste dumping	Not observed
Historical fill or other fill material	Not observed
Staining or stressed vegetation	Staining was observed on the 432 Concord Avenue concrete patio. At 434 Concord Avenue, apparent water intrusion with potential mold growth was observed on the east side of the basement and rust staining was observed on the exterior storage area.
Strong, pungent, or noxious odors	Not observed
Electrical transformers or capacitors	Not observed
Hydraulic equipment, including lifts, elevators, and compactors	Not observed

Feature	Description
Active or inactive production wells	Not observed
Monitoring wells, former boreholes, or other evidence of environmental investigations	Not observed

None of the identified features are RECs to the Subject Property.

7.0 REGULATORY DATABASE REVIEW

This section is based on publicly available information from various federal, state, and local agencies that maintain environmental regulatory databases.

7.1 FEDERAL AND STATE ENVIRONMENTAL RECORD SOURCES

Federal and state databases were searched by EDR, a professional data search company, and search results were provided to GZA in a report dated March 2, 2023. The following table indicates the databases searched by EDR, the minimum search distances from the Subject Property, and the number of properties that appear on the database within the minimum search distances used. Descriptions of the federal and state databases, and the dates on which EDR accessed these databases, are provided in the Third-Party Database Report (see **Appendix E**).

Federal and State List	Approximate Minimum Search Distance*	Subject Property and Adjoining Properties	# Sites Within Search Distance
NPL	*1 mile*	0	0
Delisted NPL	*½ mile*	0	0
SEMS	*½ mile*	0	0
SEMS ARCHIVE	*½ mile*	0	0
RCRIS CORRACTS	*1 mile*	0	0
RCRIS-TSD	*½ mile*	0	0
RCRIS-LQG/SQG	*Site and adjoining properties*	0	0
Federal IC/EC Registries	*Site only*	0	0
ERNS	*Site only*	0	0
State Equivalent NPL	*1 mile*	0	0
State Equivalent CERCLIS	*½ mile*	0	0
SWMF	*½ mile*	0	0
State Landfill and/or Solid Waste Disposal Site	*½ mile*	0	6
Leaking Underground Storage Tanks (LUSTs)	*½ mile*	0	37
Registered USTs	*Site and adjoining properties*	0	0
State IC/EC Registries	*Site only*	0	0
Voluntary/Brownfield Cleanup Program Sites	*½ mile*	0	6

* The approximate minimum search distance indicates the minimum distance measured from the nearest Subject Property boundary for which EDR performed the database review.

7.2 LISTINGS FOR SUBJECT PROPERTY AND ADJOINING PROPERTIES

The following databases list the adjoining property to the east: SSTS; FINDS.

Name	Safeguard Chemical Corp.
Address	435 Wales Avenue
Distance/Direction from Subject Property	Adjoining property to the east (side gradient)
Database(s)	SSTS; FINDS
Comments	The adjoining property to the east was identified on the FINDS and SSTS (Section Seven Tracking Systems) database due to the facility on 435 Wales Avenue (Safeguard Chemical Corp) being an Insecticide, Fungicide, and Rodenticide facility. Based on the inferred direction of groundwater flow in this area, the site is side gradient with respect to the Subject Property. The site is a potential concern due to its proximity from the Subject Property.

7.3 LISTINGS FOR OTHER VICINITY PROPERTIES

GZA reviewed information for the following vicinity properties:

Name	Lot 18, Tax Block 2578; Lot 16, Tax Block 2578; Lot 15, Tax Block 2578
Address	431 Concord Avenue; 439 Concord Avenue; 441 Concord Avenue
Distance/Direction from Subject Property	0.017 miles west, 0.017 miles northwest, and 0.023 miles northwest of the Subject Property (the northwest sites are upgradient, the west site is side gradient).
Database(s)	E Designation
Comments	The E-Designation sites are located at 439 Concord Avenue, 431 Concord Avenue, and 441 Concord Avenue. 439 and 431 Concord Avenue have the following E-Designation description: “exhaust stack location limitations”. The E-Designation site at 441 Concord Avenue lists descriptions relating to air quality (HVAC nitrogen oxides), exhaust stack limitations, and hazardous materials phase I and phase II testing protocol. Based on the E-Designation descriptions, these three sites are not considered potential concerns to the Subject Property.

Name	APT Building TTF
Address	485 Jackson Avenue
Distance/Direction from Subject Property	0.0113 miles to the northwest (upgradient)
Database(s)	UST; LTANKS
Comments	On December 29, 2009, a #2 fuel oil spill was reported due to a tank test failure. The tank test failure was from a defect in the aboveground portion of the remote fill line that was separated from the tank system. No evidence of visible contamination was observed within the tank vault. The tank defect was fixed and passed the appropriate tank tests. The spill was closed on August 5, 2010. Based on the inferred direction of groundwater

Name	APT Building TTF
	flow in this area, the site is upgradient with respect to the Subject Property. However, the site is not a potential concern due to its proximity and description of the spill event described in the Third-Party Database Report.

Other federal and state-listed sites were identified within the search distances used. Based on their distance from the Subject Property, closed regulatory status, or the anticipated hydraulic gradient, it is GZA's opinion that the remaining listed sites are unlikely to impact the soil, groundwater, or soil vapor conditions at the Subject Property.

7.4 EVALUATION OF UNMAPPED PROPERTIES

GZA also reviewed the list of "orphan" sites, which are properties with insufficient address information to allow the mapping software to plot a location. Based on the incomplete descriptions provided in the database summary and based on their distance and direction from the Subject Property, it does not appear that the listed properties could impact the Subject Property.

7.5 REGULATORY FILE REVIEW

GZA reviewed files regarding the 432-434 Concord Avenue, Bronx, NY available at the NYCDEP, NYSDEC, and the FDNY through FOIA requests. A response was received from the NYSDEC on March 6, 2023. Records from the NYCDEP and FDNY were not available within the timeframe allotted for this Phase I ESA. The Information developed from our review has been included in **Sections 4.8 and 4.9**.

8.0 INTERVIEWS

Christian DiGennaro interviewed the Key Site Manager Edwin and Edgar Tohom, as part of this Phase I ESA. The information that the interviewee provided is discussed and referenced within the text of this Phase I ESA Report.

9.0 USER-PROVIDED INFORMATION

GZA requested information from the Client regarding title information, environmental liens, Activity and Use Limitations, and specialized knowledge or commonly known information regarding the Subject Property and, if applicable, the reason for a significantly discounted purchase price. The completed User Questionnaire is provided in **Appendix E**.

GZA reviewed a Survey Report of the property at 432 Concord Avenue provided Alejandro Waldman, Managing Director of BronxCo LLC. Alejandro Waldman also provided the contact information of the previous owner, information about past use of the Property, and the price paid for 432 Concord Avenue.

10.0 NON-ASTM E1527-21 CONSIDERATIONS

This Phase I ESA includes an evaluation of the following environmental issues or conditions that ASTM E1527-21 stipulates as non-scope considerations:

- Vapor Encroachment Assessment;
- Suspect Asbestos-Containing Material (ACM);
- Lead Paint;
- Mold; and
- Radon

10.1 VAPOR ENCROACHMENT ASSESSMENT

Christian DiGennaro, Project Scientist of GZA performed the area reconnaissance portion of the vapor encroachment assessment (VEA) on March 3, 2023. ASTM E2600-15 requires identification of potential petroleum-related volatile organic compound (VOC) sources within 1/10 mile of the Site and potential non-petroleum related VOC sources within 1/3 mile of the Site. Based on historical documentation and the regulatory database review, discussed in **Section 7.0** above, Diallo Auto Repair at 441 Concord Avenue and the adjoining property to the east represent vapor encroachment concerns for the Subject Property. The adjoining property to the east was a former chemical facility and is currently an autobody repair shop.

Other federal and state-listed sites were identified within the search distances used. Based on their distance from the Subject Property, description provided, closed regulatory status, or the anticipated hydraulic gradient, it is GZA's opinion that the remaining listed sites are unlikely to be vapor encroachment concerns.

10.2 SUSPECT ASBESTOS-CONTAINING MATERIAL

GZA did not sample suspect ACM during this investigation. Only a limited visual survey (i.e., within accessible areas only) for the presence of suspect ACM within the Subject Property building was performed. The intent of the visual survey was to identify exposed suspect ACM through a preliminary non-destructive survey. GZA focused on identifying 1) surfacing materials, 2) exposed thermal system insulation, and 3) friable miscellaneous materials.

GZA performed a visual survey for the presence of ACM at the Subject Property. GZA did not identify fibrous material. GZA is not aware of whether another entity has performed an asbestos survey at the Subject Property. Due to the age of the building, ACM may be present at the Subject Property.

10.3 LEAD PAINT

Use of lead in household paint was banned by the Consumer Products Safety Commission in 1978. Structural steel beams continued to be treated with Lead Paint for commercial and industrial applications even after the 1978 residential ban. Majority of the buildings were constructed prior to 1978. Therefore, it is possible that the exposed and/or underlying layers of paint contain lead. The EPA and the U.S. Department of Housing and Urban Development (HUD) defined as paint with lead levels greater than or equal to 1.0 milligram per square centimeter or more than 0.5% by weight.

GZA performed a visual survey for the presence of Lead Paint at the Subject Property. GZA identified numerous painted surfaces but could not determine if it was lead-based. GZA is not aware of whether another entity has performed a Lead Paint survey at the Subject Property. Due to the age of the building, Lead Paint may be present at the Subject Property.

10.4 MOLD

GZA performed a visual inspection for the presence of mold in limited portions of the building. GZA observed water intrusion on the east side of the 434 Concord Avenue basement. Water intrusion amplifies potential mold growth. The presence of mold was identified in that area.

10.5 RADON

Radon is a naturally occurring, colorless and odorless radioactive gas. The Subject Property was generally located on the State Radon Potential Map produced by the EPA. The EPA's Map of Radon Zones assigns each of the 3,141 counties in the U.S. to one of three zones based on radon potential:

- Zone 1 counties have a predicted average indoor radon screening level greater than 4 picocuries per liter (pCi/L) (red zones)
- Zone 2 counties have a predicted average indoor radon screening level between 2 and 4 pCi/L (orange zones)
- Zone 3 counties have a predicted average indoor radon screening level less than 2 pCi/L (yellow zones)

According to the EPA's map, Bronx County, New York falls within Zone 3.

It also should be noted that the EPA map is general in nature, and that wide variations of radon levels could be found in a particular zone. The EPA recommends that residential buildings with readings greater than 4 pCi/L install remedial measures to reduce the amount of radon. In buildings with readings between 2 and 4 pCi/L the EPA has suggested that installation of remedial measures should be considered. A qualified professional should determine the actual radon levels for the Site building if remedial measures are being considered. Radon potential and published sampling data is reported in the Third-Party Database Report included in Appendix E.

11.0 FINDINGS AND CONCLUSIONS

GZA performed a Phase I ESA in general conformance with the scope and limitation of ASTM E1527-21 for the Subject Property located at 432-434 Concord Avenue, Bronx, NY. Exceptions to, or deviations from, this practice are described in **Section 1.4** of this Phase I ESA Report.

11.1 RECOGNIZED ENVIRONMENTAL CONDITIONS (RECs)

In GZA's opinion, this Phase I ESA revealed no evidence of RECs in connection with the Subject Property.

11.2 CONTROLLED RECOGNIZED ENVIRONMENTAL CONDITIONS (CRECs)

In GZA's opinion, this Phase I ESA revealed no evidence of CRECs in connection with the Subject Property.

11.3 HISTORICAL RECOGNIZED ENVIRONMENTAL CONDITIONS (HRECs)

In GZA's opinion, this Phase I ESA revealed no evidence of HRECs in connection with the Subject Property.

11.4 *DE MINIMIS* CONDITIONS

This Phase I ESA identified the following *de minimis* conditions in connection with the Subject Property:

- The staining observed on the 432 Concord Avenue concrete patio, the rust staining in the 434 Concord Avenue basement storage area, and the water intrusion on the east side of the 434 Concord Avenue basement are considered de minimis conditions. It is GZA's opinion that the above listed de minimis conditions do not present a significant threat to human health or the environment.

11.5 SIGNIFICANT DATA GAPS

In GZA's opinion, based on the information made available during this assessment, we did not encounter significant data gaps that affected our ability to identify RECs, CRECs, or HRECs at the Subject Property.

11.6 NON-ASTM E1527-21 CONSIDERATIONS

No non-ASTM E1527-21 considerations were evaluated as part of GZA's Scope of Services.

11.7 BUSINESS ENVIRONMENTAL RISKS

This Phase I ESA revealed the following Business Environmental Risks (BERs):

- GZA is not aware of whether another entity has performed a Lead Paint survey at the Subject Property. Due to the age of the building, Lead Paint may be present at the Subject Property.
- GZA is not aware of whether another entity has performed an asbestos survey at the Subject Property. Due to the age of the building, ACM may be present at the Subject Property.
- The presence of mold was identified on the east side of the basement at 434 Concord Avenue.
- According to the EPA's map of radon zones, Bronx County, New York falls within Zone 3. Zone 3 counties have a predicted average indoor radon screening level less than 2 pCi/L (yellow zones). It also should be noted that the EPA map is general in nature, and that wide variations of radon levels could be found in a particular zone.
- There is an unregistered AST in the basement of 434 Concord Avenue.
- Based on historical documentation and the regulatory database review, potential vapor encroachment concerns were identified at the Subject Property.

12.0 REFERENCES

EDR, Aerial Photo Decade Package, Shelton, CT, dated March 3, 2023.

EDR, City Directory Image Report, Shelton, CT, dated March 3, 2023.

EDR, Historical Topo Map Report, Shelton, CT, dated March 3, 2023.

EDR,. The EDR Radius Map Report with Geocheck™, dated March 3, 2023

EDR,. Sanborn® Map Report, Shelton, CT, dated March 3, 2023.

Equity Environmental Engineering, Phase I Environmental Site Assessment, dated October 21, 2022

New York City Department of Buildings: building permit and actions information (http://www.nyc.gov/html/dob/html/bis/bis.shtml).

New York City Department of Finance ACRIS; property tax assessment information (http://nycprop.nyc.gov/nycproperty/nynav/jsp/selectbbl.jsp).

NYC Planning ZoLa New York City's Zoning & Land Use Map, https://zola.planning.nyc.gov/about/#9.72/40.7125/-73.8393

USGS, Bedrock and Engineering Geologic Maps of Bronx County and Parts of New York and Queens Counties, New York, dated 1992.

USGS, Ground water in Bronx, New York, and Richmond Counties with summary data on Kings and Queens Counties, New York City, New York, Bulletin GW-32, dated 1953.

13.0 ENVIRONMENTAL PROFESSIONAL OPINION

I declare, to the best of my professional knowledge and belief, that I meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 312; that I have the specific qualifications based on education, training, and experience to assess a property of the nature, history and setting of the subject property; and that I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR 312. The signature of the Environmental Professional is contained on the cover letter of this Phase I ESA Report. The qualifications of the Environmental Professional are provided in **Appendix G**. GZA did not identify fibrous material. GZA is not aware of whether another entity has performed an asbestos survey at the Subject Property. Due to the age of the building, ACM may be present at the Subject Property.

14.0 LIMITATIONS

GZA prepared this Phase I ESA Report on the Subject Property on behalf of, and for the exclusive use of, BronxCo LLC for the purpose indicated above. Use of this Phase I ESA Report, in whole or in part, at other locations, or for other purposes, might lead to inappropriate conclusions, and we do not accept any responsibility for the consequences of such use. Further, reliance by any party not identified in the agreement, for any use, shall be at that party's sole risk, and without any liability to GZA.

In conducting this Phase I assessment, GZA performed its services using that degree of skill and care ordinarily exercised by qualified professionals performing the same type of services, at the same time, under similar conditions, at the same or a similar property. We make no warranty, express or implied.

Our findings and conclusions are based on the work conducted as part of the Scope of Services set forth in this Phase I ESA Report and reflect our professional judgment. Our findings and conclusions should not be considered

as scientific certainties or engineering certainties, but rather as our professional opinions based on the limited data gathered during our work.

No environmental site assessment can eliminate the uncertainty of the possible presence of RECs. This Phase I ESA Report was prepared to help reduce, not to eliminate, such uncertainty. Consistent with ASTM E1527-21, we developed our opinions in light of the constraints imposed by time and budget.

As indicated within this Phase I ESA Report, we observed conditions at the Subject Property and at adjoining properties for evidence of RECs at the Subject Property. Where access to portions of the Subject Property or to structures on the Subject Property was unavailable or limited, GZA renders no opinion as to the presence of hazardous substances, hazardous waste, or petroleum products, or to the presence of indirect evidence relating to these materials, in those portions of the Subject Property or structures. In addition, GZA renders no opinion as to the presence of hazardous substances, hazardous waste, or petroleum products, or to the presence of indirect evidence relating to these materials, where direct observation of the interior walls, floors, and/or ceilings of a structure on the Subject Property was obstructed by objects and/or coverings on and/or over such surfaces. We based our opinions on such limited observations. Additionally, activities or events impacting environmental conditions at the Subject Property or at adjoining properties might have been transient and not observable at the time of GZA's site reconnaissance.

We relied upon information made available by federal, state, and local authorities, the Key Site Manager, and others. We did not attempt to independently verify the accuracy or completeness of that information. To the extent we encountered inconsistencies in this information, they were identified within the Report.

The lender, seller, buyer, or other parties that might become involved with the Subject Property might develop additional opinions or information regarding the presence or absence of RECs at the Subject Property. Such additional opinions or information might not fully support the opinions provided in this Phase I ESA Report. In the event such additional opinions or information is developed, we recommend retaining GZA to review this material so that we have the opportunity to evaluate and modify, as necessary, the opinions provided in this Phase I ESA Report.

Unless otherwise specified within this Phase I ESA Report, we have rendered no opinion on the compliance of Subject Property conditions or activities with federal, state, and local codes, laws, or regulations.

GZA based the opinions expressed in this Phase I ESA Report on conditions observed during our work on this Subject Property; these conditions might change over time. ASTM E1527-21 specifies that observations and opinions are only valid for 180 days from the date the underlying information is developed. After 180 days, portions of this Phase I ESA Report may need to be updated.

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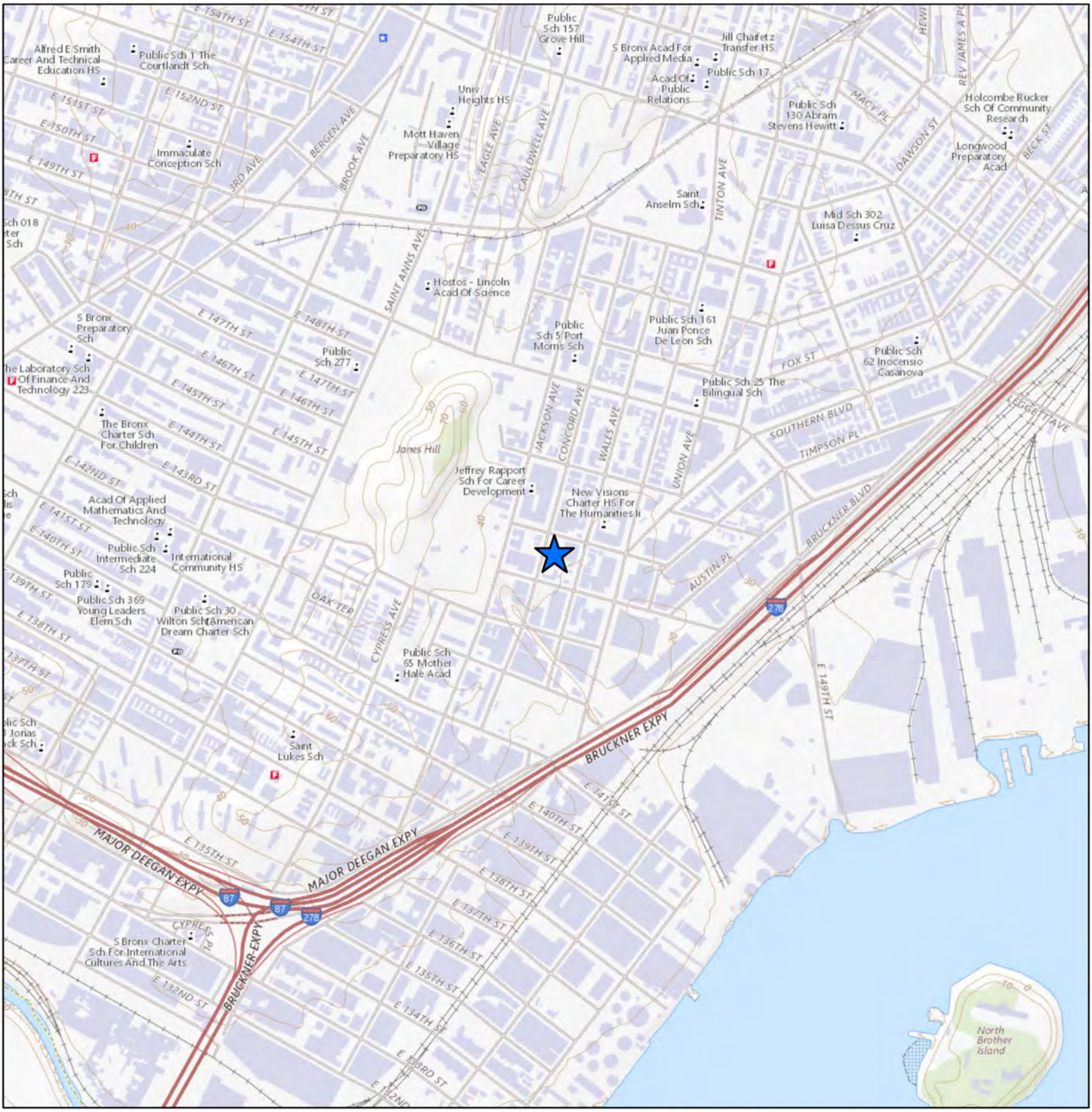
Figures



Legend

★ 432-434 Concord Avenue

N

0.3 Miles

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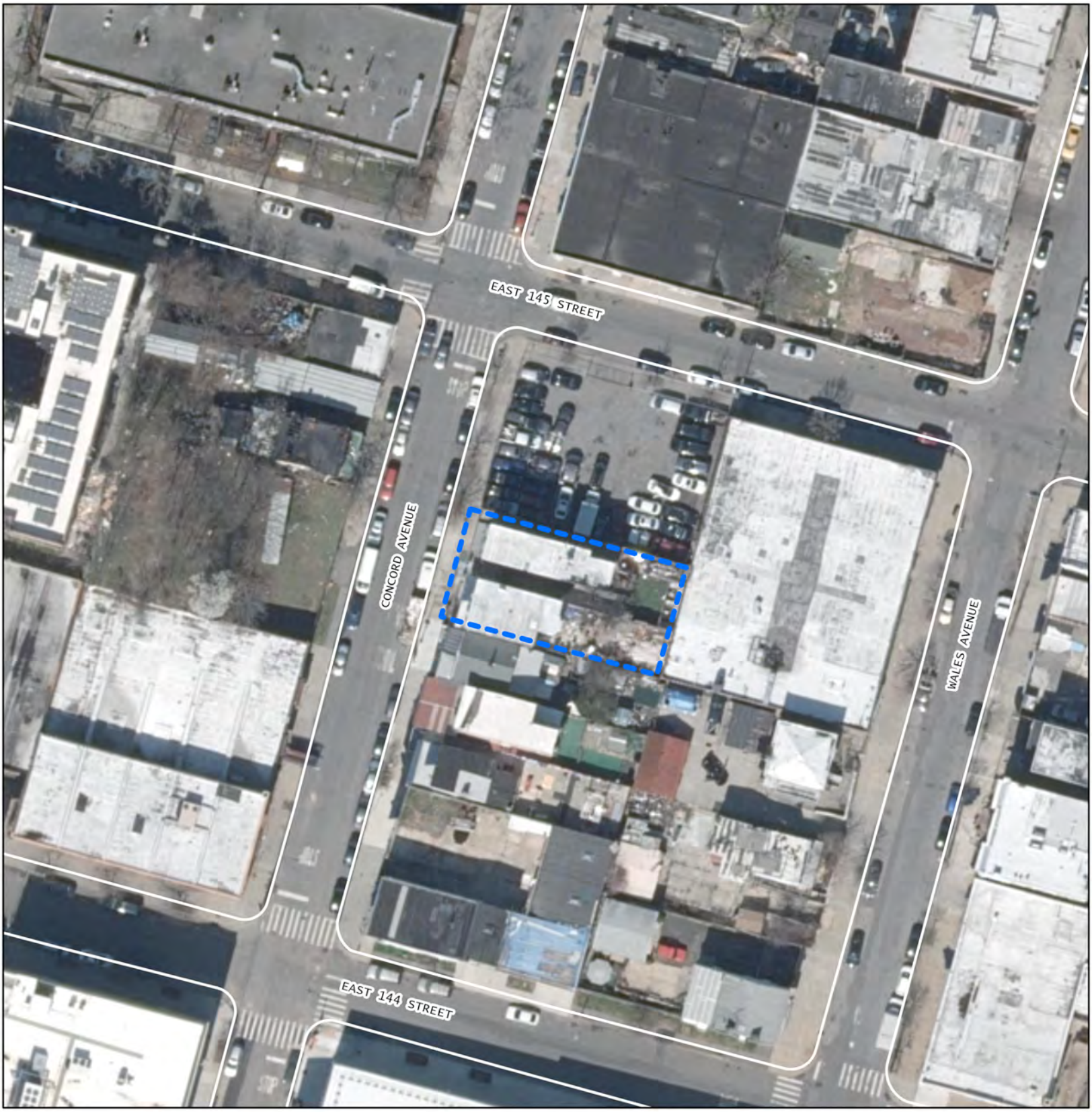
432-434 CONCORD AVENUE
BRONX, NEW YORK

USGS SITE LOCATION MAP

PREPARED BY: equity environmental engineering, A Division of GZA		PREPARED FOR: 100 WEST 33RD STREET INC.	
PROJ MGR: RLJ	REVIEWED BY: JV	CHECKED BY: RLJ	FIG/DWG 1
DESIGNED BY: GB	DRAWN BY: GB	SCALE: 1:10,414	
DATE: 03/24/2023	PROJECT NO: 2021030	REVISION NO:	SHEET NO: 1 OF 1



Legend

432-434 Concord Avenue

N

100

US Feet

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432-434 CONCORD AVENUE
BRONX, NEW YORK

SUBJECT PROPERTY PLAN

PREPARED BY: equity environmental engineering, A Division of GZA		PREPARED FOR: 100 WEST 33RD STREET INC.	
PROJ MGR: RLJ	REVIEWED BY: JV	CHECKED BY: RLJ	FIG/DWG 2
DESIGNED BY: GB	DRAWN BY: GB	SCALE: 1:716	
DATE: 03/24/2023	PROJECT NO: 2021030	REVISION NO:	SHEET NO: 1 OF 1

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Appendix A - Project Terms and Conditions

TERMS AND CONDITIONS FOR PROFESSIONAL SERVICES

© 2023 by GZA GeoEnvironmental, Inc.

Client ("You"): Alejandro Waldman
Proposal No: 12.0077425.00
Site: 432-434 Concord Ave.

These Terms and Conditions, together with GZA's Proposal, make up the Agreement between GZA and you, Client, named above.

BEFORE SIGNING THE PROPOSAL, BE SURE YOU READ AND UNDERSTAND THE PARAGRAPHS ENTITLED "INDEMNIFICATION" AND "LIMITATION OF REMEDIES" WHICH DEAL WITH THE ALLOCATION OF RISK BETWEEN YOU AND GZA.

1. Services. GZA will perform the services set forth in its Proposal and any amendments or change orders authorized by you (the "Services"). Any request or direction from you that would require extra work or additional time for performance or would result in an increase in GZA's costs will be the subject of a negotiated amendment or change order.

2. Standard of Care; Warranties.

a. GZA will perform professional Services with the degree of skill and care ordinarily exercised by qualified professionals performing the same type of services at the same time under similar conditions in the same or similar locality.
b. EXCEPT AS SET FORTH IN SUBSECTIONS 2a ABOVE, NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING WARRANTY OF MARKETABILITY OR FITNESS FOR A PARTICULAR PURPOSE, IS MADE OR INTENDED BY GZA'S PROPOSAL OR BY ANY OF GZA'S ORAL OR WRITTEN REPORTS.
c. GZA assigns to you any manufacturers' warranties of equipment or materials purchased from others, to the extent they are assignable, and your sole recourse will be against the manufacturer. Full risk of loss of materials and equipment will pass to you upon delivery to the Site, and you will be responsible for insuring and otherwise protecting them against theft and damage.

3. Payment.

a. Except as otherwise stated in the Proposal, you will compensate GZA for the Services at the rates set forth in the applicable Proposal, amendment or change order; reimburse its expenses, which will include a communication fee calculated as a percentage of labor invoiced; and pay any sales or similar taxes thereon.
b. Any retainer specified in GZA's Proposal shall be due prior to the start of Services and will be applied to the final invoice for Services.
c. GZA will submit invoices periodically, and payment will be due within 20 days from invoice date. Overdue payments will bear interest at 1½ percent per month or, if lower, the maximum lawful rate. GZA may terminate the Services upon 10 days' written notice anytime your payment is overdue on this or any other project and you will pay for all Services through termination, plus termination costs. You will reimburse GZA's costs of collecting overdue invoices, including reasonable attorneys' fees (including costs for time expended by in-house counsel, which will be charged to you at the prevailing market rate for attorneys of similar experience practicing in the jurisdiction).

4. Your Responsibilities.

a. Except as otherwise agreed in writing, you will secure the access agreements, approvals, permits, licenses and consents necessary for performance of the Services. If you are the owner or operator of the Site, you will provide GZA with all documents, plans, information concerning underground structures (including but not limited to utilities, conduits, pipes, and tanks), information related to hazardous materials or other environmental or geotechnical conditions at the Site (including, if applicable, asbestos containing materials ["ACM"]) and other information that may be pertinent to the Services or, if you are not the owner or operator of the Site, you agree to make reasonable efforts to obtain these same documents and provide them to GZA. Unless otherwise indicated in writing, GZA will be entitled to rely on documents and information you provide.
b. If you use the services of a contractor or construction manager at the Site, you agree to use best and reasonable efforts to include in your agreement(s) with the construction contractor provisions obligating the latter:
   (i) to defend, indemnify and hold harmless, to the fullest extent permitted by law, you and GZA and its officers, directors, members, partners, agents, employees, and subconsultants (the "GZA Indemnitees"), for or on account of any claims, liabilities, costs and expenses, including attorneys' fees, arising out of or relating to the design or implementation of construction means, methods, procedures, techniques, and sequences of construction, including safety precautions or programs, of the contractor, or any of its subcontractors or any engineer engaged by it;
   (ii) to name you and GZA as additional insureds under general liability and builder's risk insurance coverages maintained by the contractor, or any of its subcontractors, and to ensure that such policies are primary and noncontributory with regard to the above indemnity obligations; and
   (iii) to require that all of its subcontractors agree and be bound to the obligations set forth in (i) and (ii) above.
c. In the event that you are unable to secure such provisions in the agreement(s) with the construction contractor, you shall promptly (but in any event prior to the commencement of the Services) notify GZA and GZA shall have the opportunity to negotiate with you reasonable substitute risk allocation and insurance indemnities and protections.

5. Right of Entry; Site Restoration. You grant GZA and its subcontractor(s) permission to enter the Site to perform the Services. If you do not own the Site, you represent and warrant that the owner has granted permission for GZA to enter the Site and perform the Services; you will provide reasonable verification on request; and you will indemnify the GZA Indemnitees for any claims by the Site owner related to alleged trespass by GZA or its subcontractors. Although GZA will exercise reasonable care to limit damage to landscaping, paving, systems and structures at the Site, you acknowledge that some damage may occur even with the exercise of due care and you agree to compensate GZA for any restoration it is asked to perform, unless otherwise indicated in the Proposal.

6. Underground Facilities. GZA's only responsibility under this Agreement will be to provide proper notification to the applicable state utility "Call-Before-You-Dig" program. You further agree to assume responsibility for and to defend, indemnify and hold harmless GZA with respect to personal injury and property damages due to GZA's interference with subterranean structures including but not limited to utilities, conduits, pipes, and tanks:

   (i) that are not correctly shown on any plans and information you or governmental authorities provide to GZA; or
   (ii) that are not correctly marked by the appropriate utility.

7. Reliance. The services, information, and other data furnished by you shall be at your expense, and GZA may rely upon all information and data that you furnish, including the accuracy and completeness thereof. You acknowledge that the quality of the Services provided by GZA is directly related to the accuracy and completeness of the information and data that you furnish to GZA. **GZA's REPORTS ARE PREPARED FOR AND MADE AVAILABLE FOR YOUR SOLE USE. YOU ACKNOWLEDGE AND AGREE THAT USE OF OR RELIANCE UPON THE REPORT OR THE FINDINGS IN THE REPORT BY ANY OTHER PARTY, OR FOR ANY OTHER PROJECT OR PURPOSE, SHALL BE AT YOUR OR SUCH OTHER PARTY'S SOLE RISK AND WITHOUT ANY LIABILITY TO GZA. YOU SHALL INDEMNIFY AND HOLD HARMLESS THE GZA INDEMNITEES FROM ALL CLAIMS, DAMAGES, LOSSES, AND EXPENSES, INCLUDING ATTORNEYS' FEES, ARISING OUT OF OR RESULTING FROM ANY USE, REUSE, OR MODIFICATION OF THE DOCUMENTS WITHOUT WRITTEN VERIFICATION, COMPLETION, OR ADAPTATION BY GZA AND SUCH LIMITED LICENSE TO YOU SHALL NOT CREATE ANY RIGHTS IN THIRD PARTIES.**

8. Lab Tests and Samples. GZA is entitled to rely on the results of laboratory tests using generally accepted methodologies. GZA may dispose of samples in accordance with applicable laws 30 days after submitting test results to you unless you request in writing for them to be returned to you or to be held longer, in which case you will compensate GZA for storage and/or shipping beyond 30 days.

9. GZA Professionals. GZA employees or consultants may act as licensed, certified or registered professionals (including but not limited to Professional Engineers, Licensed Site or Environmental Professionals, Certified Hazardous Materials Managers,, or Certified Industrial Hygienists collectively referred to in this section as "GZA Professionals") whose duties may include the rendering of independent professional opinions. You acknowledge that a federal, state or local agency or other third party may audit the Services of GZA or other contractor/consultant(s), which audit may require additional Services, even though GZA and such GZA Professionals have each performed such Services in accordance with the standard of care set forth herein. You agree to compensate GZA for all Services performed in response to such an audit, or to meet additional requirements resulting from such an audit, at the rates set forth in the applicable Proposal, amendment or change order.

10. Hazardous Materials; GZA "Not a Generator". Before any hazardous or contaminated materials, including, if applicable, ACMs (the "Wastes") are removed from the Site, you will sign manifests naming you as the generator of the Wastes (or, if you are not the generator, you will arrange for the generator to sign). You will select the treatment or disposal facility to which any Wastes are taken. GZA will not be the generator or owner of, nor will it possess, take title to, or assume legal liability for any Wastes at or removed from the Site. GZA will not have responsibility for or control of the Site or of operations or activities at the Site other than its own. GZA will not undertake, arrange for or control the handling, treatment, storage, removal, shipment, transportation or disposal of any Wastes at or removed from the Site, other than any laboratory samples it collects or tests. You agree to defend, indemnify and hold the GZA Indemnitees harmless for any costs or liability incurred by GZA in defense of or in payment for any legal actions in which it is alleged that GZA is the owner, generator, treater, storer or disposer of any Wastes.

11. Limits on GZA's Responsibility. GZA will not be responsible for the acts or omissions of contractors or others at the Site, except for its own subcontractors and employees. GZA will not supervise, direct or assume control over or the authority to stop any contractor's work, nor shall GZA's professional activities nor the presence of GZA or its employees and subcontractors be construed to imply that GZA has authority over or responsibility for the means, methods, techniques, sequences or procedures of construction, for work site health or safety precautions or programs, or for any failure of contractors to comply with contracts, plans, specifications or laws. Any opinions by GZA of probable costs of labor, materials, equipment or services to be furnished by others are strictly estimates and are not a guarantee that actual costs will be consistent with the estimates.

12. Changed Conditions.

a. You recognize the uncertainties related to the Services (including, without limitation, environmental and geotechnical Services), which often require a phased or exploratory approach, with the need for additional Services becoming apparent during the initial Services. You also recognize that actual conditions encountered may vary significantly from those anticipated, that laws and regulations are subject to change, and that the requirements of regulatory authorities are often unpredictable.

b. If changed or unanticipated conditions or delays make additional Services necessary or result in additional costs or time for performance, GZA will notify you and the parties will negotiate appropriate changes to the scope of Services, compensation and schedule.

c. If no agreement can be reached, GZA will be entitled to terminate the Services and to be equitably compensated for the Services already performed. GZA will not be responsible for delays or failures to perform due to weather, labor disputes, intervention by or inability to get approvals from public authorities, acts or omissions on your part, or any other causes beyond GZA's reasonable control, and you will compensate GZA for any resulting increase in its costs.

13. Documents and Information. All documents, data, calculations and work papers prepared or furnished by GZA are instruments of service and will remain GZA's property. Designs, reports, data and other work product delivered to you are for your use only, for the limited purposes disclosed to GZA. Any delayed use, use at another site, use on another project, or use by a third party will be at the user's sole risk, and without any liability to GZA. Any technology, methodology or technical information learned or developed by GZA will remain its property. Provided GZA is not in default under this Agreement, GZA's designs will not be used to complete this project by others, except by written agreement relating to use, liability and compensation.

14. Electronic Media. In accepting and utilizing any drawings, reports and data on any form of electronic media generated by GZA, you covenant and agree that all such electronic files are instruments of service of GZA, who shall be deemed the author and shall retain all common law, statutory law and other rights, including copyrights. In the event of a conflict between the signed documents prepared by GZA and electronic files, the signed documents shall govern. You agree not to reuse these electronic files, in whole or in part, for any purpose or project other than the project that is the subject of this Agreement. Any transfer of these electronic files to others or reuse or modifications to such files by you without the prior written consent of GZA will be at the user's sole risk and without any liability to GZA.

15. Confidentiality; Subpoenas. Information about this Agreement and GZA's Services and information you provide to GZA regarding your business and the Site, other than information available to the public and information acquired from third parties, will be maintained in confidence and will not be disclosed to others without your consent, except as GZA reasonably believes is necessary: (a) to perform the Services; (b) to comply with professional standards to protect public health, safety and the environment; and (c) to comply with laws, regulations, court orders and professional obligations. GZA will make reasonable efforts to give you prior notice of any disclosure under (b) or (c) above. Information available to the public and information acquired from third parties will not be

considered confidential. You will reimburse GZA for responding to any subpoena or governmental inquiry or audit related to the Services, at the rates set forth in the applicable Proposal, amendment or change order.

16. Insurance. During performance of the Services, GZA will maintain workers' compensation, commercial general liability, automobile liability, and professional liability/contractor's pollution liability insurance. GZA will furnish you certificates of such insurance on request.

17. Indemnification. You agree to hold harmless, indemnify, and defend the GZA Indemnitees against all claims, suits, fines and penalties, including mandated cleanup costs and attorneys' fees and other costs of settlement and defense, which claims, suits, fines, penalties or costs arise out of or are related to this Agreement or the Services, except to the extent they are caused by GZA's negligence or willful misconduct.

18. Limitation of Remedies.

a. To the fullest extent permitted by law and notwithstanding anything else in this Agreement to the contrary, the aggregate liability of GZA and its affiliates and subcontractors and their employees, officers, directors and agents (collectively referred to in this paragraph as "GZA") for all claims arising out of this Agreement or the Services is limited to $50,000 or, if greater, 10% of the compensation received by GZA under this Agreement.

b. You may elect to increase the limit of liability by paying an additional fee, such fee to be negotiated prior to the execution of this Agreement.

c. Any claim will be deemed waived unless written notice of such claim is received by GZA within one year of substantial completion of the Services.

d. GZA will not be liable for lost profits, loss of use of property, delays, or other special, indirect, incidental, consequential, punitive, exemplary, or multiple damages.

e. GZA will not be liable to you or the Site owner for injuries or deaths suffered by GZA's or its subcontractors' employees.

f. You will look solely to GZA for your remedy for any claim arising out of or relating to this Agreement, including any claim arising out of or relating to alleged negligence or errors or omissions of any GZA principal, officer, employee or agent.To the extent damages are covered by property insurance or any other insurance, both you and GZA waive all rights against each other and against the contractors, consultants, agents, and employees of the other, for damages, except such rights as they may have to the proceeds of such insurance as set forth in this Agreement. The you or GZA, as appropriate, shall require of the contractors, consultants, agents, and employees of any of them, similar waivers in favor of the other parties enumerated herein.

19. Disputes.

a. All disputes between you and GZA shall be subject to non-binding mediation.

b. Either party may demand mediation by serving a written notice stating the essential nature of the dispute, the amount of time or money claimed, and requiring that the matter be mediated within forty-five (45) days of service of notice.

c. The mediation shall be administered by the American Arbitration Association in accordance with its most recent Construction Mediation Rules, or by such other person or organization as the parties may agree upon.

d. No action or suit may be commenced unless mediation has occurred but did not resolve the dispute, or unless a statute of limitation period would expire if suit were not filed prior to such forty-five (45) days after service of notice. However, where non-payment of an invoice has occurred and GZA sends you a final demand letter for payment, your failure to respond within ten (10) days of receipt (or, for certified mail, the date of the first attempt to deliver the letter to your address of record if you ultimately do not accept receipt of the letter) of such letter will be deemed to be a waiver of your right to enforce this mediation clause and GZA may immediately file suit to enforce the terms of this Agreement.

20. Miscellaneous.

a. This Agreement and all claims relating thereto shall be governed by the substantive and procedural laws of the Commonwealth of Massachusetts, as they presently exist or may hereafter be amended, without regard to principles of conflict of laws.

b. The above terms and conditions regarding Limitation of Remedies and Indemnification shall survive the completion of the Services under this Agreement and the termination of the contract for any cause.

c. Any amendment to these Terms and Conditions must be in writing and signed by both parties. No modification of these Terms and Conditions will be binding against GZA unless specifically approved in writing by a Principal of GZA.

d. Having received these Terms and Conditions, your oral authorization to commence Services, your acceptance of performance of the Services, your actions, or your use of the Report or Work Product constitutes your acceptance of them.

e. This Agreement supersedes any contract terms, purchase orders or other documents issued by you, even if signed by an authorized representative of GZA.

f. Neither party may assign or transfer this Agreement or any rights or duties hereunder without the written consent of the other party.

g. Your failure or the failure of your successors or assigns to receive payment, reimbursement, insurance proceeds or grant funds from any other party for any reason whatsoever shall not absolve you, your successors or assigns of any obligation to pay any sum to GZA under this agreement.

h. These Terms and Conditions shall govern over any inconsistent terms in GZA's Proposal.

i. The provisions of this Agreement are severable; if any provision is unenforceable it shall be appropriately limited and given effect to the extent it is enforceable.

j. The covenants and agreements contained in this Agreement shall apply to, inure to the benefit of and be binding upon the parties hereto and upon their respective successors and assigns.

k. Any reports generated by GZA will be subject to GZA's standard report limitations for that particular type of report.

21. Asbestos Abatement Services (If Applicable). If the Services include asbestos abatement services, then the following terms and conditions will apply and will supersede any conflicting terms contained elsewhere in this Agreement.

a. You acknowledge that conditions can vary from those encountered at the times and locations of explorations and data collection, and that the limitation on available data may result in some level of uncertainty with respect to the interpretation of those conditions, despite due professional care. GZA therefore cannot guaranty specific results such as the identification or removal of all asbestos or other contamination.

22. **Microbial Services (If Applicable).** If the Services include microbial services, then the following terms and conditions will apply and will supersede any conflicting terms contained elsewhere in this Agreement.

a. You recognize that meeting the standard of care does not establish an assurance that corrective procedures will be permanent. Because Microbial infestations are created by near-omnipresent living microscopic spores, grows very quickly and are influenced by nanoclimatological conditions that are very difficult to detect and sources of water intrusion, elevated moisture or relative humidity over which GZA has neither control or responsibility, GZA cannot and does not claim that its Services will eliminate the risk of a Microbial infestation recurring.

b. You acknowledge that the Services entail risk of personal injury and property damage (including cross-contamination) that cannot be avoided, even with the exercise of due care. You also acknowledge that environmental conditions can vary from those encountered at the times and locations of explorations and data collection, and that the limitation on available data may result in some level of uncertainty with respect to the interpretation of these conditions, despite due care. GZA therefore cannot guaranty specific results such as the identification of all contamination or other environmental conditions or problems nor their resolution.

c. You acknowledge that Microbial infestations may be hidden from view and concealed in locations that are difficult to discover. Accordingly, you agree that despite GZA's efforts, some Microbial locations may remain undetected. In such situations, you agree that you will have no claim against GZA provided GZA followed all applicable laws and regulations pertaining to the Work.

d. For purposes of this Agreement, Microbial is defined as any and all fungal and/or bacterial growth including but not limited to mold, mildew, yeast, fungus, fungi, bacteria, spores, odors, particulates, vapors, gas, or other emissions produced by or arising out of or toxins emanating therefrom.

e. You further agree that where GZA shall performs Services intended to minimize the risk of Microbial infestations, GZA shall not be liable for damages resulting from Microbial contamination including but not limited to fungal or bacterial infestations and water damage or dry or wet rot and you agree to waive any Microbial infestation claim(s) against GZA, and you agree to indemnify, defend and hold the GZA Indemnitees harmless from any claim alleging that GZA's Services caused or aggravated a Microbial infestation or did not prevent a Microbial infestation from re-occurring.

Appendix B - Photographic Log

Photographic Log

Client Name: Mr. Alejandro Waldman	**Site Location:** 432-434 Concord Avenue, Bronx, NY	**Project No.** 12.0077425.00

Photo No.	**Date:**
1	3/03/2023

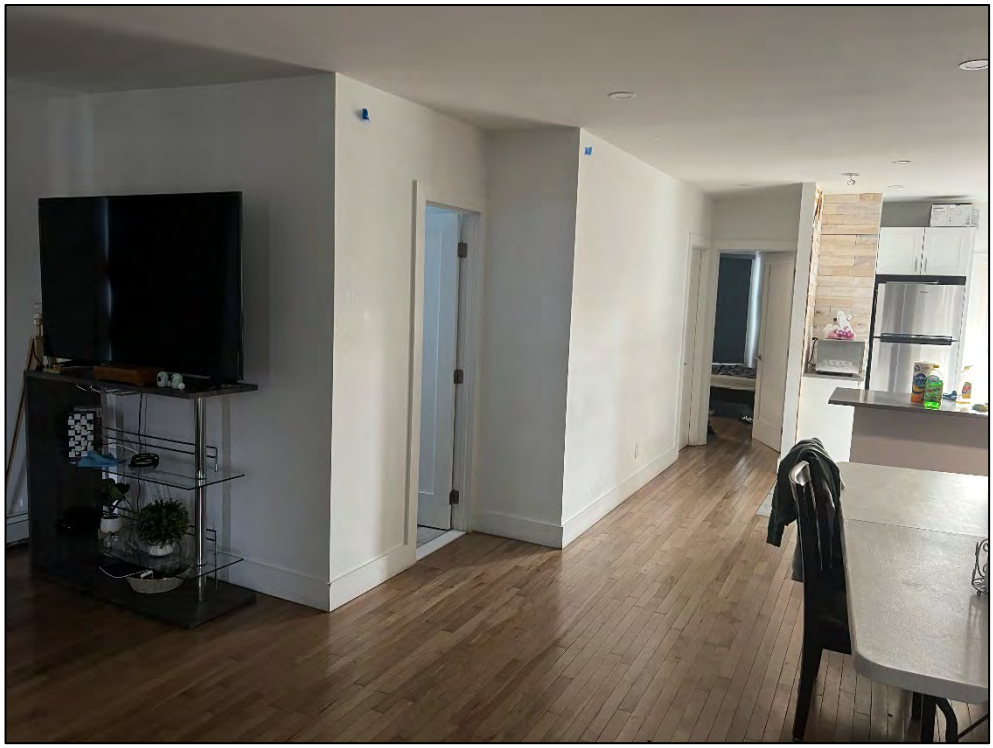
Direction Photo Taken:
East

Description:
Front of both residences on the Subject Property.

Photo No.	**Date:**
2	3/03/2023

Direction Photo Taken:
East

Description:
Living area on the first floor of 432 Concord Avenue.



Photographic Log

Photo No.	Date:
3	3/03/2023

Direction Photo Taken:
south

Description:
Cleaning supply closet on the first floor.

Photo No.	Date:
4	3/03/2023

Direction Photo Taken:
East

Description:
Basement hallway.

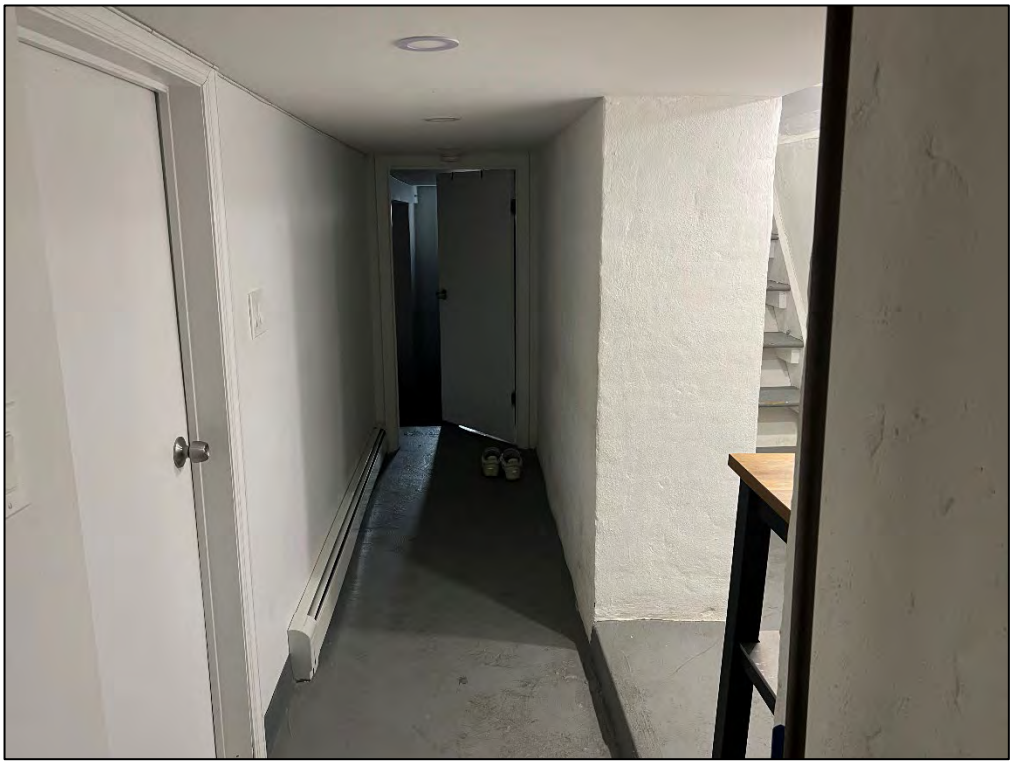


Photo No.	Date:
5	3/03/2023

Direction Photo Taken:
East

Description:
Concrete patio behind the residence.

Photo No.	Date:
6	3/03/2023

Direction Photo Taken:
North

Description:
Interior of shed at the back patio. Two propane tanks and a helium tank are present.

Photo No.	Date:
7	3/03/2023

Direction Photo Taken:
West

Description:
Building façade on the backside of the residence.

Photo No.	Date:
8	3/03/2023

Direction Photo Taken:
Northwest

Description:
Second floor interior.

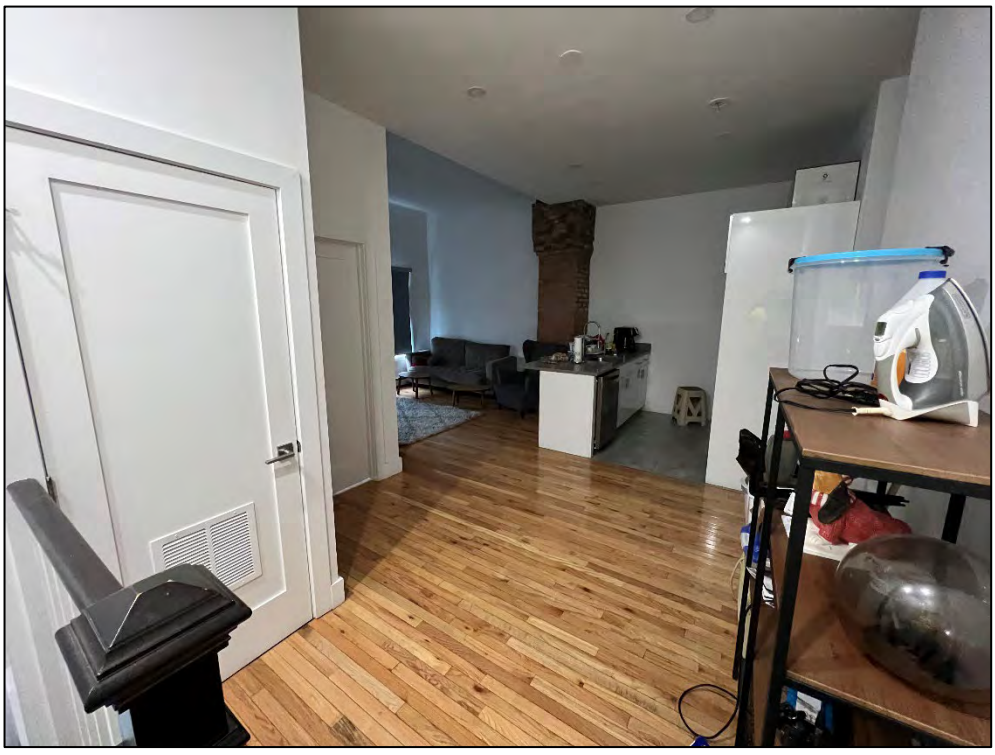


Photo No.	Date:
9	3/03/2023

Direction Photo Taken:
East

Description:
Cleaning supply closet on the second floor.

Photo No.	Date:
10	3/03/2023

Direction Photo Taken:
Southeast

Description:
Boiler room on the east side of the basement.

Photo No.	Date:
11	3/03/2023

Direction Photo Taken:
south

Description:
Empty supply room accessible from the basement or outside of the residence. There are two gripper plugs on the floor; the holes have been sealed/lined with plastic.

Photo No.	Date:
12	3/03/2023

Direction Photo Taken:
East

Description:
First floor of 434 Concord Avenue.

Photo No.	Date:
13	3/03/2023

Direction Photo Taken:
South

Description:
Supply closet on the first floor. Three 5-gallon buckets of sheet rock are present and a small container of paint.

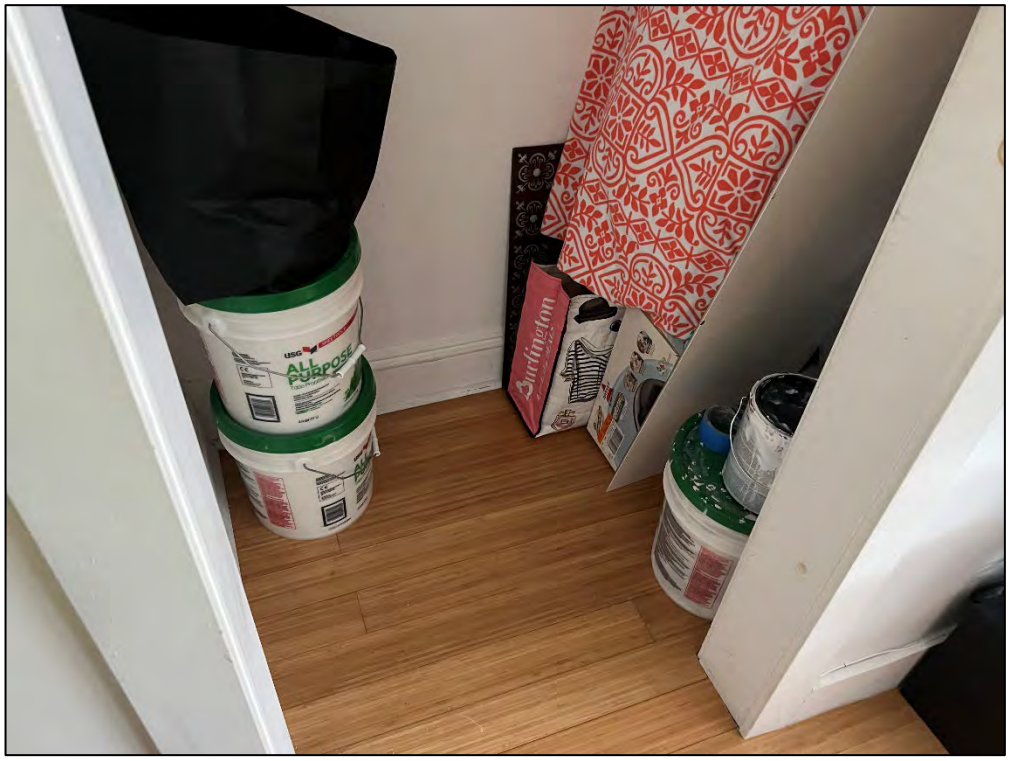


Photo No.	Date:
14	3/03/2023

Direction Photo Taken:
East

Description:
Concrete patio behind the residence.

Photo No.	Date:
15	3/03/2023

Direction Photo Taken:
West

Description:
Aboveground storage tank (AST) vent pipe on the south side of the residence.

Photo No.	Date:
16	3/03/2023

Direction Photo Taken:
East

Description:
Basement storage area

Photo No.	Date:
17	3/03/2023

Direction Photo Taken:
Northwest

Description:
Water heater in the basement. There is an unknown piece of machinery next to the water heater.

Photo No.	Date:
18	3/03/2023

Direction Photo Taken:
West

Description:
Inactive AST on the west side of the basement.

Photo No.	Date:
19	3/03/2023

Direction Photo Taken:
North

Description:
Staining on the east side of the basement.

Photo No.	Date:
20	3/03/2023

Direction Photo Taken:
East

Description:
Laundry room on the northside of the Property.

Photo No.	Date:
21	3/03/2023

Direction Photo Taken:
East

Description:
Second floor hallway.

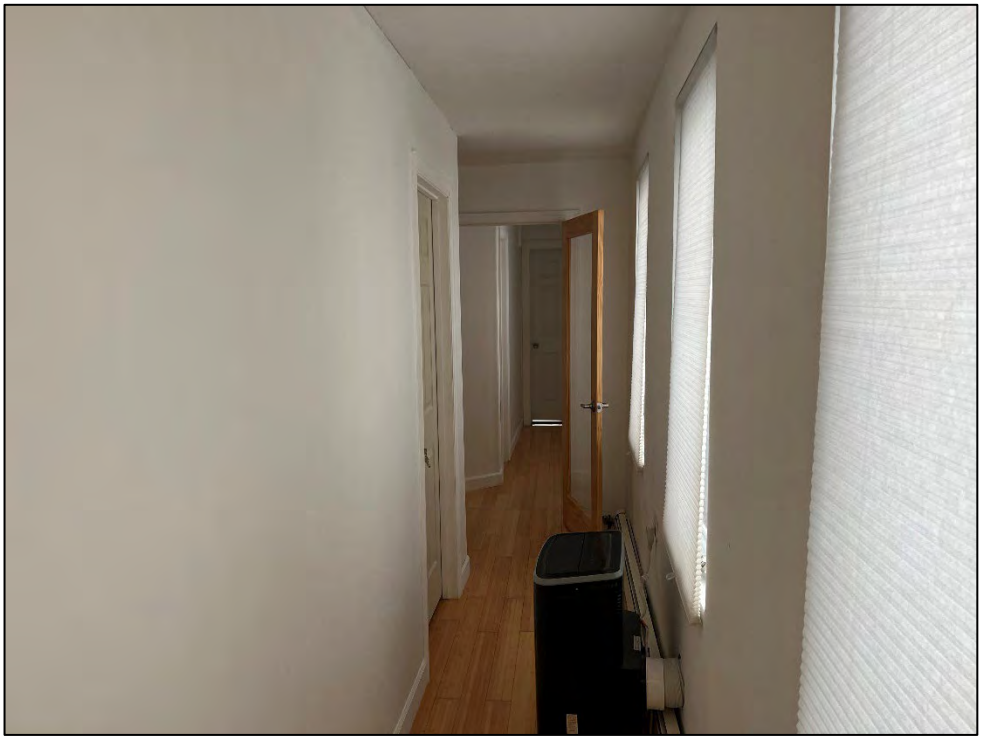


Photo No.	Date:
22	3/03/2023

Direction Photo Taken:
Northeast

Description:
Basement crawlspace.

Photographic Log

Photo No.	Date:
23	3/03/2023

Direction Photo Taken:
Northwest

Description:
Rust stains on the ground of the exterior storage area.

equity
environmental
engineering
A Division of GZA

Appendix C - Historical Documentation

Concord Ave

432-434 Concord Ave

Bronx, NY 10455

Inquiry Number: 7268326.8

March 02, 2023

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

03/02/23

Site Name:

Concord Ave
432-434 Concord Ave
Bronx, NY 10455
EDR Inquiry # 7268326.8

Client Name:

Equity Env. Engineering LLC
500 INTERNATIONAL DRIVE
MT. Olive, NJ 07828
Contact: Christian Digennaro

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	*Scale*	*Details*	*Source*
2019	1"=500'	Flight Year: 2019	USDA/NAIP
2015	1"=500'	Flight Year: 2015	USDA/NAIP
2011	1"=500'	Flight Year: 2011	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
1995	1"=500'	Acquisition Date: March 13, 1995	USGS/DOQQ
1991	1"=500'	Flight Date: March 09, 1991	NAPP
1984	1"=500'	Flight Date: March 26, 1984	USDA
1976	1"=500'	Flight Date: October 29, 1976	USGS
1974	1"=500'	Flight Date: September 15, 1974	NOAA
1966	1"=500'	Flight Date: February 23, 1966	USGS
1961	1"=500'	Flight Date: April 12, 1961	EDR Proprietary Aerial Viewpoint
1954	1"=500'	Flight Date: January 04, 1954	USGS
1951	1"=500'	Flight Date: April 21, 1951	EDR Proprietary Aerial Viewpoint
1924	1"=500'	Flight Date: July 01, 1924	FAIR

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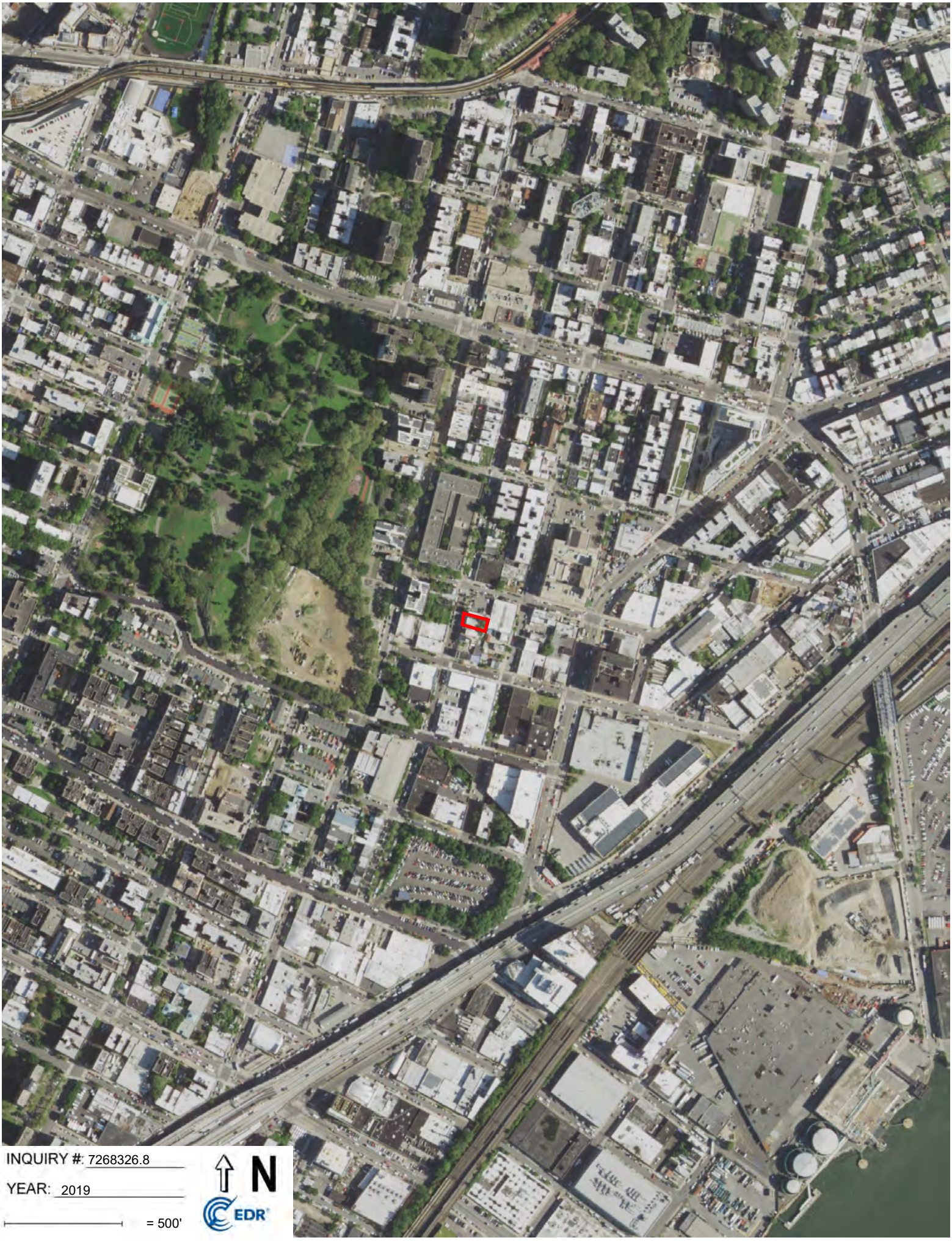
INQUIRY #: 7268326.8
YEAR: 2019
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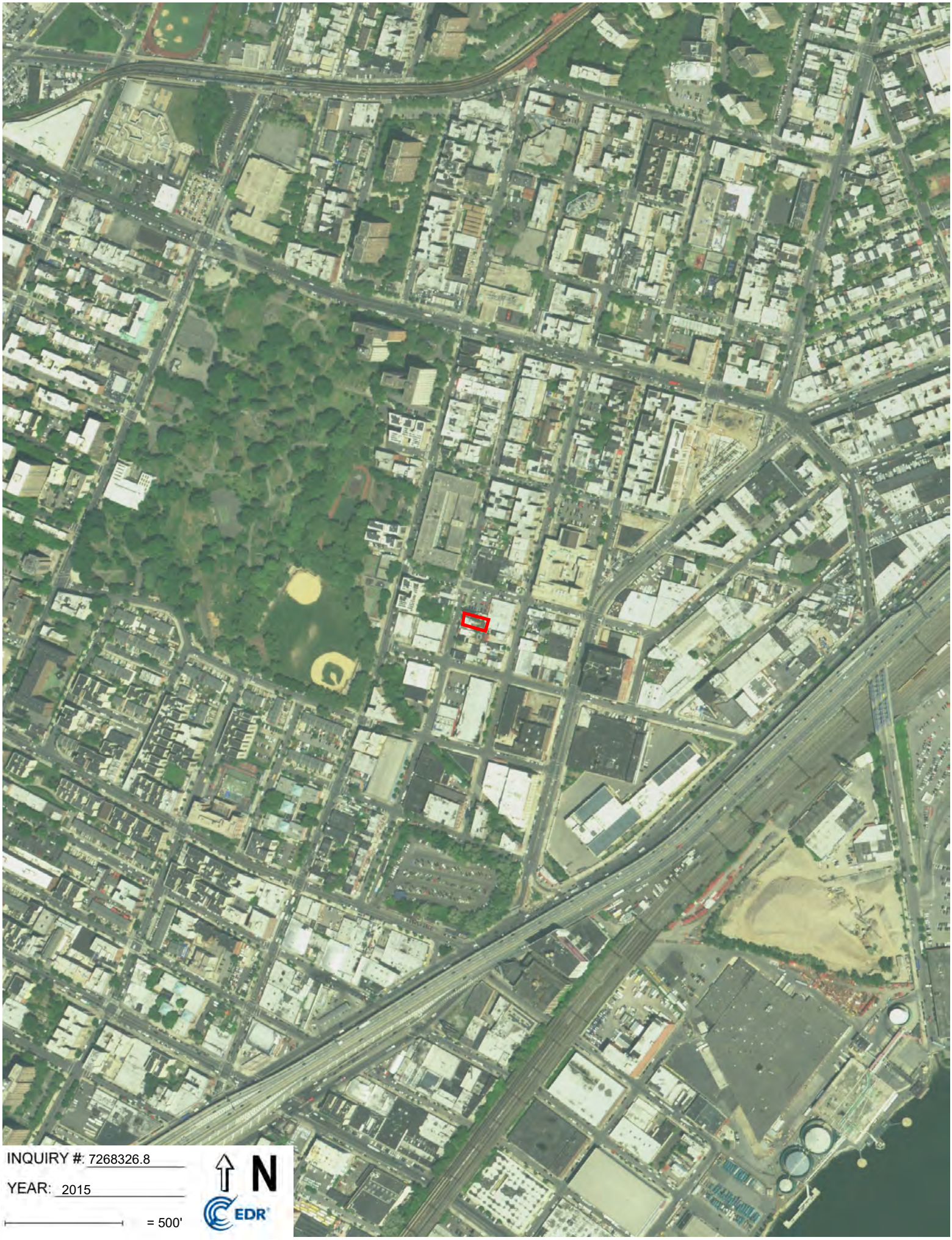
EDR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EDR

INQUIRY #: 7268326.8
YEAR: 2011
= 500'
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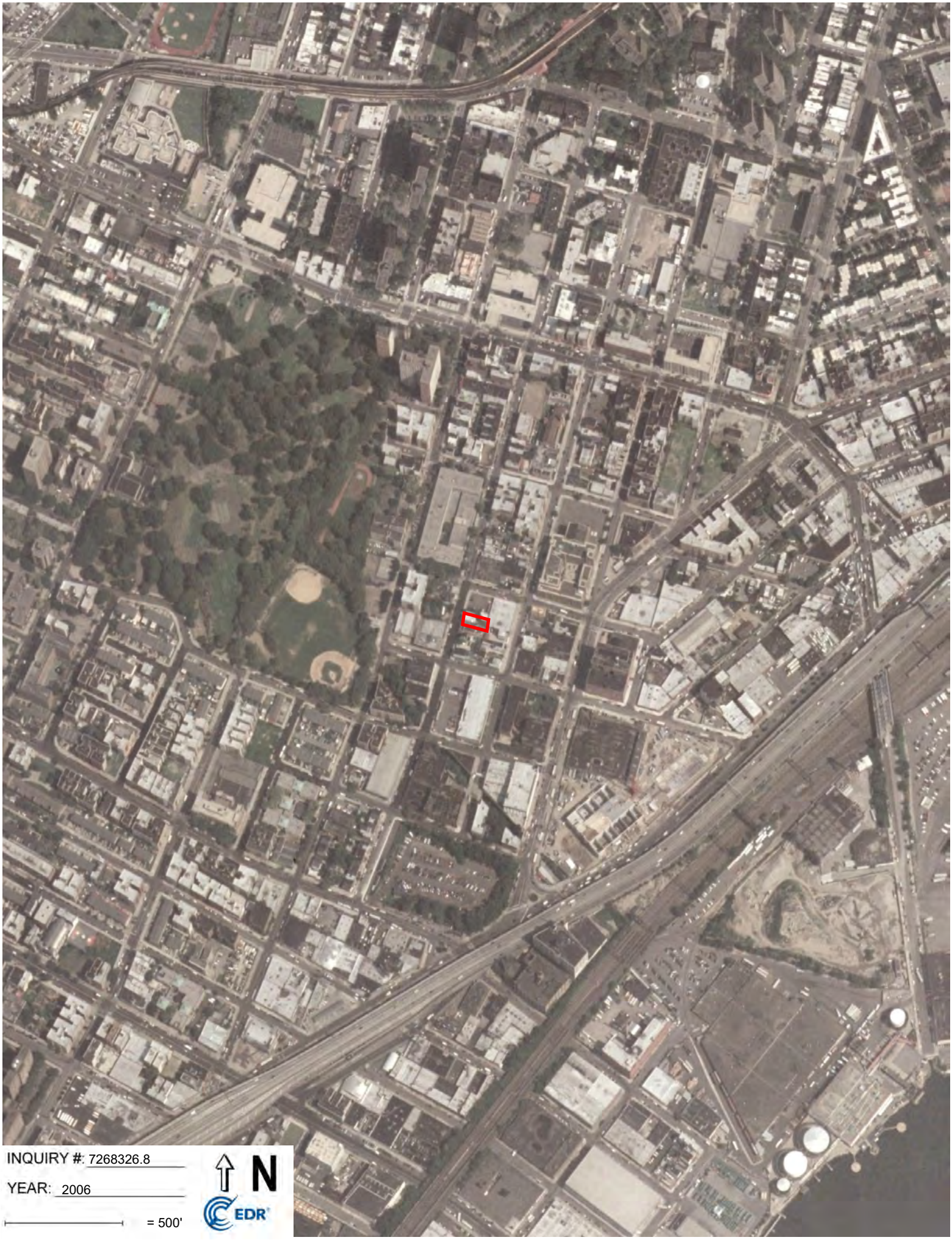
EDR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INQUIRY #: 7268326.8

YEAR: 1924

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EDR

Concord Ave

432-434 Concord Ave

Bronx, NY 10455

Inquiry Number: 7268326.3

March 02, 2023

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

03/02/23

Site Name:

Concord Ave
432-434 Concord Ave
Bronx, NY 10455
EDR Inquiry # 7268326.3

Client Name:

Equity Env. Engineering LLC
500 INTERNATIONAL DRIVE
MT. Olive, NJ 07828
Contact: Christian Digennaro

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Equity Env. Engineering LLC were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # CB14-432C-A410

PO # NA

Project Concord Ave

Maps Provided:

2007	1996	1984	1947
2006	1995	1981	1946
2005	1994	1980	1944
2004	1993	1978	1935
2003	1992	1977	1928
2002	1991	1969	1908
2001	1989	1968	1891
1998	1986	1951	

Sanborn® Library search results

Certification #: CB14-432C-A410

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

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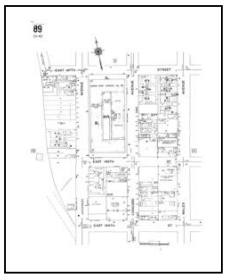
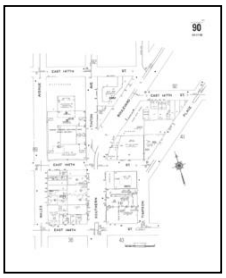
Sanborn Sheet Key

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

2007 Source Sheets


Volume 9N, Sheet 89
2007


Volume 9N, Sheet 90
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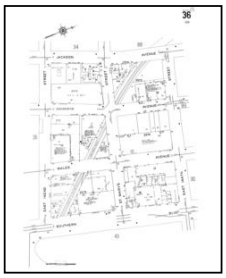
Volume 9S, Sheet 36
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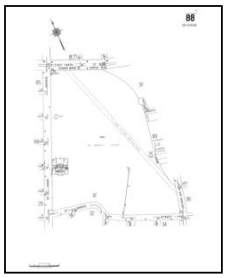
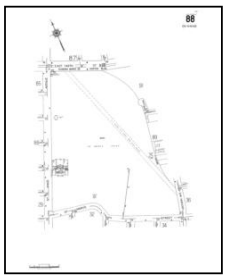

Volume 9N, Sheet 88
2007

2006 Source Sheets


Volume 9N, Sheet 88
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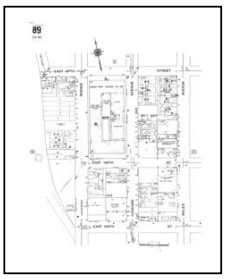
Volume 9N, Sheet 89
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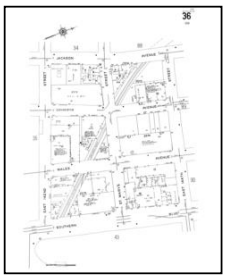
Volume 9S, Sheet 36
2006

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2006

2005 Source Sheets

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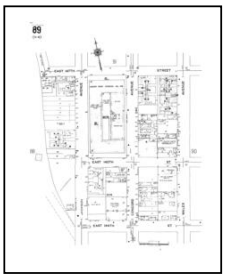
2005


Volume 9N, Sheet 89
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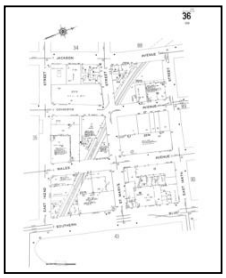
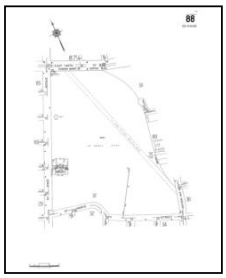

Volume 9S, Sheet 36
2005


Volume 9N, Sheet 88
2005

2004 Source Sheets

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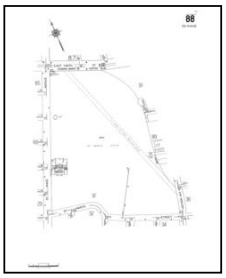
2004


Volume 9N, Sheet 88
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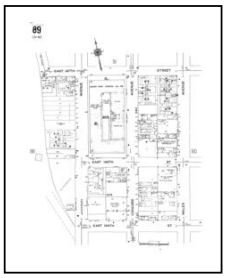
Volume 9N, Sheet 89
2004

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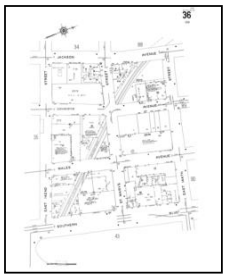
2004

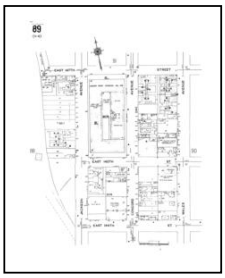
Sanborn Sheet Key

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

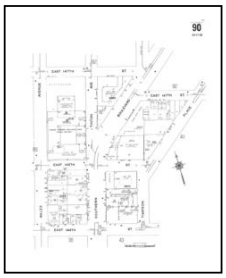
2003 Source Sheets



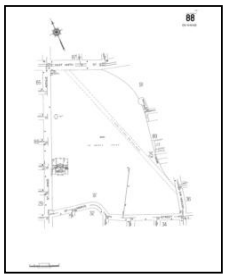
Volume 9S, Sheet 36
2003



Volume 9N, Sheet 89
2003



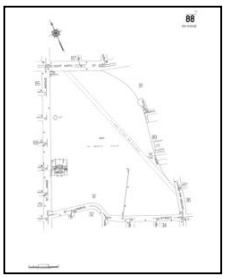
Volume 9N, Sheet 90
2003



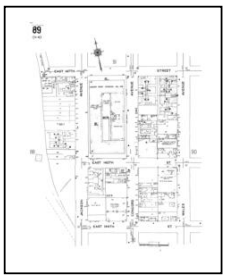
Volume 9N, Sheet 88
2003

2002 Source Sheets

Volume 9S, Sheet 36
2002



Volume 9N, Sheet 88
2002



Volume 9N, Sheet 89
2002

Volume 9N, Sheet 90
2002

2001 Source Sheets

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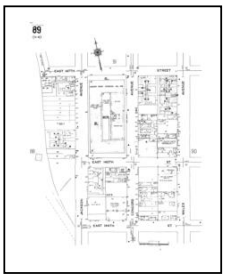
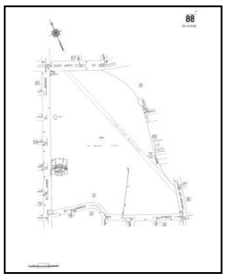
2001



Volume 9N, Sheet 89
2001

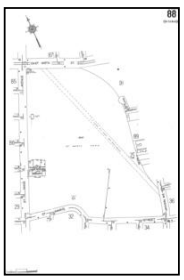


Volume 9N, Sheet 88
2001

Volume 9N, Sheet 90
2001

1998 Source Sheets

Volume 9S, Sheet 36
1998



Volume 9N, Sheet 88
1998

Volume 9N, Sheet 89
1998

Volume 9N, Sheet 90
1998

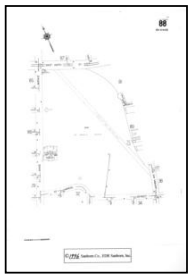
Sanborn Sheet Key

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

1996 Source Sheets

Volume 9N, Sheet 90
1996

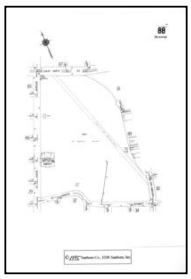
Volume 9N, Sheet 89
1996


Volume 9N, Sheet 88
1996

Volume 9S, Sheet 36
1996

1995 Source Sheets

Volume 9S, Sheet 36
1995


Volume 9N, Sheet 88
1995

Volume 9N, Sheet 89
1995

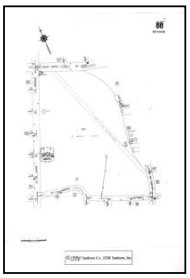
Volume 9N, Sheet 90
1995

1994 Source Sheets

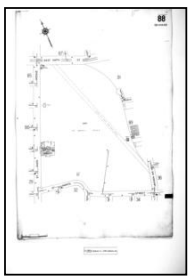
Volume 9N, Sheet 90
1994

Volume 9S, Sheet 36
1994

Volume 9N, Sheet 89
1994


Volume 9N, Sheet 88
1994

1993 Source Sheets


Volume 9N, Sheet 88
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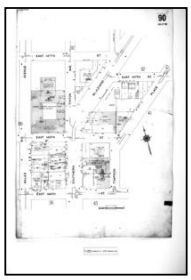

Volume 9N, Sheet 90
1993

Volume 9N, Sheet 89
1993

Volume 9S, Sheet 36
1993

Sanborn Sheet Key

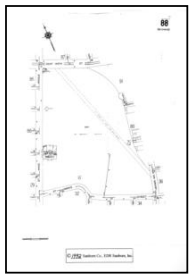
This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

1992 Source Sheets

Volume 9S, Sheet 36
1992

Volume 9N, Sheet 90
1992

Volume 9N, Sheet 89
1992


Volume 9N, Sheet 88
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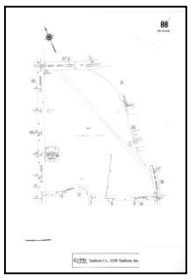
1991 Source Sheets

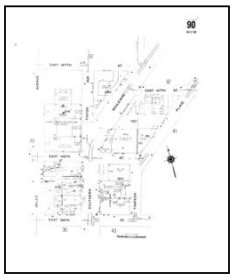

Volume 9N, Sheet 88
1991

Volume 9N, Sheet 89
1991

Volume 9N, Sheet 90
1991

Volume 9S, Sheet 36
1991

1989 Source Sheets


Volume 9N, Sheet 90
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Volume 9N, Sheet 89
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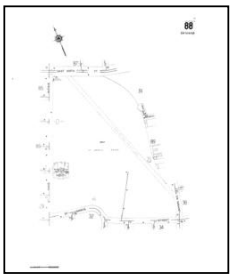
Volume 9N, Sheet 88
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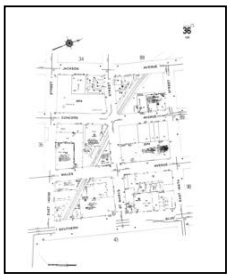
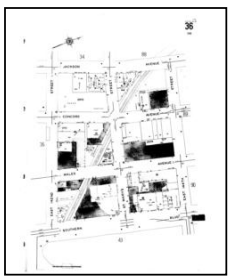

Volume 9S, Sheet 36
1989

1986 Source Sheets


Volume 9S, Sheet 36
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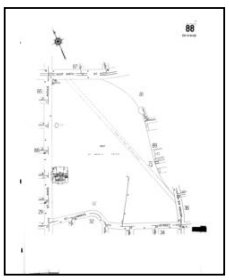
Volume 9N, Sheet 88
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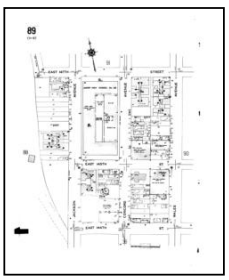
Volume 9N, Sheet 89
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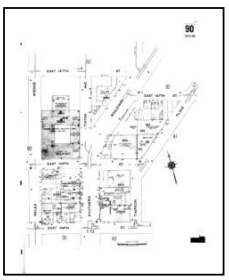

Volume 9N, Sheet 90
1986

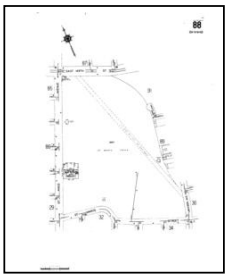
Sanborn Sheet Key

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

1984 Source Sheets

Volume 9S, Sheet 36
1984

Volume 9N, Sheet 89
1984


Volume 9N, Sheet 88
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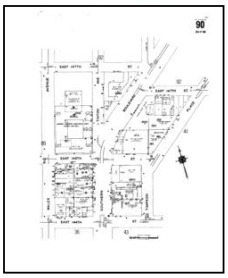

Volume 9N, Sheet 90
1984

1981 Source Sheets

Volume 9N, Sheet 90
1981

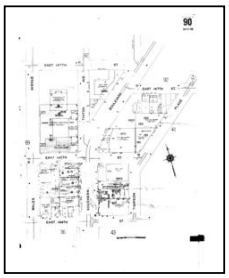
Volume 9N, Sheet 88
1981

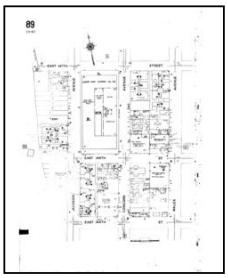
Volume 9N, Sheet 89
1981

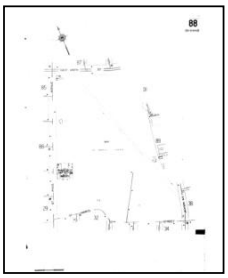
Volume 9S, Sheet 36
1981

1980 Source Sheets

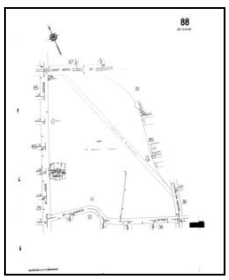
Volume 9S, Sheet 36
1980

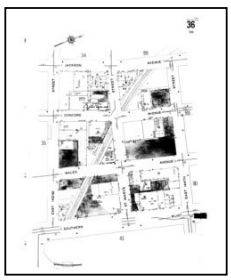

Volume 9N, Sheet 90
1980

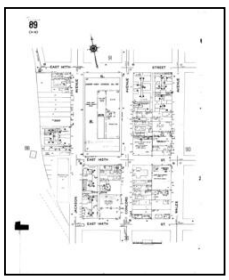

Volume 9N, Sheet 89
1980

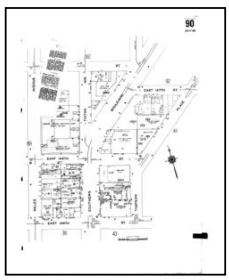

Volume 9N, Sheet 88
1980

1978 Source Sheets


Volume 9N, Sheet 88
1978


Volume 9S, Sheet 36
1978


Volume 9N, Sheet 89
1978


Volume 9N, Sheet 90
1978

Sanborn Sheet Key

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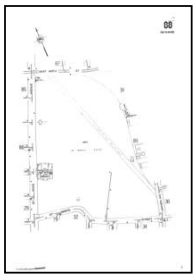
1977 Source Sheets

Volume 9N, Sheet 90
1977

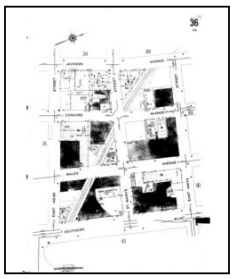
Volume 9S, Sheet 36
1977

Volume 9N, Sheet 89
1977



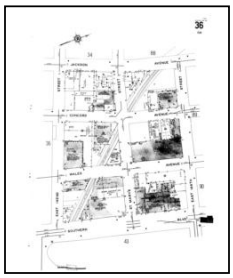
Volume 9N, Sheet 88
1977

1969 Source Sheets



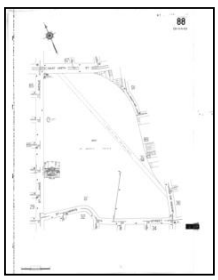
Volume 9S, Sheet 36
1969

1968 Source Sheets



Volume 9S, Sheet 36
1968

1951 Source Sheets



Volume 9N, Sheet 88
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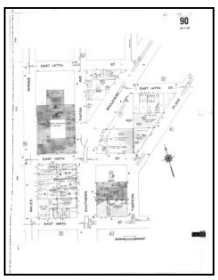

Volume 9N, Sheet 90
1951

Volume 9S, Sheet 36
1951

Volume 9N, Sheet 89
1951

Sanborn Sheet Key

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1947 Source Sheets

Volume 9N, Sheet 89
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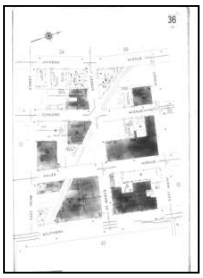
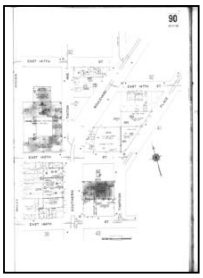
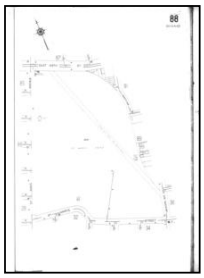
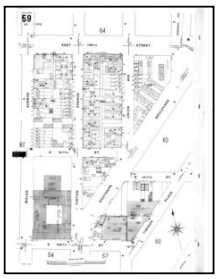

Volume 9S, Sheet 36
1947


Volume 9N, Sheet 90
1947


Volume 9N, Sheet 88
1947

1946 Source Sheets

Volume 9, Sheet 62
1946

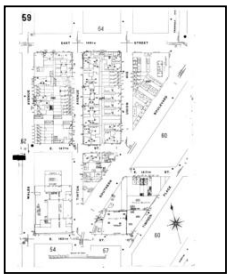

Volume 9, Sheet 59
1946

Volume 9, Sheet 54
1946

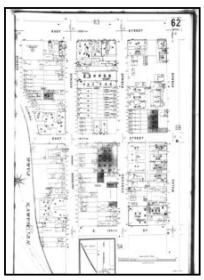
1944 Source Sheets

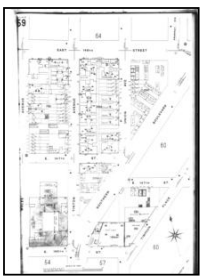
Volume 9, Sheet 54
1944

Volume 9, Sheet 62
1944


Volume 9, Sheet 59
1944

1935 Source Sheets


Volume 9, Sheet 62
1935


Volume 9, Sheet 59
1935

Volume 9, Sheet 54
1935

Sanborn Sheet Key

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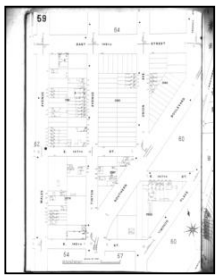
1928 Source Sheets

Volume Pier Maps, Sheet 30
1928

1908 Source Sheets

Volume 9, Sheet 54
1908

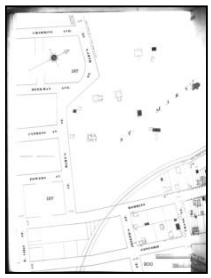
Volume 9, Sheet 62
1908



Volume 9, Sheet 59
1908

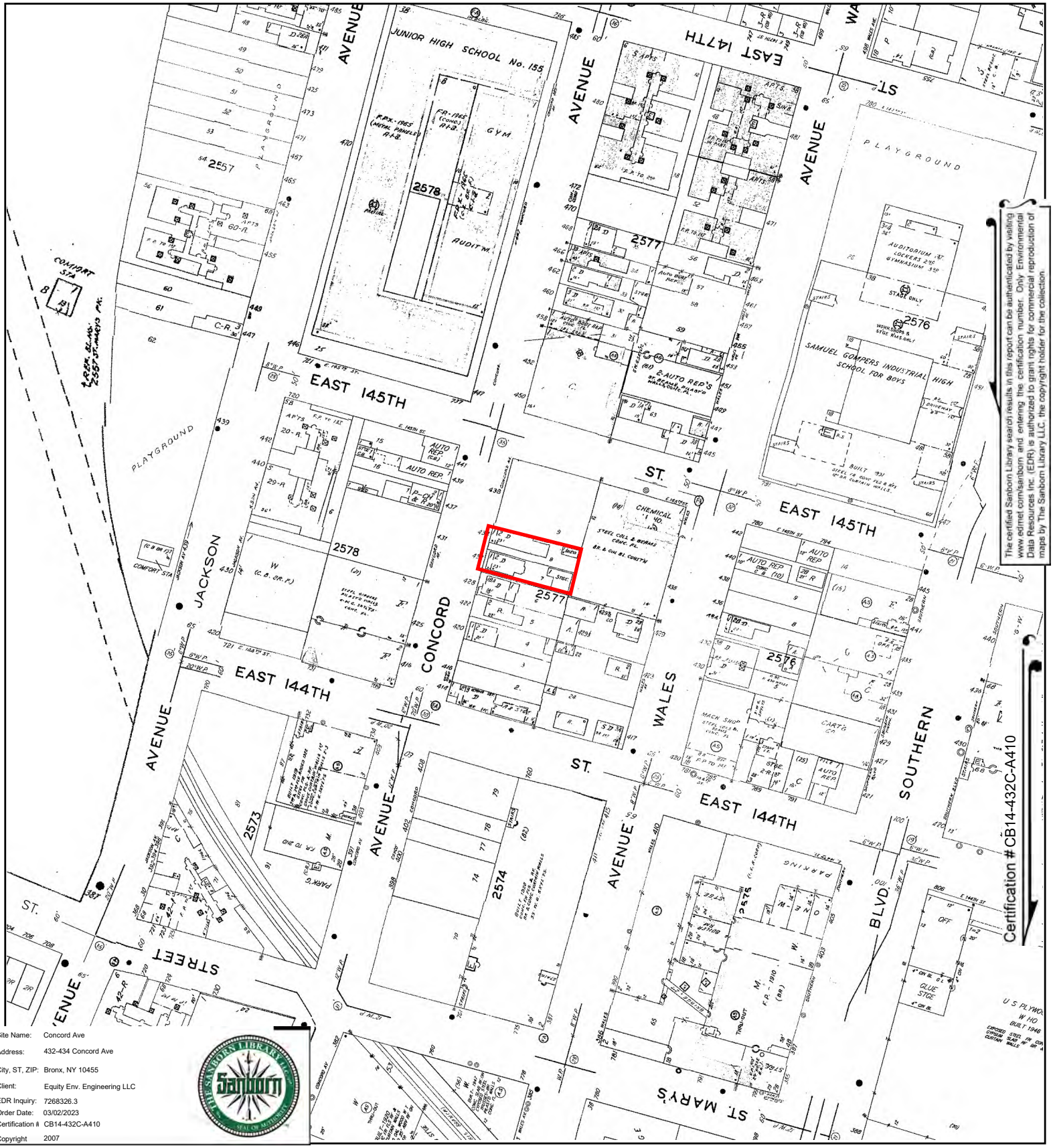
1891 Source Sheets

Volume 9, Sheet 200
1891



Volume 9, Sheet 201
1891

Volume 9, Sheet 201
1891



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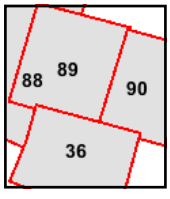
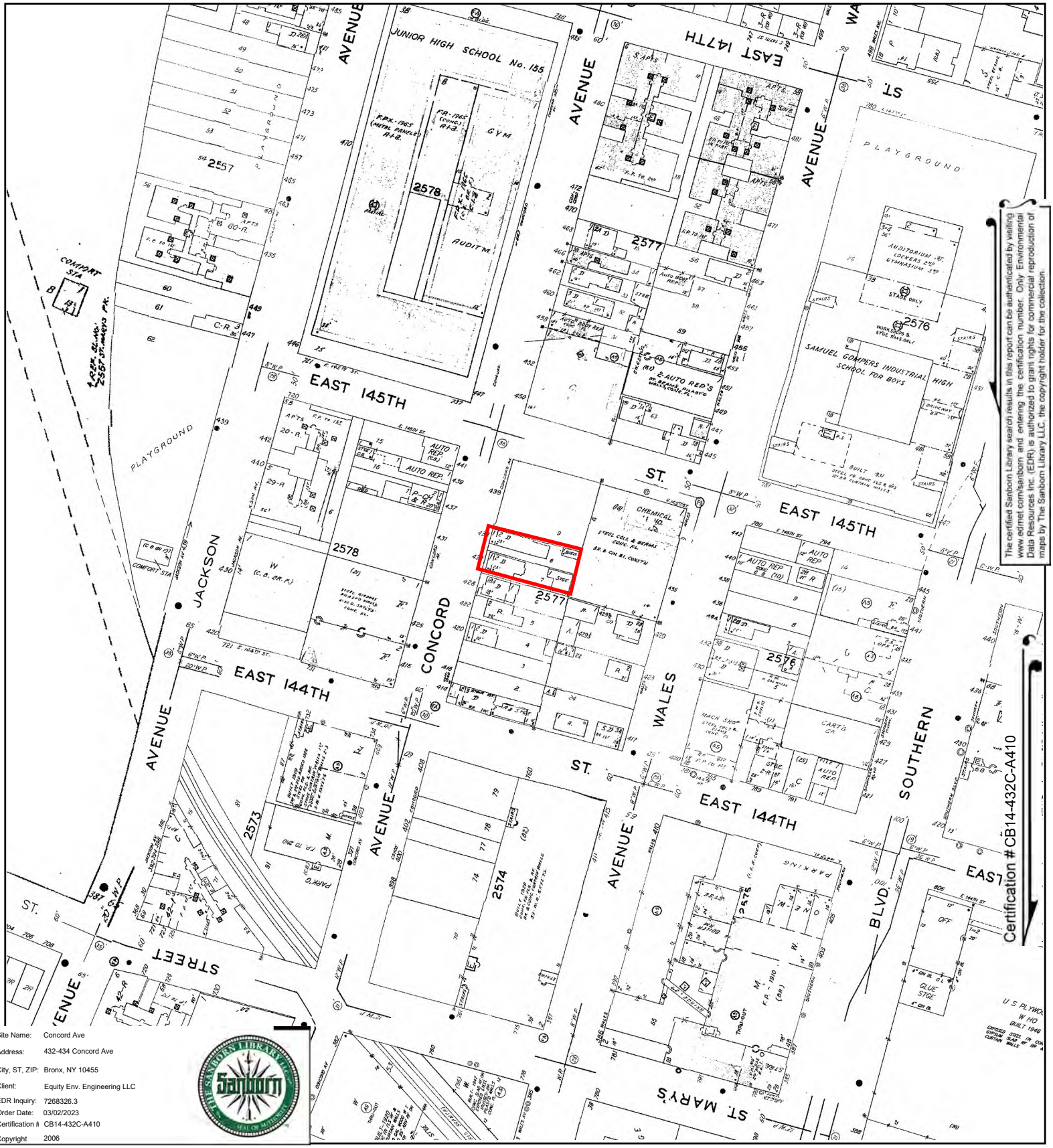


Volume 9N, Sheet 88
Volume 9S, Sheet 36
Volume 9N, Sheet 90
Volume 9N, Sheet 89

N



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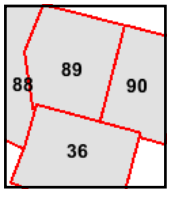

Volume 9N, Sheet 90
Volume 9S, Sheet 36
Volume 9N, Sheet 89
Volume 9N, Sheet 88

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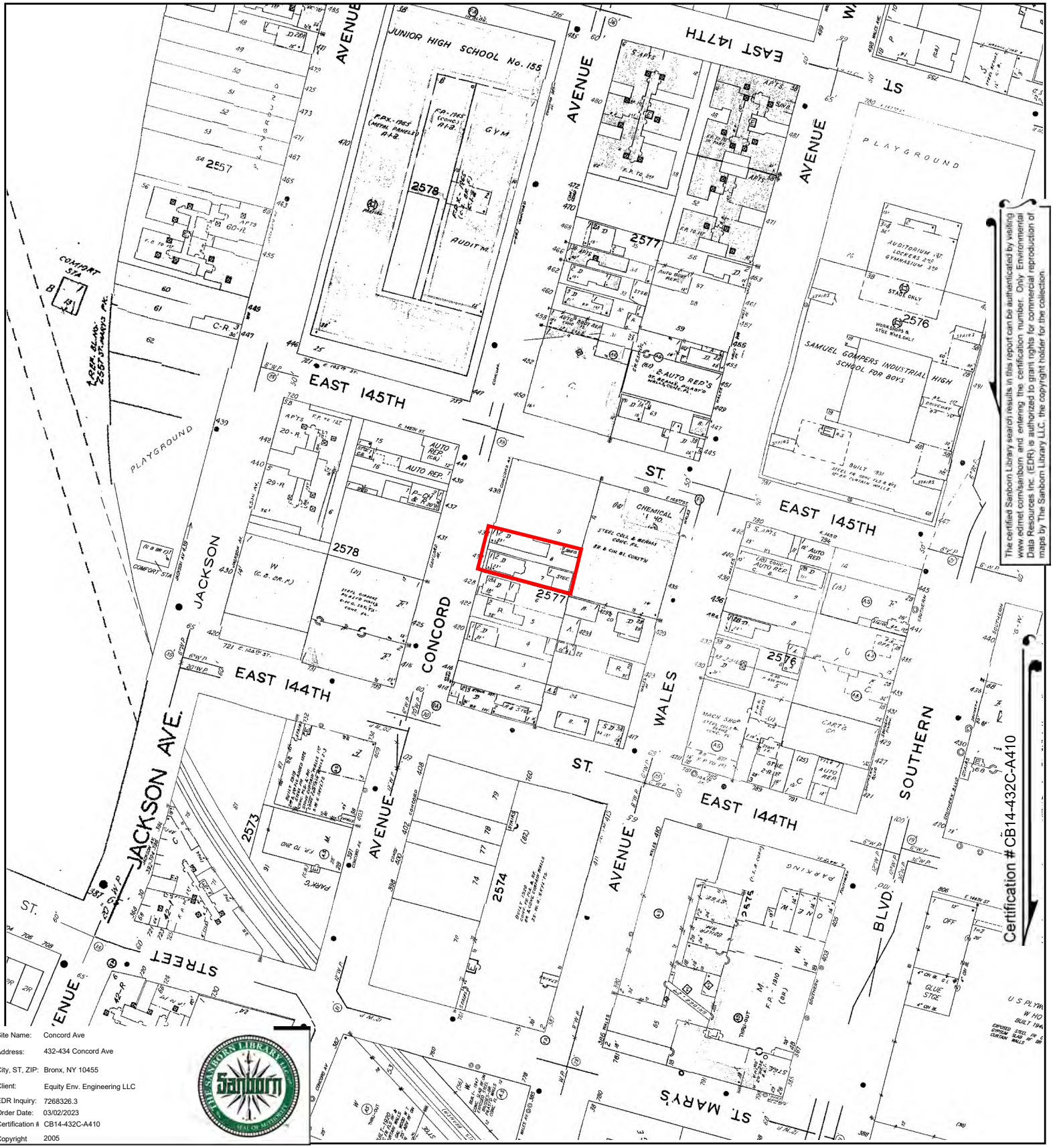

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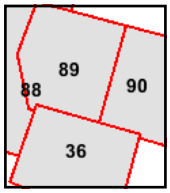

Volume 9N, Sheet 88
Volume 9S, Sheet 36
Volume 9N, Sheet 89
Volume 9N, Sheet 90

N

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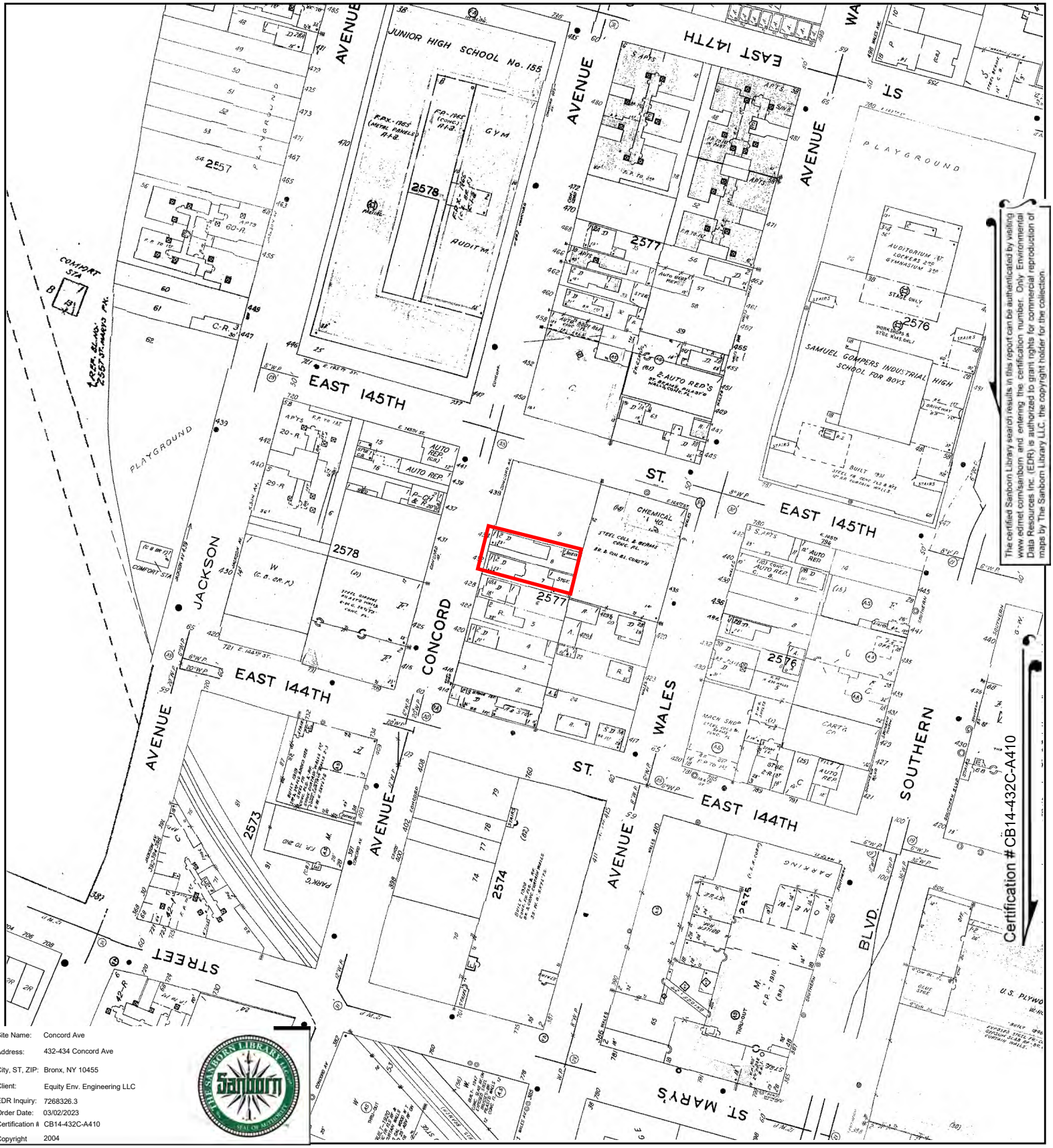
2004



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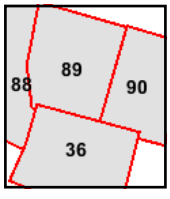

Volume 9S, Sheet 36
Volume 9N, Sheet 89
Volume 9N, Sheet 88
Volume 9N, Sheet 90

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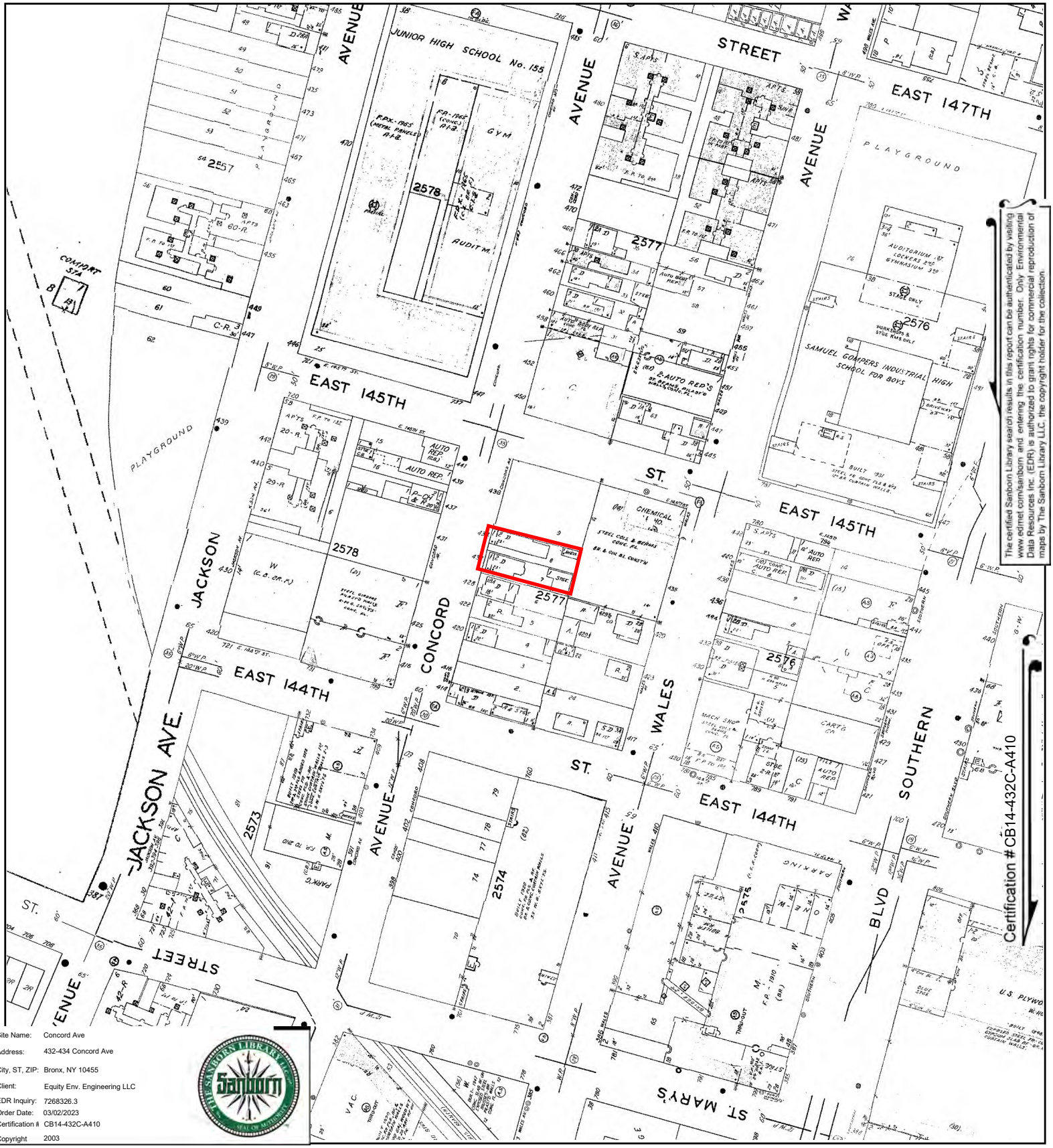

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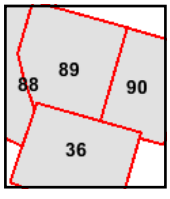

Volume 9N, Sheet 88
Volume 9N, Sheet 90
Volume 9N, Sheet 89
Volume 9S, Sheet 36

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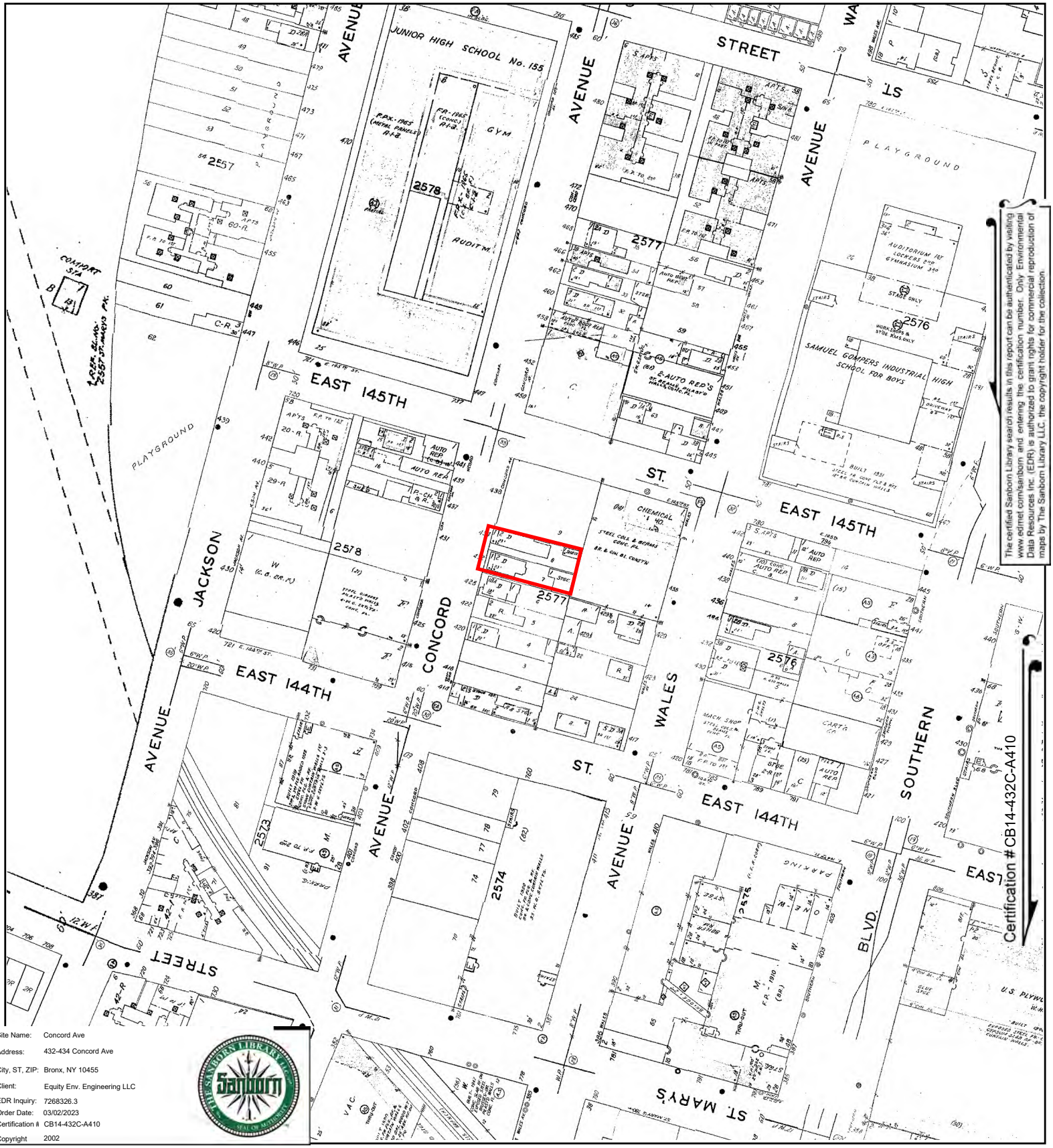

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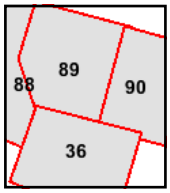
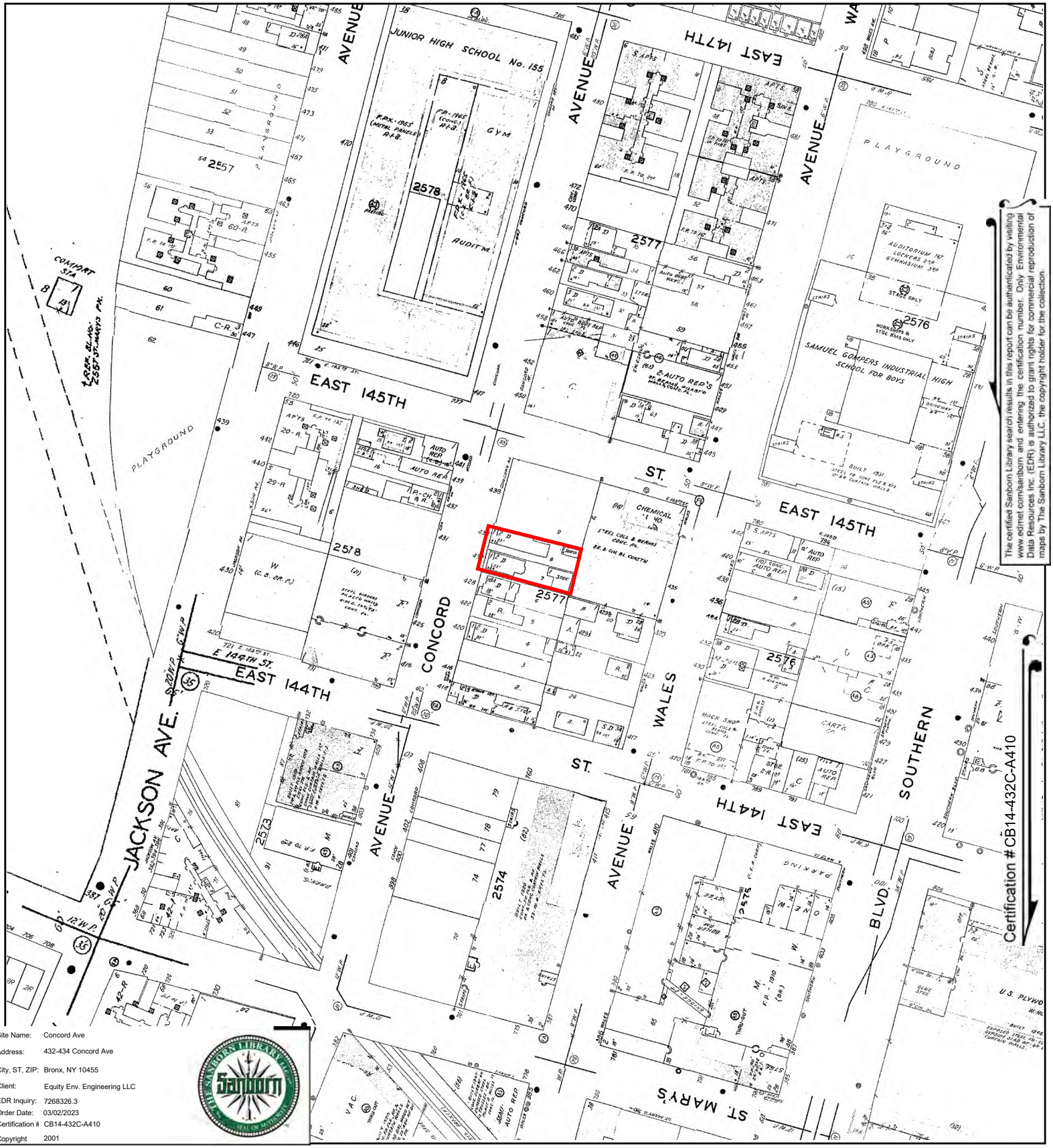


Volume 9N, Sheet 90
Volume 9N, Sheet 89
Volume 9N, Sheet 88
Volume 9S, Sheet 36

N



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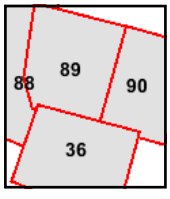
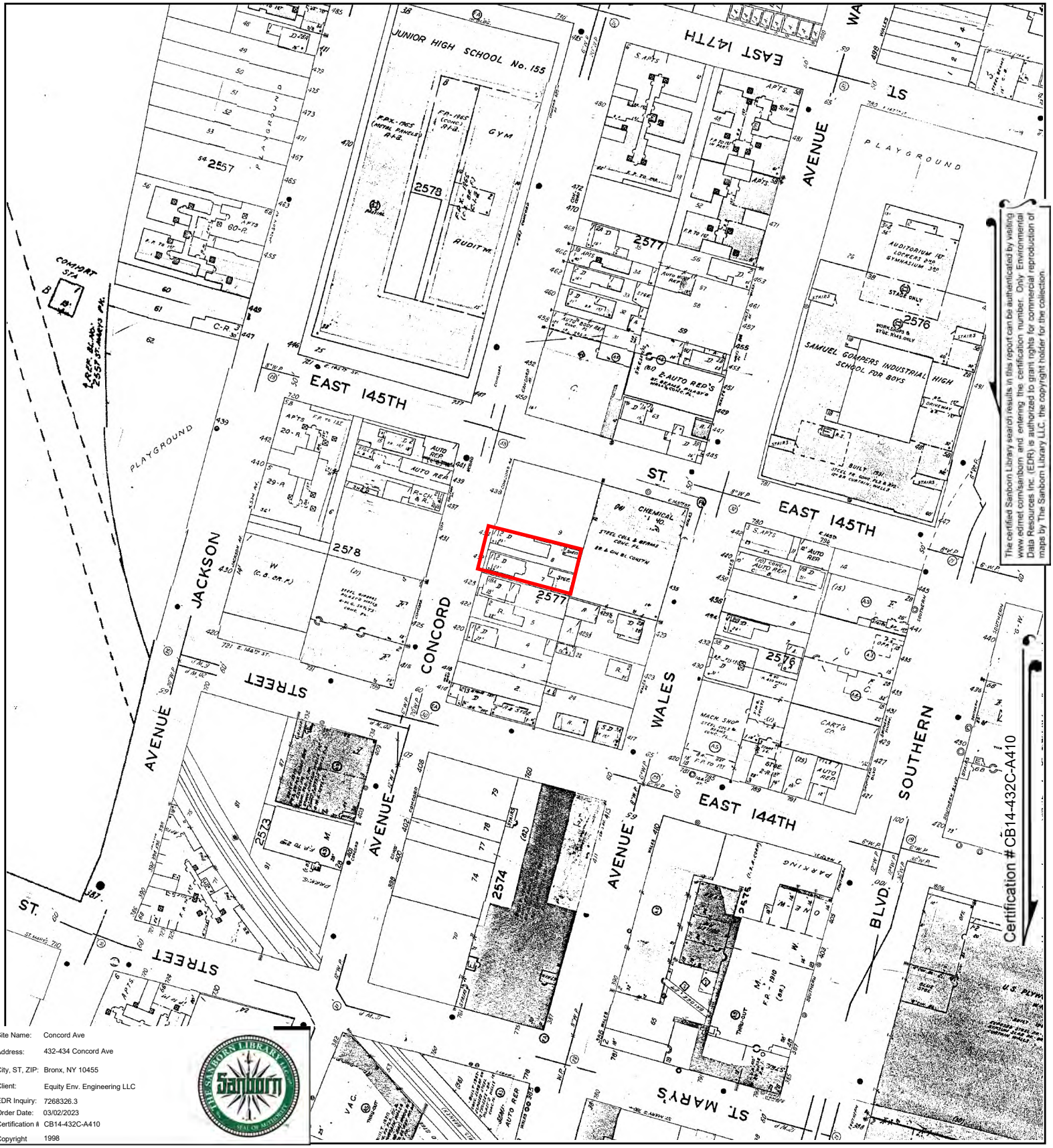


Volume 9N, Sheet 90
Volume 9N, Sheet 88
Volume 9N, Sheet 89
Volume 9S, Sheet 36

N



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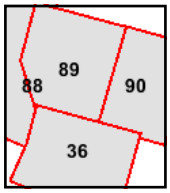

Volume 9N, Sheet 90
Volume 9N, Sheet 89
Volume 9N, Sheet 88
Volume 9S, Sheet 36

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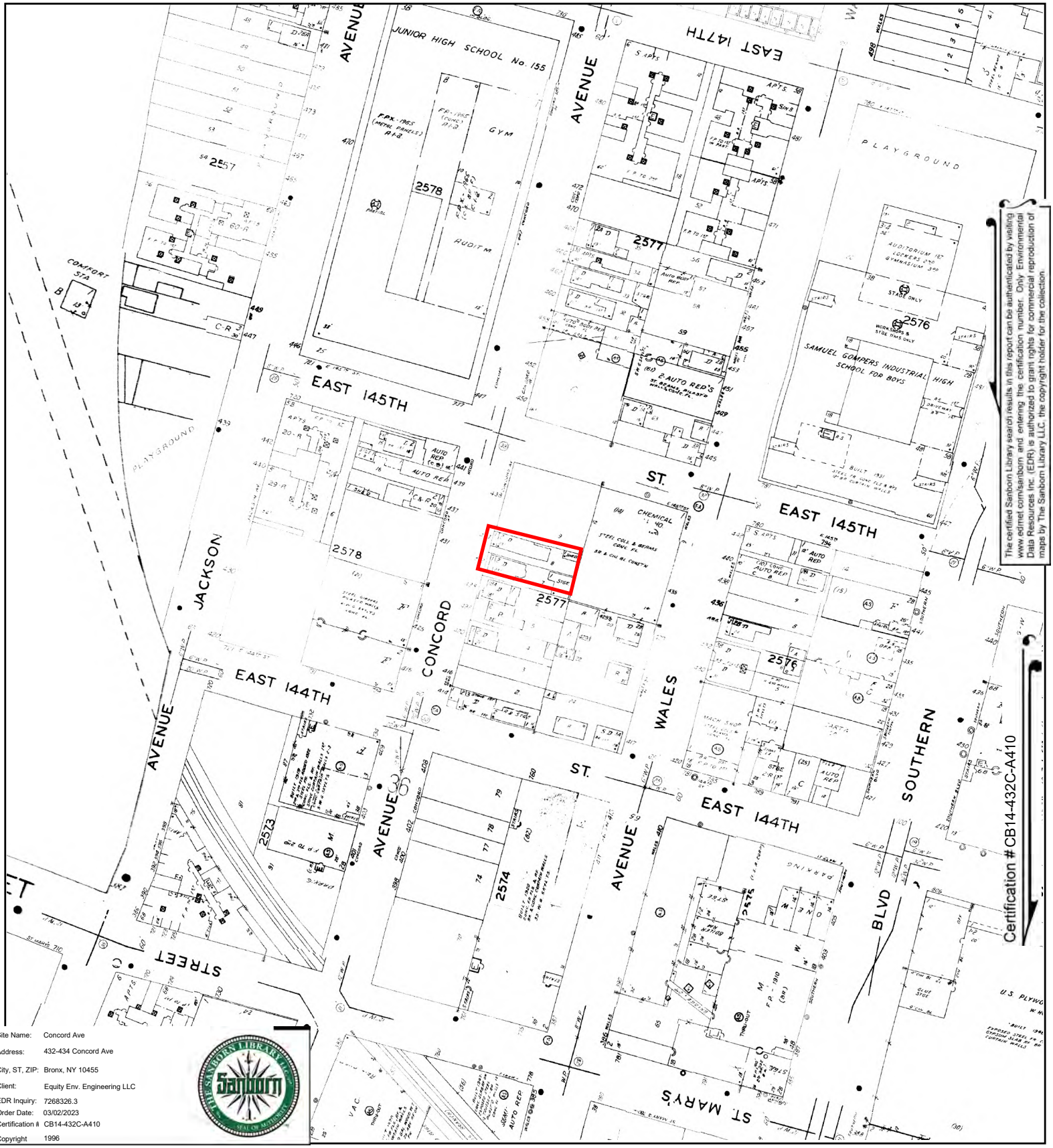

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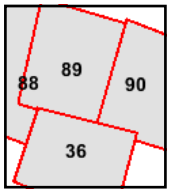

Volume 9S, Sheet 36
Volume 9N, Sheet 88
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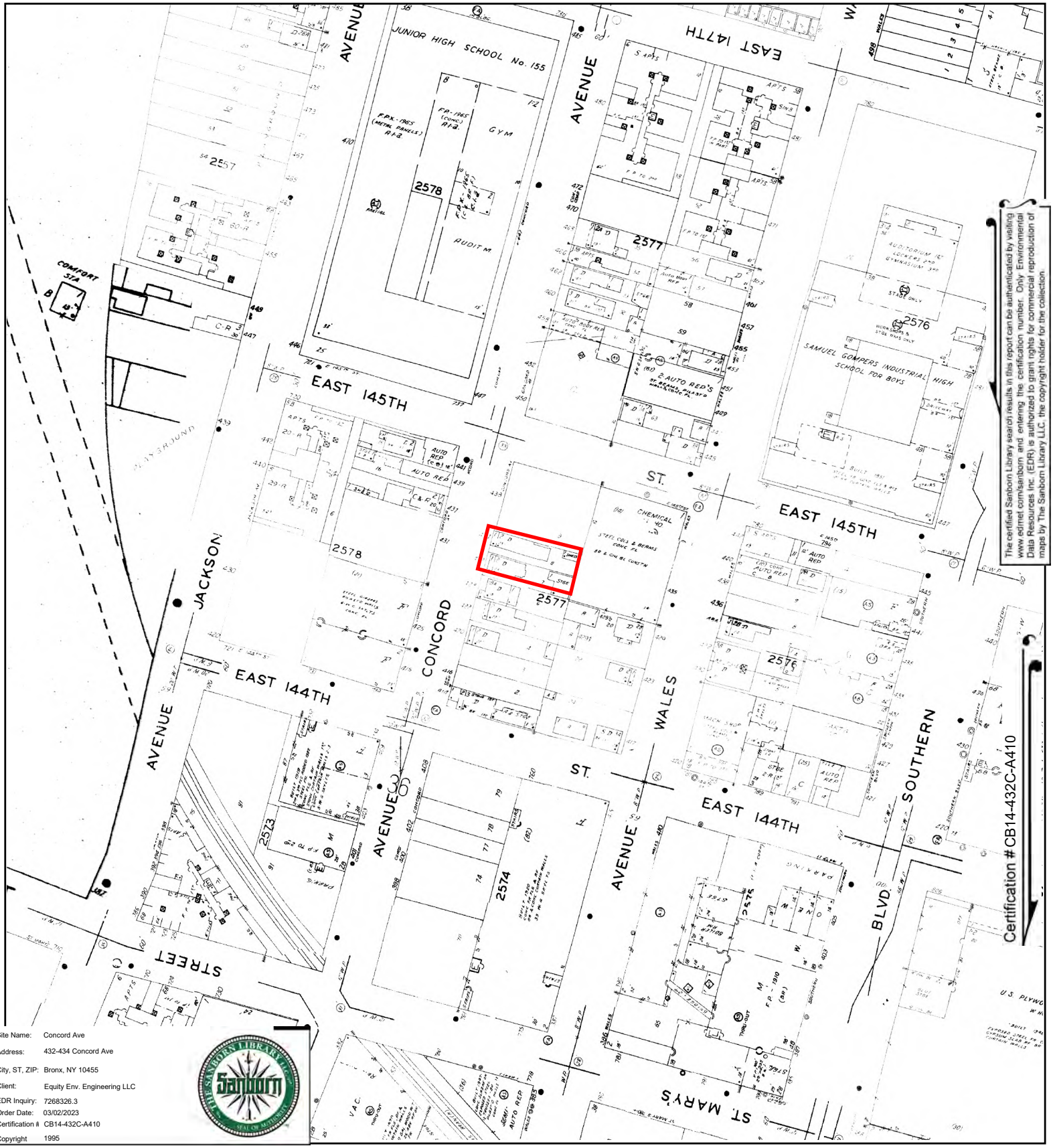
Volume 9N, Sheet 90

N



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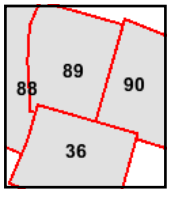

Volume 9N, Sheet 90
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Volume 9N, Sheet 88
Volume 9S, Sheet 36

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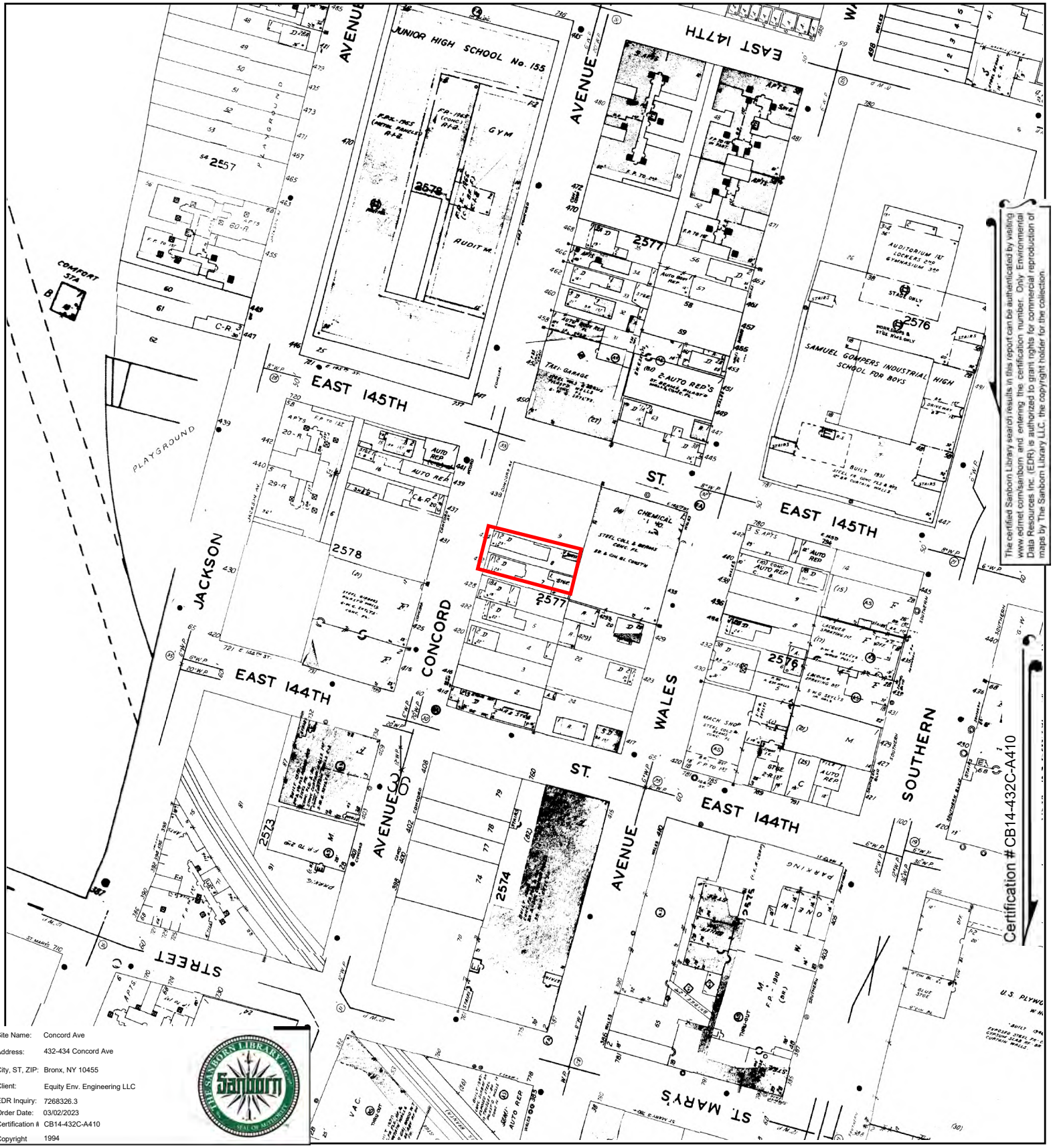

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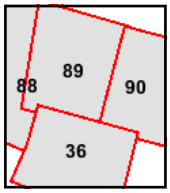

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Volume 9S, Sheet 36
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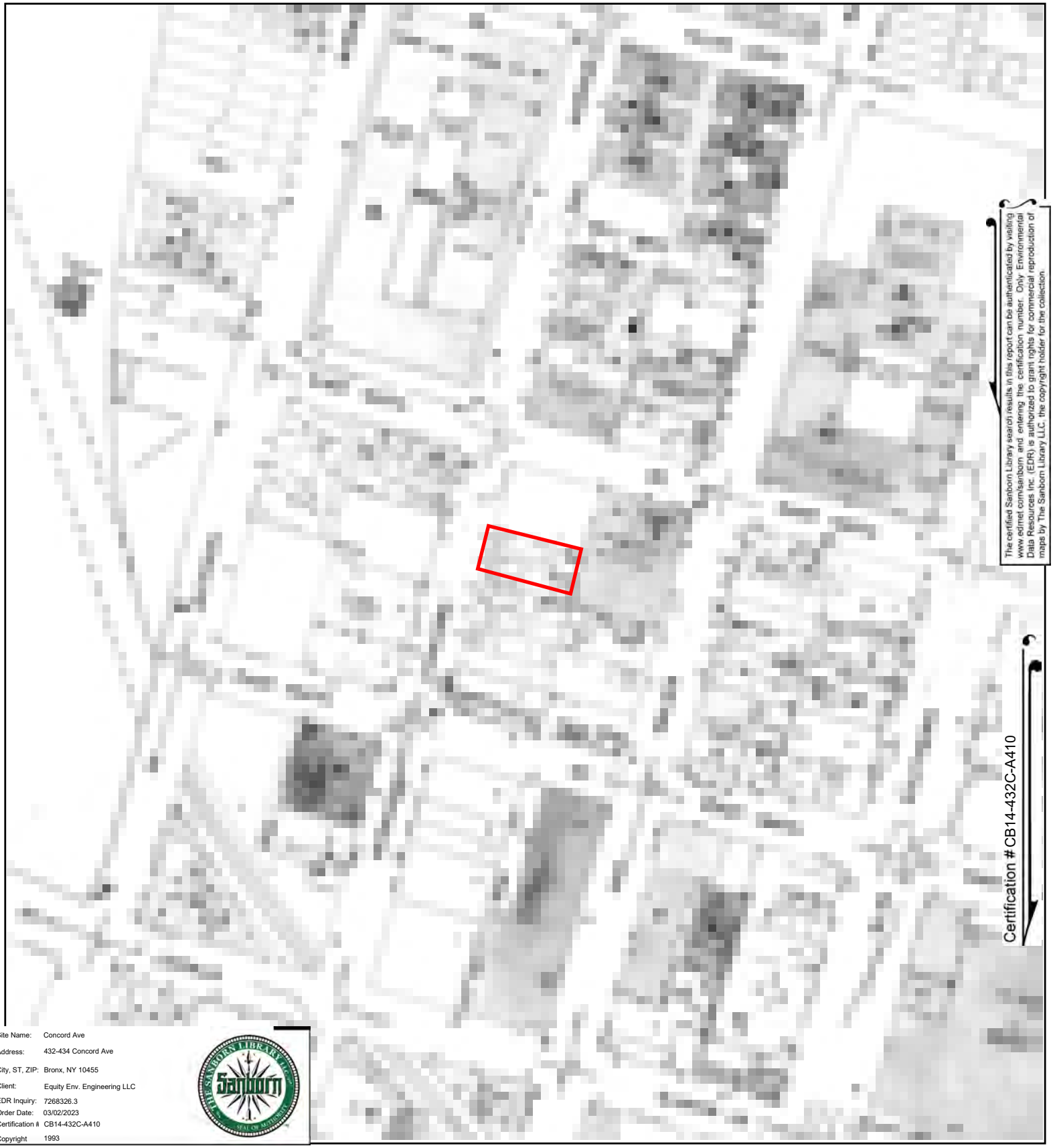

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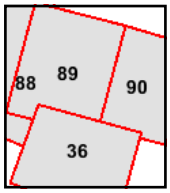

Volume 9S, Sheet 36
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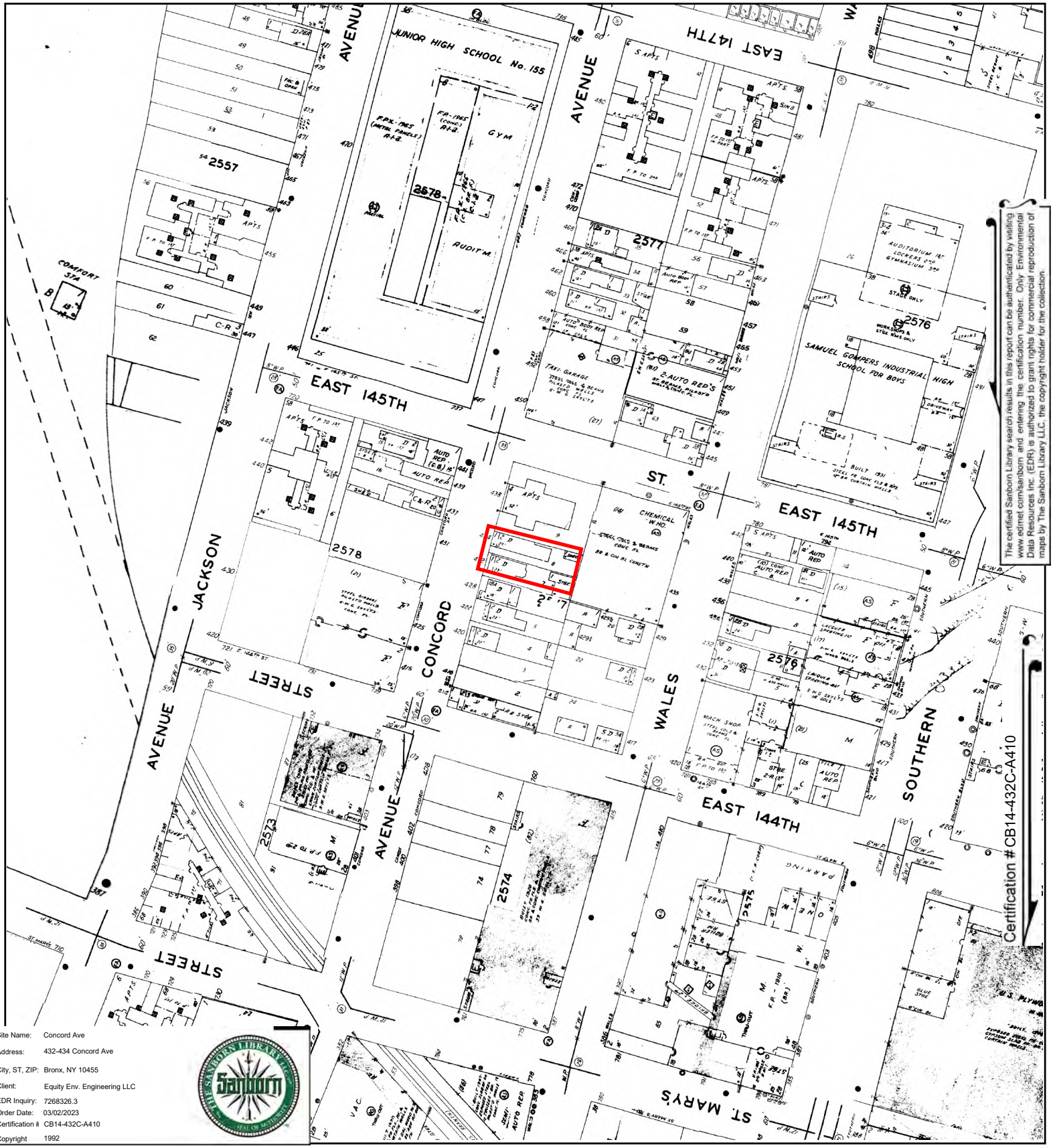

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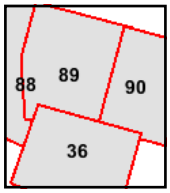

Volume 9N, Sheet 88
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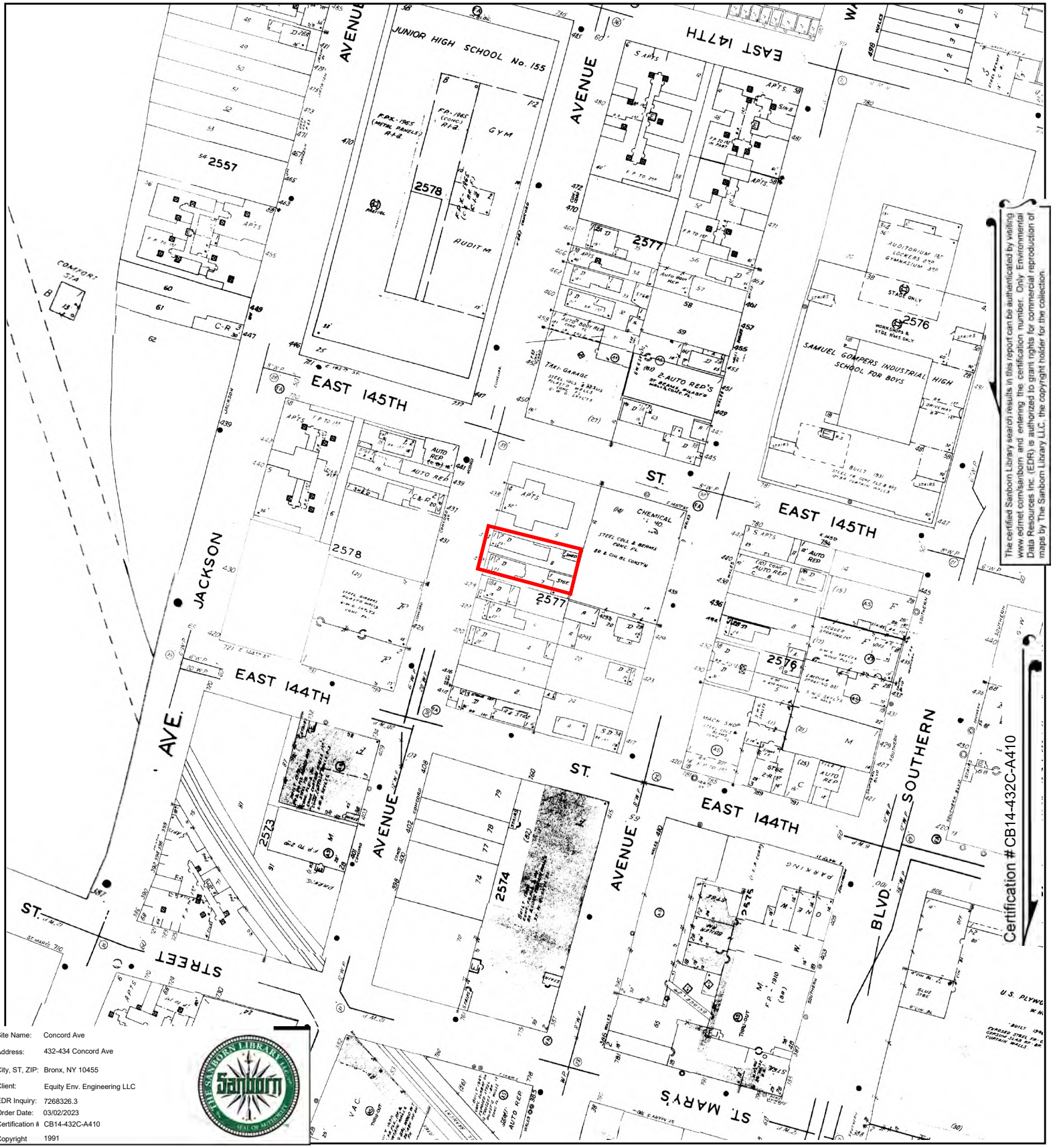

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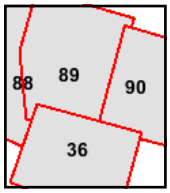

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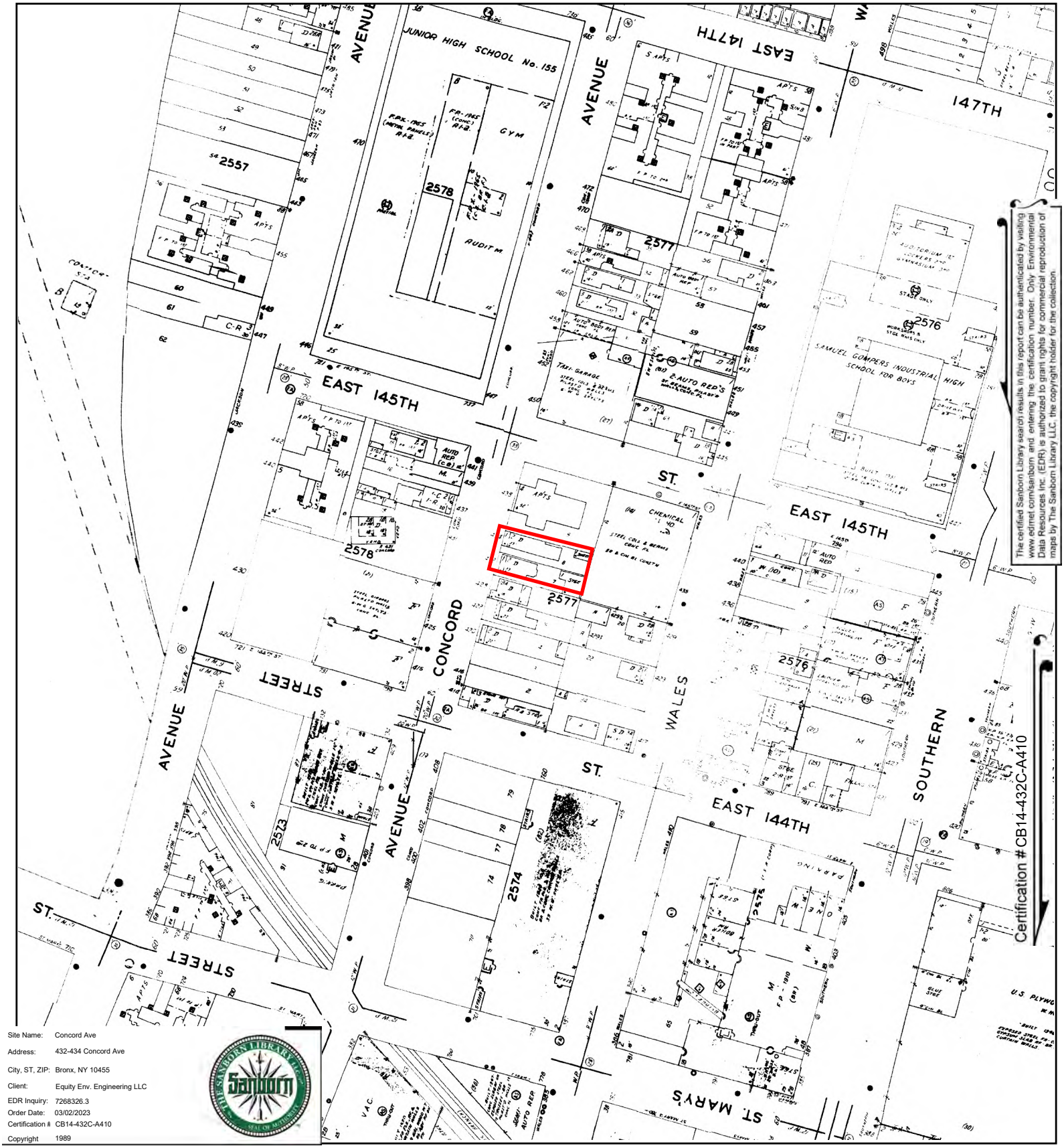

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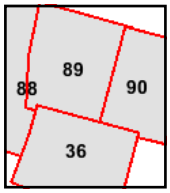

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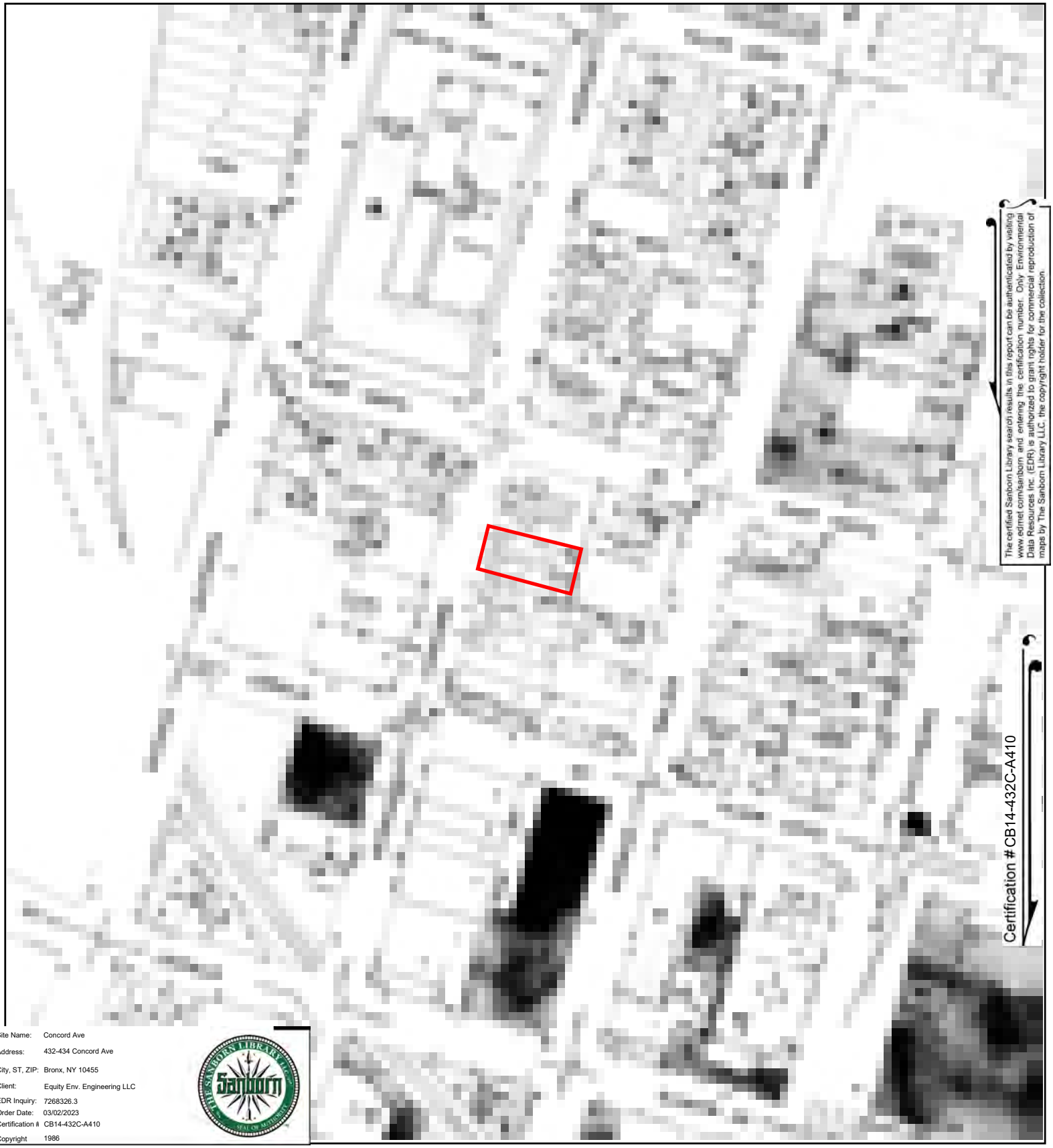

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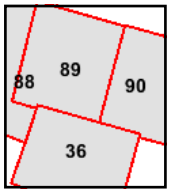

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Volume 9S, Sheet 36

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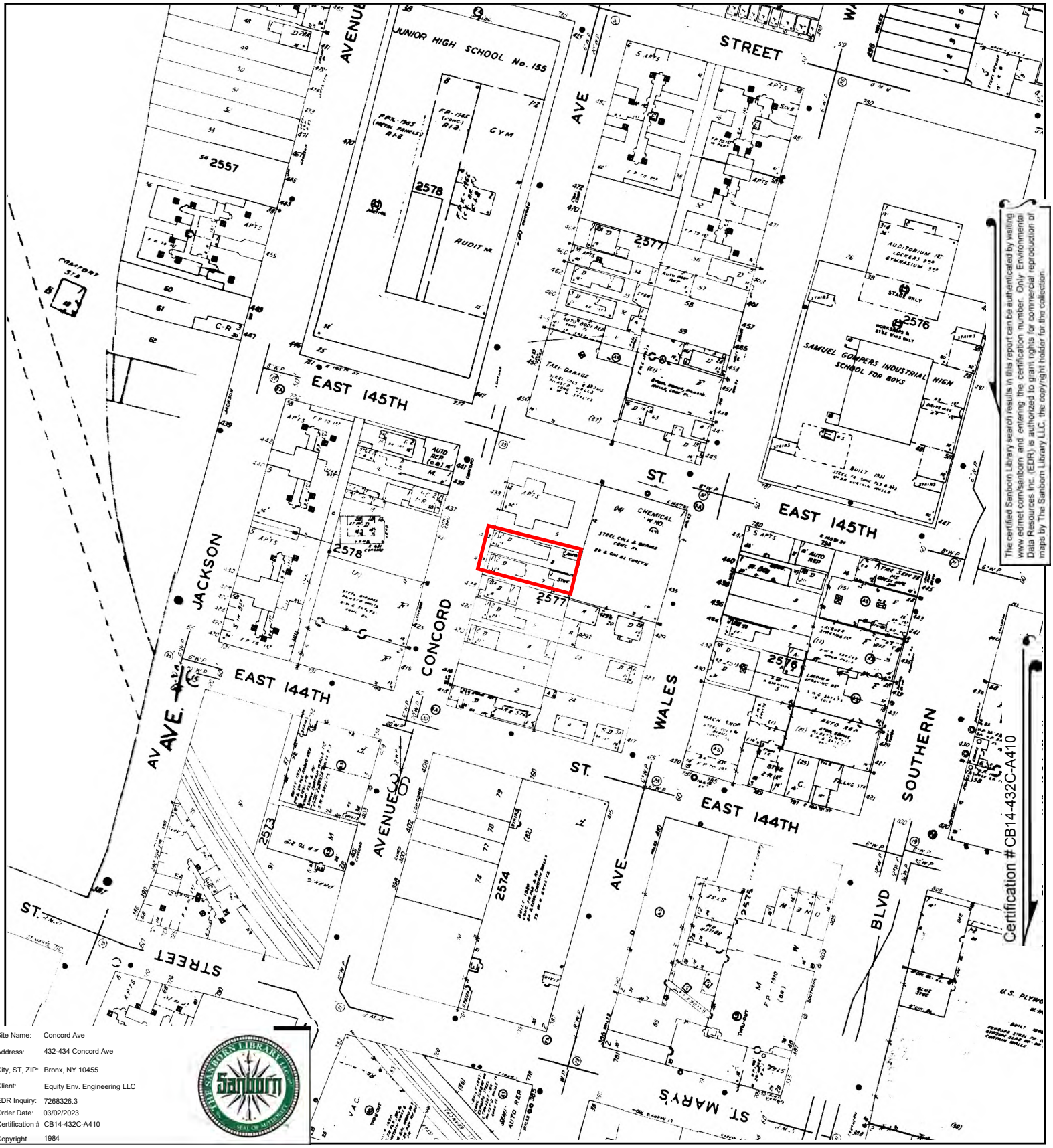

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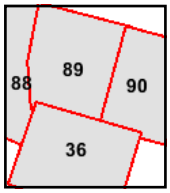

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Volume 9S, Sheet 36

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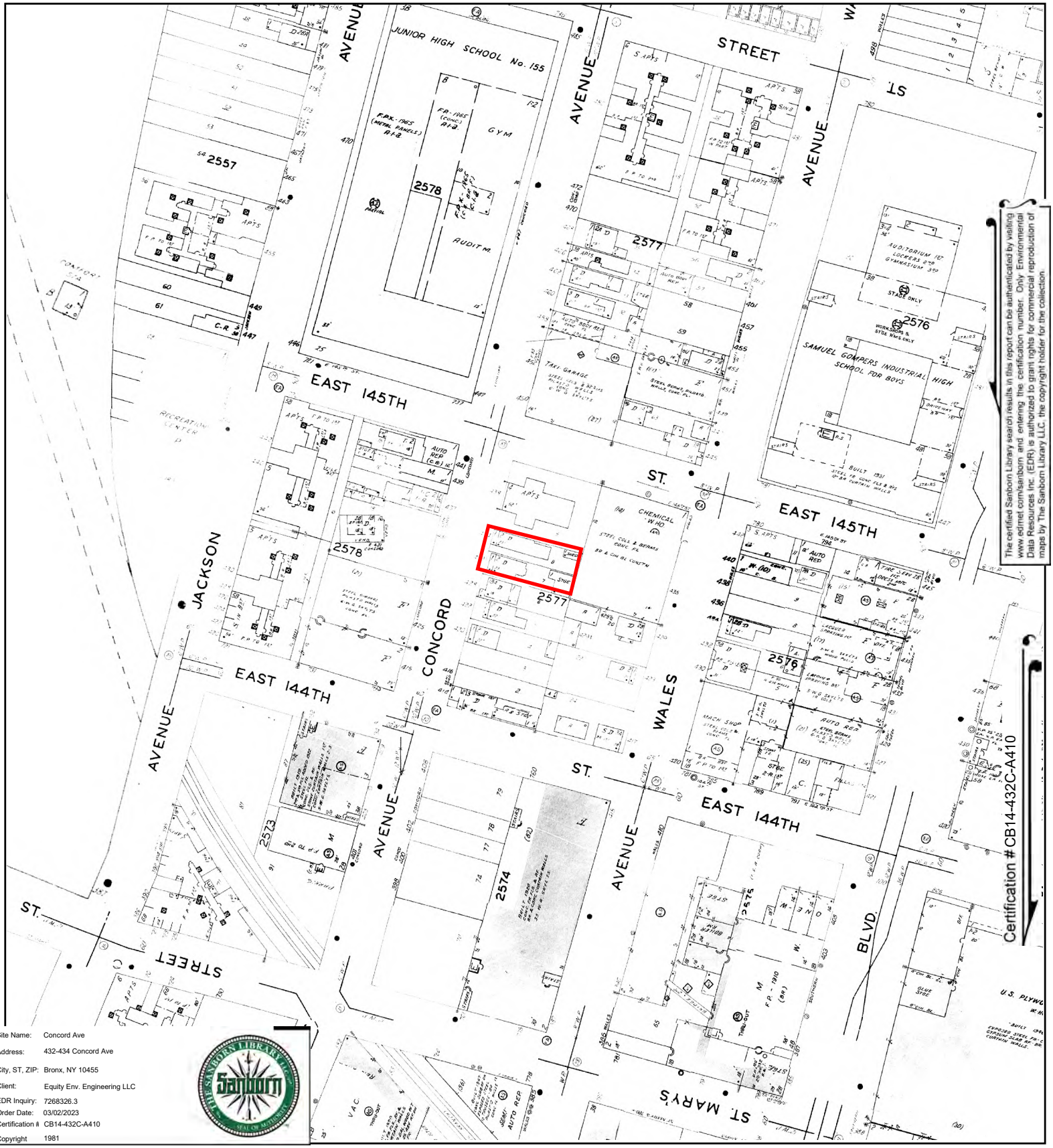

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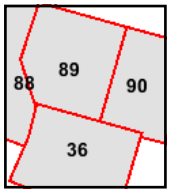

Volume 9S, Sheet 36
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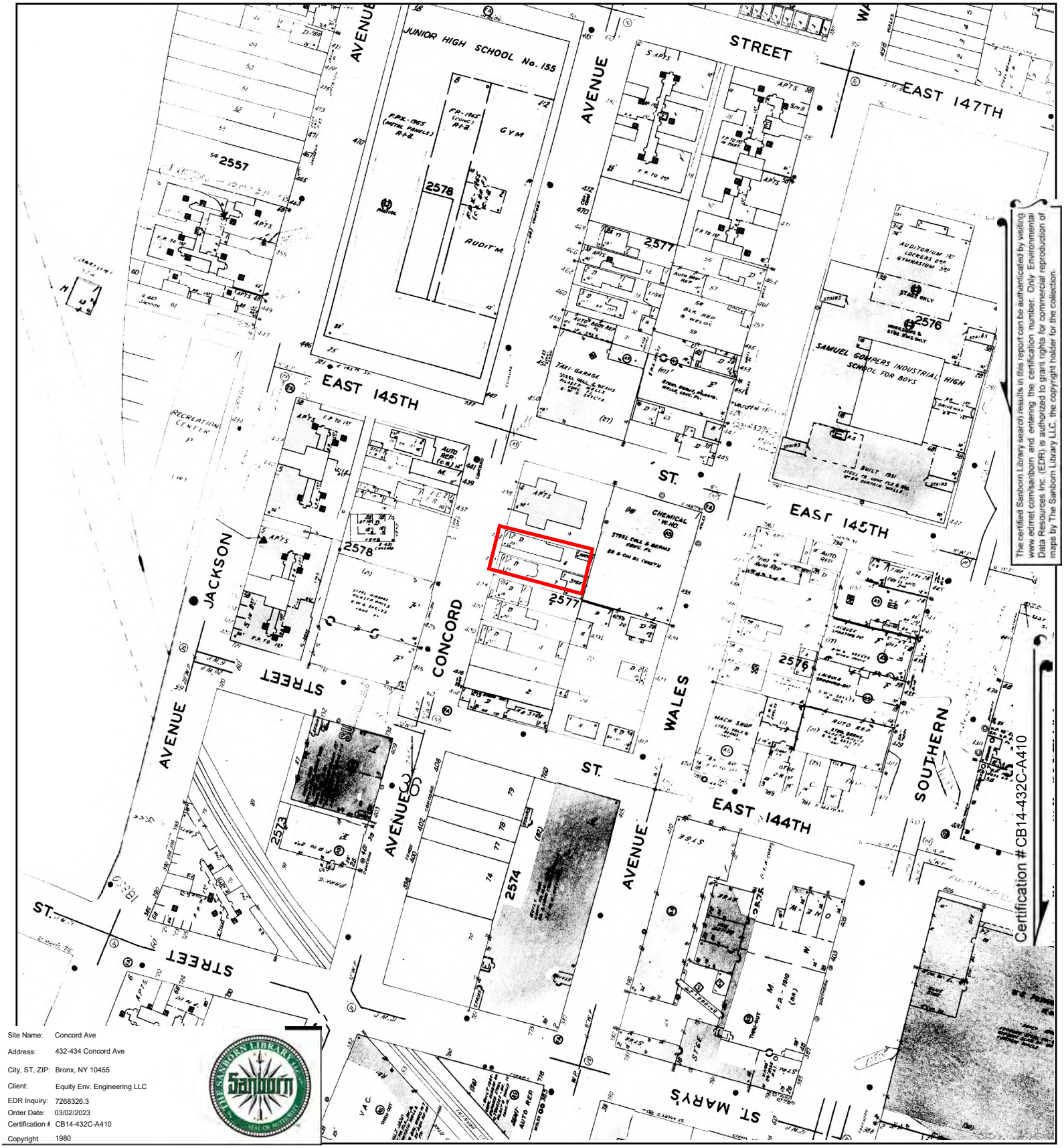

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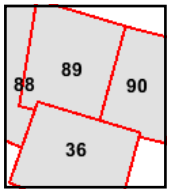

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Volume 9N, Sheet 89
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Volume 9S, Sheet 36

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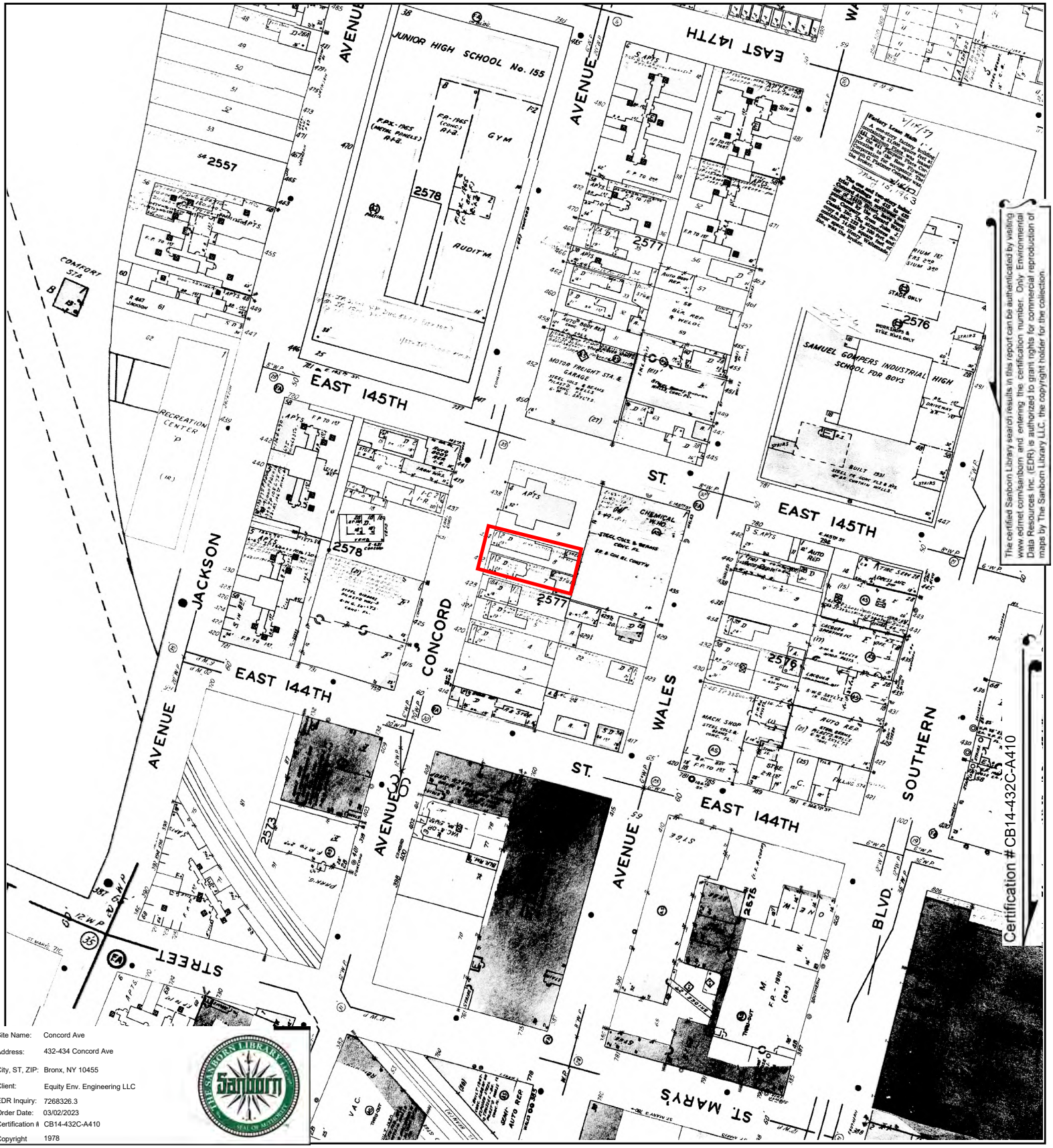

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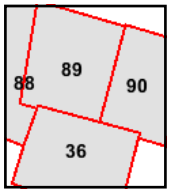

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Volume 9N, Sheet 88

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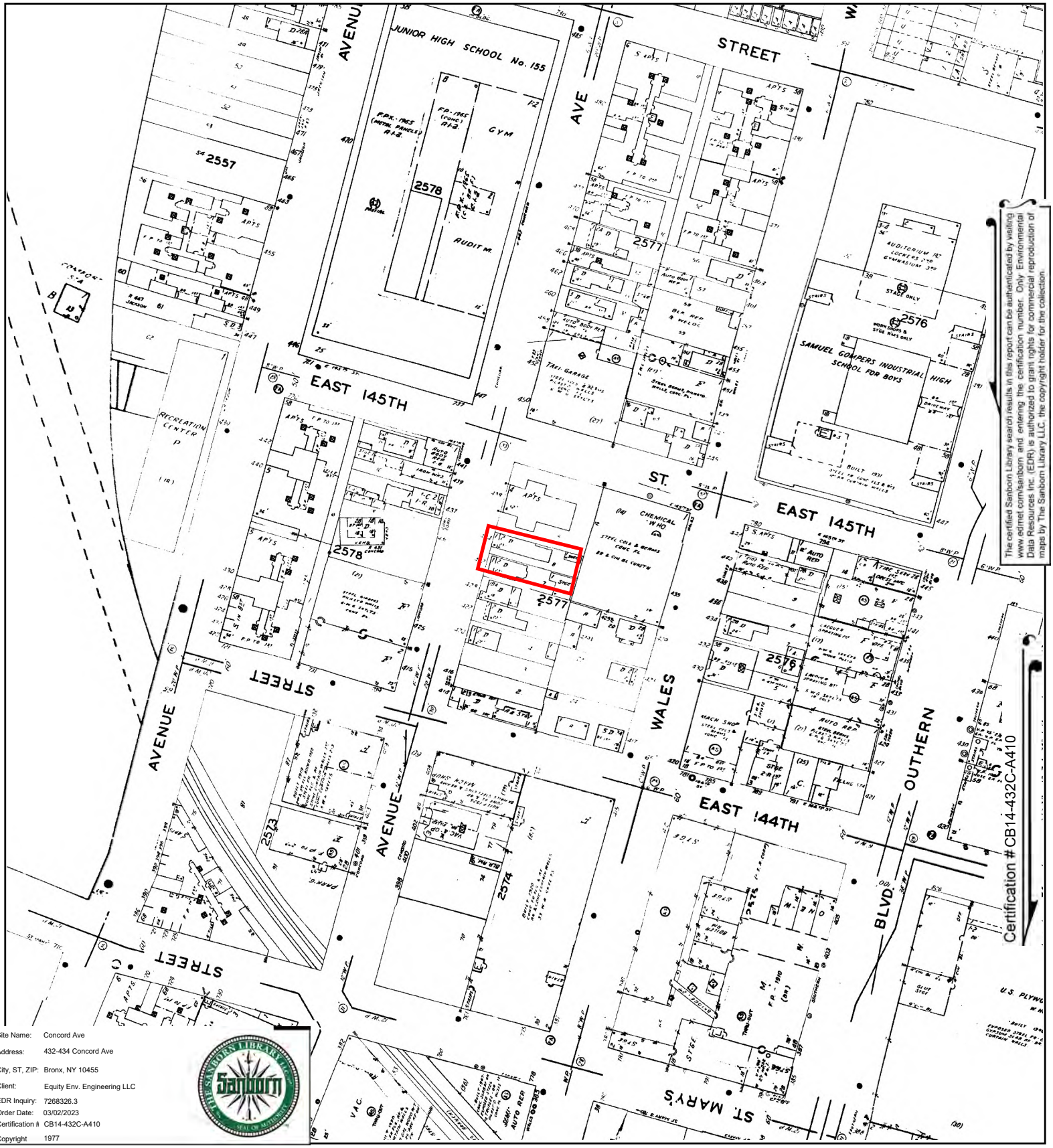

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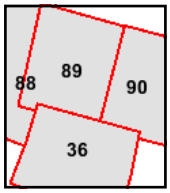

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Volume 9N, Sheet 90

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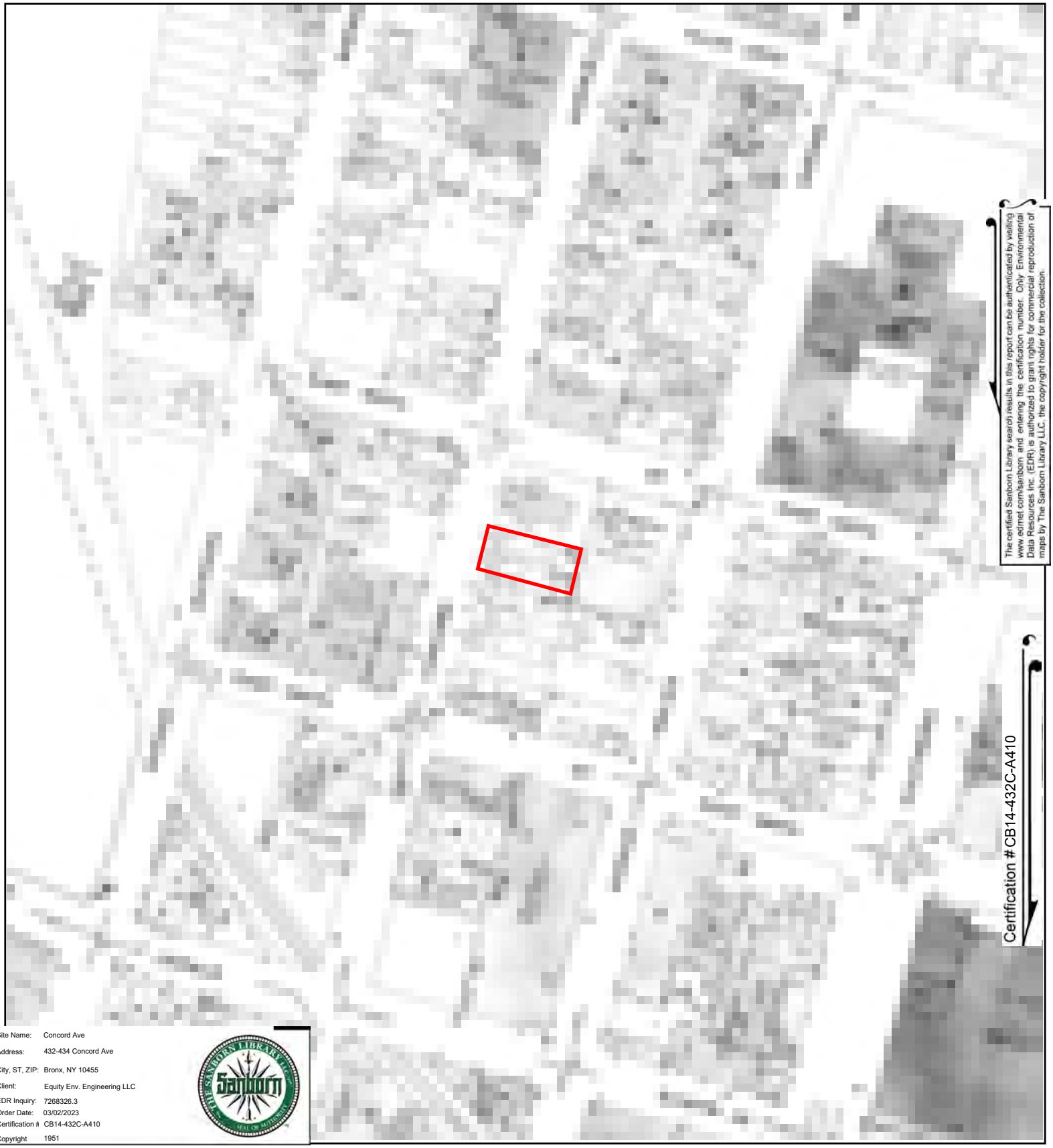

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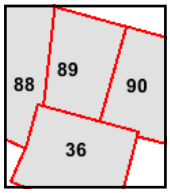

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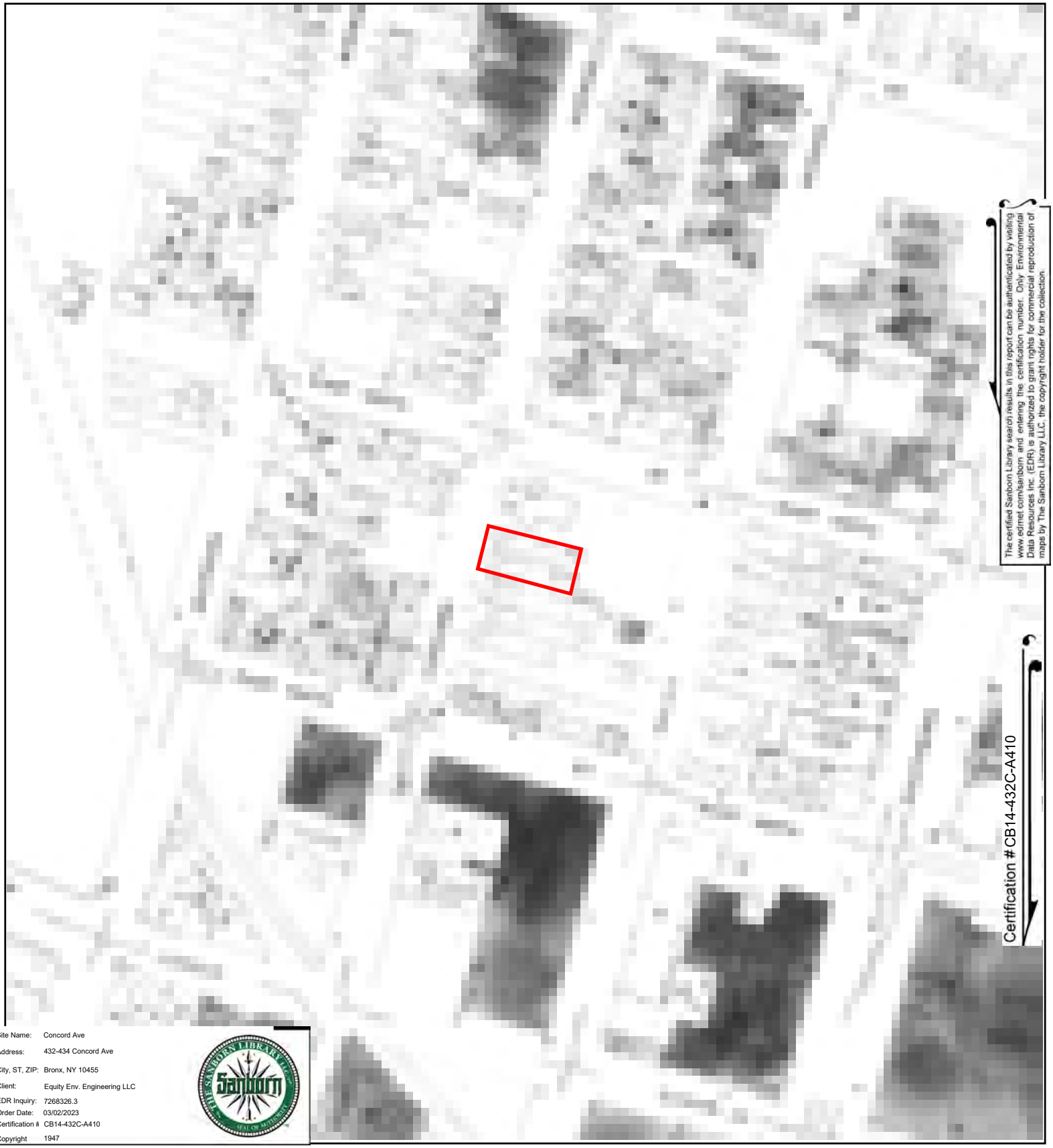

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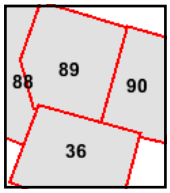

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Volume 9N, Sheet 90
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Volume 9N, Sheet 89

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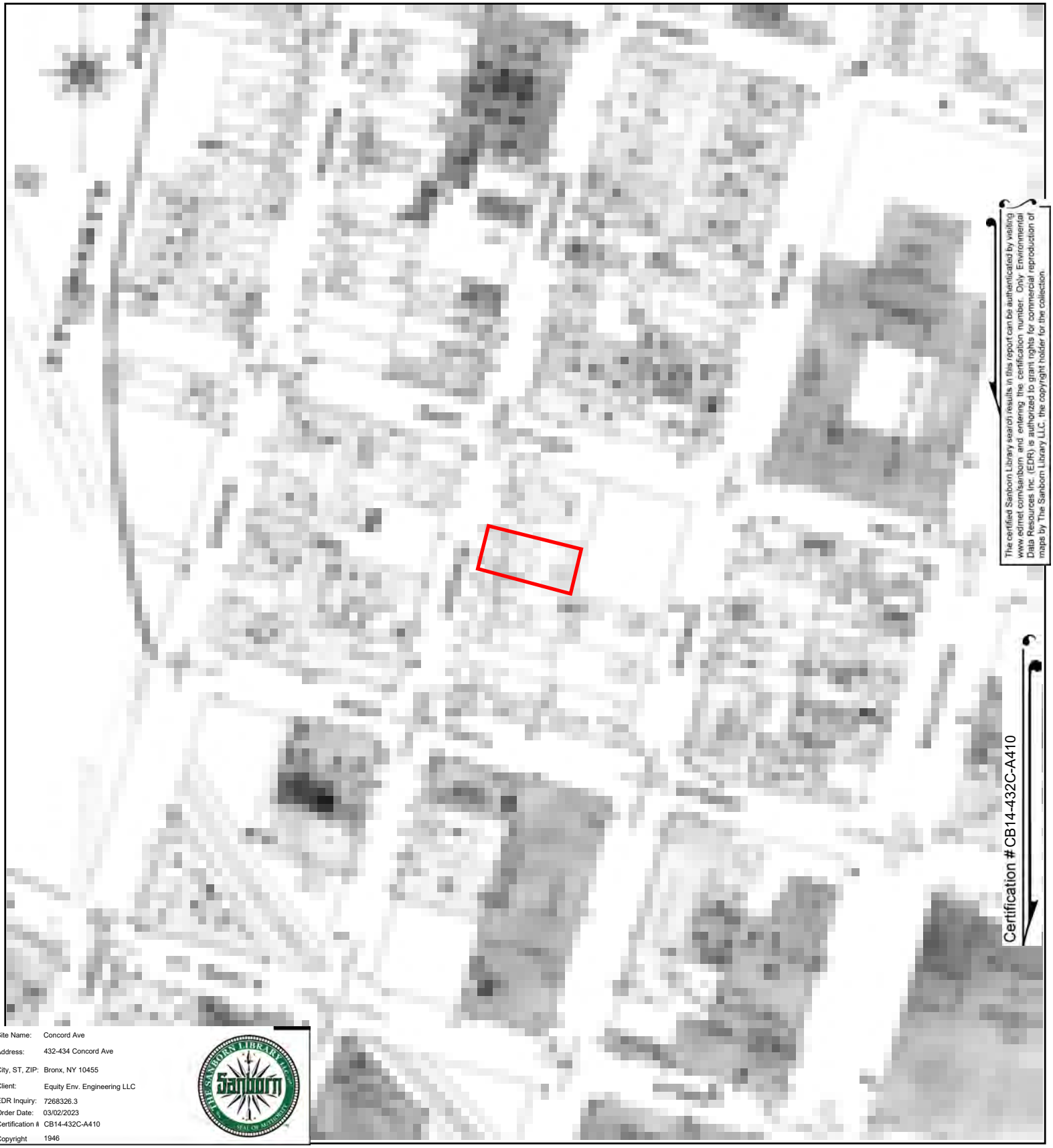

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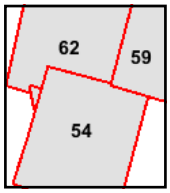

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Volume 9, Sheet 62

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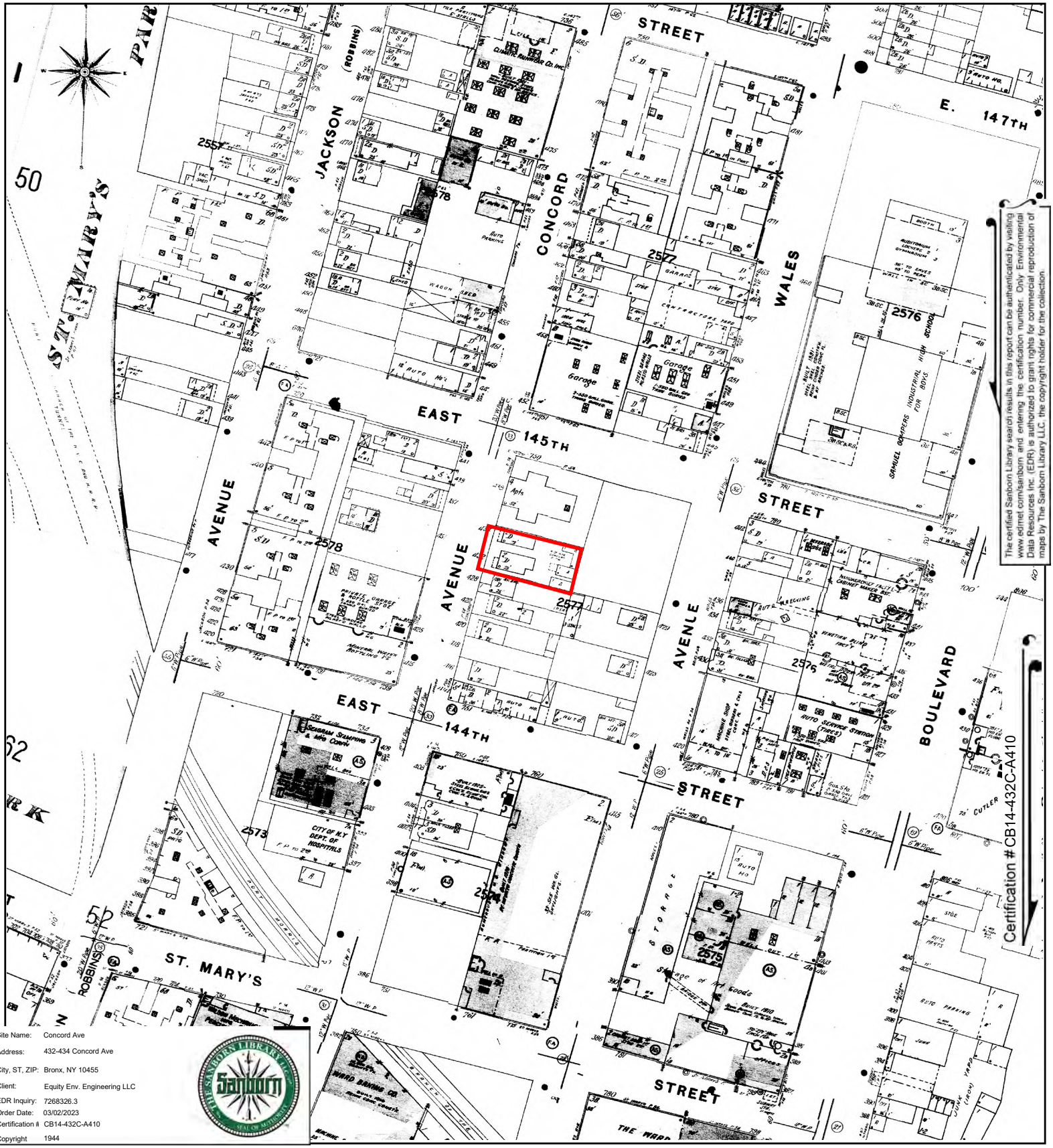

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Copyright	1944

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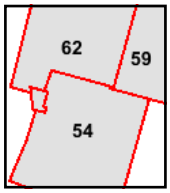

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Volume 9, Sheet 62
Volume 9, Sheet 54

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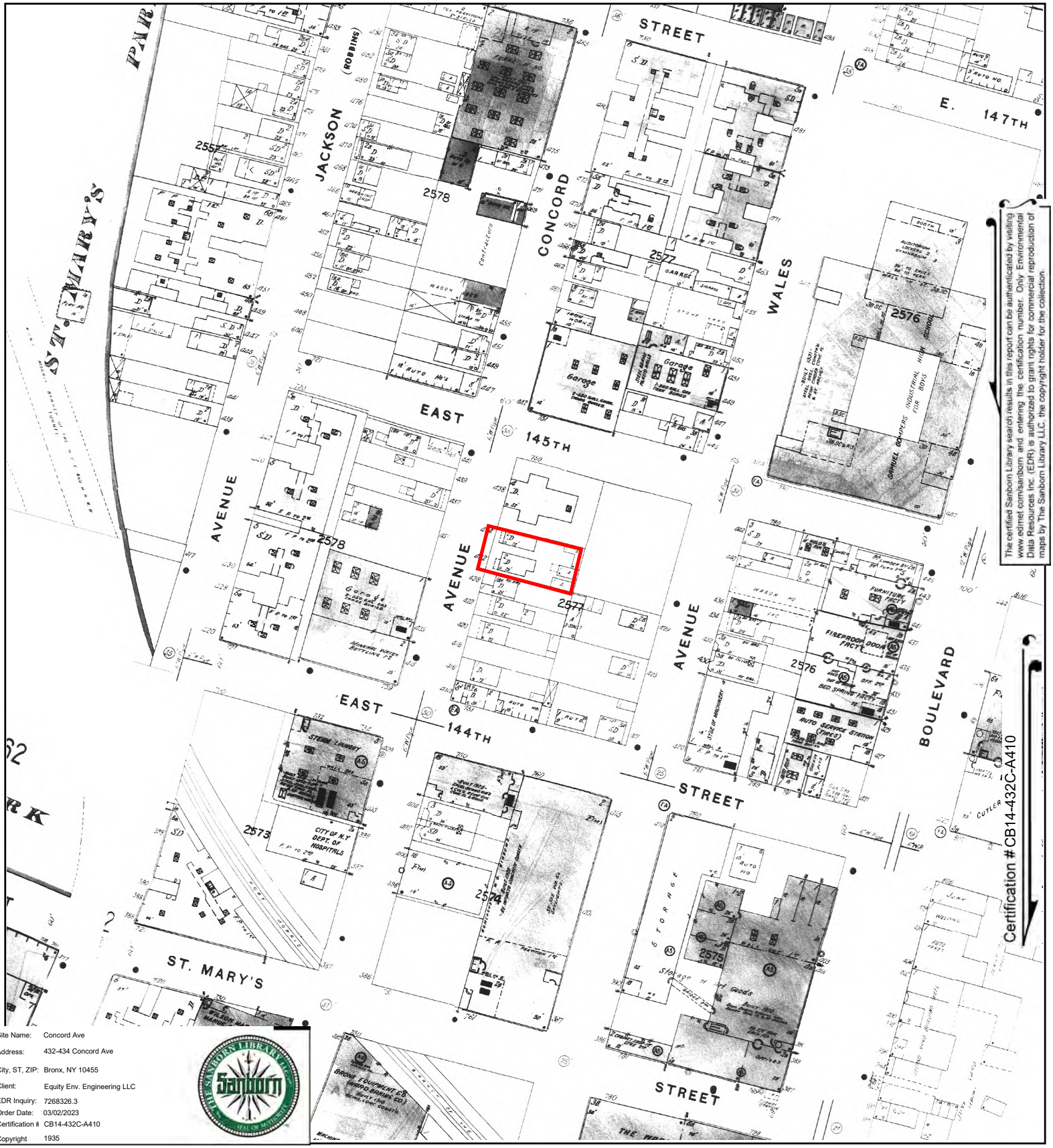

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Copyright	1935

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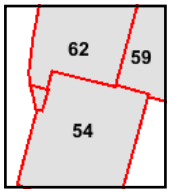

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Volume 9, Sheet 62

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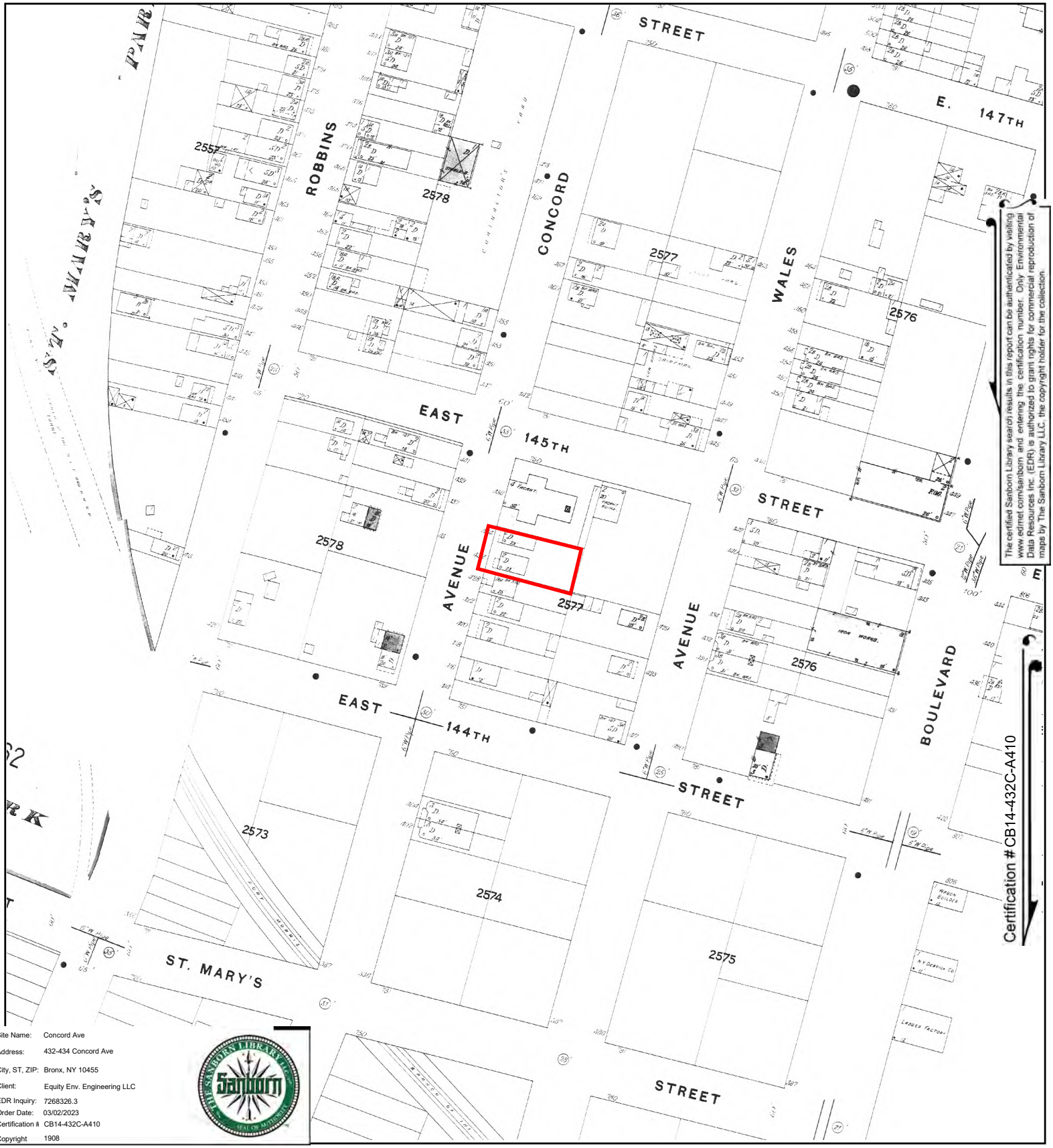
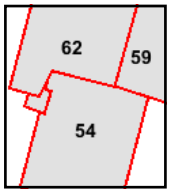


Site Name:	Concord Ave
Address:	432-434 Concord Ave
City, ST, ZIP:	Bronx, NY 10455
Client:	Equity Env. Engineering LLC
EDR Inquiry:	7268326.3
Order Date:	03/02/2023
Certification #:	CB14-432C-A410
Copyright	1908

This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.



Volume 9, Sheet 59
Volume 9, Sheet 62
Volume 9, Sheet 54

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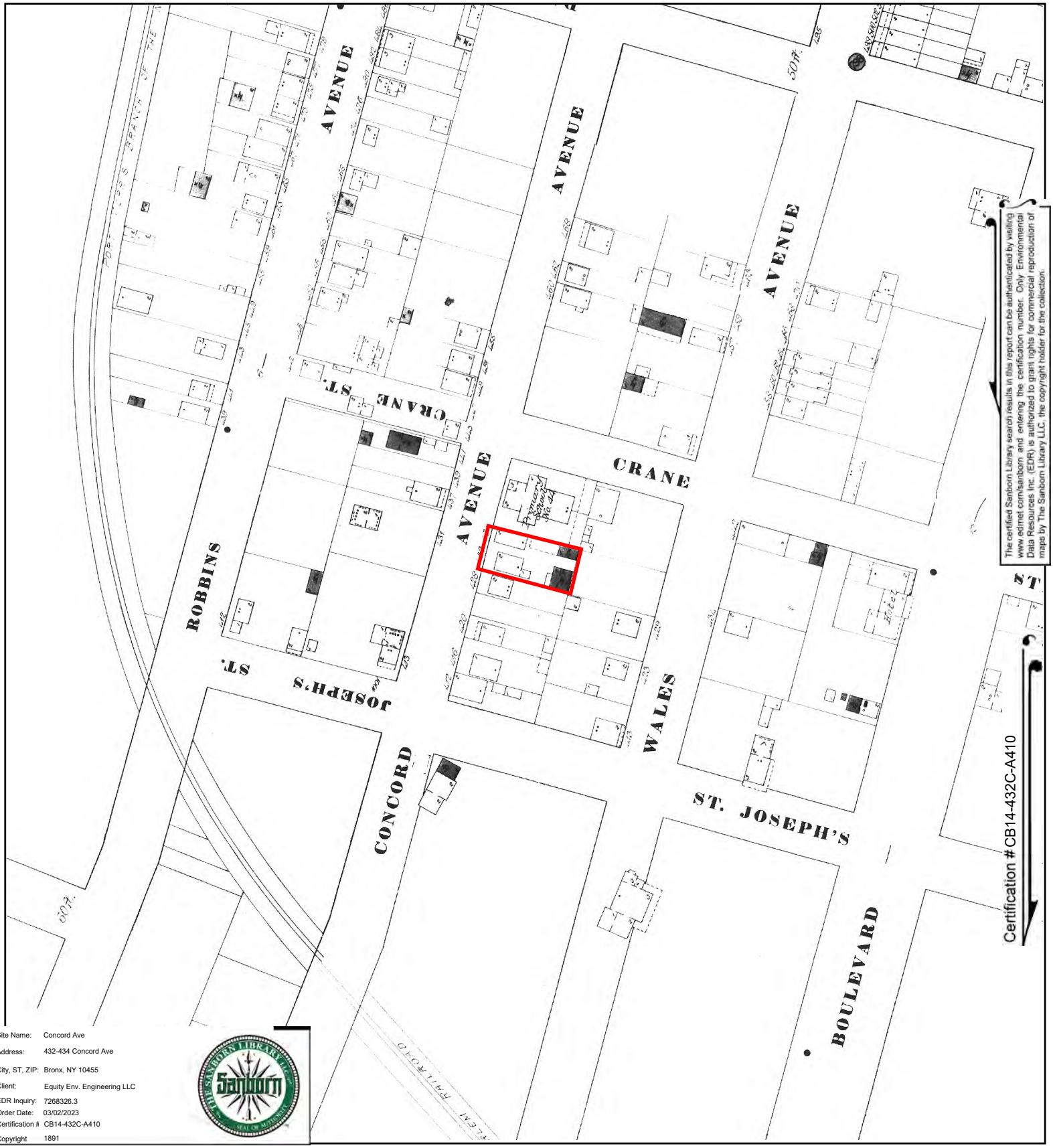

Site Name: Concord Ave
Address: 432-434 Concord Ave
City, ST, ZIP: Bronx, NY 10455
Client: Equity Env. Engineering LLC
EDR Inquiry: 7268326.3
Order Date: 03/02/2023
Certification #: CB14-432C-A410
Copyright: 1891

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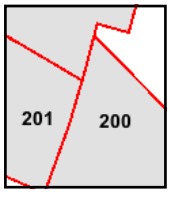

Volume 9, Sheet 201
Volume 9, Sheet 201
Volume 9, Sheet 200

0 Feet 150 300 600

N

Concord Ave

432-434 Concord Ave

Bronx, NY 10455

Inquiry Number: 7268326.4

March 02, 2023

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

03/02/23

Site Name:

Concord Ave
432-434 Concord Ave
Bronx, NY 10455
EDR Inquiry # 7268326.4

Client Name:

Equity Env. Engineering LLC
500 INTERNATIONAL DRIVE
MT. Olive, NJ 07828
Contact: Christian Digennaro

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Equity Env. Engineering LLC were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# NA

Project: Concord Ave

Coordinates:

Latitude:	40.809902 40° 48' 36" North
Longitude:	-73.908994 -73° 54' 32" West
UTM Zone:	Zone 18 North
UTM X Meters:	592019.21
UTM Y Meters:	4518227.34
Elevation:	31.19' above sea level

Maps Provided:

2019	1900
2016	1898
2013	1897
1997	
1979	
1966	
1956	
1947	

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2019 Source Sheets

Central Park
2019
7.5-minute, 24000

2016 Source Sheets

Central Park
2016
7.5-minute, 24000

2013 Source Sheets

Central Park
2013
7.5-minute, 24000

1997 Source Sheets

Central Park
1997
7.5-minute, 24000
Aerial Photo Revised 1997

Topo Sheet Key

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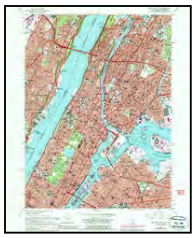
1979 Source Sheets

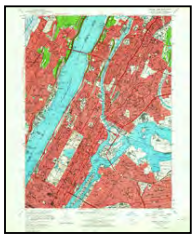


Central Park
1979
7.5-minute, 24000
Aerial Photo Revised 1977

1966 Source Sheets

Central Park
1966
7.5-minute, 24000
Aerial Photo Revised 1966

1956 Source Sheets



Central Park
1956
7.5-minute, 24000

1947 Source Sheets

Central Park
1947
7.5-minute, 24000
Aerial Photo Revised 1941

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1900 Source Sheets

Harlem
1900
15-minute, 62500

1898 Source Sheets

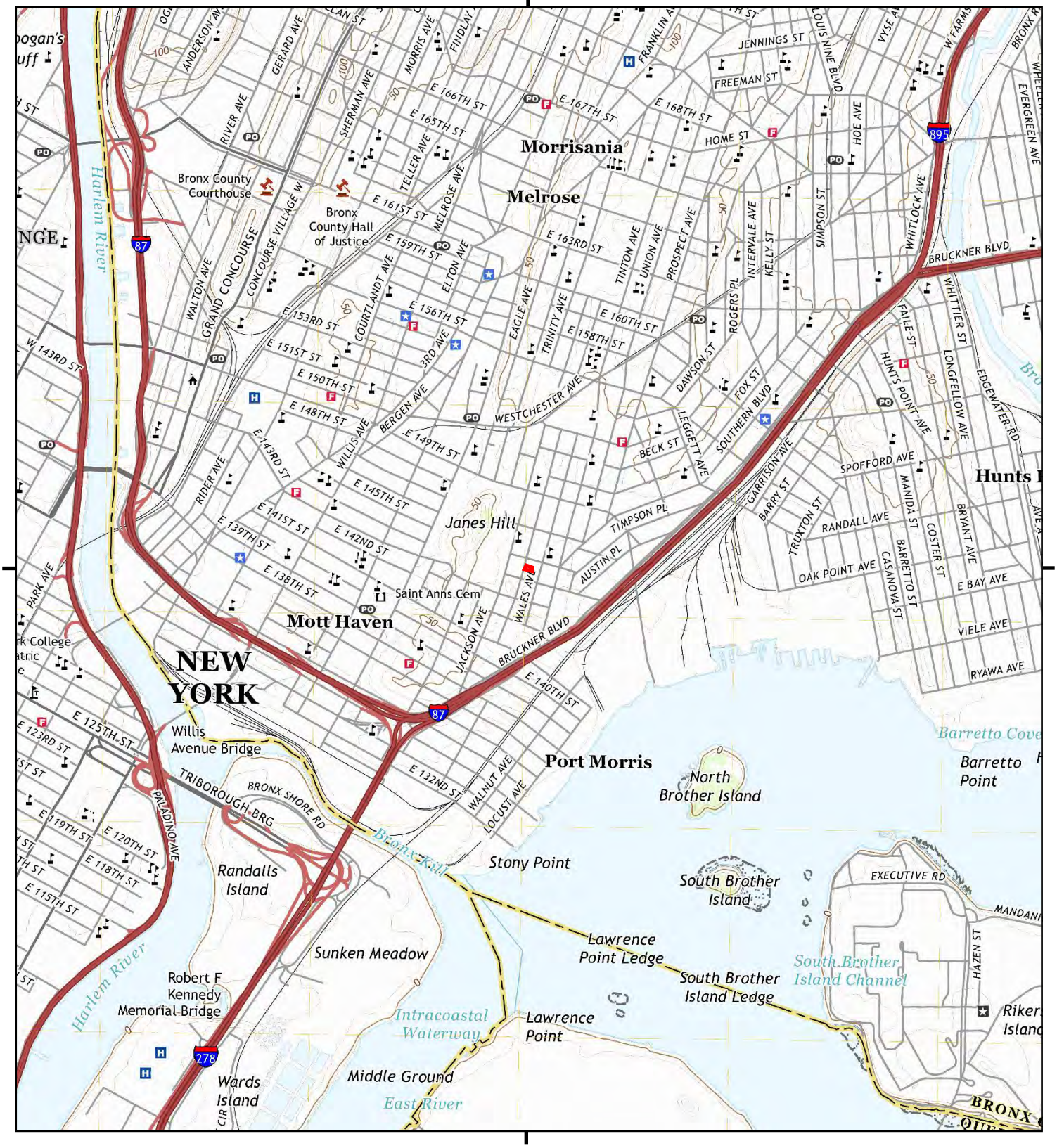
Harlem
1898
15-minute, 62500

1897 Source Sheets

Harlem
1897
15-minute, 62500

Historical Topo Map

2019



This report includes information from the following map sheet(s).

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NW N NE
W E
SW S SE

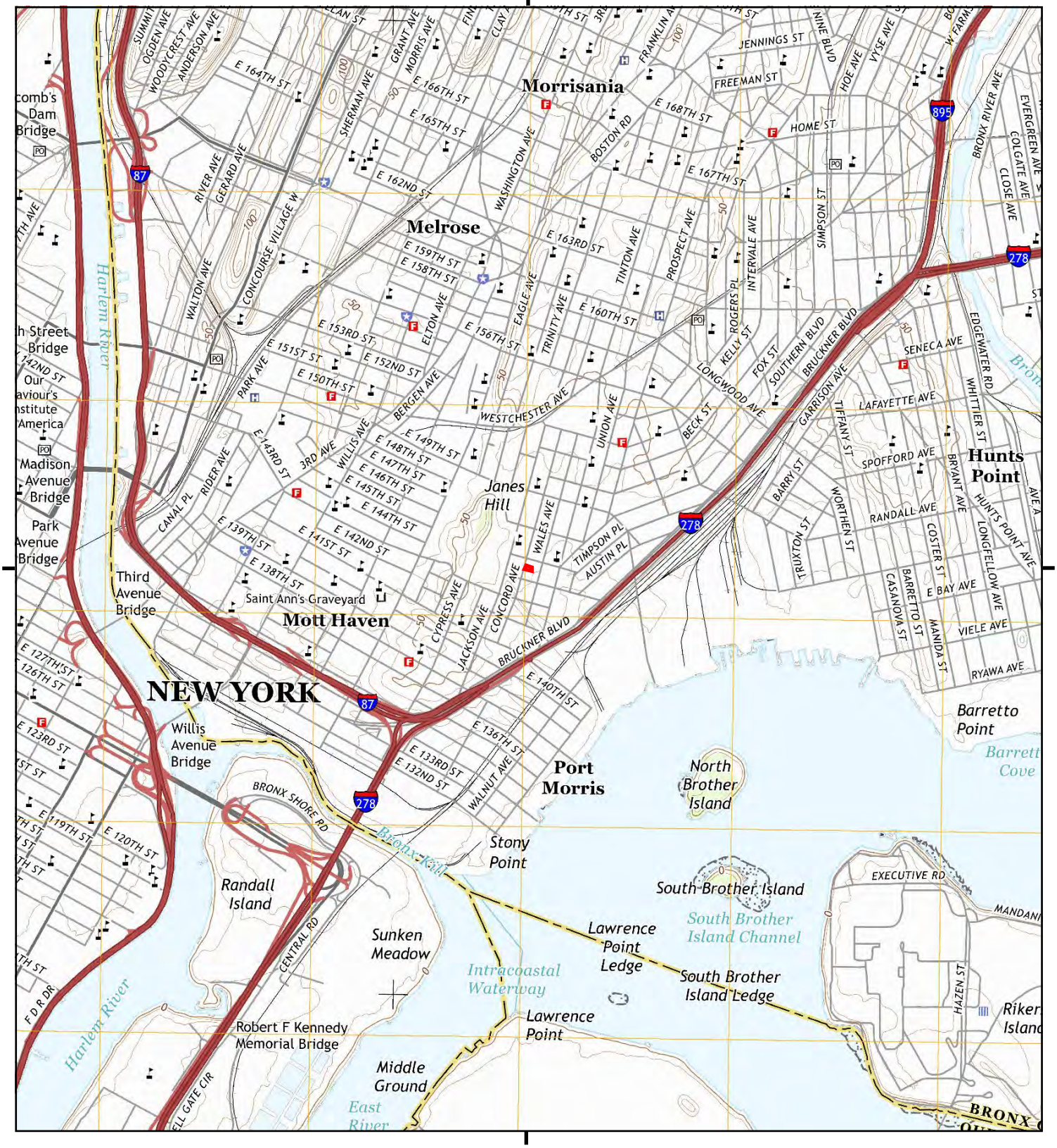
TP, Central Park, 2019, 7.5-minute

SITE NAME: Concord Ave
ADDRESS: 432-434 Concord Ave
Bronx, NY 10455
CLIENT: Equity Env. Engineering LLC

N

Historical Topo Map

2016



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W E
SW S SE

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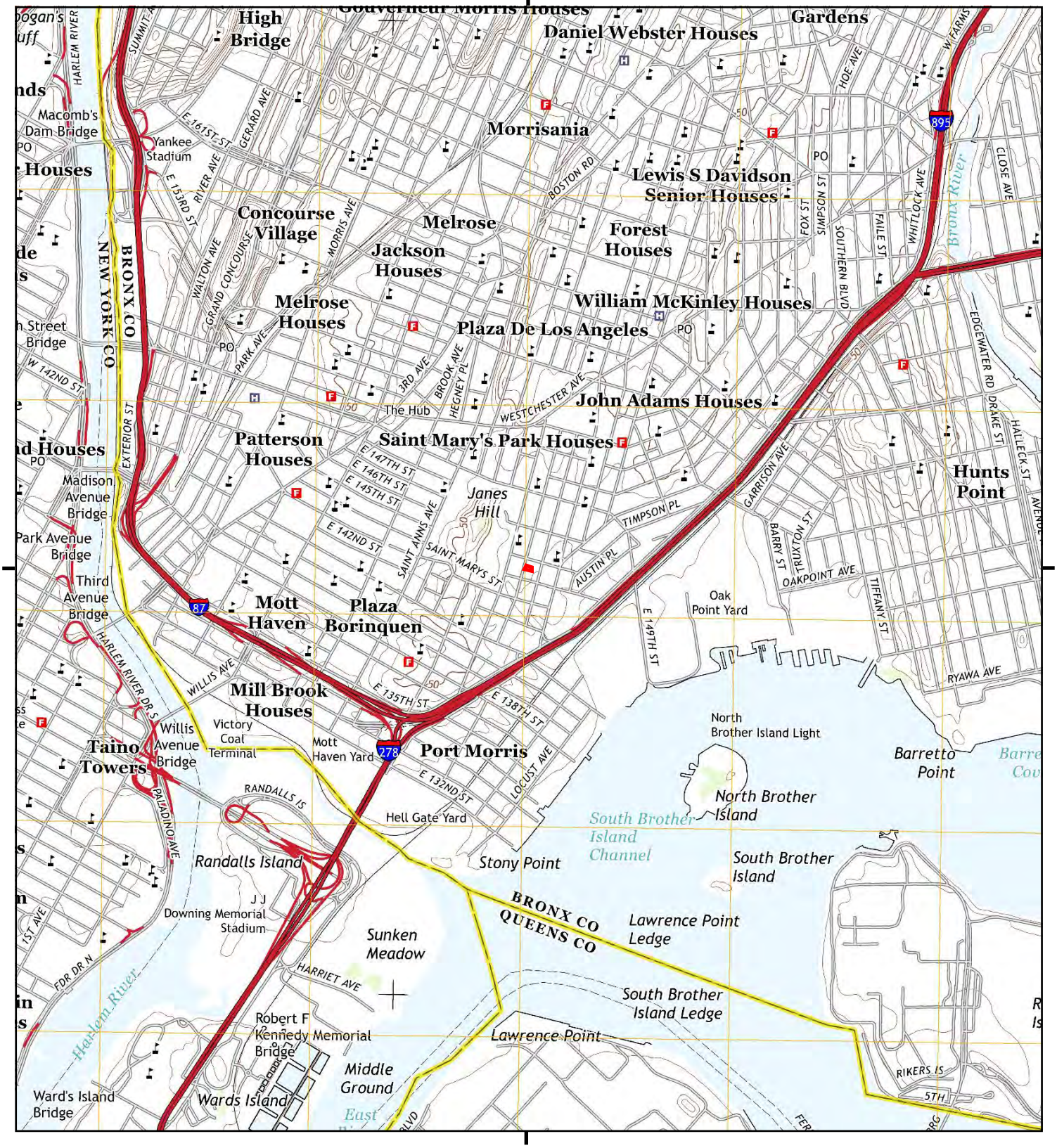
SITE NAME: Concord Ave
ADDRESS: 432-434 Concord Ave
Bronx, NY 10455
CLIENT: Equity Env. Engineering LLC

N

Historical Topo Map

2013



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Bronx, NY 10455
CLIENT: Equity Env. Engineering LLC

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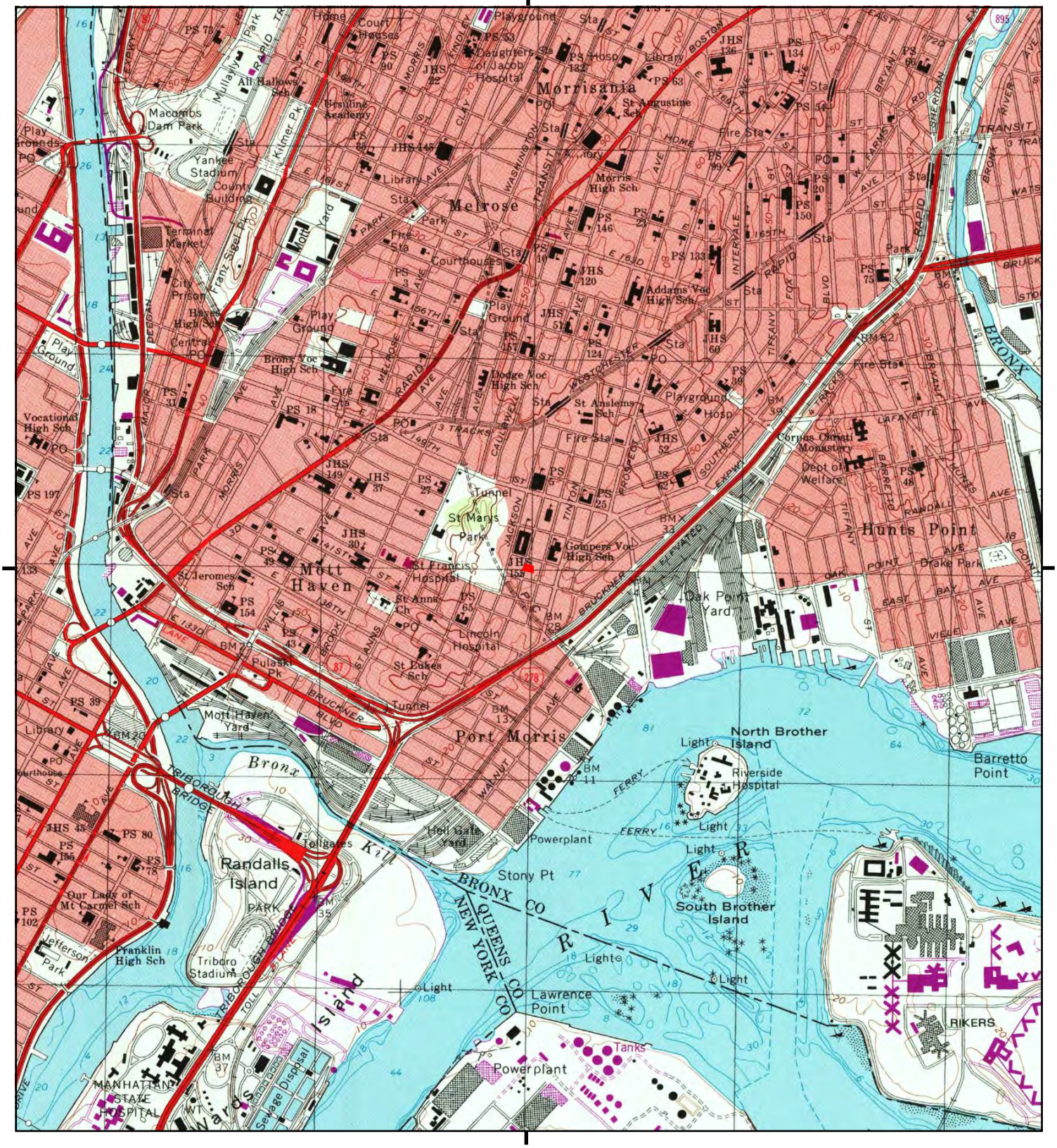

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W E
SW S SE

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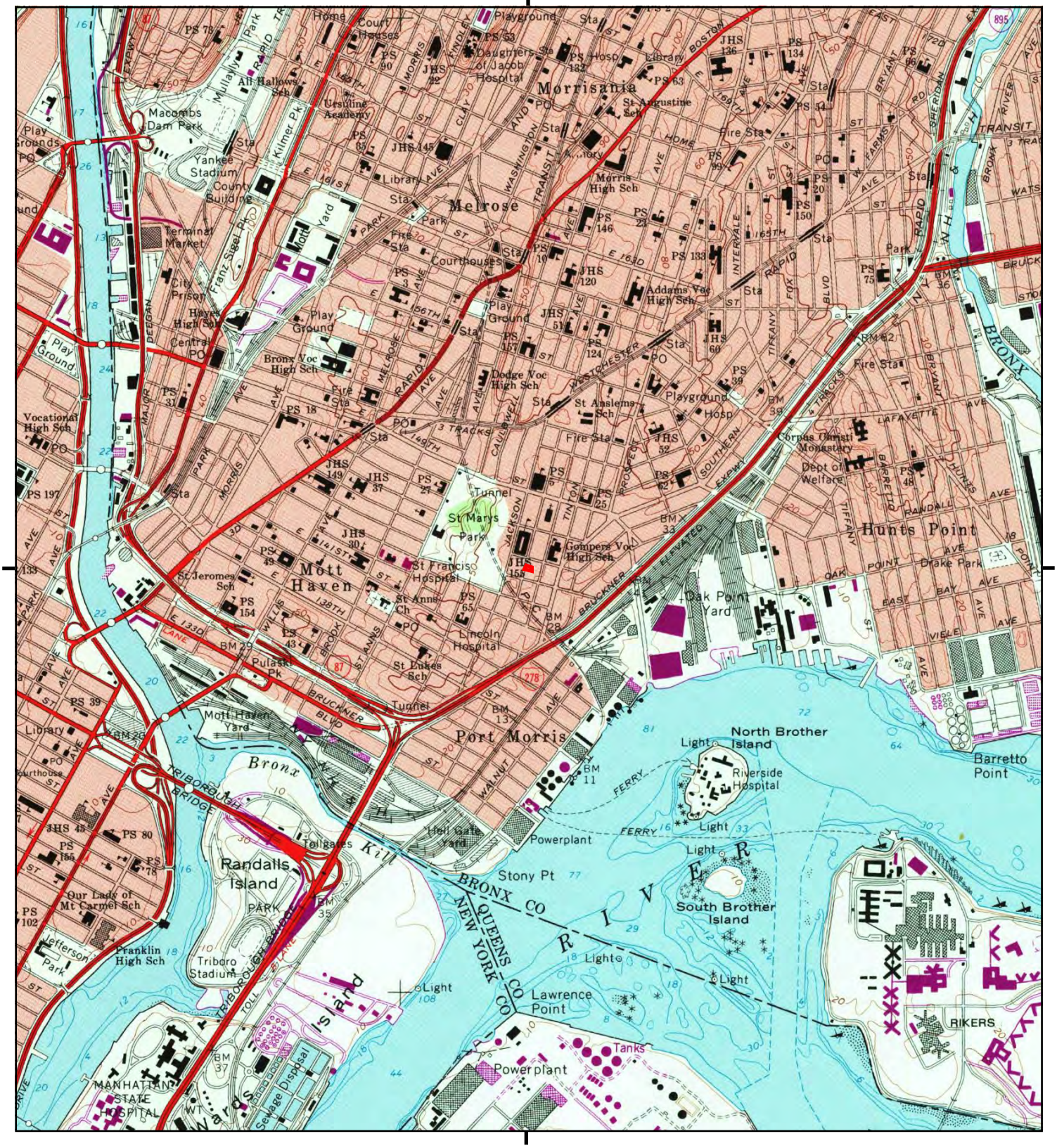
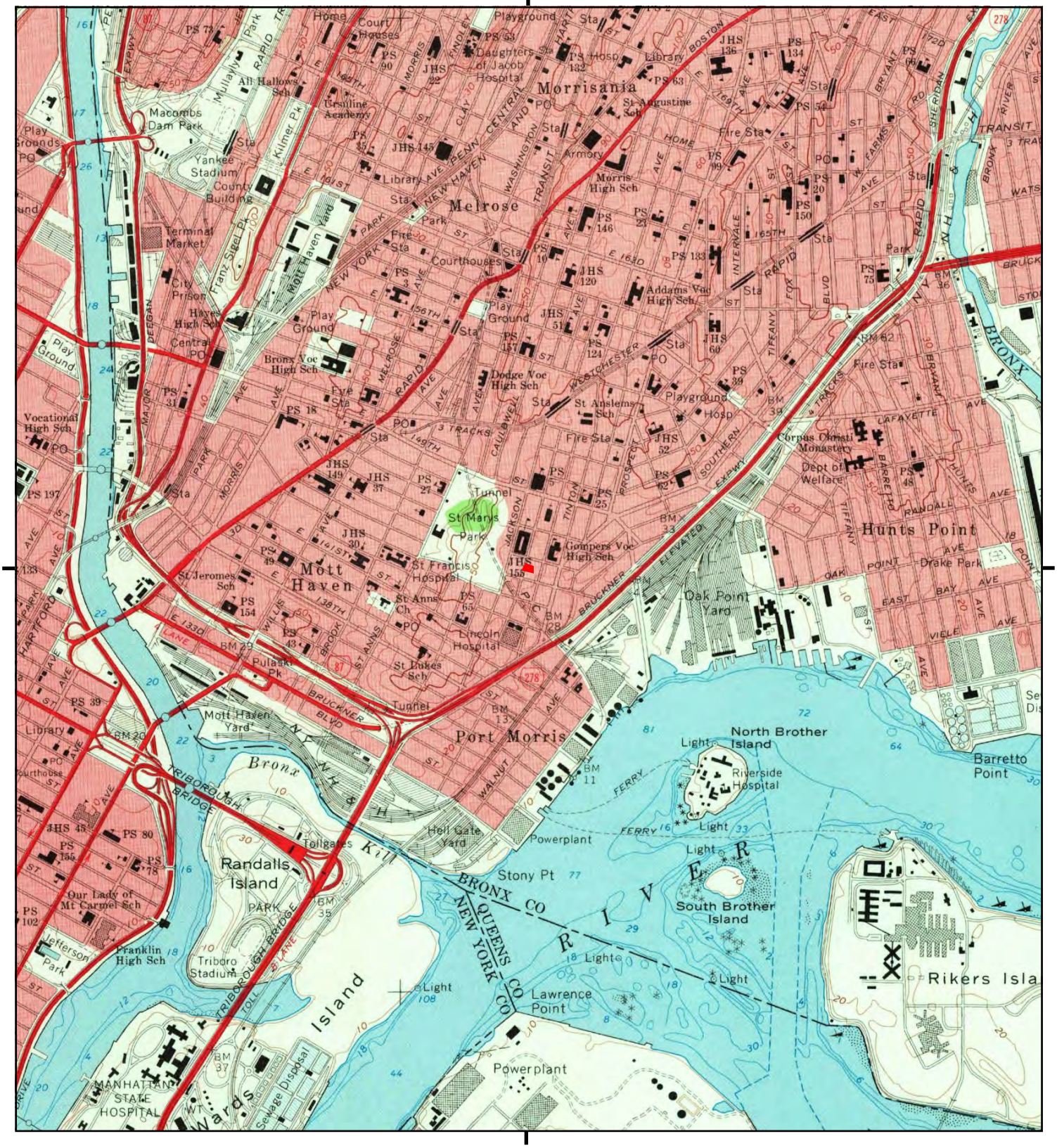
SITE NAME: Concord Ave
ADDRESS: 432-434 Concord Ave
Bronx, NY 10455
CLIENT: Equity Env. Engineering LLC

N


Morrisania
Melrose
Mott Haven
Port Morris
Hunts Point
Oak Point Yard
Randalls Island
Stony Pt
South Brother Island
North Brother Island
Barretto Point
Lawrence Point
Riverside Hospital
Lincoln Hospital
Bronx Voc High School
Dodge Voc High School
Gompers Voc High School
Franklin High School
Triboro Stadium
Yankee Stadium
Macombs Dam Park
St Mary's Park
Port Morris Yard
Mott Haven Yard
Bronx Kill
Harlem River
BRONX CO
NEW YORK CO
QUEENS CO
RIKERS
MANHATTAN STATE HOSPITAL
Sewage Disposal
Tanks
Powerplant
Lighto
Light
Tunnel
Tolgates
Toll Gate
Courthouses
Playground
Hosp
Fire Sta
Library
Park
Sta
PO
Ferry
Bridge
Tunnel
Expwy
Elevated
Bruckner Blvd
Triborough Bridge
Major Deegan
Cross Bronx Expwy
Southern Expwy
Rapid Transit
Jackson
Tiffany
Prospect
Caulfield
Westchester
Intervale
Boston
Bryant
Sheridan
Home
Findlay
Clay
Washington
Park
Morris
Melrose
Willis
Brook
St Anns
Walnut
Oak
Point
Drake Park
Vocational High School
Hayes High School
City Prison
Central PO
Terminal Market
Courthouses
Mullaly Park
All Hallows Sch
Ursuline Academy
Daughters of Jacob Hospital
St Augustine Sch
Morris High School
Addams Voc High School
St Anselms Sch
St Jerome's Sch
St Francis Hospital
St Anns Ch
St Lukes Sch
Our Lady of Mt Carmel Sch
Jefferson Park
Pulaski Pk
Kilmer Pk
Franz Sigel Pk
Barretto Pt Pk
Drake Park
Corpus Christi Monastery
Dept of Welfare
Fire Sta
Library
Courthouse
Ave
St
Pl
Rd
Blvd
Expwy
Bridge
Tunnel
Ferry
Light
Lighto
Powerplant
Tanks
Sewage Disposal
Park
Playground
Hosp
Sta
PO
Fire Sta
Courthouses
Library



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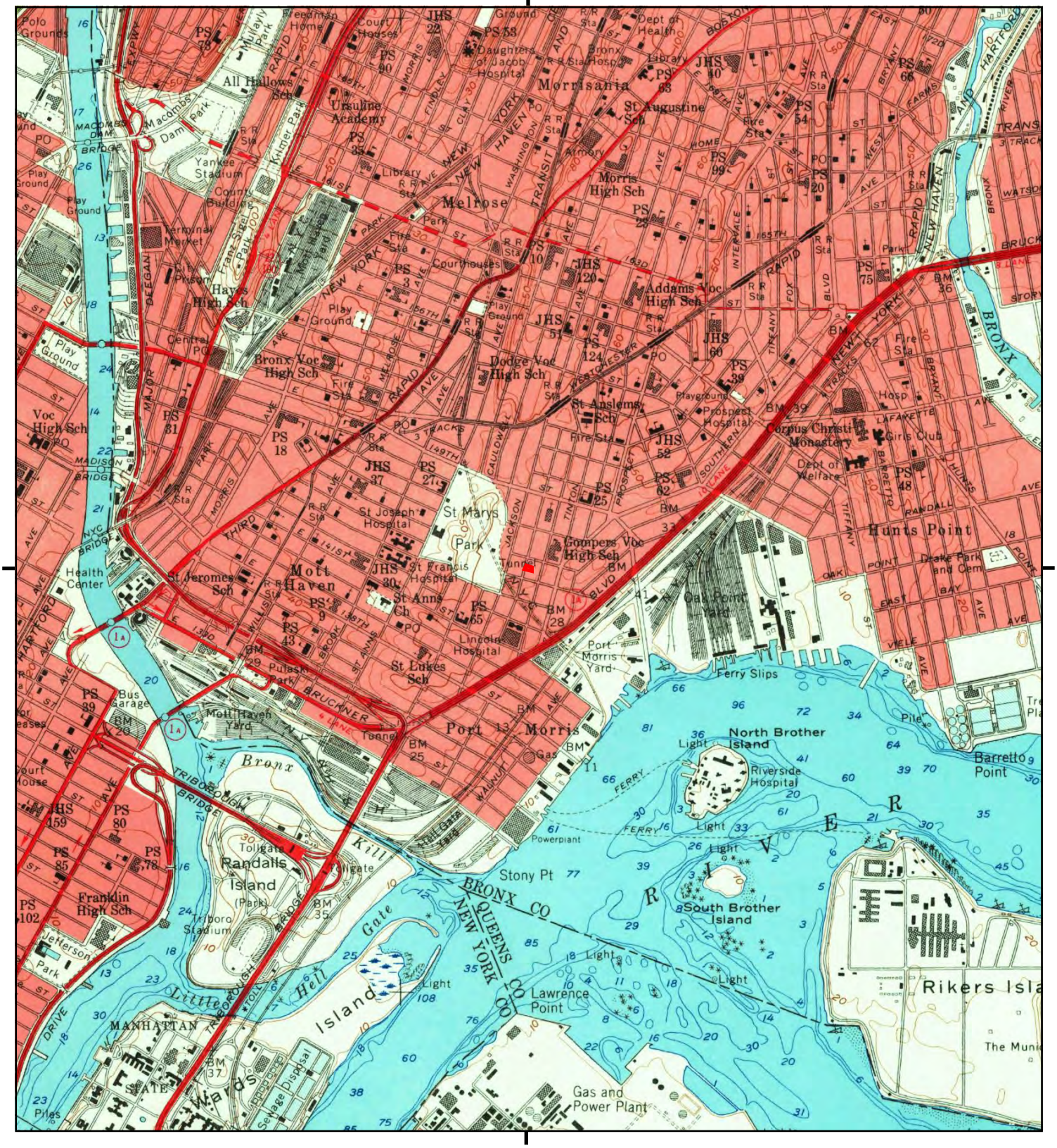
NW N NE
W E
SW S SE

TP, Central Park, 1966, 7.5-minute

SITE NAME: Concord Ave
ADDRESS: 432-434 Concord Ave
Bronx, NY 10455
CLIENT: Equity Env. Engineering LLC

N



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SW S SE

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ADDRESS: 432-434 Concord Ave
Bronx, NY 10455
CLIENT: Equity Env. Engineering LLC

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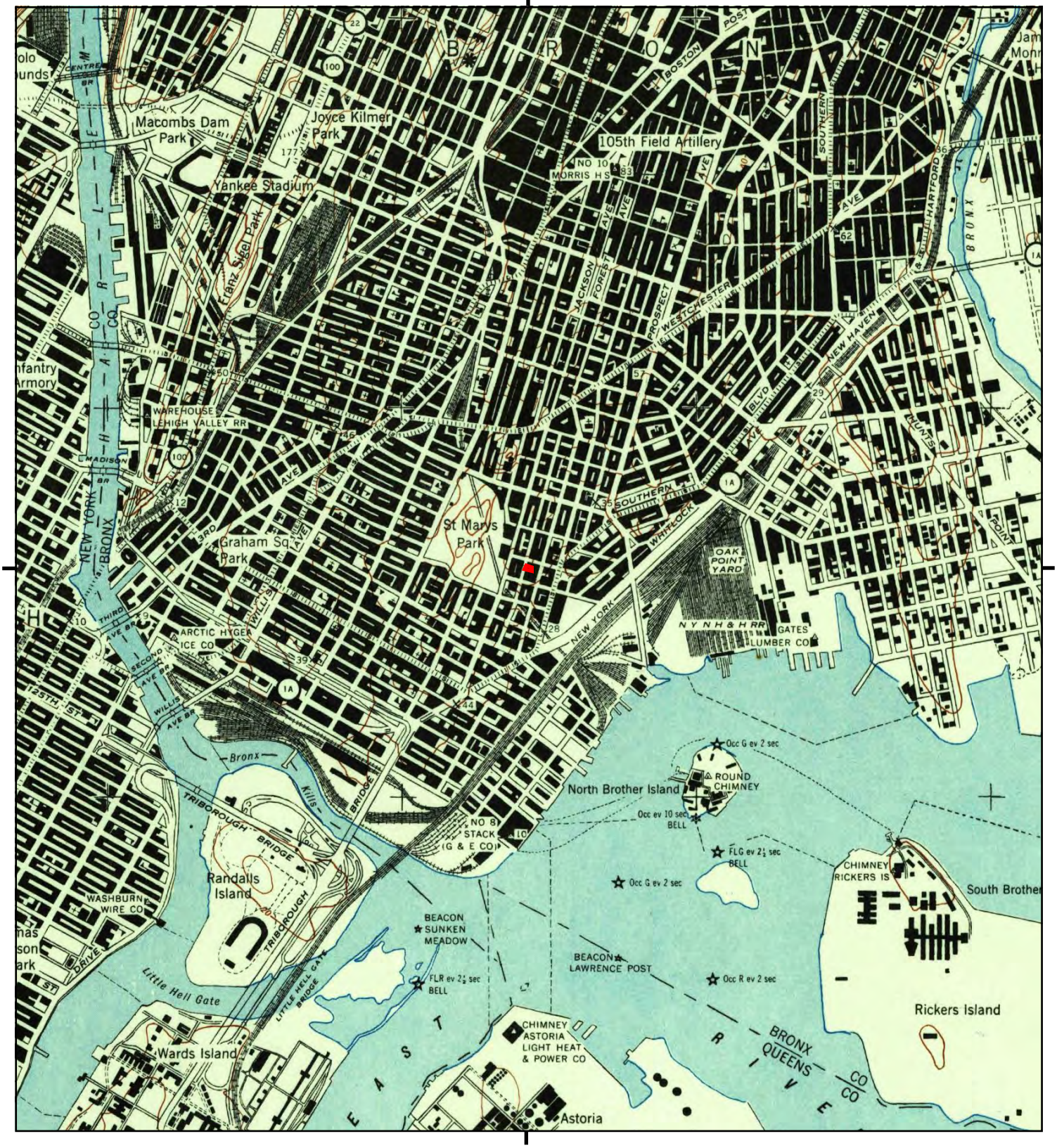

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W E
SW S SE

TP, Central Park, 1947, 7.5-minute

SITE NAME: Concord Ave
ADDRESS: 432-434 Concord Ave
Bronx, NY 10455
CLIENT: Equity Env. Engineering LLC

N

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W E
SW S SE

TP, Harlem, 1900, 15-minute

SITE NAME: Concord Ave
ADDRESS: 432-434 Concord Ave
Bronx, NY 10455
CLIENT: Equity Env. Engineering LLC

N

This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Harlem, 1898, 15-minute

SITE NAME: Concord Ave
ADDRESS: 432-434 Concord Ave
Bronx, NY 10455
CLIENT: Equity Env. Engineering LLC

N

APPENDIX D-2

RIWP/HASP

equity environmental engineering
WORKING TOGETHER TO DESIGN SOLUTIONS
500 International Drive, Suite 150, Mount Olive, NJ 07828
4 World Trade Center, Suite 2963, New York, NY 10007
www.equityenvironmental.com

PHASE II REMEDIAL INVESTIGATION WORKPLAN

438 Concord Avenue

Subject Property Address: 438 Concord Avenue, Bronx, NY 10455
Subject Property Block: Block 2577/Lots 9 and 14
Prepared For: BronxCo., LLC, 65 Saint Felix Street, Brooklyn, NY 11217
June 15, 2023

Prepared by:
Equity Environmental Engineering

Contents

Phase II Site Investigation Workplan 1
1 Background 1
2 Site Description 1
2.1 Location 1
2.2 Site and Vicinity Characteristics 1
2.3 Current Use of the Property 2
2.4 Proposed Development Plan 2
3 Previous Property Report Summaries 3
4 Scope of WOrk 4
4.1 Task 1: Site Investigation 4
4.2 Task 2: Site Investigation Report 7

FIGURES

Figure 1 – USGS Site Location Map
Figure 2 – Site Boundary Map
Figure 3 – Sample Location Map

APPENDICES

Appendix A – Site Specific Health & Safety Plan

PHASE II SITE INVESTIGATION WORKPLAN

This Phase II Investigation Work Plan has been developed for the above referenced site. The site is located within the Mott Haven neighborhood of the Bronx. The following work scope has been developed in response to Phase I ESA findings and OER Kick-off meeting on December 21, 2022.

1 BACKGROUND

The Subject Property is located at 438 Concord Avenue (Block 2577/Lots 9 and 14) in the Mott Haven Neighborhood of Bronx, New York, Community District 1. The Subject Property is in an area comprised of mixed commercial, residential, and industrial use. The Subject Property is approximately 25,530 square feet in size. Lot 9 is currently a paved, fenced-in parking lot used to store vehicles and lot 14 is used as an auto body shop.

Based on the correspondence with the developer, there is an Underground Storage Tank (UST) on Lot 14. Vapor Encroachment Conditions (VECs) could not be ruled out, which requires further investigation.

2 SITE DESCRIPTION

2.1 Location

The Site is in the Mott Haven neighborhood of the Bronx and is identified as Block 2577 and Lots 9 and 14. Currently, the Site on Lot 14 is used for an autobody shop with two spray paint booths and lot 9 is a paved fenced-in parking lot used to store vehicles.

Historical documentation indicates the Site was previously developed. Sanborn Fire Insurance Maps show “Primary School No. 44” on the Site in 1891. The Sanborn Maps from 1908 to 1947 show various dwellings, personal garages and apartment buildings. The Sanborn Maps from 1951 to 2007 show dwellings on the western portion of the Site and a chemical warehouse on the eastern portion of the Site. labeled “Cutler-Hammer Inc.”.

2.2 Site and Vicinity Characteristics

The Site is currently located in a M1-2 zoning district surrounded by mostly industrial and commercial uses. The Site is located adjacent to a garage to the north, Professional Auto Body to the east, Diallo Auto Repair to the west, and residences to the south. M1-2 zoning districts are manufacturing districts typically include light industrial uses. The manufacturing floor area ratio is 2.0 and the required accessory parking is 1 per 300 square feet.

2.3 Current Use of the Property

Lot 14 of the Site is an autobody shop with two spray paint booths. Lot 9 is a paved fenced-in parking lot used to store vehicles. There is a known UST present in Lot 14. The adjacent properties include:

- North – East 145th Street, garage, vacant lot
- East – Wales Avenue, Professional Auto Body, commercial, and residential
- South – Residential
- West – Concord Avenue, Diallo Auto Repair, and vacant lot with active construction

2.4 Proposed Development Plan

The zoning amendments are to change an existing M1-2 zoning district to a M1-4/R7D (MX-18) zoning district. The development project consists of a new mixed commercial use and residential dwelling with a 10-story, 99-feet tall, Quality Housing residential building on lots 9 and 14. The first floor is proposed to be light manufacturing and accessory retail space with two loading berths accessed by a curb cut on Concord Avenue that would service the ground floor. The cellar, ground level, second, and third floors are proposed to be retail, community facilities, and office spaces. The fourth through tenth floors are proposed to be residential apartments with 87 dwellings. There are 43 proposed parking spaces in the cellar accessed by a curb cut on Concord Avenue and bicycle parking on the ground floor. The roof is proposed to be recreation, greenhouse and urban farming space, solar panels with a green roof above the bulkhead.

3 PREVIOUS PROPERTY REPORT SUMMARIES

Equity completed a Phase I ESA of the Site on October 14, 2022 for lots 9 and 14 and on March 3, 2023. No Recognized Environmental Conditions (RECs) were identified during the Phase I ESA. VECs identified during the Phase I ESA include the following:

- The Environmental Database Reports (EDR) Vapor Encroachment database identified three records on the Site. One record is under the FINDS (Facility Index System) database and two records are under the SSTS (Section Seven Tracking Systems) database. These records are included at the Site due to the facility on 435 Wales Avenue (Safeguard Chemical Corp) being an Insecticide, Fungicide, and Rodenticide facility.
- There are numerous potential VECs within 1/10 of a mile of the Site that are related to four E-Designation sites. Three of the four E-Designation sites are within 0.021 miles of the Site. The E-Designation sites are located at 439 Concord Avenue, 431 Concord Avenue, and 441 Concord Avenue. 439 and 431 Concord Avenue have the following E-Designation description: “exhaust stack location limitations”. The E-Designation site at 441 Concord Avenue lists descriptions relating to air quality (HVAC nitrogen oxides), exhaust stack limitations, and hazardous materials phase I and phase II testing protocol. Based on the E-Designation descriptions, these three sites are not considered VECs. Due to the records listed on the Site, VECs cannot be ruled out.

Equity recommended a Phase II Investigation based on the findings of the October 14, 2022 Phase I ESA. The developer indicated there is a UST on Lot 14 after the Phase I ESA was completed. Equity recommends the Phase II Investigation include the UST location.

4 SCOPE OF WORK

4.1 Task 1: Site Investigation

Prior to conducting any field work, a site-specific Health and Safety Plan (HASP) will be prepared in accordance with the Occupational Health and Safety Administration (OSHA) requirements in 29 CFR 1910.120. The HASP is provided in Appendix A. The HASP and Phase II Workplan will be submitted to the Department of Environmental Protection (DEP) for review and approval.

The Phase II will consist of a surface geophysics survey, the installation of nine soil borings, four temporary monitoring wells, and seven soil-vapor points (Figure 3). These activities are described below.

Surface Geophysics

A geophysical survey will be performed across the entire site to investigate for the presence of potential USTs, drums, etc. that were identified in historic Sanborn maps and during site reconnaissance. Equity will oversee the surface geophysics survey to scan and mark out the location of any subsurface utilities and or anomalies situated within the project area.

Soil Sampling

Equity will oversee the installation of nine soil borings (SB-1 to SB-9) on Site (Figure 3). Two soil boring will be located within two feet of the known UST. Equity will monitor the soil boring installation, log the soil cuttings, and collect the necessary soil samples. The soil will be continuously retrieved from the borings using sampling equipment appropriate for the drill rig used. As the soil is retrieved, the following soil characteristics will be determined: soil lithology, color, and presence of staining or odors will be described and classified. The borings will be screened using visual and olfactory senses and a Photo-Ionization Detector (PID) to detect for the presence of Volatile Organic Compounds (VOCs). The soil boring locations and hot spots, if detected, will be measured using a GPS unit and photographed.

All field work will be recorded in a field log. Direct-push drilling equipment will be used and if necessary, more advanced drilling technology will be used to complete the site investigation. At a minimum, two soil samples will be collected from each test borings (for a total of sixteen soil samples) for laboratory analysis. A surface soil sample (from the 0-2 feet bgs interval) and subsurface soil sample from the two (2) foot interval beneath the proposed maximum excavation depth or immediately above the water table, whichever is encountered first. Discrete (grab) samples will be taken from the aforementioned sampling intervals. The subsurface soil samples may also serve as in-situ post-excavation soil samples for the remedial plan. A third soil sample may be collected from each or several test boring(s) if 1) elevated PID readings and/or visual and olfactory observations are noted during borehole advancement and/or 2) field observations identify an upper fill layer underlain by native material. The additional soil sample from the upper zone of the native layer will help

delineate the vertical migration of impacts (if any), as well as determine a more detailed remedy and potentially provide a cost savings for disposal options.

The soil samples will be analyzed for the suite of parameters shown in Table 1 below. The Quality Assurance/Quality Control (QA/QC) samples are also shown in Table 1 below:

Table 1
Soil Sampling

Media	Analytical Parameters	No. of Samples
Soil	• Target Compound List (TCL) Volatile Organic Compounds (VOCs) with MTBE by USEPA method 8260B • TCL Semi-Volatile Organic Compounds (SVOCs) by USEPA method 8270C • Polychlorinated Biphenyls (PCBs) by USEPA method 8082 • TCL Pesticides by USEPA method 8081A • Target Analyte List Metals (TAL Metals) by USEPA Method-6010/ 6020/7471 • PFAS/PFOS	18 samples 1 duplicate 1 field blank

The soil samples will be placed in laboratory-supplied containers, preserved with ice, and submitted under chain-of-custody procedures to the contract laboratory for analysis. All samples will be shipped to a laboratory certified in the New York State Department of Health (DOC) Environmental Laboratory Analysis Program (ELAP). Upon completion of the analyses, Category B data deliverables will be provided.

Groundwater Sampling

The water table depth is assumed to be at 10-12 feet below grade surface (bgs) at the Site. Four of the eight soil borings will be converted into one-inch-diameter, temporary monitoring wells (TW-1, TW-2, TW-3, and TW-4). A groundwater sample will be collected from each of the four soil borings if groundwater is encountered. The groundwater samples will be analyzed for the same parameters as the soil samples including dissolved metals. The metal samples will be filtered in the lab.

The groundwater samples, including QA/QC samples, will be analyzed for the suite of parameters shown in Table 2 below:

Table 2
Groundwater Sampling

Media	Analytical Parameters	No. of Samples
Ground water	• Target Compound List (TCL) Volatile Organic Compounds (VOCs) by USEPA method 8260B • TCL Semi-Volatile Organic Compounds (SVOCs) by USEPA method 8270C • Polychlorinated Biphenyls (PCBs) by USEPA method 8082	5 samples 1 duplicate 1 field blank 1 trip blank

	• TCL Pesticides by USEPA method 8081A • Target Analyte List Metals (TAL Metals) by EPA Method6010/6020/7471 (filtered and unfiltered) • PFAS/PFOS	

Soil Vapor Sampling

Six soil vapor sampling points will be installed to a depth of approximately 10 feet or 1-2 feet above the groundwater interface, whichever is encountered first in the proposed area of the cellar. One soil vapor sampling point will be installed to a depth of 17 feet or 1-2 feet above the groundwater interface, whichever is encountered first in the proposed area of the parking facility. Sample locations are shown in Figure 3. The soil vapor samples will be collected in accordance with New York State Department of Health (NYSDOH) guidance using helium as a tracer gas. The soil vapor samples will be collected over a two-hour duration in stainless steel summa canisters and analyzed for TO-15 (volatiles). The samples will be shipped to a DOH-ELAP certified laboratory. Upon completion of the analyses, Category B data deliverables will be provided.

Management of Investigation-Derived Waste

Soil cuttings may be disposed at the site within the borehole that generated them to within 24 inches of the surface unless:

- Free product or grossly contaminated soil are present in the cuttings.
- The borehole has penetrated an aquitard, aquiclude or other confining layer; or extends significantly into bedrock;
- Backfilling the borehole with cuttings will create a significant path for vertical movement of contaminants. Soil additives (bentonite) may be added to the cuttings to reduce permeability;
- The soil cannot fit into the borehole.

Those soil cuttings needing to be managed onsite will be containerized in properly labeled DOT approved 55-gallon drums for future off-site disposal at a permitted facility. All boreholes which require drill cuttings disposal would ultimately be filled with bentonite chips (hydrated) and asphalt/concrete capping. Disposable sampling equipment including, spoons, gloves, bags, paper towels, etc. that came in contact with environmental media will be double bagged and disposed as municipal trash in a facility trash dumpster as non-hazardous trash. Purge water will be placed back in the well.

Observed and/or Suspected Releases

Two soil borings will be installed near the known UST.

The Applicant and their consultants/contractors will take steps to properly empty, clean, excavate, and dispose of a tank and its contents during the remediation. Any residual

contamination observed will be properly addressed in accordance with New York City and New York State regulations. The tank(s) will be administratively closed out in a proper manner.

If soil and/or groundwater contamination is observed, or it is suspected that a release of a hazardous substance has occurred at the Site, Equity will notify the Client immediately. Per the NYSDEC requirements, it is required that the Responsible Party notifies the NYSDEC Spill Hotline (1-800-457-7362) within two (2) hours of learning of the release.

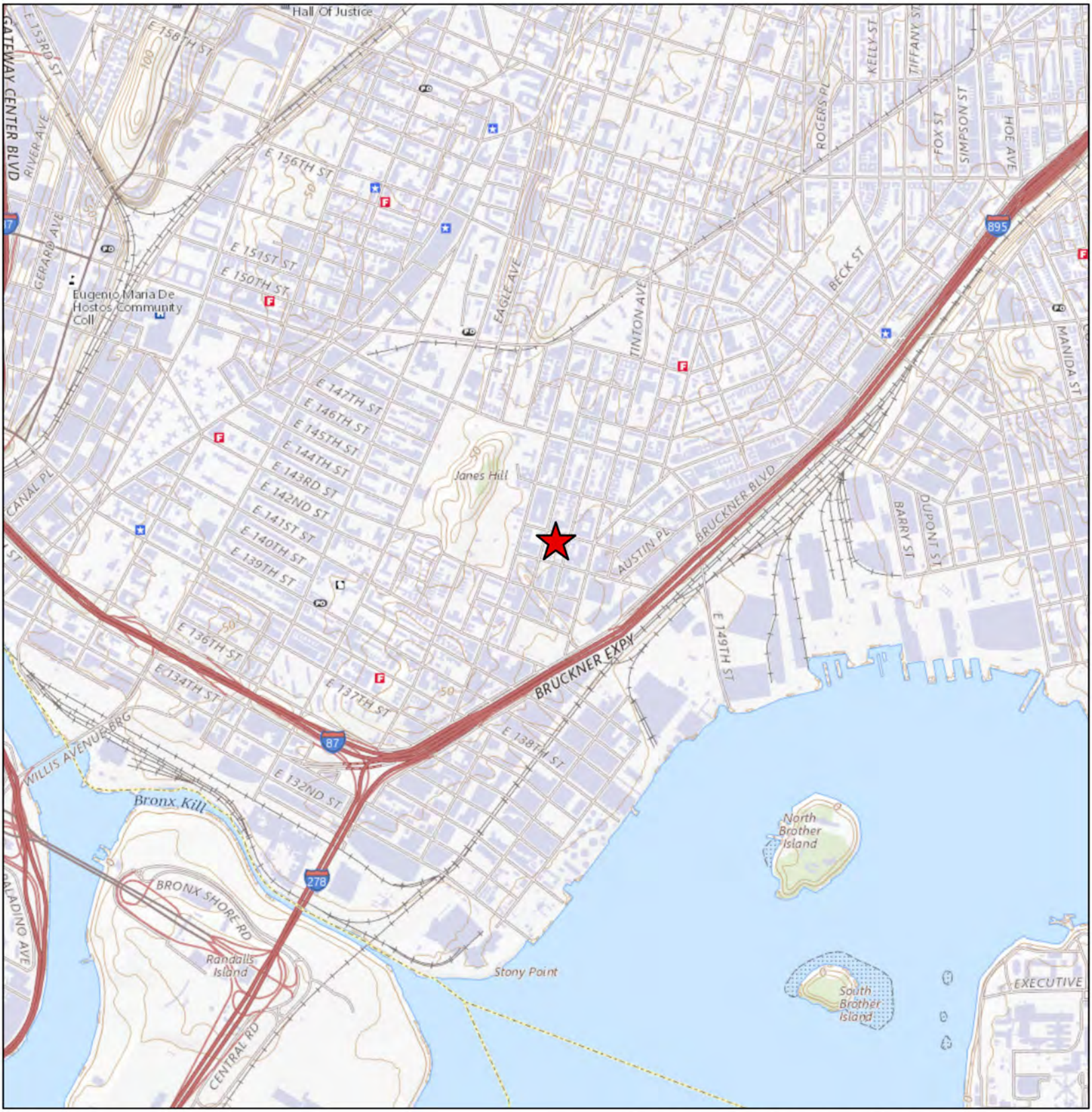
4.2 Task 2: Site Investigation Report

A Phase II Remedial Investigation Report (RIR) will be prepared for the Site based on the results of the completed scope of work. The document will summarize the methodologies used during the field activities, observations, any deviations from the proposed scope of work, conclusions based on the observations and analytical data, and recommendations for additional work, if necessary. The soil and groundwater sampling data will be quantitatively compared to appropriate DEC guidelines and standards. Soils will be compared to the DEC NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives (SCOs); unrestricted and restricted use. Groundwater results will be compared to the DEC Class GA water quality standards in the Technical & Operational Guidance Series (TOGS). The soil gas results will be compared to the applicable 2006 Guidance for Evaluation Soil Vapor Intrusion in the State of New York with updates. If remedial action is required, a Remedial Action Workplan (RAWP) will be prepared and submitted for review and approval by the appropriate regulatory agencies.

Figures

Figure 1

USGS SITE LOCATION PLAN



Legend

438 Concord Avenue

N

0.5 Miles

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438 CONCORD AVENUE
BRONX, NEW YORK

USGS SITE LOCATION MAP

PREPARED BY: equity environmental engineering, A Division of GZA		PREPARED FOR: 100 WEST 33RD STREET INC.	
PROJ MGR: RLJ	REVIEWED BY: JV	CHECKED BY: RLJ	FIG/DWG 1
DESIGNED BY: GB	DRAWN BY: GB	SCALE: 1:17,062	
DATE: 03/20/2023	PROJECT NO: 2021030	REVISION NO:	SHEET NO: 1 OF 1

Figure 2

SITE BOUNDRY MAP

Legend

438 Concord Avenue

N

0 20 40 80 US Feet

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432-434 CONCORD AVENUE
BRONX, NEW YORK

SUBJECT PROPERTY PLAN

PREPARED BY: equity environmental engineering, A Division of GZA		PREPARED FOR: 100 WEST 33RD STREET INC.	
PROJ MGR: RLJ	REVIEWED BY: JV	CHECKED BY: RLJ	FIG/DWG 2
DESIGNED BY: GB	DRAWN BY: GB	SCALE: 1:457	
DATE: 06/14/2023	PROJECT NO: 2021030	REVISION NO:	SHEET NO: 1 OF 1

Figure 3

PROPOSED SAMPLE LOCATION PLAN

Legend

- 438 Concord Avenue
- Underground Storage Tank
- Soil Boring
- Temporary Well
- Soil Vapor

0 15 30 60 US Feet

N

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438 CONCORD AVENUE
BRONX, NEW YORK

SAMPLE LOCATION PLAN

PREPARED BY: equity environmental engineering, A Division of GZA		PREPARED FOR: 100 WEST 33RD STREET INC.	
PROJ MGR: RLJ	REVIEWED BY: JV	CHECKED BY: RLJ	FIG/DWG 3
DESIGNED BY: GB	DRAWN BY: GB	SCALE: 1:458	
DATE: 06/14/2023	PROJECT NO: 2021030	REVISION NO:	SHEET NO: 1 OF 1

Appendix

Appendix A

SITE SPECIFIC HEALTH & SAFETY PLAN

Project Name: 438 Concord Avenue
Project Number: 2021030

equity environmental engineering
500 International Drive, Suite 150
Mount Olive, New Jersey 07828

SITE-SPECIFIC
HEALTH AND SAFETY PLAN

438 Concord Avenue
Bronx, NY 10455

Plan Revisions

Number	Date	Initials
1		
2		
3		
4		

Faron Moser, CHST _____ _____
Health & Safety Officer Date

John Vrabel _____ _____
Site Supervisor (SS) Date
Alternate Health & Safety Officer

Robert Jackson, P.E. _____ _____
Project Manager Date

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Daily Safety Meeting Log
Accident Injury Report
Vehicle Accident Report
Safety Data Sheets

Introduction

This Site-Specific Health and Safety Plan (HASP) has been prepared by Equity Environmental Engineering, LLC (Equity) to summarize the work-related health and safety hazards at the subject site (438 Concord Avenue, the Bronx, NY) and the requirements and procedures to protect its employees from them. This plan meets or exceeds the requirements of Occupational Safety and Health Administration (OSHA), 29 CFR 1910.120, for a site-specific Health and Safety Plan.

This plan was designed to reduce the potential for occupational illness or injury resulting from working at this site. The purpose of the HASP is to inform Equity employees of the health and safety risks present at this site, and the proper methods of protecting themselves from those risks. Each worker must be fully aware of the risks associated with the work to be accomplished, and be dedicated to completing that work safely.

Existing and potential hazards at this site have been identified. As new information becomes available, this HASP will be revised. Standard practices and procedures of industrial hygiene, occupational health, safety, and environmental protection are prescribed in this plan, which was prepared and reviewed by experienced professionals.

Equity employees who work on this site must read the HASP and sign the form included in this plan, to indicate that they understand the plan's contents, and agree to comply with its provisions. Anyone who cannot, or will not comply with this HASP will be excluded from on-site activities. Violations of this HASP or any applicable federal, state, or local health and safety regulations should be reported immediately to the Site Supervisor (SS), or to Equity's Health & Safety Officer (HSO).

This HASP will be readily available so workers can reference it when necessary.

Site Information

Location: 438 Concord Avenue, Bronx, NY 10455

Current Site Information:

The subject property is currently developed on lot 14 with an autobody show and lot 9 is a paved fenced-in parking lot at 438 Concord Avenue, Mott Haven (Block 2577/Lot 9 and 14) in The Bronx, NY.

Location/Class:	[] Industrial	[X] Commercial	[] Urban/Residential
	[] Suburban	[] Rural	

Site Regulatory Status:	[] CERCLA/SARA	[] US EPA	[] NYCDEP
	[] NPL	[] RCRA	[] NJ ISRA
	[X] Other (MOER)	[] Not Regulated	

Operations or Tasks to be Performed:

Soil Gas Point Installation Observation and Soil Gas Sampling

Surrounding Population/Structures:

The area surrounding the subject property primarily is commercial, automotive repair/warehouse/body shops, and residential dwellings.

Site and Surrounding Topography:

The topography is generally flat on-site.

Known or Suspected Pathways of Contaminant Dispersion:

Soil, Vapor Intrusion.

Emergency Shower, Eyewash and First Aid Equipment Located at:

Eyewash and emergency shower will not be available. First Aid Kits will be in the technician's vehicle.

First aid provided by emergency services (911).

Personnel On-Site trained in First Aid:

1.	John Vrabel	5.	Christian DiGennaro
2.	Faron Moser	6.	Kelly Florczak
3.	Bob Jackson	7.	Victoria Moore
4.	Peter Jaran	8.	

Emergency Medical Care

Hospital

Hospital Name: NYC Health + Hospital
Telephone: 718-579-5000

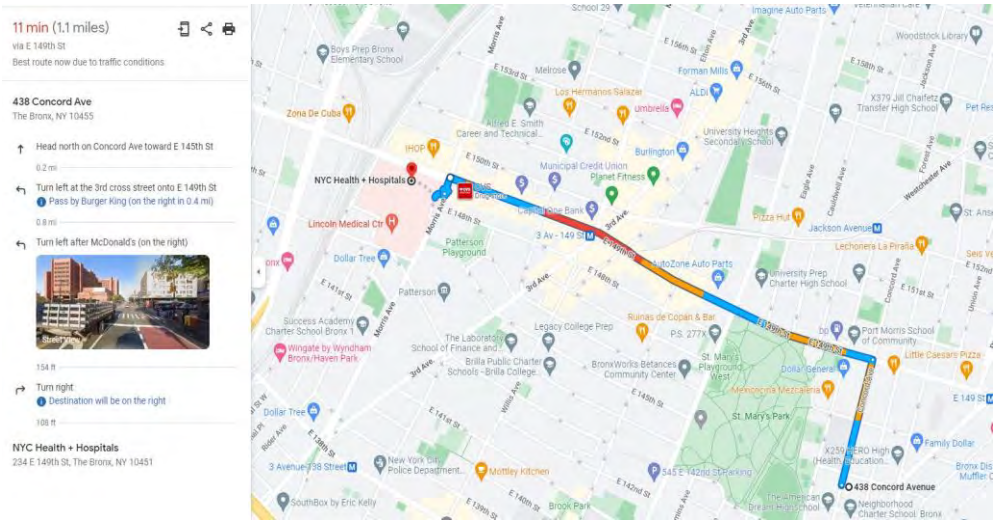
Address: 234 E 149th Street, The Bronx, NY 10451

Contact: Operator Telephone: 718-579-5000

Type of Service (X) Physical Trauma Only
( ) Physical Trauma and Chemical Exposure
(X) Available 24 Hours

Hospital Route:

1. Head north on Concord Avenue toward E 145th Street
2. Turn left at the 3rd cross street onto E 149th Street
3. Turn left onto Morris Avenue
4. Turn right (Destination will be on the right)



Hospital route information has been provided to satisfy OSHA requirements (29 CFR 1910.120). **However, where 911-emergency service and/or transport is available, Equity personnel are strictly prohibited from transporting accident victims in either company or personal vehicles.

Transporting the injured in non-emergency vehicles increases the potential for motor vehicle accidents during transit to the hospital and further injury to the victim. Also, the victims' condition can worsen during transit. As a result, transportation in non-emergency vehicles can delay or even prevent treatment by trained emergency personnel during a critical time. Employees must remain at the site of the accident, administer appropriate first aid, and await the arrival of **trained emergency and/or rescue personnel.**

Emergency Contacts

	Town	Phone
Fire Department FDNY Engine 83/Ladder 29	618 E 138th Street, The Bronx, NY 10454	911
Police Department 41st Precinct	1035 Longwood Avenue, The Bronx, NY 10459	911 (718) 542-4771
Site Contact	Equity Personnel TBD	All Equity staff has cell phones that are on them at all times.
Site Telephone	Equity Personnel	See Above
Nearest Telephone	Equity Personnel	See Next Page
First Aid/EMS FDNY EMS Station 14	2824 Park Avenue, The Bronx, NY 10451	911 (718) 665-1832
Federal Agency Representative	NA	NA
State Agency Representative	NA	NA
Local Agency Representative	NA	NA
Pesticide Poisoning	NA	(800) 845-7633
NY Poison Control Center	State-wide	(212) 764-7667
CHEM TREC	Washington, DC	(800) 424-9300
Utility	Company Name	Phone
Water Supply	NYC DEP	*
Sewer	NYC DEP	*
Power	Con Edison	*
Telephone	*	*
Gas	National Grid	*
NY One Call	NY	811

* NY One Call will supply this information

Equity Environmental Engineering LLC
Emergency Contact List
Cell Phone Numbers

Bob Jackson, Managing Director	(973) 641-0825
Faron Moser, Equity H&S Manager	(201) 341-1323
John Vrabel, Project Manager	(862) 266-6856
Peter Jaran, Managing Director	(973) 479-2381
Kelly Florczak, Environmental Scientist	(908) 878-6910
Christian DiGennaro, Junior Environmental Scientist	(570) 350-9448
Victoria Moore, Junior Environmental Scientist	(862) 268-6343
Equity Environmental Engineering Office	(973) 527-7451
Merry Barrieres, Equity Human Resources	(973) 219-7114

Key Project Personnel

The following describes the project position assignments, associated responsibilities, and reporting relationships.

Position	Job Description	Interactions
Project Manager (PM)	Responsible for technical and administrative performance of the project. Supports Site Supervisor and is available to him at all times. Will visit the site periodically, or as necessary. Reports progress of project on a regular basis. Assigns key personnel, and identifies, requests, secures, and monitors use of resources for project. Approves program expenditures and invoices.	Reports directly to Managing Director. Works closely with Site Supervisor.
Site Supervisor (SS)	Acts as point of contact for client and client's representative(s). Supervises all on-site personnel and subcontractors. Coordinates daily site-specific work efforts, and ensures all activities are in strict compliance with site-specific Health and Safety Plan. Has authority to suspend all work that possesses any health and safety risk. Briefs subordinate technical personnel on task requirements. Identifies and resolves technical problems. Provides periodic review of project progress.	Reports directly to Project Manager.
Health & Safety Officer (HSO)	Develops, implements, and enforces the on-site safety program. Oversees all health and safety aspects of project, conducts periodic audits to ensure compliance. Available at all times to discuss project progress and health and safety related issues.	Reports directly to Managing Director. Works closely with Project Manager, and Site Supervisor.
Onsite Health Physicist	Implementing the radiation safety at the Site with authorization to stop work due to unsafe acts, unsafe conditions, non-compliance and/or non-implementation of the Safety Plan and/or applicable safety and health requirements; performs the proper operation of radiation monitoring equipment; conducts radiation surveys; and notifies anomalies to the site supervisor.	Reports directly to Site Supervisor.

Equity is the entity responsible for managing health and safety for its employees at this site. Key project personnel are as follows:

Project Manager:	Bob Jackson Name	973-527-7451/973-641-0825 Telephone / Cellular Number
Site Supervisor: Alternate HSO	John Vrabel Name	973-527-7451/ 862-2636-6856 Telephone / Cellular Number
HSO & Project: Manager	Faron Moser Name	973-527-7451/201-341-1323 Telephone / Cellular Number

Medical Surveillance and Training Dates for Authorized Personnel

Employee	Medical Exam	OSHA 8-Hr.	Site Supervisor Training	30 Hr. OSHA Construction	Site Safety Training Card	Respirator Fit Test	First Aid & CPR
Bob Jackson	7/14/21	1/15/22	9/27/2004	Not Required P.E.	Not Required P.E.	8/30/21	5/6/22
Faron Moser	3/4/22	1/9/22	2/10/06	6/27/11 Also a Trainer	5/12/20	8/30/21	5/6/22
John Vrabel	5/8/21	12/14/21	4/4/19	8/31/18	2/25/20	8/30/21	5/6/22
Christian DiGennaro	6/25/21	12/14/21	-	8/19/21	11/1/21	8/30/21	5/6/22
Kelly Florczak	4/5/22	2/28/22	-	5/11/22	-	-	5/6/22
Peter Jaran	2/6/22	12/14/21	Unknown	Not Required P.E.	Not Required P.E.	Not Current	5/6/22
Victoria Curran	7/25/22	12/14/21	-	12/17/21	2/15/22	8/30/21	5/6/22

Task Identification

Tasks covered under this plan:

Task #	Description
1	Surface Geophysics
2	Soil gas point, temporary monitoring well, and soil boring installation with sampling

Off-site tasks planned? No

Describe:

Potential Chemical Hazards

Task No.(s)	Chemical Name (or class)	PEL	TLV	Other Pertinent Limits (specify)	Primary Hazard			SDS Attached Y/N
					Ingestion	Dermal	Inhalation	
2	Benzene	1 ppm	0.5ppm			X	X	Y
2	Anthracene	200 ppm		Ceiling – 300 ppm IDLH – 500 ppm	X	X	X	Y
2	Acenaphthene					X	X	Y
2	Arsenic		0.01 ppb	IDLH – 0.002 ppb	X		X	Y
2	Barium	0.5 ppb	0.5 ppb				X	Y
2	Benzo(b)fluoranthene					X	X	Y
2	Benzo(ghi)perylene						X	Y
2	Benzo(a)pyrene	0.2 ppb					X	Y
2	Chrysene	0.2 ppb					X	Y
2	Ethylbenzene	100 ppm	100 ppm		X		X	Y
2	Cadmium		0.01 ppb		X		X	Y
2	Chromium		0.5 ppb				X	Y
2	DDT		1 ppb		X			Y
2	Selenium		0.2 ppb		X		X	Y

2	p-Xylene		100 ppm	STEL – 150 ppm	X	X	X	Y
2	Naphthalene		10 ppm		X	X	X	Y
2	Chlordane		0.5 ppb		X	X	X	Y
2	Aldrin		0.5 ppm		X	X		Y
2	Silver		0.1 ppb		X		X	Y
2	Aroclor 1254		0.5 ppb		X	X	X	Y
2	Endrin		0.1 ppb		X	X	X	Y
2	Pyrene					X		Y
2	Lead	0.5 ppb	0.5 ppb		X	X	X	Y
2	Mercury	0.1 ppb	0.025 ppb		X			Y
2	Toluene	200 ppm	50 ppm	Ceiling – 300 ppm	X		X	
2	Isobutylene						X	Y
2	Trichloroethene	200 ppm	50 ppm		X	X	X	Y
2	Tetrachloroethene	200 ppm	50 ppm		X	X	X	Y

PEL – OSHA Permissible Exposure Limit: the maximum allowable 8-hour time weighted average (TWA) exposure concentration.
TLV – ACGIH Threshold Limit Value: the recommended 8-hour TWA exposure concentration.
STEL – ACGIH or OSHA Short-term Exposure Limit: the maximum allowable 15-minute TWA exposure concentration.
Ceiling – OSHA and Cal-OSHA Ceiling Limit: the maximum exposure concentration above, which an employee shall not be exposed during any period without respiratory protection.

IDLH – Immediately Dangerous to Life and Health: the concentration at which one could be exposed for 30 minutes without experiencing escape-impairing or irreversible health effects.

**Please note not all the chemicals listed above have not been confirmed to exist at the Subject Property. However, per NYC CEQR (New York City, City Environmental Quality Review) requirements that site-specific HASP should include VOCs, SVOCs, Pesticides/PCBs, and Heavy Metals as potential chemicals of concern. Isobutylene will be onsite for tasks 1-3 and it is used as a calibration gas for PID (Photo-Ionization Detector) equipment.*

Physical and Biological Hazards

Hazard	Yes	No	Task No.(s)	Hazard	Yes	No	Task No.(s)
Electrical (overhead lines)	X		2	Uneven Terrain	X		2
Electrical (underground lines)	X		2	Unstable Surfaces	X		2
Gas Lines	X		2	Elevated Surfaces		X	
Water Lines	X		2	Lightning	X		2
Drilling Equipment	X		2	Rain	X		2
Excavation Equipment		X		Snow	X		2
Power Tools	X		2	Liquefied/Pressurized Gases		X	
Heat Exposure		X		Lifting Equipment		X	
Cold Exposure	X		2	Vermin	X		2
Oxygen Deficiency		X		Insects	X		2
Confined Spaces		X		Disease-causing organisms	X		2
Noise	X		2	Others, e.g., marine sampling (specify)		X	
Ionizing Radiation		X		Illness - COVID-19	X		2
Non-Ionizing Radiation		X		Slippery Surfaces	X		2
Fire	X		2				
Explosive Atmospheres		X					
Shoring		X					
Scaffolding		X					
Holes/Ditches	X						
Steep Grades		X					

Risk Analysis

Task #	Substance	Concentration (if known)	Risk*
2	Isobutylene		0/1

*Risk
0 – No Risk
1 – Slight Risk
2 – Moderate Risk
3 – Dangerous Conditions/Caution
4 – High Risk
5 – Extremely Dangerous

**Please note not all the chemicals listed above have not been confirmed to exist at the Subject Property. However, per NYC CEQR (New York City, City Environmental Quality Review) requirements that site-specific HASP should include VOCs, SVOCs, Pesticides/PCBs, and Heavy Metals as potential chemicals of concern. Isobutylene will be onsite for tasks 1-3 and it is used as a calibration gas for PID equipment.*

General Safety Rules

1. If an employee must work alone, he/she must call his/her supervisor twice a day. If the supervisor is unavailable, that supervisor's supervisor must be contacted.
2. Workers must wear all personal protective equipment required for the tasks to be performed.
3. Horseplay or practical jokes are forbidden on the job.
4. Compressed air must not be used to blow dirt from clothing, or played with or blown at another person.
5. Drinking of alcoholic beverages or the use of drugs on the job is prohibited. Their use will cause immediate dismissal from the site.
6. All areas must be continually cleaned to maintain good housekeeping. Trash is to be piled neatly and removed promptly. All tools and work areas are to be kept in clean and safe condition.
7. Competent workers must do welding and cutting.
8. Ladders are to be of proper design and tied off while in use. Do not go up or down a ladder without the free use of both hands. Use a rope to lift or lower materials or tools. Always face a ladder when climbing or descending.
9. Every work site must have a complete first aid kit.
10. **ALL** accidents must be investigated and reported. Use the Accident Investigation Form in the back section of this plan.
11. Injuries sustained while on duty must be reported to supervisor immediately, or as soon as possible after injury is sustained.
12. Explosives must be handled and transported by licensed people only.
13. All tools and electrical equipment must be in proper working order.
14. Clothing appropriate to the duties performed shall be worn by all workers. Large pockets, loose jewelry, cuffed trousers and loose or torn clothing are dangerous and should not be worn around machinery, or when climbing ladders, or working on structures.

Heat Stress

Site employees will be trained to recognize signs of heat stress. The Site Supervisor will maintain a log of all site employees exposed to temperature extremes, showing the work and rest times as well as worker monitoring results. Appropriate rest periods will be provided to help site workers accommodate to temperature extremes.

Signs and Symptoms of Heat Stress

- **Heat rash** may result from continuous exposure to heat or humid air.
- **Heat cramps** are caused by heavy sweating with inadequate electrolyte replacement. Signs and symptoms include:
  - muscle spasms
  - pain in the hands, feet and abdomen
- **Heat exhaustion** occurs from increased stress on various body organs, including inadequate blood circulation due to cardiovascular insufficiency or dehydration. Signs and symptoms are:
  - pale, cool, moist skin
  - heavy sweating
  - dizziness
  - nausea
  - fainting
- **Heat stroke** is the most serious form of heat stress. Temperature regulation fails and the body temperature rises to critical levels. Immediate action must be taken to cool the body before serious injury and death occurs. Competent medical help must be obtained. Signs and symptoms are:
  - red, hot, usually dry skin
  - lack of reduced perspiration
  - nausea
  - dizziness and confusion
  - strong, rapid pulse
  - coma

Measures to Avoid Heat Stress

- Establish work-rest cycles (short and frequent are more beneficial than long and seldom).
- Identify a shaded, cool rest area.
- Rotate personnel, alternate job functions.
- Water intake should be equal to the sweat produced. Most workers exposed to hot conditions drink less fluids than needed because of an insufficient thirst. DO NOT DEPEND ON THIRST TO SIGNAL WHEN AND HOW MUCH TO DRINK. For an 8-hour workday, 50 ounces of fluids should be drunk.
- Eat lightly salted foods or drink salted drinks such as Gatorade to replace lost salt.
- Save most strenuous tasks for non-peak hours, such as the early morning or at night.
- Avoid alcohol during prolonged periods of heat. Alcohol will cause additional dehydration.

Site personnel should monitor their pulse rate as an indicator of heat strain by the following method:
At the beginning of the rest period, count the radial pulse during a 30-second period. If the rate exceeds 110 beats per minute, lengthen the rest period by one-third. If the heart rate still exceeds 110 beats per minute at the end of the rest period, shorten the next work cycle by one-third.

Cold Stress

Equity will provide appropriate rest periods to help site workers accommodate to temperature extremes. Site employees will be trained to recognize signs of cold stress.

Measures to Avoid Cold Stress

- Wear multi-layer clothing (the outer most layer should be of wind-resistant fabric)
- Drink warm fluids
- Work in pairs
- Avoid heavy sweating

Cooling Power of Wind on Exposed Flesh Expressed as Equivalent Temperature (under calm conditions)*

Estimated Wind Speed (in mph)	Equivalent Chill Temperature (°F)											
	50	40	30	20	10	0	-10	-20	-30	-40	-50	-60
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	-195
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 from freezing of exposed flesh within one minute.				GREAT DANGER Flesh may freeze within 30 seconds.			
	Trenchfoot and immersion foot may occur at any point on this chart											

* Developed by U.S. Army Research Institute of Environmental Medicine, Natick, MA

The Site Supervisor will maintain a log of all site employees exposed to temperature extremes, showing the work and rest times as well as environmental monitoring results.

Employee Training Program

All personnel performing work in areas on this site covered by this HASP must have completed the appropriate training requirements specified in 29 CFR 1910.120(e). Each individual must have completed an 8-hour refresher-training course and/or initial 40-hour training course within the last two years prior to performing any intrusive work on this site covered by this HASP. Records that demonstrate that all persons subject to the training requirements have actually met them will be maintained either on site or in the project file. The Project Manager and/or Supervisor are responsible for verifying compliance of the project team with these rules.

Prior to commencement of on-site activities, a site safety meeting will be held to review the specific information and requirements of this HASP. HASP sign-off sheets will be collected at the end of this meeting.

Site Specific Training (when applicable) will include:

- Explanation of the overall site HASP.
- Health and safety personnel and organization.
- Brief site history.
- Special attention to signs and symptoms of overexposure to known and suspected site contaminants.
- Health effects of site contaminants.
- Air monitoring description.
- Physical hazards associated with the project.
- Selection, use and limitations of available safety.
- Personal hygiene and decontamination.
- Respirator face-piece fit testing.
- PPE use and maintenance.
- Site rules and regulations.
- Work zone establishment and markings.
- Site communication.
- Emergency preparedness procedures.
- Equipment decontamination.
- Medical monitoring procedures.
- Contingency plan.

Prior to work, each Equity employee will attend the contractor's health and safety orientation, if applicable. In addition, Equity's employees will review health and safety items specific to the tasks to be performed that were not covered in the contractor's orientation.

Site Health and Safety Meetings

In addition, the Site Supervisor will meet daily with all Equity employees prior to beginning work on site. The agenda of the meeting will include a review of important elements of this plan, any special safety items, and a discussion of the emergency response procedures. Also, everyone will agree on a schedule for periodic meetings, (for example, before beginning work each day), to review the effectiveness of this plan and make changes as necessary. If significant changes at the site occur, special meetings will be scheduled.

Training Records

The Site Supervisor will complete a report of the daily safety meetings, using the form in the back section of this plan, and all attending the meeting will sign the Daily Safety Meeting Log.

The training status of contractor and subcontractor employees will be verified that their training criteria meets the requirements specified in 29 CFR 1910.120(e). A copy of all training certificates will be kept for Equity personnel working at the site.

Personal Protective Equipment (PPE) Requirements

Task No.(s)	Level of Protection (A – D)*	Level of Upgrade	PPE Suit	PPE Gloves	PPE Feet	PPE Head	PPE Eye	PPE Ear	PPE Respirator	Additional PPE for Upgrade
1, 2	D	NA	Std	N & Work	Steel	HH	Glasses	Plugs	NA	

SUIT
Std = Standard Work Clothes
Tyvek = Uncoated Tyvek Disposal Coverall
PE Tyvek = Polyethylene-coated Tyvek
Saranex = Saranex-laminated Tyvek
PVC Suite = PVC Raingear

GLOVES
Work = Work Gloves (canvas, leather)
Neo = Neoprene Gloves
PVC = PVC Gloves
N = Nitrile Gloves
V = Vinyl Gloves
L = Latex Gloves

FEET
Steel = Steel-toe shoes or boots
Steel+ = Steel-toe shoes or boots & PVC boots
Booties = PVC booties

HEAD
HH = Hardhat

EYE
Glasses = Safety glasses
Goggles = Goggles
Shield = Face shield

EAR
Plugs = Earplugs
Muff = Ear muffs

RESPIRATOR
APR = Air purifying respirator
Full APR = Full face APR
Half APR = Half face APR
SAR = Airline supplied air respirator
SCBA = Self contained breathing apparatus
Escape = Escape SCBA
OV = Organic Vapor Cartridge
AG = Acid Gas Cartridge
OV/AG = Organic Vapor/Acid Gas Cartridge
AM = Ammonia Cartridge
Dust/Mist = Dust/Mist pre-filter and cover for cartridge
HEPA = High efficiency particulate air filter cartridge

* For unspecified volatile organics (based on 1-minute breathing zone measurement using PID or OVA):
** Earplugs will be available on-site, but are not required

Up to 1 ppm above background	Level D
1 – 5 ppm above background	Level C
5 – 500 ppm above background	Level B
500 ppm above background	Level A

Suggested Levels of Protection

Level "D" Protection

1. Coveralls (optional)
2. Gloves
3. Boots/shoes – steel toe
4. Boots (outer) chemical resistant (disposable- if required)
5. Safety glasses or chemical splash goggles
6. Hard hat (safety shield if required)

Level "C" Protection

1. Full-face, air-purifying, canister-equipped respirator (NIOSH/MSHA approved)
2. Chemical resistant clothing (coveralls; hooded, two-piece, chemical splash suit; chemical resistant hood & apron; disposable, chemical-resistant coveralls)
3. Coveralls
4. Gloves (outer) chemical-resistant
5. Gloves (inner) chemical-resistant
6. Boots (outer) chemical-resistant
7. Boots (inner) steel toe
8. Hard hat (face shield)
9. Escape mask
10. Two-way radio

Level "B" Protection

1. Pressure/Demand SCBA (MSHA-NIOSH approved)
2. Chemical resistant clothing (overalls and long-sleeved jacket; coveralls; hooded, one- or two-piece chemical splash suite; disposable, chemical-resistant coveralls)
3. Coveralls
4. Gloves (outer) chemical-resistant
5. Gloves (inner) chemical-resistant
6. Boots (outer) chemical-resistant
7. Boots (inner) steel toe
8. Hard hat (face shield)
9. Two-way radio

Level "A" Protection (Equity does not perform work in Level A PPE)

1. Pressure/Demand SCBA (MSHA-NIOSH approved)
2. Fully encapsulating, chemical-resistant suit
3. Coveralls
4. Gloves (outer) chemical-resistant
5. Gloves (inner) chemical-resistant
6. Boots, chemical-resistant, steel toe (depending on suit construction, work over or under suit boot)
7. Hard hat (under suit)
8. Two-way radio

Medical Surveillance

Requirements

All Equity employees covered by this HASP, who engage in site activities governed by 29 CFR 1910.120 for 30 or more days per year, must meet the medical surveillance requirements specified in 1910.120(f). Therefore, such personnel must have completed occupational medical baseline or surveillance examination, performed by a licensed physician, within the last 24 months. The medical examination includes the following components:

- Personal Medical Questionnaire
- Occupational Exposure History
- Physical Examination
- Vision Testing
- Spirometry
- Audiometry
- Blood Chemistry Panel (e.g., SMAC-20)
- Complete Blood Count with Differential
- Urinalysis
- Chest X-Ray (every two years at a minimum)
- Electrocardiogram (at physician's discretion)

Examinations are required upon hiring, termination, and exposure to substances at or above the PEL.

Results of the examinations are communicated directly from the physician to the employee. Medical records for Equity's employees are kept by the Company and the employee

Monitoring Requirements

Monitoring is to be conducted by the Site Supervisor, or his/her designee. Copies of monitoring results and calibration logs will be filed with the HASP and/or within the daily field notes/site notebook.

Monitoring is designed to assess exposure to employees during site activities, and to determine if PPE is required and adequate to assure protection. Because investigation and remediation activities at hazardous waste sites are of an inconsistent nature, it is not possible to assign a monitoring protocol that excludes, or is not directly dependent upon, professional judgment in determining when monitoring is required to assess exposure. Thus, the following generic protocol must be followed at a minimum, and should be modified to be more conservative (e.g., require more monitoring) if deemed necessary by the Site Supervisor or HSO. Under no conditions will the required frequency be decreased.

At a minimum, air monitoring will be conducted before and during each task or activities for which air monitoring has been designated. If airborne concentrations of contaminants reach action levels based on observations with the direct reading instruments, then the appropriate PPE upgrade or work stoppage order will be enforced by the Site Supervisor. In case a work stoppage order is given, the area must be cleared of all personnel immediately.

The use of action levels and the basis for the selection of monitoring equipment is explained as follows:

Action levels determine:

(1) the PPE to be used by site workers
(2) their ability to remain and work in the exclusion zone

The selection of the specified monitoring equipment is based on

(1) the nature of the contaminants
(2) the likely concentrations of the contaminants
(3) the probable duration of exposure
(4) the relative sensitivity of the monitoring equipment to the specific contaminants

The following summarizes the calibration requirements for the air monitoring instruments used at the site:

Instrument	Calibration Frequency
PID: Mini RAE-3000 (or equivalent)	Beginning of each work shift

Air Monitoring and Contaminant Action Levels

Task No.(s)	Location	Contaminant	Monitoring Equipment	Monitoring Frequency	Action Level Concentration	
					Mandatory Respirator Use	Mandatory Work Stoppage
2	Work Areas	Volatile Organic	PID: Mini-Rae	Periodically during all tasks/activities.	NA	10 ppm above background in breathing zone

PID = Photoionization Detector (e.g., Multi-Rae, Mini-Rae, HNU, TIP, OVM)
FID = Flame Ionization Detector (e.g., OVA)
LEL-O_2 = Explosivity and Oxygen Meter

Name(s) of individual(s) responsible for performing the monitoring, and certifying the results:
All Equity personnel

Type, make and model of instruments used: Mini-Rae 3000 (or equivalent) PID Gas Monitor

Method and frequency of calibration:

- 100 ppm isobutylene-calibration gas. Calibrated prior to each day's use according to manufacturer's instruction.

Procedures for Handling Anticipated Wastes

Waste Generation

Anticipated: Yes_____ No _x__

Types: Liquid _____Solid _____Sludge _____Gas _____

Quantity: Expected volume of each type:

This project ____ will __x__ will not generate hazardous wastes.

These wastes will be:

_____ stored _____ treated
___ transported _____ manifested in the following manner:

Any soil and/or groundwater produced from sampling activities will remain onsite.

Packaging requirements for waste material:

_____
_____
_____
_____
_____

Spill Prevention and Response

Potentially hazardous spill situations can be mitigated by using containment devices and materials in work areas. If site conditions are suitable, earthen berms will be constructed around specific areas. If site conditions are not suitable for this, or the potential spill is smaller, barriers will be constructed with sorbent materials such as “speedi-dry”, sorbent booms and/or straw bales. Dikes and berms will also be used to divert stormwater run-on and run-off away from critical zones.

Because a spill cleanup must be conducted under crisis conditions, it is important that the methods used for dealing with a spill be thought out beforehand. However, the steps followed cannot be inflexible, because no two spills are identical. Factors that will be assessed in the event of any and all spills include:

1. The volume of the hazardous substance released and the rate of release.
2. The nature of the spill material.
3. What danger exists to personnel in the immediate area.
4. Nature of damage and possibilities of repair.
5. If the transfer of material to an alternate containment is advisable.
6. Feasibility of the construction of a containment dike.
7. Nature of spill area.
8. Whether the spilled substance has reached a watercourse or sewer.
9. Danger of explosion or fire.
10. Equipment and supplies necessary to confine the material and carry out the cleanup.

In most cases, the success of a cleanup operation is dependent upon the time it takes to contain the spill. Therefore, Equity’s first attempt at spill containment will be at the point of discharge. This can often be accomplished by closing valves, reinforcing or repairing damaged containers, moving or changing the position of fallen or ruptured containers, or emptying the container by pumping to a temporary storage or holding vessel. Pumps, suction hoses and containers will be available to recover spilled materials when directed to do so by the Site Supervisor.

Handling and transport of drummed waste always must be conducted in a controlled and safe manner, which will minimize damage to structurally sound drums, repacks and overpacks. If leakage or spillage of waste occurs, the drum must immediately be placed within an overpack unit. Overpack units must be provided at each staging area, at areas of existing drums, and along all site roadways.

Task/Work Area	Potential Spill or Discharge	Equipment, Materials, and Procedures for Spill Cleanup
Soil boring, temporary monitoring well, and soil vapor locations	Hydraulic fluid from drill rig	Pads/Speedy Dry

Emergency Procedures

Potential emergencies that may arise are most likely to be associated with physical hazards from heavy equipment operation and/or lifting and loading of debris. Emergency response will, in most cases, be performed in Level D protection.

Modifications to these emergency procedures may be necessary after the actual site set-up, based on prevailing conditions. Periodic reviews of these procedures will be performed by the Site Supervisor to ensure that they are appropriate for all anticipated emergencies.

Responsibilities

The Site Supervisor has the authority and responsibility to commit company resources to appropriately respond to an emergency, and to exclude all personnel not directly responding to the emergency.

Prior to beginning work at the site, Equity will designate an employee, usually the Site Supervisor, to be responsible for initiating any emergency response actions. In the event an injury or illness requires more than first aid treatment, the Site Supervisor (or alternate) will accompany the injured person to the hospital, and will remain with the person until release, admittance is decided, or another Equity staff relieves them of this responsibility.

Evacuation Plan

The basic elements of an emergency evacuation plan include employee training, escape routes, escape procedures, critical operations or equipment, rescue and medical duty assignments, designation of responsible parties, emergency reporting procedures and methods to account for all employees after evacuation.

When appropriate, wind direction will be discussed during the daily safety briefing to all on-site personnel by the Site Supervisor to indicate possible routes of upwind escape. Work-area entrance and exit routes will be planned, and emergency escape routes will be delineated by the Site Supervisor. The discovery of any condition that would suggest the existence of a situation more hazardous than anticipated, will result in the evacuation of the team and a re-evaluation of the hazard and the level of protection required. This re-evaluation will be conducted by appropriate on-site health and safety personnel in coordination with the HSO

In the highly unlikely event that barrels, canisters, or chemical gases or vapors are uncovered during site work, the following procedures shall be followed:

1. In the event that barrels, canisters, or any other vessels are encountered during excavation, all work shall immediately cease and all workers to be removed from the area. The Site Supervisor shall be immediately notified, and he/she shall identify vessel contents, handling procedures and storage and disposal techniques prior to starting work.
2. In the event that high concentrations of gases or vapors are detected, the following actions will be taken:
    - Remove all workers from the area
    - Monitor gas or vapor concentrations to determine the type of respiratory protection that will be required before workers reenter the area.

3. In the highly unlikely event of a major leak of toxic gas, such as might occur if a compressed gas cylinder were ruptured during excavation or drilling, all on-site personnel will be evacuated to a safe distance. The HSO and Emergency services will be contacted immediately and the risk will be assessed prior to restarting work.

Training

Employees will be instructed in the specific aspects of emergency evaluation applicable to the site as part of the site safety meeting prior to the commencement of all on-site activities. On-site refresher or update training is required anytime escape routes or procedures are modified or personnel assignments are changed. During the site safety meeting, all employees will be trained in, and reminded of the location of this plan, the procedures outlined in this plan, and the communication systems and evacuation routes used during an emergency.

On a continuous basis, individual employees should be constantly alert for indicators of potentially hazardous situations, and for signs and symptoms in themselves and others that warn of hazardous conditions and exposures. Rapid recognition of dangerous situations can avert an emergency. In the event of any emergency that necessitates an evaluation of the site, on-site personnel will be notified by the use of car horns sounded in regularly spaced, repeated blasts, as detailed in the next section of this procedure. The Site Supervisor will control the site until the appropriate local or state agency representatives arrive, if required. He will also contact the HSO.

Alarm Systems Emergency Signals

The simplest and most effective emergency communication system, in any situation, is direct voice communications. Voice communications will be supplemented anytime voices cannot be clearly perceived above ambient noise levels (e.g., noise from heavy equipment, drilling rigs or backhoes0, and anytime a clear line-of-sight cannot be easily maintained among all site personnel because of distance, terrain, or other obstructions. When voice communications must be supplemented, the following emergency signals, using car horns, will be used.

One Horn Blast: General Warning

One blast is used to signal relatively minor, but important events on site. An example would be a minor chemical spill where there is no immediate damage to life or health, yet personnel working on site should be aware of the situation so unnecessary problems are avoided. If one horn blast is sounded, personnel must stop all activity and equipment on site and await further instruction from the Site Supervisor.

Two Horn Blasts: Medical Emergency

Two blasts are used to signal a medical emergency where immediate first aid or emergency medical care is required. If two horn blasts are sounded, all first aid and CPR trained personnel should respond, as appropriate. All other activity and equipment should stop, and personnel should await further instructions from the Site Supervisor.

Three Horn Blasts Followed by One Continuous Blast: Immediate Danger to Life or Health

Three blasts followed by another extended or continuous horn blast signals a situation that could present an immediate danger to the life or health (IDLH) to all employees on site. Examples of possible IDLH situations could include fires, explosions, hazardous chemical spills or releases, hurricanes, tornadoes, blizzards or floods. If three horn blasts followed by a continuous blast are sounded, all activity and equipment must stop, and all personnel must evacuate the site to an appropriately designated site located outside the site gate, or further off site if necessary. (Note: unless otherwise specified, all decontamination procedures must be implemented.) All personnel must be accounted for by the Site Supervisor, and other response actions determined by the Site Supervisor must be followed.

Employees on site will use the "buddy" system (pairs). Buddies should pre-arrange hand signals or other means of emergency communication in case radios cannot be used, or if the radios no longer operate. The following had signals are suggested:

1. Hand gripping throat: out of air, can't breathe.
2. Grip partner's wrist or place both hands around waste: leave area immediately, no debate.
3. Hand on top of head: need assistance.
4. Thumbs up: OK, I'm alright, I understand.
5. Thumbs down: No, negative.

Visual contact will be maintained between employee pairs. Team members will remain in close proximity to each other in order to provide assistance in case of emergencies, and will inform each other of any of the following effects of exposure to site contamination:

- headaches
- dizziness
- blurred vision
- cramps
- irritation of eyes, skin or respiratory tract

If any member of the work crew experiences any adverse symptoms while on site, the entire work crew will immediately stop work and follow the instructions provided by the Site Supervisor.

Medical Treatment/First Aid

Community emergency services (EMS, fire, and police) will be notified immediately if their resources are needed on site. If necessary, the injured or sick party shall be taken to the nearest hospital.

Emergency Reporting

Any incident (other than minor first aid treatment) resulting in injury, illness or property damage will be reported to Equity. An incident investigation will be initiated as soon as emergency conditions are under control. The purpose of this investigation is not to attribute blame but to determine the pertinent facts so that repeat or similar occurrences can be avoided.

The investigations will begin while details are fresh in the mind of all involved. The person administering first aid may be able to start the fact gathering process if the injured are able to speak. Pertinent facts must be determined. Questions beginning with who, what, when, where, and how are usually most

effective to discover ways to improve job performance in terms of efficiency, quality of work, as well as safety and health concerns.

On-Site Evacuation Plan

A series of repeated blasts is the signal for all Equity personnel and subcontractors to evacuate the site and assemble at:

To be determined at the beginning of each field event

The criteria for activating the alarm will be the first sign of any serious problem that requires assistance or evacuation. Should either a fire or explosion occur, all personnel will proceed immediately to the evacuation assembly point and await further instructions. At that time a personnel check will be conducted to determine if anyone is missing, and the local fire and police departments will be called for assistance. Once on site, the acting officer of the fire department and the Site Supervisor will determine if further evacuations are necessary. No Equity personnel will re-enter the site without clearance from the fire/police department and Site Supervisor. Subcontractor Safety It has been and shall continue to be the policy of Equity that employees of all subcontractors are required to adhere to all applicable company, local, state, and federal safety rules and regulations.

When an infraction of a local, state, federal, or company safety regulation is observed, the Site Supervisor will request verbally that the subcontractor's supervisory personnel correct the infraction immediately. If correction is not made, then the project manager will request in writing that proper corrective action be taken. Subcontractors who continue to ignore proper safety procedures will have payments withheld until compliance is achieved or be terminated.

Subcontractor Safety

Subcontractors are required to hold safety meetings for their employees when they are working on Equity projects, and submit documentation of such meetings to the Project Manager. At a minimum they shall have specific safety procedures for proper use of all heavy equipment such as excavators, drilling rigs, etc., on site during the project. Subcontractor employees are required to attend Equity's safety meetings.

APPENDIX D-3

RIR

equity environmental engineering
A Division of GZA

PLANNING
GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION MANAGEMENT

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REMEDIAL INVESTIGATION REPORT

438 Concord Avenue
Block 2577, Lots 9 and 14
Bronx, New York 10455

June 2, 2023
12.0077425.00

PREPARED FOR:
Alejandro Waldman
Bronx Co, LLC.
65 Saint Felix Street
Brooklyn, NY 11217

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PLANNING
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June 2, 2023
File No. 12.0077527.00

June 2, 2023

HASC Center
5601 First Avenue
Brooklyn, NY 11220
Attention: Samuel Kahn

Re: ***Remedial Investigation Report***
438 Concord Avenue
Block 2577, Lots 9 and 14
Bronx, New York 10455

Dear Mr. Samuel Kahn

On behalf of The Bronx Co, LLC. Equity Environmental Engineering LLC. A Division of GZA (Equity) is submitting this *Remedial Investigation Report (RIR)* for the above referenced property. The full scope of proposed work was not completed due to the onsite conditions, primarily the shallow depth to competent bedrock across the property.

Should you have any questions or concerns, please contact Bob Jackson at (973) 738-0782.

Very truly yours,

Equity Environmental Engineering LLC. A Division of GZA

Robert Jackson, P.E.
Senior Project Manager

Peter Jaran
Consultant/Reviewer

Kevin Williams
Associate Principal

Attachments: March 2023 Remedial Investigation Report

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Remedial Investigation Report
438 Concord Avenue
Block 2577, Lots 9 and 14
Bronx, New York 10455

1.0 BACKGROUND

The Subject Property is located at 438 Concord Avenue (Block 2577/Lots 9 and 14) in the Mott Haven Neighborhood of Bronx, New York, Community District 1. Figure 1 shows the Site location and Figure 2 shows the property boundary. The Subject Property is in an area comprised of mixed commercial, residential, and industrial use. The Subject Property is approximately 20,532 square feet in size. Lot 9 is currently a paved, fenced-in parking lot used to store vehicles and lot 14 is used as an auto body shop.

The Proposed Development Plan seeks a zoning map amendment from M1-2 to a M1-4/R7D (MX-18) zoning district. It is our understanding that the zoning actions sought are to support the Applicant's proposal to build a 10-story mixed use building with the first floor proposed to be light manufacturing and accessory retail space with two loading berths accessed by a curb cut out on Concord Avenue that would service the ground floor. The cellar, ground level, second, and third floors are proposed to be retail, community facilities, and office spaces. The fourth through tenth floors are proposed to be residential apartments with 87 dwellings. There are 43 proposed parking spaces in the southeastern portion of the Subject Property accessed by a curb cut on Concord Avenue. There will be a space for bicycle parking on the ground floor. The roof is proposed to have recreation space, greenhouse and urban farming space, and solar panels with a green roof above the bulkhead. Excavation depths are as follows: 10' below grade surface (bgs) for the cellar, 15' bgs for the elevator pit, and 17' bgs for the underground parking garage.

A Phase I Environmental Site Assessment (ESA) was completed on October 21, 2022, by Equity Environmental Engineering and identified no Recognized Environmental Condition (REC) on the Subject Property.

2.0 REMEDIAL INVESTIGATION ACTIVIITES

The Remedial Investigation was completed on April 28th, 2023, by Equity. The following scope of work was performed at the Subject Property:

1. Installed nine soil borings on the Subject Property and collected nine soil samples for chemical analysis to evaluate soil quality.

2. Collected appropriate quality assurance/quality control (QA/QC) samples.

2.1 SOIL INVESTIGATION

On April 28th, 2023, Equity personnel and drilling contractor ADT installed and sampled nine soil borings designated SB-1, through SB-9. Borings SB-1 through SB-5 were installed on lot 9 of the Subject Property in a vacant paved lot where no building exists. Borings SB-6 through SB-9 were installed on lot 14 of the Subject Property inside an active auto body garage with concrete flooring. Soil boring locations are shown in Figure 3.

Equity staff provided oversight of the soil boring installation, logged the soil cuttings, and collected the necessary soil samples. The borings were advanced onsite using a direct-push drill rig and 2-inch diameter cores in five-foot intervals and collected in acetate sleeves. The borings were advanced to a maximum depth of approximately seven feet bgs due to refusal on shallow bedrock. Groundwater was not encountered at the Subject Property. As the soil was retrieved, the following soil characteristics were determined, described, and classified: soil lithology, color, and the presence of staining or odors. The borings were screened using visual and olfactory senses, and a Photo-Ionization Detector (PID) to detect for the presence of Volatile Organic Compounds (VOCs).

One sample was collected from SB-6 through SB-9 from the bottom foot of the boring. One shallow soil sample was collected from SB-1 through SB-5 from the 0 – 2-foot interval of the boring immediately above the shallow bedrock. One field blank and one duplicate sample were taken for quality assurance/quality control (QA/QC) purposes.

The soil samples were analyzed for Target Compound List (TCL) volatile organic compounds (VOCs) by EPA Method 8260B, TCL semi-volatile organic compounds (SVOCs) by EPA Method 8270C, pesticides/polychlorinated biphenyls (PCBs) by EPA Method 8081A, Target Analyte List (TAL) metals by EPA Methods 6010/6020/7471, and per-and polyfluoroalkyl substances (PFAS/PFOS) by EPA Method 537.

The soil samples were placed in laboratory-supplied containers, preserved with ice, and submitted under chain-of-custody procedures to the contract laboratory for analysis. All samples were shipped to a laboratory certified in the New York State Department of Health (DOH) Environmental Laboratory Approval Program (ELAP). Upon completion of the analyses, Category B data deliverables were provided. The soil boring logs are available in Appendix A.

Given the site conditions, specifically shallow bedrock, no groundwater or soil vapor sampling was conducted as part of the Phase II investigation.

3.0 ANALYTICAL RESULTS

The analytical results for the samples are provided on Table 1. The analytical data package is available in Appendix B. The following is a discussion of the results:

3.1 SOIL

There were 13 VOCs, 23 SVOCs, nine pesticides, one PCB, and 18 Metals detected throughout all the soil samples. Exceedances above the Unrestricted Use criteria occurred in all samples. Exceedances above the Residential criteria occurred in all samples. One exceedance above the Restricted Residential Use criteria occurred in sample SB-3 (0-2). Analytical results are discussed in further detail below and provided in Table 1.

- Two VOCs, acetone (maximum of 0.475 mg/kg) and m,p-Xylene (maximum of 0.348 mg/kg) were detected in exceedance of the Unrestricted Use Criteria in sample SB-6 (5-6). The unrestricted use criteria for acetone and m,p-Xylene is 0.05 mg/kg and 0.26 respectively.

- No SVOCs or PCBs were detected in exceedance of the Unrestricted, Residential, or the Restricted Residential Use criteria in any samples.

- Three Pesticides, 4,4'-DDD (maximum of 0.0137 mg/kg); 4,4'-DDE (maximum of 0.0349 mg/kg); and 4,4'-DDT (maximum of 0.0141 mg/kg) were detected in exceedance of the Unrestricted Use criteria in samples SB-1 (0-2), SB-2

(0-2), SB-3 (0-2), SB-4 (0-2), SB-6 (5-6), SB-7 (6-7), SB-8 (5-6), and SB-9 (5-6). The Unrestricted Use Criteria for 4,4'-DDD; 4,4'-DDE; and 4,4'-DDT is 0.0033 mg/kg.

- Four Metals were detected in exceedance of the Unrestricted Use Criteria in all samples. The Metals in exceedance include Lead (maximum of 249 mg/kg), Mercury (maximum of 0.27 mg/kg), Nickel (maximum of 43.3 mg/kg), and Zinc (maximum of 314 mg/kg). The Unrestricted Use Criteria for Lead, Mercury, Nickel, and Zinc are 63mg/kg, 0.18 mg/kg, 30 mg/kg, and 109 mg/kg respectively. One Metal, Iron (maximum of 53,500 mg/kg) was detected in exceedance of the Residential criteria in samples SB-1, SB-2, SB-3, SB-4, SB-5, SB-6, SB-7, SB-8, and SB-9. The Residential Use Criteria for Iron ais 2000 mg/kg. One Metal, Barium (maximum of 414 mg/kg) was detected in exceedance of the Restricted Residential criteria in SB-3 (0-2). The Restricted Residential Use criteria for Barium is 400 mg/kg.

- PFAS/PFOS results were compared to the New York Department of Environmental Conservation (NYDEC) guidance found in the Sampling, Analysis, and Assessment of Per- and Polyfluroroalkyl Substances Part 375 Remedial Program dated April 2023. PFAS/PFOS was detected in SB-1 (0-2) and SB-8 (5-6). Perfluorooctanesulfonic acid was detected at an estimated value of 0.00030 mg/kg in SB-1 (0-2) below all guidance values. Perfluoroheptanesulfonic acid was detected at an estimated value of 0.00057 mg/kg in SB-8 (5-6) below all guidance values. Ethyl perfluorooctane sulfonamido acetic acid (EtFOSAA) was detected in SB-8 (5-6) (maximum of 0.0025 mg/kg) and is above the Unrestricted and Protection of Groundwater guidance values of 0.00066 mg/kg and 0.0008 mg/kg respectively.

4.0 SUMMARY

The Remedial Investigation included the following activities:

- Nine soil borings were installed, sampled and observed for visual signs of contamination

- The soil samples indicated that, in general, the concentrations of VOCs, SVOCs, Pesticides, PCBs, and metals were low across the site except for iron and Barium which were detected in exceedance of the Residential criteria and the Restricted Residential criteria, and a few minor exceedance of the Unrestricted Use Criteria.

5.0 RECCOMENDATIONS

Based on the analytical results discussed above and the proposed residential building, a Remedial Action Workplan (RAWP) should be prepared to address the soil contaminants. The RAWP will be developed in conjunction with the proposed construction plans for the proposed building. The RAWP will include the following:

1. The preparation of a Construction Health and Safety Plan (CHASP) for the protection of onsite workers during construction.
2. Appropriate permits will be required for the demolition of the existing building.
3. The known UST will be properly cleaned, removed and disposed of along with any contaminated soil.

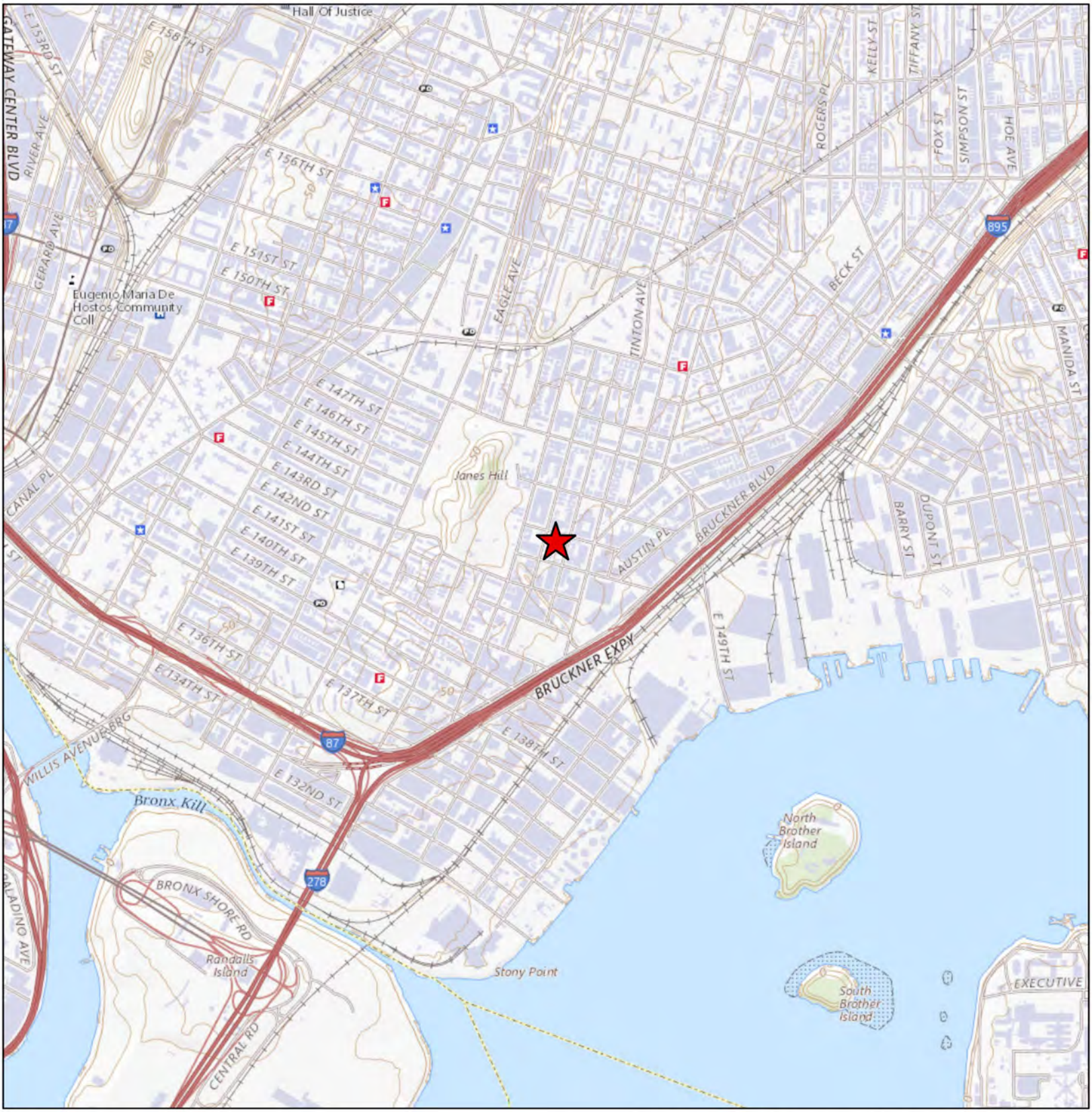
4. The onsite soil will be excavated to the necessary construction depth and transported offsite for the construction of the new building.

5. A Community Air Monitoring Program (CAMP) will be implemented during the soil excavation and import of soil if required.

6. The onsite soil will be sampled for waste classification purposes based on the volume of soil to be excavated.

7. A vapor barrier should be installed to prevent possible vapor intrusion from the soil into the proposed building. It should be at minimum, 20-mil thick and properly anchored to the foundation walls and booted around all pipe penetrations.

Figures



Legend

438 Concord Avenue

N

0.5 Miles

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438 CONCORD AVENUE
BRONX, NEW YORK

USGS SITE LOCATION MAP

PREPARED BY: equity environmental engineering, A Division of GZA		PREPARED FOR: 100 WEST 33RD STREET INC.	
PROJ MGR: RLJ	REVIEWED BY: JV	CHECKED BY: RLJ	FIG/DWG 1
DESIGNED BY: GB	DRAWN BY: GB	SCALE: 1:17,062	
DATE: 03/20/2023	PROJECT NO: 2021030	REVISION NO:	SHEET NO: 1 OF 1

Legend

438 Concord Avenue

N

0 20 40 80 US Feet

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432-434 CONCORD AVENUE
BRONX, NEW YORK

SUBJECT PROPERTY PLAN

PREPARED BY: equity environmental engineering, A Division of GZA		PREPARED FOR: 100 WEST 33RD STREET INC.	
PROJ MGR: RLJ	REVIEWED BY: JV	CHECKED BY: RLJ	FIG/DWG 2
DESIGNED BY: GB	DRAWN BY: GB	SCALE: 1:457	
DATE: 06/14/2023	PROJECT NO: 2021030	REVISION NO:	SHEET NO: 1 OF 1

Legend

- 438 Concord Avenue
- Underground Storage Tank
- Soil Boring
- Temporary Well
- Soil Vapor

0 15 30 60 US Feet

N

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438 CONCORD AVENUE
BRONX, NEW YORK

SAMPLE LOCATION PLAN

PREPARED BY: equity environmental engineering, A Division of GZA		PREPARED FOR: 100 WEST 33RD STREET INC.	
PROJ MGR: RLJ	REVIEWED BY: JV	CHECKED BY: RLJ	FIG/DWG 3
DESIGNED BY: GB	DRAWN BY: GB	SCALE: 1:458	
DATE: 06/14/2023	PROJECT NO: 2021030	REVISION NO:	SHEET NO: 1 OF 1

Tables

Table 1
Soil Analytical Data Report
438 Concord Avenue
Bronx, New York 10455

												May 26, 2023 14:16 pm
Job Number:	**JD64767**											
Account:	**GZA Environmental, Inc.**											
Project:	**Concord Wales, 438 Concord Avenue, Bronx, NY**											
Project Number:	**12.0077425.00**											
Results flagged as "Exceed" if any of the selected criteria exceeded (most stringent).									**Legend:**	Hit	**Exceed**	
Client Sample ID:		**NY SCO - Unrestricted Use (6 NYCRR 375-6 12/06)**	**NY SCO - Residential w/CP-51 (10/10) (6 NYCRR 375-6 12/06)**	**NY SCO - Restricted Residential w/CP-51 (10/10) (6 NYCRR 375-6 12/06)**	**FB-1**	**FB-1**	**TB-1**					
Lab Sample ID:					**JD64767-10**	**JD64767-10A**	**JD64767-11**					
Date Sampled:					**4/28/2023**	**4/28/2023**	**4/28/2023**					
Matrix:					**Field Blank Soil**	**Field Blank Soil**	**Trip Blank Soil**					
MS Volatiles (SW846 8260D)												
Acetone	ug/l	-	-	-	ND (3.1) [a]	-	ND (3.1) [a]					
Benzene	ug/l	-	-	-	ND (0.43)	-	ND (0.43)					
Bromochloromethane	ug/l	-	-	-	ND (0.48)	-	ND (0.48)					
Bromodichloromethane	ug/l	-	-	-	ND (0.45)	-	ND (0.45)					
Bromoform	ug/l	-	-	-	ND (0.63)	-	ND (0.63)					
Bromomethane	ug/l	-	-	-	ND (1.6)	-	ND (1.6)					
2-Butanone (MEK)	ug/l	-	-	-	ND (2.7)	-	ND (2.7)					
Carbon disulfide	ug/l	-	-	-	ND (0.46)	-	ND (0.46)					
Carbon tetrachloride	ug/l	-	-	-	ND (0.55)	-	ND (0.55)					
Chlorobenzene	ug/l	-	-	-	ND (0.56)	-	ND (0.56)					
Chloroethane	ug/l	-	-	-	ND (0.73)	-	ND (0.73)					
Chloroform	ug/l	-	-	-	ND (0.50)	-	ND (0.50)					
Chloromethane	ug/l	-	-	-	ND (0.76)	-	ND (0.76)					
Cyclohexane	ug/l	-	-	-	ND (0.78)	-	ND (0.78)					
1,2-Dibromo-3-chloropropane	ug/l	-	-	-	ND (0.53)	-	ND (0.53)					
Dibromochloromethane	ug/l	-	-	-	ND (0.56)	-	ND (0.56)					
1,2-Dibromoethane	ug/l	-	-	-	ND (0.48)	-	ND (0.48)					
1,2-Dichlorobenzene	ug/l	-	-	-	ND (0.53)	-	ND (0.53)					
1,3-Dichlorobenzene	ug/l	-	-	-	ND (0.54)	-	ND (0.54)					
1,4-Dichlorobenzene	ug/l	-	-	-	ND (0.51)	-	ND (0.51)					
Dichlorodifluoromethane	ug/l	-	-	-	ND (0.56)	-	ND (0.56)					
1,1-Dichloroethane	ug/l	-	-	-	ND (0.57)	-	ND (0.57)					
1,2-Dichloroethane	ug/l	-	-	-	ND (0.60)	-	ND (0.60)					
1,1-Dichloroethene	ug/l	-	-	-	ND (0.59) [b]	-	ND (0.59) [b]					
cis-1,2-Dichloroethene	ug/l	-	-	-	ND (0.51)	-	ND (0.51)					
trans-1,2-Dichloroethene	ug/l	-	-	-	ND (0.54)	-	ND (0.54)					
1,2-Dichloropropane	ug/l	-	-	-	ND (0.51)	-	ND (0.51)					
cis-1,3-Dichloropropene	ug/l	-	-	-	ND (0.47)	-	ND (0.47)					
trans-1,3-Dichloropropene	ug/l	-	-	-	ND (0.43)	-	ND (0.43)					
Ethylbenzene	ug/l	-	-	-	ND (0.60)	-	ND (0.60)					
Freon 113	ug/l	-	-	-	ND (0.58)	-	ND (0.58)					
2-Hexanone	ug/l	-	-	-	ND (2.0)	-	ND (2.0)					

Isopropylbenzene	ug/l	-	-	-	ND (0.65)	-	ND (0.65)				
Methyl Acetate	ug/l	-	-	-	ND (0.80)	-	ND (0.80)				
Methylcyclohexane	ug/l	-	-	-	ND (0.60)	-	ND (0.60)				
Methyl Tert Butyl Ether	ug/l	-	-	-	ND (0.51)	-	ND (0.51)				
4-Methyl-2-pentanone(MIBK)	ug/l	-	-	-	ND (1.9)	-	ND (1.9)				
Methylene chloride	ug/l	-	-	-	ND (1.0)	-	ND (1.0)				
Styrene	ug/l	-	-	-	ND (0.49)	-	ND (0.49)				
1,1,2,2-Tetrachloroethane	ug/l	-	-	-	ND (0.65)	-	ND (0.65)				
Tetrachloroethene	ug/l	-	-	-	ND (0.56)	-	ND (0.56)				
Toluene	ug/l	-	-	-	ND (0.49)	-	ND (0.49)				
1,2,3-Trichlorobenzene	ug/l	-	-	-	ND (0.50)	-	ND (0.50)				
1,2,4-Trichlorobenzene	ug/l	-	-	-	ND (0.50)	-	ND (0.50)				
1,1,1-Trichloroethane	ug/l	-	-	-	ND (0.54)	-	ND (0.54)				
1,1,2-Trichloroethane	ug/l	-	-	-	ND (0.53)	-	ND (0.53)				
Trichloroethene	ug/l	-	-	-	ND (0.53)	-	ND (0.53)				
Trichlorofluoromethane	ug/l	-	-	-	ND (0.40)	-	ND (0.40)				
Vinyl chloride	ug/l	-	-	-	ND (0.52)	-	ND (0.52)				
m,p-Xylene	ug/l	-	-	-	ND (0.78)	-	ND (0.78)				
o-Xylene	ug/l	-	-	-	ND (0.59)	-	ND (0.59)				
Xylene (total)	ug/l	-	-	-	ND (0.59)	-	ND (0.59)				
MS Semi-volatiles (EPA 537M BY ID)											
Perfluorobutanoic acid	ng/l	-	-	-	-	ND (1.9)	-				
Perfluoropentanoic acid	ng/l	-	-	-	-	ND (0.93)	-				
Perfluorohexanoic acid	ng/l	-	-	-	-	ND (0.93)	-				
Perfluoroheptanoic acid	ng/l	-	-	-	-	ND (0.93)	-				
Perfluorooctanoic acid	ng/l	-	-	-	-	ND (0.93)	-				
Perfluorononanoic acid	ng/l	-	-	-	-	ND (0.93)	-				
Perfluorodecanoic acid	ng/l	-	-	-	-	ND (0.93)	-				
Perfluoroundecanoic acid	ng/l	-	-	-	-	ND (0.93)	-				
Perfluorododecanoic acid	ng/l	-	-	-	-	ND (0.93)	-				
Perfluorotridecanoic acid	ng/l	-	-	-	-	ND (0.93)	-				
Perfluorotetradecanoic acid	ng/l	-	-	-	-	ND (0.93)	-				
Perfluorobutanesulfonic acid	ng/l	-	-	-	-	ND (0.93)	-				
Perfluorohexanesulfonic acid	ng/l	-	-	-	-	ND (0.93)	-				
Perfluoroheptanesulfonic acid	ng/l	-	-	-	-	ND (0.93)	-				
Perfluorooctanesulfonic acid	ng/l	-	-	-	-	ND (0.93)	-				
Perfluorodecanesulfonic acid	ng/l	-	-	-	-	ND (0.93)	-				
PFOSA	ng/l	-	-	-	-	ND (1.9)	-				
MeFOSAA	ng/l	-	-	-	-	ND (1.9)	-				
EtFOSAA	ng/l	-	-	-	-	ND (1.9)	-				
6:2 Fluorotelomer sulfonate	ng/l	-	-	-	-	ND (1.9)	-				
8:2 Fluorotelomer sulfonate	ng/l	-	-	-	-	ND (1.9)	-				
MS Semi-volatiles (SW846 8270E)											
2-Chlorophenol	ug/l	-	-	-	ND (0.82)	-	-				
4-Chloro-3-methyl phenol	ug/l	-	-	-	ND (0.90)	-	-				
2,4-Dichlorophenol	ug/l	-	-	-	ND (1.3)	-	-				

2,4-Dimethylphenol	ug/l	-	-	-	ND (2.4)	-	-				
2,4-Dinitrophenol	ug/l	-	-	-	ND (1.6) [a]	-	-				
4,6-Dinitro-o-cresol	ug/l	-	-	-	ND (1.3) [a]	-	-				
2-Methylphenol	ug/l	-	-	-	ND (0.89)	-	-				
3&4-Methylphenol	ug/l	-	-	-	ND (0.88)	-	-				
2-Nitrophenol	ug/l	-	-	-	ND (0.96) [a]	-	-				
4-Nitrophenol	ug/l	-	-	-	ND (1.2) [c]	-	-				
Pentachlorophenol	ug/l	-	-	-	ND (1.4) [c]	-	-				
Phenol	ug/l	-	-	-	ND (0.39) [a]	-	-				
2,3,4,6-Tetrachlorophenol	ug/l	-	-	-	ND (1.5)	-	-				
2,4,5-Trichlorophenol	ug/l	-	-	-	ND (1.3)	-	-				
2,4,6-Trichlorophenol	ug/l	-	-	-	ND (0.93)	-	-				
Acenaphthene	ug/l	-	-	-	ND (0.19)	-	-				
Acenaphthylene	ug/l	-	-	-	ND (0.14)	-	-				
Acetophenone	ug/l	-	-	-	ND (0.21)	-	-				
Anthracene	ug/l	-	-	-	ND (0.21)	-	-				
Atrazine	ug/l	-	-	-	ND (0.45)	-	-				
Benzaldehyde	ug/l	-	-	-	ND (0.29)	-	-				
Benzo(a)anthracene	ug/l	-	-	-	ND (0.20)	-	-				
Benzo(a)pyrene	ug/l	-	-	-	ND (0.21)	-	-				
Benzo(b)fluoranthene	ug/l	-	-	-	ND (0.21)	-	-				
Benzo(g,h,i)perylene	ug/l	-	-	-	ND (0.34)	-	-				
Benzo(k)fluoranthene	ug/l	-	-	-	ND (0.21)	-	-				
4-Bromophenyl phenyl ether	ug/l	-	-	-	ND (0.41)	-	-				
Butyl benzyl phthalate	ug/l	-	-	-	ND (0.46) [a]	-	-				
1,1'-Biphenyl	ug/l	-	-	-	ND (0.21)	-	-				
2-Chloronaphthalene	ug/l	-	-	-	ND (0.24)	-	-				
4-Chloroaniline	ug/l	-	-	-	ND (0.34)	-	-				
Carbazole	ug/l	-	-	-	ND (0.23)	-	-				
Caprolactam	ug/l	-	-	-	ND (0.65) [a]	-	-				
Chrysene	ug/l	-	-	-	ND (0.18)	-	-				
bis(2-Chloroethoxy)methane	ug/l	-	-	-	ND (0.28)	-	-				
bis(2-Chloroethyl)ether	ug/l	-	-	-	ND (0.25)	-	-				
2,2'-Oxybis(1-chloropropane)	ug/l	-	-	-	ND (0.40)	-	-				
4-Chlorophenyl phenyl ether	ug/l	-	-	-	ND (0.37)	-	-				
2,4-Dinitrotoluene	ug/l	-	-	-	ND (0.55)	-	-				
2,6-Dinitrotoluene	ug/l	-	-	-	ND (0.48) [a]	-	-				
3,3'-Dichlorobenzidine	ug/l	-	-	-	ND (0.51) [a]	-	-				
1,4-Dioxane	ug/l	-	-	-	ND (0.66)	-	-				
Dibenzo(a,h)anthracene	ug/l	-	-	-	ND (0.33)	-	-				
Dibenzofuran	ug/l	-	-	-	ND (0.22)	-	-				
Di-n-butyl phthalate	ug/l	-	-	-	ND (0.50)	-	-				
Di-n-octyl phthalate	ug/l	-	-	-	ND (0.23) [a]	-	-				
Diethyl phthalate	ug/l	-	-	-	ND (0.26)	-	-				
Dimethyl phthalate	ug/l	-	-	-	ND (0.22)	-	-				
bis(2-Ethylhexyl)phthalate	ug/l	-	-	-	ND (1.7) [a]	-	-				
Fluoranthene	ug/l	-	-	-	ND (0.17)	-	-				
Fluorene	ug/l	-	-	-	ND (0.17)	-	-				

Hexachlorobenzene	ug/l	-	-	-	ND (0.33)	-	-				
Hexachlorobutadiene	ug/l	-	-	-	ND (0.49)	-	-				
Hexachlorocyclopentadiene	ug/l	-	-	-	ND (2.8) [c]	-	-				
Hexachloroethane	ug/l	-	-	-	ND (0.39)	-	-				
Indeno(1,2,3-cd)pyrene	ug/l	-	-	-	ND (0.33)	-	-				
Isophorone	ug/l	-	-	-	ND (0.28)	-	-				
2-Methylnaphthalene	ug/l	-	-	-	ND (0.21)	-	-				
2-Nitroaniline	ug/l	-	-	-	ND (0.28) [a]	-	-				
3-Nitroaniline	ug/l	-	-	-	ND (0.39)	-	-				
4-Nitroaniline	ug/l	-	-	-	ND (0.44) [a]	-	-				
Naphthalene	ug/l	-	-	-	ND (0.23)	-	-				
Nitrobenzene	ug/l	-	-	-	ND (0.64)	-	-				
N-Nitroso-di-n-propylamine	ug/l	-	-	-	ND (0.48)	-	-				
N-Nitrosodiphenylamine	ug/l	-	-	-	ND (0.22)	-	-				
Phenanthrene	ug/l	-	-	-	ND (0.18)	-	-				
Pyrene	ug/l	-	-	-	ND (0.22)	-	-				
1,2,4,5-Tetrachlorobenzene	ug/l	-	-	-	ND (0.37)	-	-				
GC/LC Semi-volatiles (SW846 8081B)											
Aldrin	ug/l	-	-	-	ND (0.0041)	-	-				
alpha-BHC	ug/l	-	-	-	ND (0.0042)	-	-				
beta-BHC	ug/l	-	-	-	ND (0.0064)	-	-				
delta-BHC	ug/l	-	-	-	ND (0.0053)	-	-				
gamma-BHC (Lindane)	ug/l	-	-	-	ND (0.0048)	-	-				
alpha-Chlordane	ug/l	-	-	-	ND (0.0039)	-	-				
gamma-Chlordane	ug/l	-	-	-	ND (0.0034)	-	-				
Dieldrin	ug/l	-	-	-	ND (0.0061)	-	-				
4,4'-DDD	ug/l	-	-	-	ND (0.0046)	-	-				
4,4'-DDE	ug/l	-	-	-	ND (0.0040)	-	-				
4,4'-DDT	ug/l	-	-	-	0.012 B	-	-				
Endrin	ug/l	-	-	-	ND (0.0048)	-	-				
Endosulfan sulfate	ug/l	-	-	-	ND (0.0044)	-	-				
Endrin aldehyde	ug/l	-	-	-	ND (0.0054)	-	-				
Endrin ketone	ug/l	-	-	-	ND (0.0050)	-	-				
Endosulfan-I	ug/l	-	-	-	ND (0.0042)	-	-				
Endosulfan-II	ug/l	-	-	-	ND (0.0039)	-	-				
Heptachlor	ug/l	-	-	-	ND (0.0036)	-	-				
Heptachlor epoxide	ug/l	-	-	-	ND (0.0048)	-	-				
Methoxychlor	ug/l	-	-	-	ND (0.0054)	-	-				
Toxaphene	ug/l	-	-	-	ND (0.13)	-	-				
GC/LC Semi-volatiles (SW846 8082A)											
Aroclor 1016	ug/l	-	-	-	ND (0.16)	-	-				
Aroclor 1221	ug/l	-	-	-	ND (0.34)	-	-				
Aroclor 1232	ug/l	-	-	-	ND (0.21)	-	-				
Aroclor 1242	ug/l	-	-	-	ND (0.18)	-	-				
Aroclor 1248	ug/l	-	-	-	ND (0.10)	-	-				
Aroclor 1254	ug/l	-	-	-	ND (0.33)	-	-				

Aroclor 1260	ug/l	-	-	-	ND (0.12)	-	-				
Aroclor 1268	ug/l	-	-	-	ND (0.14)	-	-				
Aroclor 1262	ug/l	-	-	-	ND (0.15)	-	-				
Metals Analysis											
Aluminum	ug/l	-	-	-	<200	-	-				
Antimony	ug/l	-	-	-	<6.0	-	-				
Arsenic	ug/l	-	-	-	<3.0	-	-				
Barium	ug/l	-	-	-	<200	-	-				
Beryllium	ug/l	-	-	-	<1.0	-	-				
Cadmium	ug/l	-	-	-	<3.0	-	-				
Calcium	ug/l	-	-	-	<5000	-	-				
Chromium	ug/l	-	-	-	<10	-	-				
Cobalt	ug/l	-	-	-	<50	-	-				
Copper	ug/l	-	-	-	<10	-	-				
Iron	ug/l	-	-	-	<100	-	-				
Lead	ug/l	-	-	-	<3.0	-	-				
Magnesium	ug/l	-	-	-	<5000	-	-				
Manganese	ug/l	-	-	-	<15	-	-				
Mercury	ug/l	-	-	-	<0.20	-	-				
Nickel	ug/l	-	-	-	<10	-	-				
Potassium	ug/l	-	-	-	<10000	-	-				
Selenium	ug/l	-	-	-	<10	-	-				
Silver	ug/l	-	-	-	<10	-	-				
Sodium	ug/l	-	-	-	<10000	-	-				
Thallium	ug/l	-	-	-	<10	-	-				
Vanadium	ug/l	-	-	-	<50	-	-				
Zinc	ug/l	-	-	-	<20	-	-				
Client Sample ID:		**NY SCO - Unrestricted Use (6 NYCRR 375-6 12/06)**	**NY SCO - Residential w/CP-51 (10/10) (6 NYCRR 375-6 12/06)**	**NY SCO - Restricted Residential w/CP-51 (10/10) (6 NYCRR 375-6 12/06)**	**SB-1 (0-2')**	**SB-1 (0-2')**	**SB-2 (0-2')**	**SB-2 (0-2')**	**SB-3 (0-2')**	**SB-3 (0-2')**	**SB-4 (0-2')**
Lab Sample ID:					**JD64767-1**	**JD64767-1A**	**JD64767-2**	**JD64767-2A**	**JD64767-3**	**JD64767-3A**	**JD64767-4**
Date Sampled:					**4/28/2023**	**4/28/2023**	**4/28/2023**	**4/28/2023**	**4/28/2023**	**4/28/2023**	**4/28/2023**
Matrix:					**Soil**	**Soil**	**Soil**	**Soil**	**Soil**	**Soil**	**Soil**
MS Volatiles (SW846 8260D)											
Acetone	mg/kg	0.05	100	100	ND (0.0037)	-	0.0030 J	-	0.0061 J	-	ND (0.0038)
Benzene	mg/kg	0.06	2.9	4.8	0.00045	-	ND (0.00031)	-	ND (0.00043)	-	ND (0.00042)
Bromochloromethane	mg/kg	-	-	-	ND (0.00050)	-	ND (0.00038)	-	ND (0.00053)	-	ND (0.00051)
Bromodichloromethane	mg/kg	-	-	-	ND (0.00038)	-	ND (0.00029)	-	ND (0.00040)	-	ND (0.00039)
Bromoform	mg/kg	-	-	-	ND (0.0012)	-	ND (0.00093)	-	ND (0.0013)	-	ND (0.0012)
Bromomethane	mg/kg	-	-	-	ND (0.00068)	-	ND (0.00052)	-	ND (0.00072)	-	ND (0.00070)
2-Butanone (MEK)	mg/kg	0.12	100	100	ND (0.0022)	-	ND (0.0017)	-	ND (0.0023)	-	ND (0.0022)
Carbon disulfide	mg/kg	-	100		ND (0.00047)	-	ND (0.00037)	-	ND (0.00050)	-	ND (0.00049)
Carbon tetrachloride	mg/kg	0.76	1.4	2.4	ND (0.00055)	-	ND (0.00042)	-	ND (0.00058)	-	ND (0.00056)
Chlorobenzene	mg/kg	1.1	100	100	ND (0.00041)	-	ND (0.00031)	-	ND (0.00043)	-	ND (0.00042)
Chloroethane	mg/kg	-			ND (0.00052)	-	ND (0.00040)	-	ND (0.00056)	-	ND (0.00054)

Chloroform	mg/kg	0.37	10	49	ND (0.00046)	-	ND (0.00036)	-	ND (0.00049)	-	ND (0.00047)
Chloromethane	mg/kg	-	-	-	ND (0.0017) [b]	-	ND (0.0013) [b]	-	ND (0.0018) [b]	-	ND (0.0018) [b]
Cyclohexane	mg/kg	-	-	-	ND (0.00058)	-	ND (0.00045)	-	ND (0.00062)	-	ND (0.00060)
1,2-Dibromo-3-chloropropane	mg/kg	-	-	-	ND (0.00062)	-	ND (0.00047)	-	ND (0.00065)	-	ND (0.00063)
Dibromochloromethane	mg/kg	-			ND (0.00050)	-	ND (0.00038)	-	ND (0.00053)	-	ND (0.00051)
1,2-Dibromoethane	mg/kg	-	-	-	ND (0.00037)	-	ND (0.00029)	-	ND (0.00040)	-	ND (0.00038)
1,2-Dichlorobenzene	mg/kg	1.1	100	100	ND (0.00048)	-	ND (0.00037)	-	ND (0.00051)	-	ND (0.00050)
1,3-Dichlorobenzene	mg/kg	2.4	17	49	ND (0.00044)	-	ND (0.00034)	-	ND (0.00047)	-	ND (0.00045)
1,4-Dichlorobenzene	mg/kg	1.8	9.8	13	ND (0.00044)	-	ND (0.00034)	-	ND (0.00046)	-	ND (0.00045)
Dichlorodifluoromethane	mg/kg	-	-	-	ND (0.00064)	-	ND (0.00050)	-	ND (0.00068)	-	ND (0.00066)
1,1-Dichloroethane	mg/kg	0.27	19	26	ND (0.00044)	-	ND (0.00034)	-	ND (0.00047)	-	ND (0.00045)
1,2-Dichloroethane	mg/kg	0.02	2.3	3.1	ND (0.00042)	-	ND (0.00032)	-	ND (0.00044)	-	ND (0.00043)
1,1-Dichloroethene	mg/kg	0.33	100	100	ND (0.00058)	-	ND (0.00045)	-	ND (0.00062)	-	ND (0.00060)
cis-1,2-Dichloroethene	mg/kg	0.25	59	100	ND (0.00074)	-	ND (0.00057)	-	ND (0.00079)	-	ND (0.00077)
trans-1,2-Dichloroethene	mg/kg	0.19	100	100	ND (0.00054)	-	ND (0.00042)	-	ND (0.00058)	-	ND (0.00056)
1,2-Dichloropropane	mg/kg	-			ND (0.00042)	-	ND (0.00032)	-	ND (0.00045)	-	ND (0.00043)
cis-1,3-Dichloropropene	mg/kg	-	-	-	ND (0.00042)	-	ND (0.00033)	-	ND (0.00045)	-	ND (0.00043)
trans-1,3-Dichloropropene	mg/kg	-	-	-	ND (0.00041)	-	ND (0.00031)	-	ND (0.00043)	-	ND (0.00042)
Ethylbenzene	mg/kg	1	30	41	ND (0.00040)	-	ND (0.00031)	-	ND (0.00043)	-	ND (0.00041)
Freon 113	mg/kg	-	100		ND (0.0024)	-	ND (0.0018)	-	ND (0.0025)	-	ND (0.0024)
2-Hexanone	mg/kg	-	-	-	ND (0.0019)	-	ND (0.0015)	-	ND (0.0020)	-	ND (0.0019)
Isopropylbenzene	mg/kg	-	100		ND (0.0013)	-	ND (0.00097)	-	ND (0.0013)	-	ND (0.0013)
Methyl Acetate	mg/kg	-	-	-	ND (0.0012)	-	ND (0.00095)	-	ND (0.0013)	-	ND (0.0013)
Methylcyclohexane	mg/kg	-	-	-	ND (0.00078)	-	ND (0.00060)	-	ND (0.00082)	-	ND (0.00080)
Methyl Tert Butyl Ether	mg/kg	0.93	62	100	ND (0.00042)	-	ND (0.00032)	-	ND (0.00044)	-	ND (0.00043)
4-Methyl-2-pentanone(MIBK)	mg/kg	-			ND (0.0020)	-	ND (0.0016)	-	ND (0.0021)	-	ND (0.0021)
Methylene chloride	mg/kg	0.05	51	100	ND (0.0023)	-	ND (0.0018)	-	ND (0.0025)	-	ND (0.0024)
Styrene	mg/kg	-			ND (0.00036)	-	ND (0.00028)	-	ND (0.00038)	-	0.00078 J
1,1,2,2-Tetrachloroethane	mg/kg	-	35		ND (0.00053)	-	ND (0.00041)	-	ND (0.00056)	-	ND (0.00055)
Tetrachloroethene	mg/kg	1.3	5.5	19	0.0010 J	-	ND (0.00040)	-	ND (0.00055)	-	ND (0.00053)
Toluene	mg/kg	0.7	100	100	ND (0.00047)	-	ND (0.00036)	-	ND (0.00049)	-	ND (0.00048)
1,2,3-Trichlorobenzene	mg/kg	-			ND (0.0022)	-	ND (0.0017)	-	ND (0.0024)	-	ND (0.0023)
1,2,4-Trichlorobenzene	mg/kg	-			ND (0.0022)	-	ND (0.0017)	-	ND (0.0024)	-	ND (0.0023)
1,1,1-Trichloroethane	mg/kg	0.68	100	100	ND (0.00043)	-	ND (0.00033)	-	ND (0.00045)	-	ND (0.00044)
1,1,2-Trichloroethane	mg/kg	-	-	-	ND (0.00049)	-	ND (0.00038)	-	ND (0.00052)	-	ND (0.00051)
Trichloroethene	mg/kg	0.47	10	21	ND (0.00068)	-	ND (0.00052)	-	ND (0.00072)	-	ND (0.00070)
Trichlorofluoromethane	mg/kg	-	-	-	ND (0.00061)	-	ND (0.00047)	-	ND (0.00064)	-	ND (0.00062)
Vinyl chloride	mg/kg	0.02	0.21	0.9	ND (0.00043)	-	ND (0.00033)	-	ND (0.00045)	-	ND (0.00044)
m,p-Xylene	mg/kg	0.26	100	100	ND (0.00079)	-	ND (0.00061)	-	ND (0.00084)	-	ND (0.00082)
o-Xylene	mg/kg	0.26	100	100	ND (0.00041)	-	ND (0.00031)	-	ND (0.00043)	-	ND (0.00042)
Xylene (total)	mg/kg	0.26	100	100	ND (0.00041)	-	ND (0.00031)	-	ND (0.00043)	-	ND (0.00042)
MS Semi-volatiles (EPA 537M BY ID)											
Perfluorobutanoic acid	mg/kg	-	-	-	-	ND (0.00040)	-	ND (0.00043)	-	ND (0.00041)	-
Perfluoropentanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-
Perfluorohexanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-
Perfluoroheptanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-
Perfluorooctanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-
Perfluorononanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-

Perfluorodecanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-
Perfluoroundecanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-
Perfluorododecanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-
Perfluorotridecanoic acid	mg/kg	-	-	-	-	ND (0.00028)	-	ND (0.00030)	-	ND (0.00029)	-
Perfluorotetradecanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-
Perfluorobutanesulfonic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-
Perfluorohexanesulfonic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-
Perfluoroheptanesulfonic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-
Perfluorooctanesulfonic acid	mg/kg	-	-	-	-	0.00030 J	-	ND (0.00023)	-	ND (0.00022)	-
Perfluorodecanesulfonic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-
PFOSA	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-
MeFOSAA	mg/kg	-	-	-	-	ND (0.00053)	-	ND (0.00057)	-	ND (0.00054)	-
EtFOSAA	mg/kg	-	-	-	-	ND (0.00053)	-	ND (0.00057)	-	ND (0.00054)	-
6:2 Fluorotelomer sulfonate	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-
8:2 Fluorotelomer sulfonate	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-
MS Semi-volatiles (SW846 8270E)											
2-Chlorophenol	mg/kg	-	100		ND (0.017)	-	ND (0.018)	-	ND (0.017)	-	ND (0.018)
4-Chloro-3-methyl phenol	mg/kg	-	-	-	ND (0.021)	-	ND (0.023)	-	ND (0.022)	-	ND (0.023)
2,4-Dichlorophenol	mg/kg	-	100		ND (0.029)	-	ND (0.032)	-	ND (0.030)	-	ND (0.031)
2,4-Dimethylphenol	mg/kg	-	-	-	ND (0.061)	-	ND (0.066) [a]	-	ND (0.063) [a]	-	ND (0.066)
2,4-Dinitrophenol	mg/kg	-	100		ND (0.13)	-	ND (0.14)	-	ND (0.13)	-	ND (0.14) [a]
4,6-Dinitro-o-cresol	mg/kg	-	-	-	ND (0.037)	-	ND (0.040) [a]	-	ND (0.038) [a]	-	ND (0.039) [a]
2-Methylphenol	mg/kg	0.33	100	100	ND (0.022)	-	ND (0.024)	-	ND (0.023)	-	ND (0.024)
3&4-Methylphenol	mg/kg	-	-	-	ND (0.028)	-	ND (0.031)	-	ND (0.029)	-	ND (0.030)
2-Nitrophenol	mg/kg	-			ND (0.023) [a]	-	ND (0.025) [a]	-	ND (0.023) [a]	-	ND (0.024)
4-Nitrophenol	mg/kg	-			ND (0.092) [c]	-	ND (0.10) [d]	-	ND (0.094) [d]	-	ND (0.098)
Pentachlorophenol	mg/kg	0.8	2.4	6.7	ND (0.032) [c]	-	ND (0.035) [d]	-	ND (0.033) [d]	-	ND (0.035) [c]
Phenol	mg/kg	0.33	100	100	ND (0.018) [a]	-	ND (0.019)	-	ND (0.018)	-	ND (0.019)
2,3,4,6-Tetrachlorophenol	mg/kg	-	-	-	ND (0.023)	-	ND (0.025)	-	ND (0.023)	-	ND (0.024)
2,4,5-Trichlorophenol	mg/kg	-	100		ND (0.026)	-	ND (0.028)	-	ND (0.026)	-	ND (0.028)
2,4,6-Trichlorophenol	mg/kg	-			ND (0.020)	-	ND (0.022)	-	ND (0.021)	-	ND (0.022)
Acenaphthene	mg/kg	20	100	100	ND (0.012)	-	0.0144 J	-	0.0139 J	-	ND (0.013)
Acenaphthylene	mg/kg	100	100	100	ND (0.017)	-	0.0481	-	ND (0.018)	-	ND (0.019)
Acetophenone	mg/kg	-	-	-	ND (0.0074)	-	0.0096 J	-	ND (0.0076)	-	ND (0.0079)
Anthracene	mg/kg	100	100	100	0.0296 J	-	0.0677	-	0.0373	-	ND (0.023)
Atrazine	mg/kg	-	-	-	ND (0.015)	-	ND (0.016)	-	ND (0.015)	-	ND (0.016)
Benzo(a)anthracene	mg/kg	1	1	1	0.15	-	0.178	-	0.128	-	0.0675
Benzo(a)pyrene	mg/kg	1	1	1	0.149	-	0.193	-	0.163	-	0.079
Benzo(b)fluoranthene	mg/kg	1	1	1	0.168	-	0.2	-	0.183	-	0.088
Benzo(g,h,i)perylene	mg/kg	100	100	100	0.094	-	0.139	-	0.109	-	0.0552
Benzo(k)fluoranthene	mg/kg	0.8	1	3.9	0.0472	-	0.0723	-	0.0594	-	0.0352 J
4-Bromophenyl phenyl ether	mg/kg	-	-	-	ND (0.013)	-	ND (0.014)	-	ND (0.014)	-	ND (0.014)
Butyl benzyl phthalate	mg/kg	-	100		ND (0.0084) [a]	-	ND (0.0091)	-	0.144	-	ND (0.0090) [a]
1,1'-Biphenyl	mg/kg	-			ND (0.0047)	-	0.0114 J	-	0.0058 J	-	ND (0.0050)
Benzaldehyde	mg/kg	-	-	-	ND (0.0085)	-	ND (0.0092)	-	ND (0.0088)	-	ND (0.0091)
2-Chloronaphthalene	mg/kg	-	-	-	ND (0.0082)	-	ND (0.0089)	-	ND (0.0084)	-	ND (0.0088)
4-Chloroaniline	mg/kg	-	100		ND (0.012)	-	ND (0.013)	-	ND (0.013)	-	ND (0.013)

Carbazole	mg/kg	-	-	-	ND (0.0050)	-	0.0121 J	-	0.0180 J	-	0.0078 J
Caprolactam	mg/kg	-	-	-	ND (0.014) [a]	-	ND (0.015) [a]	-	ND (0.014) [a]	-	ND (0.015) [a]
Chrysene	mg/kg	1	1	3.9	0.139	-	0.176	-	0.159	-	0.0835
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	ND (0.0073)	-	ND (0.0080)	-	ND (0.0076)	-	ND (0.0079)
bis(2-Chloroethyl)ether	mg/kg	-	-	-	ND (0.015) [a]	-	ND (0.016)	-	ND (0.015)	-	ND (0.016)
2,2'-Oxybis(1-chloropropane)	mg/kg	-	-	-	ND (0.012)	-	ND (0.013)	-	ND (0.013)	-	ND (0.013)
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	ND (0.011)	-	ND (0.012)	-	ND (0.011)	-	ND (0.012)
2,4-Dinitrotoluene	mg/kg	-	-	-	ND (0.011)	-	ND (0.012)	-	ND (0.011)	-	ND (0.011) [a]
2,6-Dinitrotoluene	mg/kg	-	1.03		ND (0.017)	-	ND (0.019)	-	ND (0.018)	-	ND (0.018) [a]
3,3'-Dichlorobenzidine	mg/kg	-	-	-	ND (0.029) [a]	-	ND (0.031)	-	ND (0.029)	-	ND (0.031)
1,4-Dioxane	mg/kg	0.1	9.8	13	ND (0.023)	-	ND (0.025)	-	ND (0.023)	-	ND (0.024)
Dibenzo(a,h)anthracene	mg/kg	0.33	0.33	0.33	0.0271 J	-	0.0358 J	-	0.0303 J	-	0.0197 J
Dibenzofuran	mg/kg	7	14	59	ND (0.014)	-	ND (0.015)	-	ND (0.014)	-	ND (0.015)
Di-n-butyl phthalate	mg/kg	-	100		ND (0.0056)	-	ND (0.0061)	-	0.0839	-	ND (0.0060)
Di-n-octyl phthalate	mg/kg	-	100		ND (0.0085)	-	ND (0.0093)	-	ND (0.0088)	-	ND (0.0092)
Diethyl phthalate	mg/kg	-	100		ND (0.0073)	-	ND (0.0079)	-	ND (0.0075)	-	ND (0.0078)
Dimethyl phthalate	mg/kg	-	100		ND (0.0061)	-	ND (0.0066)	-	ND (0.0063)	-	ND (0.0066)
bis(2-Ethylhexyl)phthalate	mg/kg	-	50		ND (0.0080) [a]	-	0.121	-	0.0631 J	-	0.0231 J
Fluoranthene	mg/kg	100	100	100	0.226	-	0.24	-	0.242	-	0.0992
Fluorene	mg/kg	30	100	100	ND (0.016)	-	0.0386	-	ND (0.016)	-	ND (0.017)
Hexachlorobenzene	mg/kg	0.33	0.41	1.2	ND (0.0087)	-	ND (0.0094)	-	ND (0.0089)	-	ND (0.0093)
Hexachlorobutadiene	mg/kg	-	-	-	ND (0.014)	-	ND (0.015)	-	ND (0.014)	-	ND (0.015)
Hexachlorocyclopentadiene	mg/kg	-			ND (0.014) [c]	-	ND (0.015) [d]	-	ND (0.014) [d]	-	ND (0.015) [c]
Hexachloroethane	mg/kg	-	-	-	ND (0.017)	-	ND (0.018)	-	ND (0.017)	-	ND (0.018)
Indeno(1,2,3-cd)pyrene	mg/kg	0.5	0.5	0.5	0.0764	-	0.109	-	0.0915	-	0.0441
Isophorone	mg/kg	-	100		ND (0.0073)	-	ND (0.0080)	-	ND (0.0076)	-	ND (0.0079)
2-Methylnaphthalene	mg/kg	-	0.41		ND (0.0078)	-	0.0182 J	-	0.0132 J	-	0.0107 J
2-Nitroaniline	mg/kg	-			ND (0.0081) [a]	-	ND (0.0088)	-	ND (0.0083)	-	ND (0.0087)
3-Nitroaniline	mg/kg	-			ND (0.0086)	-	ND (0.0093)	-	ND (0.0088)	-	ND (0.0092)
4-Nitroaniline	mg/kg	-	-	-	ND (0.0089) [a]	-	ND (0.0097)	-	ND (0.0092)	-	ND (0.0095)
Naphthalene	mg/kg	12	100	100	ND (0.0097)	-	0.0231 J	-	0.0198 J	-	ND (0.010)
Nitrobenzene	mg/kg	-	3.7	15	ND (0.013)	-	ND (0.014)	-	ND (0.014)	-	ND (0.014)
N-Nitroso-di-n-propylamine	mg/kg	-	-	-	ND (0.0099)	-	ND (0.011)	-	ND (0.010)	-	ND (0.011)
N-Nitrosodiphenylamine	mg/kg	-			ND (0.013)	-	ND (0.014)	-	ND (0.013)	-	ND (0.013)
Phenanthrene	mg/kg	100	100	100	0.105	-	0.209	-	0.178	-	0.0489
Pyrene	mg/kg	100	100	100	0.238	-	0.344	-	0.273	-	0.126
1,2,4,5-Tetrachlorobenzene	mg/kg	-	-	-	ND (0.0087)	-	ND (0.0095)	-	ND (0.0090)	-	ND (0.0094)
GC/LC Semi-volatiles (SW846 8081B)											
Aldrin	mg/kg	0.005	0.019	0.097	ND (0.00056)	-	ND (0.0030)	-	ND (0.00059)	-	ND (0.0030)
alpha-BHC	mg/kg	0.02	0.097	0.48	ND (0.00056)	-	ND (0.0030)	-	ND (0.00058)	-	ND (0.0029)
beta-BHC	mg/kg	0.036	0.072	0.36	ND (0.00062)	-	ND (0.0033)	-	ND (0.00065)	-	ND (0.0033)
delta-BHC	mg/kg	0.04	100	100	ND (0.00066)	-	ND (0.0035)	-	ND (0.00068)	-	ND (0.0035)
gamma-BHC (Lindane)	mg/kg	0.1	0.28	1.3	ND (0.00050)	-	ND (0.0027)	-	ND (0.00053)	-	ND (0.0027)
alpha-Chlordane	mg/kg	0.094	0.91	4.2	0.00076	-	ND (0.0030)	-	0.0018	-	0.0037
gamma-Chlordane	mg/kg	-	0.54		0.0011 [e]	-	ND (0.0017)	-	ND (0.00032)	-	ND (0.0016)
Dieldrin	mg/kg	0.005	0.039	0.2	0.00074	-	ND (0.0025)	-	0.0012	-	0.0029 J
4,4'-DDD	mg/kg	0.0033	2.6	13	ND (0.00063)	-	ND (0.0034)	-	**0.0137**	-	ND (0.0033)

4,4'-DDE	mg/kg	0.0033	1.8	8.9	0.00061 J [e]	-	**0.0065**	-	**0.0135**	-	**0.0093**
4,4'-DDT	mg/kg	0.0033	1.7	7.9	**0.0141**	-	ND (0.0033)	-	**0.0127**	-	**0.0046**
Endrin	mg/kg	0.014	2.2	11	ND (0.00053)	-	ND (0.0029)	-	ND (0.00055)	-	ND (0.0028)
Endosulfan sulfate	mg/kg	2.4	4.8	24	ND (0.00053)	-	0.0041	-	ND (0.00056)	-	ND (0.0028)
Endrin aldehyde	mg/kg	-	-	-	ND (0.00039)	-	ND (0.0021)	-	ND (0.00040)	-	ND (0.0020)
Endosulfan-I	mg/kg	2.4	4.8	24	ND (0.00039)	-	ND (0.0021)	-	ND (0.00041)	-	ND (0.0021)
Endosulfan-II	mg/kg	2.4	4.8	24	0.00057 J [e]	-	ND (0.0023)	-	ND (0.00045)	-	ND (0.0022)
Heptachlor	mg/kg	0.042	0.42	2.1	ND (0.00059)	-	ND (0.0032)	-	ND (0.00062)	-	ND (0.0031)
Heptachlor epoxide	mg/kg	-	0.077		ND (0.00048)	-	ND (0.0026)	-	0.00054 J [e]	-	ND (0.0025)
Methoxychlor	mg/kg	-	100		ND (0.00054)	-	ND (0.0029)	-	ND (0.00057)	-	ND (0.0029)
Endrin ketone	mg/kg	-	-	-	ND (0.00049)	-	ND (0.0027)	-	ND (0.00052)	-	ND (0.0026)
Toxaphene	mg/kg	-	-	-	ND (0.016)	-	ND (0.086)	-	ND (0.017)	-	ND (0.084)
GC/LC Semi-volatiles (SW846 8082A)											
Aroclor 1016	mg/kg	0.1	1	1	ND (0.016) [a]	-	ND (0.086) [a]	-	ND (0.017) [a]	-	ND (0.084) [a]
Aroclor 1221	mg/kg	0.1	1	1	ND (0.021)	-	ND (0.11)	-	ND (0.022)	-	ND (0.11)
Aroclor 1232	mg/kg	0.1	1	1	ND (0.022)	-	ND (0.12)	-	ND (0.023)	-	ND (0.11)
Aroclor 1242	mg/kg	0.1	1	1	ND (0.014)	-	ND (0.076)	-	ND (0.015)	-	ND (0.074)
Aroclor 1248	mg/kg	0.1	1	1	ND (0.030)	-	ND (0.16)	-	ND (0.032)	-	ND (0.16)
Aroclor 1254	mg/kg	0.1	1	1	ND (0.018)	-	ND (0.099)	-	ND (0.019)	-	ND (0.097)
Aroclor 1260	mg/kg	0.1	1	1	ND (0.015) [a]	-	ND (0.079) [a]	-	ND (0.015) [a]	-	ND (0.077) [a]
Aroclor 1268	mg/kg	0.1	1	1	ND (0.014)	-	ND (0.078)	-	ND (0.015)	-	ND (0.076)
Aroclor 1262	mg/kg	0.1	1	1	ND (0.022)	-	ND (0.12)	-	ND (0.023)	-	ND (0.12)
Metals Analysis											
Aluminum	mg/kg	-			17200	-	10000	-	20200	-	12200
Antimony	mg/kg	-			<11 [f]	-	<2.4	-	<11 [f]	-	<2.3
Arsenic	mg/kg	13	16	16	<11 [f]	-	6.2	-	<11 [f]	-	3.6
Barium	mg/kg	350	350	400	187	-	135	-	**414**	-	157
Beryllium	mg/kg	7.2	14	72	2.9 [f]	-	1.6 [f]	-	2.3 [f]	-	2.0 [f]
Cadmium	mg/kg	2.5	2.5	4.3	0.55	-	<0.59	-	1.2	-	<0.58
Calcium	mg/kg	-			24700 [f]	-	59000	-	33600	-	55300
Chromium	mg/kg	-	-	-	34.2	-	21	-	61.7	-	27.4
Cobalt	mg/kg	-	30		<27 [f]	-	<30 [f]	-	<28 [f]	-	<29 [f]
Copper	mg/kg	50	270	270	38.6 [f]	-	37	-	46.6 [f]	-	25.7
Iron	mg/kg	-	2000		**29000**	-	**16900**	-	**28600**	-	**19400**
Lead	mg/kg	63	400	400	**98.0 [f]**	-	**108**	-	**249 [f]**	-	**70.2**
Magnesium	mg/kg	-	-	-	13000	-	19200	-	14500	-	19600
Manganese	mg/kg	1600	2000	2000	277 [f]	-	232	-	406 [f]	-	213
Mercury	mg/kg	0.18	0.81	0.81	0.17	-	**0.27**	-	0.15	-	0.13
Nickel	mg/kg	30	140	310	26.5	-	19.8	-	**43.3**	-	20.3
Potassium	mg/kg	-	-	-	9120	-	3730	-	7260	-	6160
Selenium	mg/kg	3.9	36	180	<11 [f]	-	<2.4	-	<11 [f]	-	<2.3
Silver	mg/kg	2	36	180	<2.7 [f]	-	<0.59	-	<2.8 [f]	-	<0.58
Sodium	mg/kg	-	-	-	<1100	-	<1200	-	<1100	-	<1200
Thallium	mg/kg	-			<5.4 [f]	-	<1.2	-	<5.7 [f]	-	<1.2

Vanadium	mg/kg	-	100		47.8	-	42.3	-	58.3	-	39.1	
Zinc	mg/kg	109	2200	10000	**146**	-	**132**	-	**314**	-	**248**	
General Chemistry												
Solids, Percent	%	-	-	-	95.6	-	89.1	-	91.6	-	88.4	
Client Sample ID:		**NY SCO - Unrestricted Use (6 NYCRR 375-6 12/06)**	**NY SCO - Residential w/CP-51 (10/10) (6 NYCRR 375-6 12/06)**	**NY SCO - Restricted Residential w/CP-51 (10/10) (6 NYCRR 375-6 12/06)**	**SB-4 (0-2')**	**SB-5 (0-2')**	**SB-5 (0-2')**	**SB-5 (0-2') 01**	**SB-5 (0-2') 01**	**SB-9 (5-6')**	**SB-9 (5-6')**	
Lab Sample ID:					**JD64767-4A**	**JD64767-5**	**JD64767-5A**	**JD64767-12**	**JD64767-12A**	**JD64767-13**	**JD64767-13A**	
Date Sampled:					**4/28/2023**	**4/28/2023**	**4/28/2023**	**4/28/2023**	**4/28/2023**	**4/28/2023**	**4/28/2023**	
Matrix:					**Soil**	**Soil**	**Soil**	**Soil**	**Soil**	**Soil**	**Soil**	
MS Volatiles (SW846 8260D)												
Acetone	mg/kg	0.05	100	100	-	0.0063 J	-	0.0081 J	-	0.0331	-	
Benzene	mg/kg	0.06	2.9	4.8	-	ND (0.00051)	-	ND (0.00040)	-	ND (0.00048)	-	
Bromochloromethane	mg/kg	-	-	-	-	ND (0.00063)	-	ND (0.00049)	-	ND (0.00059)	-	
Bromodichloromethane	mg/kg	-	-	-	-	ND (0.00048)	-	ND (0.00038)	-	ND (0.00045)	-	
Bromoform	mg/kg	-	-	-	-	ND (0.0015)	-	ND (0.0012)	-	ND (0.0014)	-	
Bromomethane	mg/kg	-	-	-	-	ND (0.00086)	-	ND (0.00067)	-	ND (0.00081)	-	
2-Butanone (MEK)	mg/kg	0.12	100	100	-	ND (0.0027)	-	ND (0.0021)	-	0.0067 J	-	
Carbon disulfide	mg/kg	-	100		-	0.0012 J	-	0.00093 J	-	0.00066 J [g]	-	
Carbon tetrachloride	mg/kg	0.76	1.4	2.4	-	ND (0.00070)	-	ND (0.00054)	-	ND (0.00065)	-	
Chlorobenzene	mg/kg	1.1	100	100	-	ND (0.00052)	-	ND (0.00040)	-	ND (0.00049)	-	
Chloroethane	mg/kg	-			-	ND (0.00066)	-	ND (0.00052)	-	ND (0.00062)	-	
Chloroform	mg/kg	0.37	10	49	-	ND (0.00058)	-	ND (0.00045)	-	ND (0.00055)	-	
Chloromethane	mg/kg	-	-	-	-	ND (0.0022) [b]	-	ND (0.0017) [b]	-	ND (0.0021) [b]	-	
Cyclohexane	mg/kg	-	-	-	-	ND (0.00074)	-	ND (0.00058)	-	ND (0.00069) [b]	-	
1,2-Dibromo-3-chloropropane	mg/kg	-	-	-	-	ND (0.00078)	-	ND (0.00061)	-	ND (0.00073)	-	
Dibromochloromethane	mg/kg	-			-	ND (0.00063)	-	ND (0.00049)	-	ND (0.00059)	-	
1,2-Dibromoethane	mg/kg	-	-	-	-	ND (0.00047)	-	ND (0.00037)	-	ND (0.00045)	-	
1,2-Dichlorobenzene	mg/kg	1.1	100	100	-	ND (0.00061)	-	ND (0.00048)	-	ND (0.00058)	-	
1,3-Dichlorobenzene	mg/kg	2.4	17	49	-	ND (0.00056)	-	ND (0.00043)	-	ND (0.00052)	-	
1,4-Dichlorobenzene	mg/kg	1.8	9.8	13	-	ND (0.00056)	-	ND (0.00043)	-	ND (0.00052)	-	
Dichlorodifluoromethane	mg/kg	-	-	-	-	ND (0.00082)	-	ND (0.00064)	-	ND (0.00077) [b]	-	
1,1-Dichloroethane	mg/kg	0.27	19	26	-	ND (0.00056)	-	ND (0.00043)	-	ND (0.00052)	-	
1,2-Dichloroethane	mg/kg	0.02	2.3	3.1	-	ND (0.00053)	-	ND (0.00041)	-	ND (0.00050)	-	
1,1-Dichloroethene	mg/kg	0.33	100	100	-	ND (0.00074)	-	ND (0.00057)	-	ND (0.00069) [b]	-	
cis-1,2-Dichloroethene	mg/kg	0.25	59	100	-	ND (0.00094)	-	ND (0.00074)	-	ND (0.00089)	-	
trans-1,2-Dichloroethene	mg/kg	0.19	100	100	-	ND (0.00069)	-	ND (0.00054)	-	ND (0.00065)	-	
1,2-Dichloropropane	mg/kg	-			-	ND (0.00053)	-	ND (0.00041)	-	ND (0.00050)	-	
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	ND (0.00053)	-	ND (0.00042)	-	ND (0.00050)	-	
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	ND (0.00051)	-	ND (0.00040)	-	ND (0.00048)	-	
Ethylbenzene	mg/kg	1	30	41	-	ND (0.00051)	-	ND (0.00040)	-	ND (0.00048)	-	
Freon 113	mg/kg	-	100		-	ND (0.0030)	-	ND (0.0023)	-	ND (0.0028)	-	
2-Hexanone	mg/kg	-	-	-	-	ND (0.0024)	-	ND (0.0019)	-	ND (0.0022)	-	
Isopropylbenzene	mg/kg	-	100		-	ND (0.0016)	-	ND (0.0012)	-	ND (0.0015)	-	

Methyl Acetate	mg/kg	-	-	-	-	ND (0.0016)	-	ND (0.0012)	-	0.0057	-
Methylcyclohexane	mg/kg	-	-	-	-	ND (0.00098)	-	ND (0.00077)	-	ND (0.00092)	-
Methyl Tert Butyl Ether	mg/kg	0.93	62	100	-	ND (0.00053)	-	ND (0.00041)	-	ND (0.00050)	-
4-Methyl-2-pentanone(MIBK)	mg/kg	-			-	ND (0.0026)	-	ND (0.0020)	-	ND (0.0024)	-
Methylene chloride	mg/kg	0.05	51	100	-	ND (0.0029)	-	ND (0.0023)	-	ND (0.0028) [b]	-
Styrene	mg/kg	-			-	ND (0.00045)	-	ND (0.00035)	-	0.0023	-
1,1,2,2-Tetrachloroethane	mg/kg	-	35		-	ND (0.00067)	-	ND (0.00053)	-	ND (0.00063)	-
Tetrachloroethene	mg/kg	1.3	5.5	19	-	ND (0.00065)	-	ND (0.00051)	-	ND (0.00061)	-
Toluene	mg/kg	0.7	100	100	-	0.00099 J	-	0.00096	-	ND (0.00055)	-
1,2,3-Trichlorobenzene	mg/kg	-			-	ND (0.0028)	-	ND (0.0022)	-	ND (0.0026)	-
1,2,4-Trichlorobenzene	mg/kg	-			-	ND (0.0028)	-	ND (0.0022)	-	ND (0.0026)	-
1,1,1-Trichloroethane	mg/kg	0.68	100	100	-	ND (0.00054)	-	ND (0.00042)	-	ND (0.00051)	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	ND (0.00062)	-	ND (0.00049)	-	ND (0.00059)	-
Trichloroethene	mg/kg	0.47	10	21	-	ND (0.00086)	-	ND (0.00067)	-	ND (0.00081)	-
Trichlorofluoromethane	mg/kg	-	-	-	-	ND (0.00077)	-	ND (0.00060)	-	ND (0.00072)	-
Vinyl chloride	mg/kg	0.02	0.21	0.9	-	ND (0.00054)	-	ND (0.00042)	-	ND (0.00051) [b]	-
m,p-Xylene	mg/kg	0.26	100	100	-	ND (0.0010)	-	ND (0.00079)	-	ND (0.00095)	-
o-Xylene	mg/kg	0.26	100	100	-	ND (0.00052)	-	ND (0.00040)	-	ND (0.00048)	-
Xylene (total)	mg/kg	0.26	100	100	-	ND (0.00052)	-	ND (0.00040)	-	ND (0.00048)	-
MS Semi-volatiles (EPA 537M BY ID)											
Perfluorobutanoic acid	mg/kg	-	-	-	ND (0.00042)	-	ND (0.00041)	-	ND (0.00042)	-	ND (0.00044)
Perfluoropentanoic acid	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
Perfluorohexanoic acid	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
Perfluoroheptanoic acid	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
Perfluorooctanoic acid	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
Perfluorononanoic acid	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
Perfluorodecanoic acid	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
Perfluoroundecanoic acid	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
Perfluorododecanoic acid	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
Perfluorotridecanoic acid	mg/kg	-	-	-	ND (0.00029)	-	ND (0.00029)	-	ND (0.00029)	-	ND (0.00031)
Perfluorotetradecanoic acid	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
Perfluorobutanesulfonic acid	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
Perfluorohexanesulfonic acid	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
Perfluoroheptanesulfonic acid	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
Perfluorooctanesulfonic acid	mg/kg	-	-	-	ND (0.00022)	-	ND (0.00022)	-	ND (0.00022)	-	ND (0.00023)
Perfluorodecanesulfonic acid	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
PFOSA	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
MeFOSAA	mg/kg	-	-	-	ND (0.00055)	-	ND (0.00055)	-	ND (0.00055)	-	ND (0.00058)
EtFOSAA	mg/kg	-	-	-	ND (0.00055)	-	ND (0.00055)	-	ND (0.00055)	-	ND (0.00058)
6:2 Fluorotelomer sulfonate	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
8:2 Fluorotelomer sulfonate	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
MS Semi-volatiles (SW846 8270E)											
2-Chlorophenol	mg/kg	-	100		-	ND (0.018)	-	ND (0.017)	-	ND (0.019)	-
4-Chloro-3-methyl phenol	mg/kg	-	-	-	-	ND (0.022)	-	ND (0.021)	-	ND (0.023)	-
2,4-Dichlorophenol	mg/kg	-	100		-	ND (0.031)	-	ND (0.030)	-	ND (0.033)	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	ND (0.064)	-	ND (0.062)	-	ND (0.068)	-

2,4-Dinitrophenol	mg/kg	-	100		-	ND (0.13) [a]	-	ND (0.13)	-	ND (0.14)	-
4,6-Dinitro-o-cresol	mg/kg	-	-	-	-	ND (0.038) [a]	-	ND (0.037)	-	ND (0.041)	-
2-Methylphenol	mg/kg	0.33	100	100	-	ND (0.023)	-	ND (0.022)	-	ND (0.024)	-
3&4-Methylphenol	mg/kg	-	-	-	-	ND (0.029)	-	ND (0.029)	-	ND (0.031)	-
2-Nitrophenol	mg/kg	-			-	ND (0.024)	-	ND (0.023) [a]	-	ND (0.025) [a]	-
4-Nitrophenol	mg/kg	-			-	ND (0.095)	-	ND (0.093) [c]	-	ND (0.10) [c]	-
Pentachlorophenol	mg/kg	0.8	2.4	6.7	-	ND (0.034) [c]	-	ND (0.033) [c]	-	ND (0.036) [c]	-
Phenol	mg/kg	0.33	100	100	-	ND (0.019)	-	ND (0.018) [a]	-	ND (0.020) [a]	-
2,3,4,6-Tetrachlorophenol	mg/kg	-	-	-	-	ND (0.024)	-	ND (0.023)	-	ND (0.025)	-
2,4,5-Trichlorophenol	mg/kg	-	100		-	ND (0.027)	-	ND (0.026)	-	ND (0.029)	-
2,4,6-Trichlorophenol	mg/kg	-			-	ND (0.021)	-	ND (0.021)	-	ND (0.023)	-
Acenaphthene	mg/kg	20	100	100	-	ND (0.012)	-	ND (0.012)	-	ND (0.013)	-
Acenaphthylene	mg/kg	100	100	100	-	ND (0.018)	-	ND (0.018)	-	ND (0.019)	-
Acetophenone	mg/kg	-	-	-	-	ND (0.0077)	-	ND (0.0075)	-	ND (0.0082)	-
Anthracene	mg/kg	100	100	100	-	ND (0.022)	-	ND (0.021)	-	ND (0.023)	-
Atrazine	mg/kg	-	-	-	-	ND (0.015)	-	ND (0.015)	-	ND (0.016)	-
Benzo(a)anthracene	mg/kg	1	1	1	-	0.0395	-	0.0697	-	0.0112 J	-
Benzo(a)pyrene	mg/kg	1	1	1	-	0.0514	-	0.0827	-	ND (0.017)	-
Benzo(b)fluoranthene	mg/kg	1	1	1	-	0.0483	-	0.0858	-	ND (0.017)	-
Benzo(g,h,i)perylene	mg/kg	100	100	100	-	0.0241 J	-	0.0599	-	ND (0.019)	-
Benzo(k)fluoranthene	mg/kg	0.8	1	3.9	-	0.0207 J	-	0.0317 J	-	ND (0.018)	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	ND (0.014)	-	ND (0.013)	-	ND (0.015)	-
Butyl benzyl phthalate	mg/kg	-	100		-	ND (0.0087) [a]	-	ND (0.0085) [a]	-	ND (0.0093) [a]	-
1,1'-Biphenyl	mg/kg	-			-	ND (0.0049)	-	ND (0.0048)	-	ND (0.0052)	-
Benzaldehyde	mg/kg	-	-	-	-	ND (0.0089)	-	ND (0.0087)	-	ND (0.0095)	-
2-Chloronaphthalene	mg/kg	-	-	-	-	ND (0.0085)	-	ND (0.0083)	-	ND (0.0091)	-
4-Chloroaniline	mg/kg	-	100		-	ND (0.013)	-	ND (0.013)	-	ND (0.014)	-
Carbazole	mg/kg	-	-	-	-	0.0076 J	-	ND (0.0051)	-	ND (0.0055)	-
Caprolactam	mg/kg	-	-	-	-	ND (0.014) [a]	-	ND (0.014) [a]	-	ND (0.015) [a]	-
Chrysene	mg/kg	1	1	3.9	-	0.0484	-	0.0777	-	ND (0.012)	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	ND (0.0077)	-	ND (0.0075)	-	ND (0.0082)	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	ND (0.015)	-	ND (0.015) [a]	-	ND (0.016) [a]	-
2,2'-Oxybis(1-chloropropane)	mg/kg	-	-	-	-	ND (0.013)	-	ND (0.013)	-	ND (0.014)	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	ND (0.012)	-	ND (0.011)	-	ND (0.012)	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	ND (0.011) [a]	-	ND (0.011)	-	ND (0.012)	-
2,6-Dinitrotoluene	mg/kg	-	1.03		-	ND (0.018) [a]	-	ND (0.018)	-	ND (0.019)	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	ND (0.030)	-	ND (0.029) [a]	-	ND (0.032) [a]	-
1,4-Dioxane	mg/kg	0.1	9.8	13	-	ND (0.024)	-	ND (0.023)	-	ND (0.025)	-
Dibenzo(a,h)anthracene	mg/kg	0.33	0.33	0.33	-	ND (0.016)	-	0.0217 J	-	ND (0.017)	-
Dibenzofuran	mg/kg	7	14	59	-	ND (0.015)	-	ND (0.014)	-	ND (0.016)	-
Di-n-butyl phthalate	mg/kg	-	100		-	0.0119 J	-	ND (0.0057)	-	ND (0.0062)	-
Di-n-octyl phthalate	mg/kg	-	100		-	ND (0.0089)	-	ND (0.0087)	-	ND (0.0095)	-
Diethyl phthalate	mg/kg	-	100		-	ND (0.0076)	-	ND (0.0074)	-	ND (0.0081)	-
Dimethyl phthalate	mg/kg	-	100		-	ND (0.0064)	-	ND (0.0062)	-	ND (0.0068)	-
bis(2-Ethylhexyl)phthalate	mg/kg	-	50		-	0.0361 J	-	ND (0.0082) [a]	-	ND (0.0089) [a]	-
Fluoranthene	mg/kg	100	100	100	-	0.0565	-	0.0993	-	0.0186 J	-
Fluorene	mg/kg	30	100	100	-	ND (0.016)	-	ND (0.016)	-	ND (0.017)	-
Hexachlorobenzene	mg/kg	0.33	0.41	1.2	-	ND (0.0090)	-	ND (0.0088)	-	ND (0.0096)	-

Hexachlorobutadiene	mg/kg	-	-	-	-	ND (0.014)	-	ND (0.014)	-	ND (0.015)	-
Hexachlorocyclopentadiene	mg/kg	-			-	ND (0.014) [c]	-	ND (0.014) [c]	-	ND (0.015) [c]	-
Hexachloroethane	mg/kg	-	-	-	-	ND (0.018)	-	ND (0.017)	-	ND (0.019)	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.5	0.5	0.5	-	0.0182 J	-	0.0486	-	ND (0.018)	-
Isophorone	mg/kg	-	100		-	ND (0.0077)	-	ND (0.0075)	-	ND (0.0082)	-
2-Methylnaphthalene	mg/kg	-	0.41		-	ND (0.0081)	-	ND (0.0079)	-	ND (0.0086)	-
2-Nitroaniline	mg/kg	-			-	ND (0.0084)	-	ND (0.0082) [a]	-	ND (0.0090) [a]	-
3-Nitroaniline	mg/kg	-			-	ND (0.0089)	-	ND (0.0087)	-	ND (0.0095)	-
4-Nitroaniline	mg/kg	-	-	-	-	ND (0.0093)	-	ND (0.0091) [a]	-	ND (0.0099) [a]	-
Naphthalene	mg/kg	12	100	100	-	ND (0.010)	-	ND (0.0099)	-	ND (0.011)	-
Nitrobenzene	mg/kg	-	3.7	15	-	ND (0.014)	-	ND (0.013)	-	ND (0.015)	-
N-Nitroso-di-n-propylamine	mg/kg	-	-	-	-	ND (0.010)	-	ND (0.010)	-	ND (0.011)	-
N-Nitrosodiphenylamine	mg/kg	-			-	ND (0.013)	-	ND (0.013)	-	ND (0.014)	-
Phenanthrene	mg/kg	100	100	100	-	0.0339 J	-	0.0403	-	ND (0.013)	-
Pyrene	mg/kg	100	100	100	-	0.0752	-	0.12	-	0.0201 J	-
1,2,4,5-Tetrachlorobenzene	mg/kg	-	-	-	-	ND (0.0091)	-	ND (0.0089)	-	ND (0.0097)	-
GC/LC Semi-volatiles (SW846 8081B)											
Aldrin	mg/kg	0.005	0.019	0.097	-	ND (0.00058)	-	ND (0.0028)	-	ND (0.00063)	-
alpha-BHC	mg/kg	0.02	0.097	0.48	-	ND (0.00057)	-	ND (0.0028)	-	ND (0.00063)	-
beta-BHC	mg/kg	0.036	0.072	0.36	-	ND (0.00063)	-	ND (0.0031)	-	ND (0.00070)	-
delta-BHC	mg/kg	0.04	100	100	-	ND (0.00067)	-	ND (0.0033)	-	ND (0.00074)	-
gamma-BHC (Lindane)	mg/kg	0.1	0.28	1.3	-	ND (0.00052)	-	ND (0.0025)	-	ND (0.00057)	-
alpha-Chlordane	mg/kg	0.094	0.91	4.2	-	ND (0.00057)	-	ND (0.0028)	-	ND (0.00062)	-
gamma-Chlordane	mg/kg	-	0.54		-	ND (0.00032)	-	ND (0.0016)	-	ND (0.00035)	-
Dieldrin	mg/kg	0.005	0.039	0.2	-	0.00058 J [e]	-	ND (0.0024)	-	ND (0.00053)	-
4,4'-DDD	mg/kg	0.0033	2.6	13	-	0.0032	-	ND (0.0032)	-	0.00085 [e]	-
4,4'-DDE	mg/kg	0.0033	1.8	8.9	-	0.0018	-	ND (0.0030)	-	**0.135**	-
4,4'-DDT	mg/kg	0.0033	1.7	7.9	-	0.0026	-	ND (0.0030)	-	**0.0037**	-
Endrin	mg/kg	0.014	2.2	11	-	ND (0.00054)	-	ND (0.0027)	-	ND (0.00060)	-
Endosulfan sulfate	mg/kg	2.4	4.8	24	-	ND (0.00055)	-	ND (0.0027)	-	ND (0.00060)	-
Endrin aldehyde	mg/kg	-	-	-	-	ND (0.00040)	-	ND (0.0020)	-	ND (0.00044)	-
Endosulfan-I	mg/kg	2.4	4.8	24	-	ND (0.00040)	-	ND (0.0020)	-	ND (0.00044)	-
Endosulfan-II	mg/kg	2.4	4.8	24	-	ND (0.00044)	-	ND (0.0021)	-	ND (0.00048)	-
Heptachlor	mg/kg	0.042	0.42	2.1	-	ND (0.00060)	-	ND (0.0030)	-	ND (0.00066)	-
Heptachlor epoxide	mg/kg	-	0.077		-	ND (0.00049)	-	ND (0.0024)	-	ND (0.00054)	-
Methoxychlor	mg/kg	-	100		-	ND (0.00056)	-	ND (0.0027)	-	ND (0.00061)	-
Endrin ketone	mg/kg	-	-	-	-	ND (0.00051)	-	ND (0.0025)	-	ND (0.00056)	-
Toxaphene	mg/kg	-	-	-	-	ND (0.016)	-	ND (0.080)	-	ND (0.018)	-
GC/LC Semi-volatiles (SW846 8082A)											
Aroclor 1016	mg/kg	0.1	1	1	-	ND (0.016) [a]	-	ND (0.016) [a]	-	ND (0.018) [a]	-
Aroclor 1221	mg/kg	0.1	1	1	-	ND (0.022)	-	ND (0.021)	-	ND (0.024)	-
Aroclor 1232	mg/kg	0.1	1	1	-	ND (0.022)	-	ND (0.022)	-	ND (0.025)	-
Aroclor 1242	mg/kg	0.1	1	1	-	ND (0.014)	-	ND (0.014)	-	ND (0.016)	-
Aroclor 1248	mg/kg	0.1	1	1	-	ND (0.031)	-	ND (0.031)	-	ND (0.034)	-
Aroclor 1254	mg/kg	0.1	1	1	-	ND (0.019)	-	ND (0.019)	-	ND (0.021)	-

Aroclor 1260	mg/kg	0.1	1	1	-	ND (0.015) [a]	-	ND (0.015) [a]	-	ND (0.016) [a]	-
Aroclor 1268	mg/kg	0.1	1	1	-	ND (0.015)	-	ND (0.015)	-	ND (0.016)	-
Aroclor 1262	mg/kg	0.1	1	1	-	ND (0.023)	-	ND (0.022)	-	ND (0.025)	-
Metals Analysis											
Aluminum	mg/kg	-			-	22500	-	13000	-	19000	-
Antimony	mg/kg	-			-	<11 [f]	-	<2.3	-	<11 [f]	-
Arsenic	mg/kg	13	16	16	-	<11 [f]	-	2.3	-	<11 [f]	-
Barium	mg/kg	350	350	400	-	163	-	101	-	107	-
Beryllium	mg/kg	7.2	14	72	-	3.9 [f]	-	2.2 [f]	-	3.5 [f]	-
Cadmium	mg/kg	2.5	2.5	4.3	-	<0.57	-	<0.57	-	<0.56	-
Calcium	mg/kg	-			-	9490	-	46300	-	10800	-
Chromium	mg/kg	-	-	-	-	41.4	-	25.9	-	36.6	-
Cobalt	mg/kg	-	30		-	<28 [f]	-	<29 [f]	-	<28 [f]	-
Copper	mg/kg	50	270	270	-	27.4 [f]	-	20.1	-	<14 [f]	-
Iron	mg/kg	-	2000		-	**35100**	-	**19100**	-	**28100**	-
Lead	mg/kg	63	400	400	-	**108** [f]	-	35.3	-	13.9 [f]	-
Magnesium	mg/kg	-	-	-	-	12500	-	26400	-	9950	-
Manganese	mg/kg	1600	2000	2000	-	428 [f]	-	315	-	309 [f]	-
Mercury	mg/kg	0.18	0.81	0.81	-	0.056	-	0.059	-	<0.037	-
Nickel	mg/kg	30	140	310	-	**37.2**	-	27.6	-	**37.3**	-
Potassium	mg/kg	-	-	-	-	14700	-	7730	-	12800	-
Selenium	mg/kg	3.9	36	180	-	<11 [f]	-	<2.3	-	<11 [f]	-
Silver	mg/kg	2	36	180	-	<2.8 [f]	-	<0.57	-	<2.8 [f]	-
Sodium	mg/kg	-	-	-	-	<1100	-	<1100	-	<1100	-
Thallium	mg/kg	-			-	<5.7 [f]	-	<1.1	-	<5.6 [f]	-
Vanadium	mg/kg	-	100		-	57.7	-	44.2	-	45.9	-
Zinc	mg/kg	109	2200	10000	-	**141**	-	102	-	100	-
General Chemistry											
Solids, Percent	%	-	-	-	-	92.6	-	92	-	86	-
Client Sample ID:		**NY SCO - Unrestricted Use (6 NYCRR 375-6 12/06)**	**NY SCO - Residential w/CP-51 (10/10) (6 NYCRR 375-6 12/06)**	**NY SCO - Restricted Residential w/CP-51 (10/10) (6 NYCRR 375-6 12/06)**	**SB-6 (5-6')**	**SB-6 (5-6')**	**SB-8 (5-6')**	**SB-8 (5-6')**	**SB-7 (6-7')**	**SB-7 (6-7')**	
Lab Sample ID:					**JD64767-14**	**JD64767-14A**	**JD64767-15**	**JD64767-15A**	**JD64767-16**	**JD64767-16A**	
Date Sampled:					**4/28/2023**	**4/28/2023**	**4/28/2023**	**4/28/2023**	**4/28/2023**	**4/28/2023**	
Matrix:					**Soil**	**Soil**	**Soil**	**Soil**	**Soil**	**Soil**	
MS Volatiles (SW846 8260D)											
Acetone	mg/kg	0.05	100	100	**0.475 J**	-	0.008	-	0.0299	-	
Benzene	mg/kg	0.06	2.9	4.8	ND (0.045)	-	ND (0.00029)	-	ND (0.00051)	-	
Bromochloromethane	mg/kg	-	-	-	ND (0.055)	-	ND (0.00036)	-	ND (0.00062)	-	
Bromodichloromethane	mg/kg	-	-	-	ND (0.042)	-	ND (0.00027)	-	ND (0.00048)	-	
Bromoform	mg/kg	-	-	-	ND (0.13)	-	ND (0.00086)	-	ND (0.0015)	-	

Bromomethane	mg/kg	-	-	-	ND (0.076) [a]	-	ND (0.00048)	-	ND (0.00085)	-	
2-Butanone (MEK)	mg/kg	0.12	100	100	ND (0.24)	-	ND (0.0015)	-	ND (0.0027)	-	
Carbon disulfide	mg/kg	-	100		ND (0.053)	-	ND (0.00034)	-	ND (0.00060)	-	
Carbon tetrachloride	mg/kg	0.76	1.4	2.4	ND (0.061)	-	ND (0.00039)	-	ND (0.00069)	-	
Chlorobenzene	mg/kg	1.1	100	100	ND (0.045)	-	ND (0.00029)	-	ND (0.00051)	-	
Chloroethane	mg/kg	-			ND (0.059)	-	ND (0.00037)	-	ND (0.00066)	-	
Chloroform	mg/kg	0.37	10	49	ND (0.051)	-	ND (0.00033)	-	ND (0.00058)	-	
Chloromethane	mg/kg	-	-	-	ND (0.19)	-	ND (0.0012) [b]	-	ND (0.0022) [b]	-	
Cyclohexane	mg/kg	-	-	-	ND (0.065)	-	ND (0.00042)	-	ND (0.00073)	-	
1,2-Dibromo-3-chloropropane	mg/kg	-	-	-	ND (0.069)	-	ND (0.00044)	-	ND (0.00077)	-	
Dibromochloromethane	mg/kg	-			ND (0.055)	-	ND (0.00036)	-	ND (0.00062)	-	
1,2-Dibromoethane	mg/kg	-	-	-	ND (0.042)	-	ND (0.00027)	-	ND (0.00047)	-	
1,2-Dichlorobenzene	mg/kg	1.1	100	100	ND (0.054)	-	ND (0.00035)	-	ND (0.00061)	-	
1,3-Dichlorobenzene	mg/kg	2.4	17	49	ND (0.049)	-	ND (0.00031)	-	ND (0.00055)	-	
1,4-Dichlorobenzene	mg/kg	1.8	9.8	13	ND (0.049)	-	ND (0.00031)	-	ND (0.00055)	-	
Dichlorodifluoromethane	mg/kg	-	-	-	ND (0.072) [b]	-	ND (0.00046)	-	ND (0.00081)	-	
1,1-Dichloroethane	mg/kg	0.27	19	26	ND (0.049)	-	ND (0.00031)	-	ND (0.00055)	-	
1,2-Dichloroethane	mg/kg	0.02	2.3	3.1	ND (0.047)	-	ND (0.00030)	-	ND (0.00052)	-	
1,1-Dichloroethene	mg/kg	0.33	100	100	ND (0.065) [b]	-	ND (0.00042)	-	ND (0.00073)	-	
cis-1,2-Dichloroethene	mg/kg	0.25	59	100	ND (0.083)	-	ND (0.00053)	-	ND (0.00094)	-	
trans-1,2-Dichloroethene	mg/kg	0.19	100	100	ND (0.061)	-	ND (0.00039)	-	ND (0.00068)	-	
1,2-Dichloropropane	mg/kg	-			ND (0.047)	-	ND (0.00030)	-	ND (0.00053)	-	
cis-1,3-Dichloropropene	mg/kg	-	-	-	ND (0.047)	-	ND (0.00030)	-	ND (0.00053)	-	
trans-1,3-Dichloropropene	mg/kg	-	-	-	ND (0.045)	-	ND (0.00029)	-	ND (0.00051)	-	
Ethylbenzene	mg/kg	1	30	41	0.115	-	ND (0.00029)	-	ND (0.00050)	-	
Freon 113	mg/kg	-	100		ND (0.26)	-	ND (0.0017)	-	ND (0.0030)	-	
2-Hexanone	mg/kg	-	-	-	ND (0.21)	-	ND (0.0013)	-	ND (0.0024)	-	
Isopropylbenzene	mg/kg	-	100		ND (0.14)	-	ND (0.00090)	-	ND (0.0016)	-	
Methyl Acetate	mg/kg	-	-	-	1.8	-	ND (0.00088)	-	ND (0.0015)	-	
Methylcyclohexane	mg/kg	-	-	-	ND (0.087)	-	ND (0.00055)	-	ND (0.00097)	-	
Methyl Tert Butyl Ether	mg/kg	0.93	62	100	ND (0.046)	-	ND (0.00030)	-	ND (0.00052)	-	
4-Methyl-2-pentanone(MIBK)	mg/kg	-			ND (0.22)	-	ND (0.0014)	-	ND (0.0025)	-	
Methylene chloride	mg/kg	0.05	51	100	ND (0.26)	-	ND (0.0017)	-	0.0050 J	-	
Styrene	mg/kg	-			ND (0.040)	-	ND (0.00025)	-	ND (0.00045)	-	
1,1,2,2-Tetrachloroethane	mg/kg	-	35		ND (0.059)	-	ND (0.00038)	-	ND (0.00067)	-	
Tetrachloroethene	mg/kg	1.3	5.5	19	0.128 J	-	0.00061 J	-	ND (0.00065)	-	
Toluene	mg/kg	0.7	100	100	0.129	-	ND (0.00033)	-	ND (0.00058)	-	
1,2,3-Trichlorobenzene	mg/kg	-			ND (0.25) [b]	-	ND (0.0016)	-	ND (0.0028)	-	
1,2,4-Trichlorobenzene	mg/kg	-			ND (0.25)	-	ND (0.0016)	-	ND (0.0028)	-	
1,1,1-Trichloroethane	mg/kg	0.68	100	100	ND (0.048)	-	ND (0.00031)	-	0.00097 J	-	
1,1,2-Trichloroethane	mg/kg	-	-	-	ND (0.055)	-	ND (0.00035)	-	ND (0.00062)	-	
Trichloroethene	mg/kg	0.47	10	21	ND (0.075)	-	ND (0.00048)	-	ND (0.00085)	-	
Trichlorofluoromethane	mg/kg	-	-	-	ND (0.068)	-	ND (0.00043)	-	ND (0.00076)	-	
Vinyl chloride	mg/kg	0.02	0.21	0.9	ND (0.048)	-	ND (0.00030)	-	ND (0.00054)	-	
m,p-Xylene	mg/kg	0.26	100	100	**0.348**	-	ND (0.00057)	-	ND (0.0010)	-	
o-Xylene	mg/kg	0.26	100	100	0.231	-	ND (0.00029)	-	ND (0.00051)	-	
Xylene (total)	mg/kg	0.26	100	100	**0.579**	-	ND (0.00029)	-	ND (0.00051)	-	
MS Semi-volatiles (EPA 537M BY ID)											

Perfluorobutanoic acid	mg/kg	-	-	-	-	ND (0.00042)	-	ND (0.00044)	-	ND (0.00043)	
Perfluoropentanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
Perfluorohexanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
Perfluoroheptanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
Perfluorooctanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
Perfluorononanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
Perfluorodecanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
Perfluoroundecanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
Perfluorododecanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
Perfluorotridecanoic acid	mg/kg	-	-	-	-	ND (0.00029)	-	ND (0.00031)	-	ND (0.00030)	
Perfluorotetradecanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
Perfluorobutanesulfonic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
Perfluorohexanesulfonic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
Perfluoroheptanesulfonic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
Perfluorooctanesulfonic acid	mg/kg	-	-	-	-	ND (0.00022)	-	0.00057 J	-	ND (0.00023)	
Perfluorodecanesulfonic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
PFOSA	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
MeFOSAA	mg/kg	-	-	-	-	ND (0.00055)	-	ND (0.00058)	-	ND (0.00057)	
EtFOSAA	mg/kg	-	-	-	-	ND (0.00055)	-	0.0025	-	ND (0.00057)	
6:2 Fluorotelomer sulfonate	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
8:2 Fluorotelomer sulfonate	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
MS Semi-volatiles (SW846 8270E)											
2-Chlorophenol	mg/kg	-	100		ND (0.018)	-	ND (0.019)	-	ND (0.019)	-	
4-Chloro-3-methyl phenol	mg/kg	-	-	-	ND (0.022)	-	ND (0.023)	-	ND (0.023)	-	
2,4-Dichlorophenol	mg/kg	-	100		ND (0.030)	-	ND (0.032)	-	ND (0.032)	-	
2,4-Dimethylphenol	mg/kg	-	-	-	ND (0.064)	-	ND (0.067)	-	ND (0.067)	-	
2,4-Dinitrophenol	mg/kg	-	100		ND (0.13)	-	ND (0.14)	-	ND (0.14)	-	
4,6-Dinitro-o-cresol	mg/kg	-	-	-	ND (0.038)	-	ND (0.040)	-	ND (0.040)	-	
2-Methylphenol	mg/kg	0.33	100	100	ND (0.023)	-	ND (0.024)	-	ND (0.024)	-	
3&4-Methylphenol	mg/kg	-	-	-	ND (0.029)	-	ND (0.031)	-	ND (0.031)	-	
2-Nitrophenol	mg/kg	-			ND (0.024) [a]	-	ND (0.025) [a]	-	ND (0.025) [a]	-	
4-Nitrophenol	mg/kg	-			ND (0.095) [c]	-	ND (0.10) [c]	-	ND (0.10) [c]	-	
Pentachlorophenol	mg/kg	0.8	2.4	6.7	ND (0.034) [c]	-	ND (0.035) [c]	-	ND (0.035) [c]	-	
Phenol	mg/kg	0.33	100	100	ND (0.019) [a]	-	ND (0.020) [a]	-	ND (0.020) [a]	-	
2,3,4,6-Tetrachlorophenol	mg/kg	-	-	-	ND (0.024)	-	ND (0.025)	-	ND (0.025)	-	
2,4,5-Trichlorophenol	mg/kg	-	100		ND (0.027)	-	ND (0.028)	-	ND (0.028)	-	
2,4,6-Trichlorophenol	mg/kg	-			ND (0.021)	-	ND (0.022)	-	ND (0.022)	-	
Acenaphthene	mg/kg	20	100	100	0.109	-	ND (0.013)	-	ND (0.013)	-	
Acenaphthylene	mg/kg	100	100	100	ND (0.018)	-	ND (0.019)	-	ND (0.019)	-	
Acetophenone	mg/kg	-	-	-	ND (0.0077)	-	ND (0.0081)	-	ND (0.0081)	-	
Anthracene	mg/kg	100	100	100	0.0444	-	ND (0.023)	-	ND (0.023)	-	
Atrazine	mg/kg	-	-	-	ND (0.015)	-	ND (0.016)	-	ND (0.016)	-	
Benzo(a)anthracene	mg/kg	1	1	1	0.0359 J	-	ND (0.011)	-	0.0577	-	
Benzo(a)pyrene	mg/kg	1	1	1	0.0504	-	ND (0.017)	-	0.064	-	
Benzo(b)fluoranthene	mg/kg	1	1	1	0.054	-	ND (0.017)	-	0.0758	-	
Benzo(g,h,i)perylene	mg/kg	100	100	100	0.0389	-	ND (0.019)	-	0.043	-	

Benzo(k)fluoranthene	mg/kg	0.8	1	3.9	0.0173 J	-	ND (0.018)	-	0.0248 J	-	
4-Bromophenyl phenyl ether	mg/kg	-	-	-	ND (0.014)	-	ND (0.014)	-	ND (0.014)	-	
Butyl benzyl phthalate	mg/kg	-	100		ND (0.0087) [a]	-	ND (0.0092) [a]	-	ND (0.0092) [a]	-	
1,1'-Biphenyl	mg/kg	-			ND (0.0049)	-	ND (0.0051)	-	ND (0.0051)	-	
Benzaldehyde	mg/kg	-	-	-	ND (0.0089)	-	ND (0.0093)	-	ND (0.0093)	-	
2-Chloronaphthalene	mg/kg	-	-	-	ND (0.0085)	-	ND (0.0089)	-	ND (0.0089)	-	
4-Chloroaniline	mg/kg	-	100		ND (0.013)	-	ND (0.014)	-	ND (0.014)	-	
Carbazole	mg/kg	-	-	-	ND (0.0052)	-	ND (0.0054)	-	0.0103 J	-	
Caprolactam	mg/kg	-	-	-	ND (0.014) [a]	-	ND (0.015) [a]	-	ND (0.015) [a]	-	
Chrysene	mg/kg	1	1	3.9	0.046	-	ND (0.012)	-	0.0616	-	
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	ND (0.0077)	-	ND (0.0080)	-	ND (0.0080)	-	
bis(2-Chloroethyl)ether	mg/kg	-	-	-	ND (0.015) [a]	-	ND (0.016) [a]	-	ND (0.016) [a]	-	
2,2'-Oxybis(1-chloropropane)	mg/kg	-	-	-	ND (0.013)	-	ND (0.013)	-	ND (0.013)	-	
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	ND (0.012)	-	ND (0.012)	-	ND (0.012)	-	
2,4-Dinitrotoluene	mg/kg	-	-	-	ND (0.011)	-	ND (0.012)	-	ND (0.012)	-	
2,6-Dinitrotoluene	mg/kg	-	1.03		ND (0.018)	-	ND (0.019)	-	ND (0.019)	-	
3,3'-Dichlorobenzidine	mg/kg	-	-	-	ND (0.030) [a]	-	ND (0.031) [a]	-	ND (0.031) [a]	-	
1,4-Dioxane	mg/kg	0.1	9.8	13	ND (0.024)	-	ND (0.025)	-	ND (0.025)	-	
Dibenzo(a,h)anthracene	mg/kg	0.33	0.33	0.33	ND (0.016)	-	ND (0.017)	-	ND (0.017)	-	
Dibenzofuran	mg/kg	7	14	59	ND (0.015)	-	ND (0.015)	-	ND (0.015)	-	
Di-n-butyl phthalate	mg/kg	-	100		ND (0.0058)	-	ND (0.0061)	-	ND (0.0061)	-	
Di-n-octyl phthalate	mg/kg	-	100		ND (0.0089)	-	ND (0.0094)	-	ND (0.0093)	-	
Diethyl phthalate	mg/kg	-	100		ND (0.0076)	-	ND (0.0080)	-	ND (0.0080)	-	
Dimethyl phthalate	mg/kg	-	100		ND (0.0064)	-	ND (0.0067)	-	ND (0.0067)	-	
bis(2-Ethylhexyl)phthalate	mg/kg	-	50		0.412 [h]	-	ND (0.0088) [a]	-	ND (0.0088) [a]	-	
Fluoranthene	mg/kg	100	100	100	0.0982	-	ND (0.017)	-	0.123	-	
Fluorene	mg/kg	30	100	100	0.108	-	ND (0.017)	-	ND (0.017)	-	
Hexachlorobenzene	mg/kg	0.33	0.41	1.2	ND (0.0090)	-	ND (0.0095)	-	ND (0.0095)	-	
Hexachlorobutadiene	mg/kg	-	-	-	ND (0.014)	-	ND (0.015)	-	ND (0.015)	-	
Hexachlorocyclopentadiene	mg/kg	-			ND (0.014) [c]	-	ND (0.015) [c]	-	ND (0.015) [c]	-	
Hexachloroethane	mg/kg	-	-	-	ND (0.018)	-	ND (0.019)	-	ND (0.019)	-	
Indeno(1,2,3-cd)pyrene	mg/kg	0.5	0.5	0.5	0.0324 J	-	ND (0.018)	-	0.0364 J	-	
Isophorone	mg/kg	-	100		ND (0.0077)	-	ND (0.0080)	-	ND (0.0080)	-	
2-Methylnaphthalene	mg/kg	-	0.41		0.136	-	ND (0.0085)	-	ND (0.0085)	-	
2-Nitroaniline	mg/kg	-			ND (0.0084) [a]	-	ND (0.0089) [a]	-	ND (0.0089) [a]	-	
3-Nitroaniline	mg/kg	-			ND (0.0089)	-	ND (0.0094)	-	ND (0.0094)	-	
4-Nitroaniline	mg/kg	-	-	-	ND (0.0093) [a]	-	ND (0.0097) [a]	-	ND (0.0097) [a]	-	
Naphthalene	mg/kg	12	100	100	0.0849	-	ND (0.011)	-	ND (0.011)	-	
Nitrobenzene	mg/kg	-	3.7	15	ND (0.014)	-	ND (0.014)	-	ND (0.014)	-	
N-Nitroso-di-n-propylamine	mg/kg	-	-	-	ND (0.010)	-	ND (0.011)	-	ND (0.011)	-	
N-Nitrosodiphenylamine	mg/kg	-			ND (0.013)	-	ND (0.014)	-	ND (0.014)	-	
Phenanthrene	mg/kg	100	100	100	0.21	-	ND (0.013)	-	0.082	-	
Pyrene	mg/kg	100	100	100	0.268	-	ND (0.012)	-	0.112	-	
1,2,4,5-Tetrachlorobenzene	mg/kg	-	-	-	ND (0.0091)	-	ND (0.0095)	-	ND (0.0095)	-	
GC/LC Semi-volatiles (SW846 8081B)											
Aldrin	mg/kg	0.005	0.019	0.097	ND (0.00059)	-	ND (0.00064)	-	ND (0.00063)	-	
alpha-BHC	mg/kg	0.02	0.097	0.48	ND (0.00058)	-	ND (0.00063)	-	ND (0.00062)	-	

beta-BHC	mg/kg	0.036	0.072	0.36	ND (0.00065)	-	ND (0.00071)	-	ND (0.00069)	-	
delta-BHC	mg/kg	0.04	100	100	ND (0.00069)	-	ND (0.00075)	-	ND (0.00074)	-	
gamma-BHC (Lindane)	mg/kg	0.1	0.28	1.3	ND (0.00053)	-	ND (0.00058)	-	ND (0.00057)	-	
alpha-Chlordane	mg/kg	0.094	0.91	4.2	ND (0.00058)	-	0.0011	-	ND (0.00062)	-	
gamma-Chlordane	mg/kg	-	0.54		ND (0.00032)	-	ND (0.00035)	-	ND (0.00035)	-	
Dieldrin	mg/kg	0.005	0.039	0.2	ND (0.00049)	-	ND (0.00054)	-	ND (0.00053)	-	
4,4'-DDD	mg/kg	0.0033	2.6	13	0.0025	-	ND (0.00072)	-	0.00083	-	
4,4'-DDE	mg/kg	0.0033	1.8	8.9	**0.019**	-	**0.0349**	-	**0.0045**	-	
4,4'-DDT	mg/kg	0.0033	1.7	7.9	0.0024	-	0.0018	-	0.0032	-	
Endrin	mg/kg	0.014	2.2	11	0.0010 [e]	-	ND (0.00061)	-	ND (0.00060)	-	
Endosulfan sulfate	mg/kg	2.4	4.8	24	ND (0.00056)	-	ND (0.00061)	-	ND (0.00060)	-	
Endrin aldehyde	mg/kg	-	-	-	ND (0.00041)	-	ND (0.00044)	-	ND (0.00044)	-	
Endosulfan-I	mg/kg	2.4	4.8	24	ND (0.00041)	-	ND (0.00045)	-	ND (0.00044)	-	
Endosulfan-II	mg/kg	2.4	4.8	24	ND (0.00045)	-	ND (0.00049)	-	ND (0.00048)	-	
Heptachlor	mg/kg	0.042	0.42	2.1	ND (0.00062)	-	ND (0.00067)	-	ND (0.00066)	-	
Heptachlor epoxide	mg/kg	-	0.077		ND (0.00050)	-	0.00091 [e]	-	0.0018 [e]	-	
Methoxychlor	mg/kg	-	100		ND (0.00057)	-	ND (0.00062)	-	0.014	-	
Endrin ketone	mg/kg	-	-	-	ND (0.00052)	-	ND (0.00056)	-	ND (0.00055)	-	
Toxaphene	mg/kg	-	-	-	ND (0.017)	-	ND (0.018)	-	ND (0.018)	-	
GC/LC Semi-volatiles (SW846 8082A)											
Aroclor 1016	mg/kg	0.1	1	1	ND (0.017) [a]	-	ND (0.018) [a]	-	ND (0.018)	-	
Aroclor 1221	mg/kg	0.1	1	1	ND (0.022)	-	ND (0.024)	-	ND (0.024)	-	
Aroclor 1232	mg/kg	0.1	1	1	ND (0.023)	-	ND (0.025)	-	ND (0.024)	-	
Aroclor 1242	mg/kg	0.1	1	1	ND (0.015)	-	ND (0.016)	-	ND (0.016)	-	
Aroclor 1248	mg/kg	0.1	1	1	ND (0.032)	-	ND (0.035)	-	0.0466	-	
Aroclor 1254	mg/kg	0.1	1	1	ND (0.019)	-	ND (0.021)	-	ND (0.021)	-	
Aroclor 1260	mg/kg	0.1	1	1	ND (0.015) [a]	-	ND (0.017) [a]	-	ND (0.016)	-	
Aroclor 1268	mg/kg	0.1	1	1	ND (0.015)	-	ND (0.016)	-	ND (0.016)	-	
Aroclor 1262	mg/kg	0.1	1	1	ND (0.023)	-	ND (0.026)	-	ND (0.025)	-	
Metals Analysis											
Aluminum	mg/kg	-			13500	-	18500	-	15400	-	
Antimony	mg/kg	-			<2.3	-	<12 [f]	-	<12 [f]	-	
Arsenic	mg/kg	13	16	16	<2.3	-	<12 [f]	-	<12 [f]	-	
Barium	mg/kg	350	350	400	129	-	217	-	155	-	
Beryllium	mg/kg	7.2	14	72	2.4 [f]	-	3.2 [f]	-	2.2 [f]	-	
Cadmium	mg/kg	2.5	2.5	4.3	<0.56	-	<0.61	-	1	-	
Calcium	mg/kg	-			5990	-	17600	-	3690	-	
Chromium	mg/kg	-	-	-	25.5	-	37	-	36.4	-	
Cobalt	mg/kg	-	30		<28 [f]	-	<30 [f]	-	<29 [f]	-	
Copper	mg/kg	50	270	270	34.2	-	**51.2** [f]	-	**80.6** [f]	-	
Iron	mg/kg	-	2000		**22600**	-	**31600**	-	**53500**	-	
Lead	mg/kg	63	400	400	53.8	-	49.9 [f]	-	**176** [f]	-	
Magnesium	mg/kg	-	-	-	6670	-	9700	-	5760	-	
Manganese	mg/kg	1600	2000	2000	599	-	371 [f]	-	383 [f]	-	
Mercury	mg/kg	0.18	0.81	0.81	0.039	-	0.035	-	0.14	-	

Nickel	mg/kg	30	140	310	24.6	-	25.3	-	**38.7**	-	
Potassium	mg/kg	-	-	-	7840	-	11000	-	5730	-	
Selenium	mg/kg	3.9	36	180	<2.3	-	<12 [f]	-	<12 [f]	-	
Silver	mg/kg	2	36	180	0.65	-	<3.0 [f]	-	<2.9 [f]	-	
Sodium	mg/kg	-	-	-	<1100	-	<1200	-	<1200	-	
Thallium	mg/kg	-			<1.1	-	<6.1 [f]	-	<5.8 [f]	-	
Vanadium	mg/kg	-	100		38.2	-	61.6	-	40.2	-	
Zinc	mg/kg	109	2200	10000	**115**	-	107	-	**226**	-	
General Chemistry											
Solids, Percent	%	-	-	-	91.4	-	84.8	-	86.3	-	

Footnotes:

[a] Associated CCV outside of control limits high, sample was ND.

[b] Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

[c] Associated CCV outside of control limits low. Low-level verification was analyzed to demonstrate system suitability to detect affected analytes. Sample was ND.

[d] Associated CCV outside of control limits low. Low level standard analyzed to demonstrate system suitability to detect affected analytes. Sample was ND.

[e] More than 40 % RPD for detected concentrations between the two GC columns.

[f] Elevated detection limit due to dilution required for high interfering element.

[g] Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte.

[h] Associated CCV outside of control limits high. Estimated value, due to corresponding failure in the batch associated CCV.

Regulatory limits listed in this document have been obtained from the latest version of the regulations cited and are used for advisory purposes only. SGS assumes no responsibility for errors in regulatory documents or changes to criteria detailed in later versions of the referenced regulation. It is the responsibility of the user to verify these limits before using or reporting any data.

46 results exceeded regulatory criteria.

APPENDIX D-4

RAWP

equity environmental engineering
A Division of GZA

PLANNING
GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION MANAGEMENT

Northern NJ
500 International Drive
Suite 150
Mount Olive, NJ 07828

Manhattan
104 West 29th Street
10th Floor
New York, NY 10001

REMEDIAL ACTION WORKPLAN

438 Concord Avenue
Block 2577, Lots 7, 8, 9, 14
Bronx, NY 10455

October 31, 2023
12.0077425.00

PREPARED FOR:
BronxCo, LLC
65 Saint Felix Street
Brooklyn, NY 11217

GZA GeoEnvironmental, Inc.
55 Lane Road | Fairfield, New Jersey
973-697 3496

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www.gza.com

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equity environmental engineering
A Division of GZA

PLANNING
GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION MANAGEMENT

Northern NJ
500 International Drive
Suite 150
Mount Olive, NJ 07828

Manhattan
104 West 29th Street
10th Floor
New York, NY 10001

October 31, 2023
File No. 12.0077425.00

BronxCo, LLC
65 Saint Felix Street,
Brooklyn, NY 11217
Attention: Alejandro Waldman

Re: ***Remedial Action Workplan***
438 Concord Avenue
Block 2577, Lots 7, 8, 9, 14
Bronx, NY 10455

Dear Mr. Alejandro Waldman,

On behalf of BronxCo, LLC, Equity Environmental Engineering, a Division of GZA GeoEnvironmental Inc. (Equity) is submitting this *Remedial Action Workplan (RAWP)* for the above referenced property.

If you have any questions, please contact Bob Jackson at (973) 738-0782.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

Christian DiGennaro
Scientist II

Robert Jackson
Consultant/Reviewer

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Remedial Action Workplan
438 Concord Avenue
Block 2577, Lots 7, 8, 9, 14
Bronx, NY 10455

1.0 BACKGROUND

The Subject Property is located at 438 Concord Avenue (Block 2577 / Lots 7, 8, 9, 14) in the Mott Haven Neighborhood of Bronx, New York, Community District 1. Figure 1 shows the Site location and Figure 2 shows the property boundary. The Subject Property is in an area comprised of mostly mixed residential and commercial use. The Subject Property is approximately 25,532 square feet in size. Lot 7 and Lot 8 are used as residences. Lot 9 is currently a paved, fenced-in parking lot used to store vehicles and lot 14 is used as an auto body shop.

The Proposed Development Plan includes a zoning map amendment from M1-2 to a M1-4/R7D (MX-18) zoning district (Figure 3)t. It is our understanding that the zoning actions sought are to support the Applicants proposal to build a 10-story mix use building with the first floor proposed to be light manufacturing and accessory retail space with two loading berths accessed by a curb cut out on Concord Avenue that would service the ground floor. The cellar, ground level, second, and third floors are proposed to be retail, community facilities, and office spaces. The fourth through tenth floors are proposed to be residential apartments with 87 dwellings. There are 43 proposed parking spaces in the southeastern portion of the cellar assessed by a curb cut on Concord Avenue and bicycle parking on the ground floor. The roof is proposed to be recreation, greenhouse and urban farming space, solar panels with a green roof above the bulkhead. Excavation depths are as follows: 10’ below grade surface (bgs) for the cellar, 15’ bgs for the elevator pit, and 17’ bgs for the underground parking garage.

A Phase I ESA (Environmental Site Assessment) for Lots 9 and 14 was completed on October 21, 2022, by Equity (Equity Environmental Engineering LLC). A Phase I ESA (Environmental Site Assessment) for Lots 7 and 8 was completed on March 24, 2023, The Phase I ESA identified multiple Vapor Encroachment Conditions (VECs) in connection with the Subject Property. The EDR Vapor Encroachment database identified numerous VECs (Vapor Encroachment Conditions) within 1/10 of a mile of the Subject Property that are related to the current auto body use on Lot 14; a former insecticide, fungicide, and rodenticide facility on Lot 9; and many spill cases in the surrounding area. No RECs were discovered. Based on the findings of the Phase I ESA, it was recommended that a Phase II Site Investigation be conducted at the Subject Property to investigate if potential vapor encroachment conditions impacted the Subject Property.

2.0 PHASE II SITE INVESTIGATION

Equity conducted the following Phase II investigation at the Subject Property. Figure 4 shows the sampling locations.

Equity performed the following scope of work at the Subject Property:

1. A RIWP (Remedial Investigation Workplan) and Health & Safety Plan (HASP) were submitted to and approved by the DEP (New York City Department of Environmental Protection).
2. Installed nine soil borings on the Subject Property and collected nine soil samples for chemical analysis from the soil borings to evaluate soil quality.

2.1 SOIL INVESTIGATION

On August 28, 2023, Equity personnel and drilling contractor ADT (Aquifer Drilling Testing) installed and sampled nine soil borings designated SB-1 thru SB-9. Sampling locations are shown on Figure 4.

Equity provided oversight of the soil boring installation, logged the soil cuttings, and collected the necessary environmental samples. The borings were advanced onsite using a direct-push drill rig. Samples were collected in 2-inch diameter cores in five-foot intervals within acetate sleeves. The borings were advanced to a maximum depth of approximately seven feet bgs due to refusal on shallow bedrock. As the soil was retrieved, the following soil characteristics were determined: soil lithology, color, and presence of staining or odors were described and classified. The borings were screened using visual and olfactory senses, and a Photo-Ionization Detector (PID) to detect for the presence of Volatile Organic Compounds (VOCs). Soil onsite consisted of fine sand and fill material.

One soil sample was collected from each boring. Shallow samples were collected from borings SB-1, SB-2, SB-3, SB-4, and SB-5 from the top 0–2-foot interval of the boring. Samples were collected from the bottom foot of the boring for SB-6, SB-7, SB-8, and SB-9. One field blanks (at a frequency of one per day) and one (1) duplicate were taken for QA/QC (quality assurance/quality control). The soil samples were analyzed for TCL (Target Compound List) VOCs (Volatile Organic Compounds) by EPA Method 8260B, TCL SVOCs (Semi-Volatile Organic Compounds) by EPA Method 8270C, pesticides/PCBs (Polychlorinated biphenyls) by EPA Methods 8081A, and TAL (Target Analyte List) metals by EPA Method 6020/6020/7471, and PFAS/PFOS (per-and polyfluoroalkyl substances) by EPA Method 537 . The analytical results are provided in Table 1.

2.2 ANALYTICAL RESULTS

Soil

Nine soil borings were installed across the Subject Property and nine samples were collected for analysis.

- 13 VOCs were detected throughout the soil samples. However, there were only two VOCs detected in exceedance of the Unrestricted Use criteria. VOCs exceeding the Unrestricted Use Criteria include acetone (maximum of 0.475 mg/kg) and m,p-Xylene (maximum of 0.348 mg/kg). The unrestricted use criteria for acetone and m,p-Xylene is 0.05 mg/kg and 0.26 respectively.

- SVOCs were more prominent in the samples with detections for 23 compounds. However, there were no exceedances of the Unrestricted, Residential, or the Restricted Residential Use Criteria in any sample.

- Nine Pesticides were detected throughout the soil samples. However, there were only three pesticides detected in exceedance of the Unrestricted Use Criteria. Pesticides in exceedance of the Unrestricted Use Criteria include 4,4'-DDD (maximum of 0.0137 mg/kg); 4,4'-DDE (maximum of 0.0349 mg/kg); and 4,4'-DDT (maximum of 0.0141 mg/kg) in samples SB-1 (0-2), SB-2 (0-2), SB-3 (0-2), SB-4 (0-2), SB-6 (5-6), SB-7 (6-7), SB-8 (5-6), and SB-9 (5-6). The Unrestricted Use Criteria for 4,4'-DDD; 4,4'-DDE; and 4,4'-DDT is 0.0033 mg/kg.

- One PCB was detected in the soil samples. However, there were no exceedances of the Unrestricted, Residential, or the Restricted Residential Use Criteria in any sample.

- 18 metals were detected in the soil samples. However, there were only five metals detected in exceedance of the Unrestricted Use Criteria. Metals in exceedance of the Unrestricted Use Criteria include Lead (maximum

of 249 mg/kg), Mercury (maximum of 0.27 mg/kg), Nickel (maximum of 43.3 mg/kg), and Zinc (maximum of 314 mg/kg). The Unrestricted Use Criteria for Lead, Mercury, Nickel, and Zinc are 63mg/kg, 0.18 mg/kg, 30 mg/kg, and 109 mg/kg respectively. Iron (maximum of 53,500 mg/kg) was detected in exceedance of the Residential criteria in all soil samples. The Residential Use Criteria for Iron ais 2000 mg/kg. Barium (maximum of 414 mg/kg) was detected in exceedance of the Restricted Residential criteria in SB-3 (0-2). The Restricted Residential Use criteria for Barium is 400 mg/kg.

The analytical results are provided on Table 1.

3.0 REMEDIAL ACTION WORKPLAN

The following tasks comprise the Remedial Action Plan:

1. The preparation of a Construction Health and Safety Plan (CHASP) for the protection of onsite workers during construction.

2. The onsite soil/bedrock will be evaluated for waste classification purposes based on the volume of soil to be excavated and the selected disposal company/location.

3. The onsite soil will be excavated across the entire site to the necessary construction depth and transported offsite for the construction of the new building (Figure 5).

4. Progress reports including trucking logs will be maintained.

5. The necessary Community Air Monitoring Program (CAMP) will be implemented during the soil excavation and any other onsite activity that may raise dust or release volatile organic emissions (Appendix A). All CAMP readings will be made available for DEP to review.

6. A vapor barrier shall be installed to prevent possible vapor intrusion from the soil into the proposed building. It shall be, at minimum, 20-mil thick and properly anchored to the foundation walls and booted around all pipe penetrations, etc. Preprufe 300R is the proposed vapor barrier. Preprufe Tape and Bithuthene Liquid Membrane will be used to seal between the seams of the barrier and around penetrations respectively. The technical specifications for these materials are provided in Appendix B. A plan view showing the vapor barrier system is provided in Figure 5 and a cross-section is shown in Figure 6.

7. A passive Sub-slab Depressurization System (SSDS) will be designed and installed based on the potential concerns from VOCs identified during the Phase II environmental site investigation as well as potential radon concentrations within the new building. Should a SSDS be required, a design of the system will be prepared for regulatory approval. The system will consist of an extraction trench with 4-inch diameter, perforated PVC pipe laid in a layer of crushed stone and 4-inch diameter cast iron risers through the roof with ventilators on top. To the extent possible, the risers will run vertically in pipe chases where the bathrooms are planned, or other appropriate spaces Should the SSDS need to be made active, appropriate exhaust fans will be selected and installed with the necessary pressure gauges, alarms, and O&M manual.

8. Complete a Remedial Action Report (RAR) when construction is complete.

3.1 SOILS EXCAVATION AND SOILS MANAGEMENT

If soil is stockpiled onsite, it will be done on and covered with plastic sheeting. This includes any petroleum contaminated soil if observed onsite. Based on the proposed development plans, it is estimated that approximately 8150 cubic yards of soil/bedrock will need to be excavated to reach the desired subgrade depths for construction.

The excavated material shall be properly handled, transported, and disposed of in accordance with applicable local, state, and federal laws and regulations. Dust suppression will be maintained by the contractor during soil excavation and grading operations.

Should any USTs (Underground Storage Tanks) or ASTs (Above ground Storage Tanks) (including dispensers, piping, and fill-ports) be found during the site excavation they will be properly managed and closed/removed in accordance with applicable local, state, and federal laws and regulations.

Although not anticipated, should site dewatering and discharge into New York City storm/sewer drains be required, a New York City Department of Environmental Protection Sewer Discharge Permit will be obtained prior to the start of any dewatering activities.

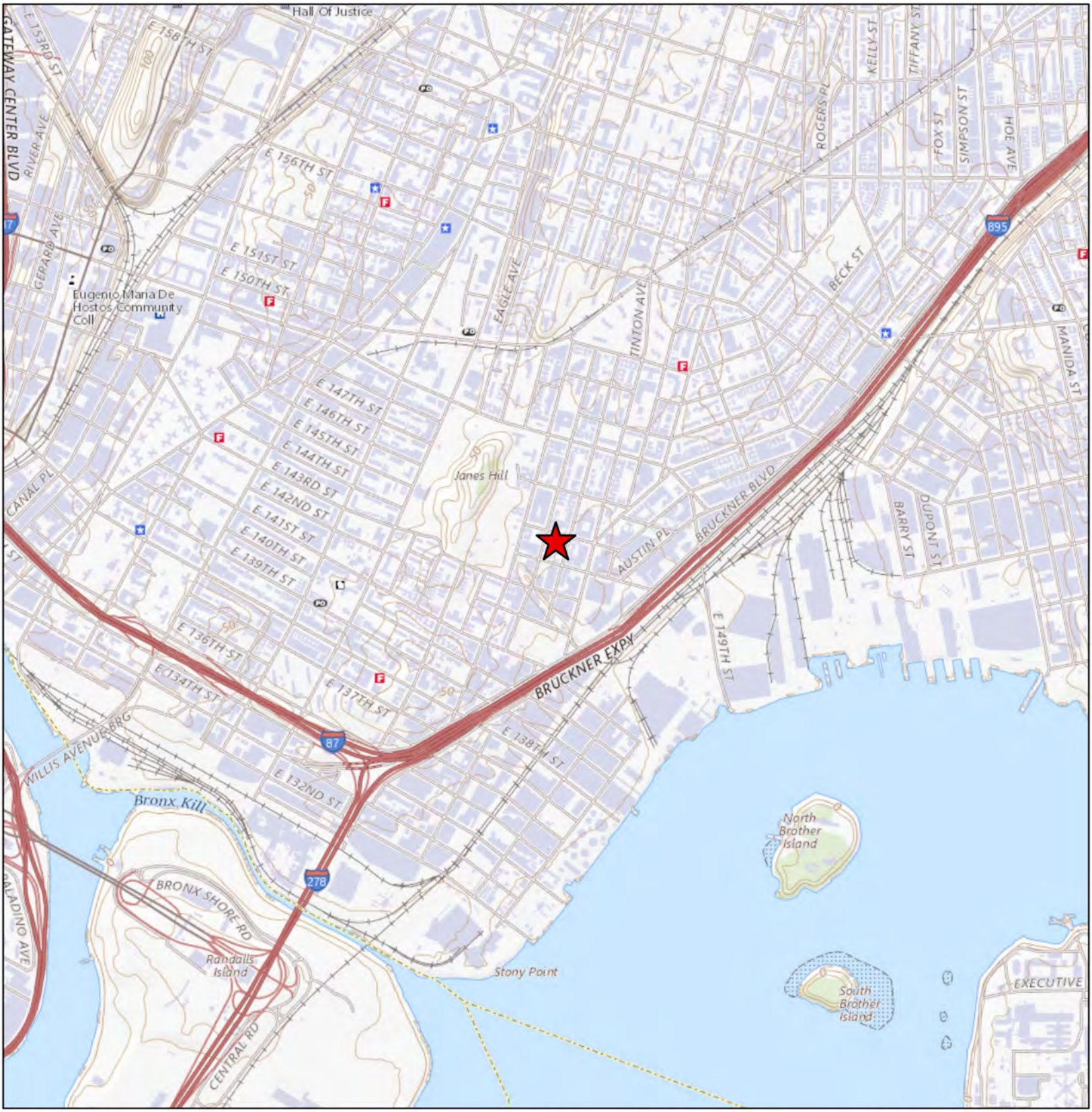
Backfill

Any areas of the site to be landscaped or covered with grass (not capped with an impervious surface) must have a minimum of 2-feet of DEP approved clean fill/topsoil imported from an approved facility/source and graded across the landscaped/grass areas. The clean fill/top soil must be segregated at the source/facility, have qualified environmental personnel collect representative samples at a frequency of one (1) sample for every 250 cubic yards, analyze the samples for Target Compound List VOCs by EPA Method 8260, SVOCs by EPA Method 8270, pesticides by EPA Method 8081, PCBs by EPA Method 8082, and TAL metals by a New York State Department of Health Environmental Laboratory Approval Program certified laboratory, and compared to the NYSDEC 6 NYCRR Part 375 Environmental Remediation Programs. Upon completion of the investigation activities, the applicant should submit a detailed clean soil report for DEP review and approval. The report should include, at a minimum, an executive summary, narrative of the field activities, laboratory data, and comparison of soil analytical results (i.e., NYSDEC 6 NYCRR Part 375 Environmental Remediation Programs).

4.0 REMEDIAL ACTION REPORT

Upon completion of the activities in this RAP, a RCR will be prepared and certified by a NY licensed P.E. and submitted to the DEP. The RCR will demonstrate that the various remedial requirements have been properly implemented and provide the required documentation. The report would include any deviations from the RAP based on changed conditions and/or construction issues.

Figures



Legend

438 Concord Avenue

N

0.5 Miles

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438 CONCORD AVENUE
BRONX, NEW YORK

USGS SITE LOCATION MAP

PREPARED BY: equity environmental engineering, A Division of GZA		PREPARED FOR: 100 WEST 33RD STREET INC.	
PROJ MGR: RLJ	REVIEWED BY: JV	CHECKED BY: RLJ	FIG/DWG 1
DESIGNED BY: GB	DRAWN BY: GB	SCALE: 1:17,062	
DATE: 03/20/2023	PROJECT NO: 2021030	REVISION NO:	SHEET NO: 1 OF 1

Legend

438 Concord Avenue

N

100

US Feet

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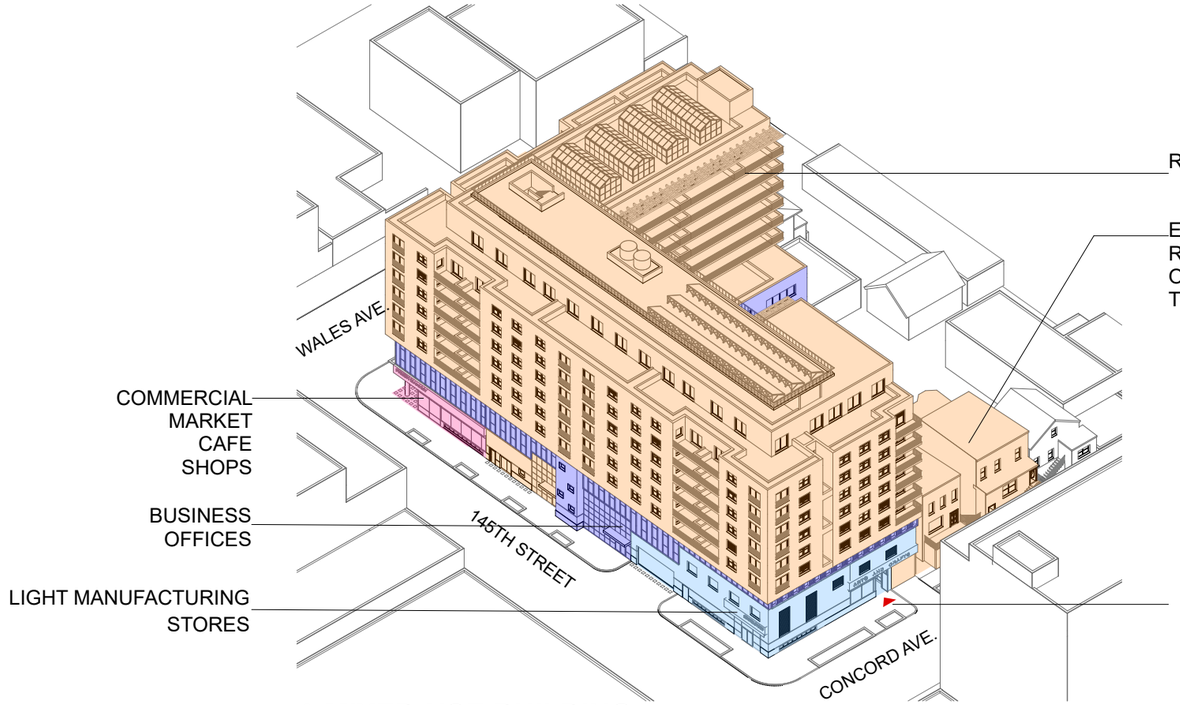
438 CONCORD AVENUE
BRONX, NEW YORK

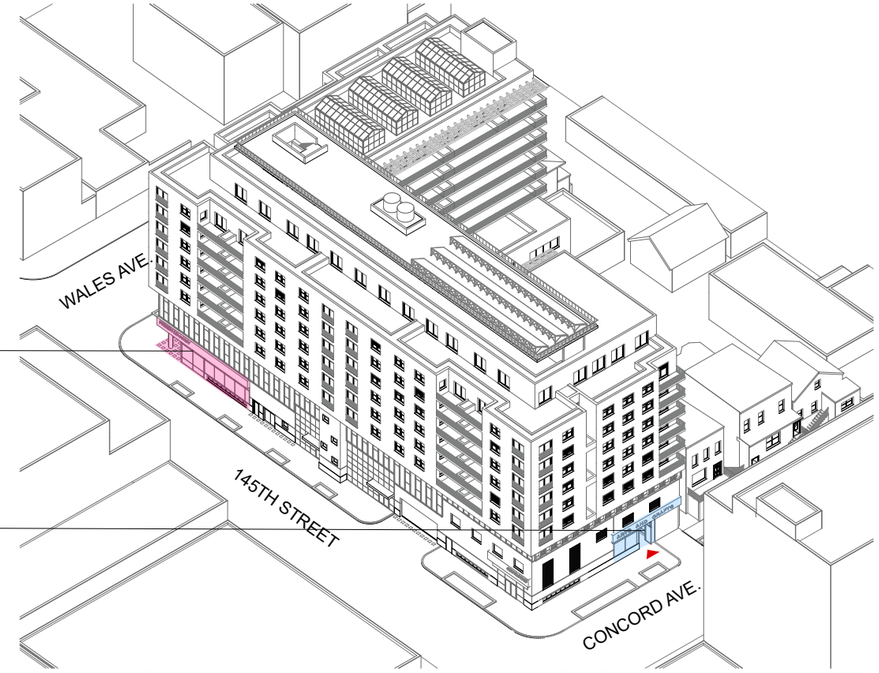
SITE BOUNDARY MAP

PREPARED BY: equity environmental engineering, A Division of GZA		PREPARED FOR: 100 WEST 33RD STREET INC.	
PROJ MGR: RLJ	REVIEWED BY: JV	CHECKED BY: RLJ	FIG/DWG 2
DESIGNED BY: GB	DRAWN BY: GB	SCALE: 1:716	
DATE: 03/20/2023	PROJECT NO: 2021030	REVISION NO:	SHEET NO: 1 OF 1

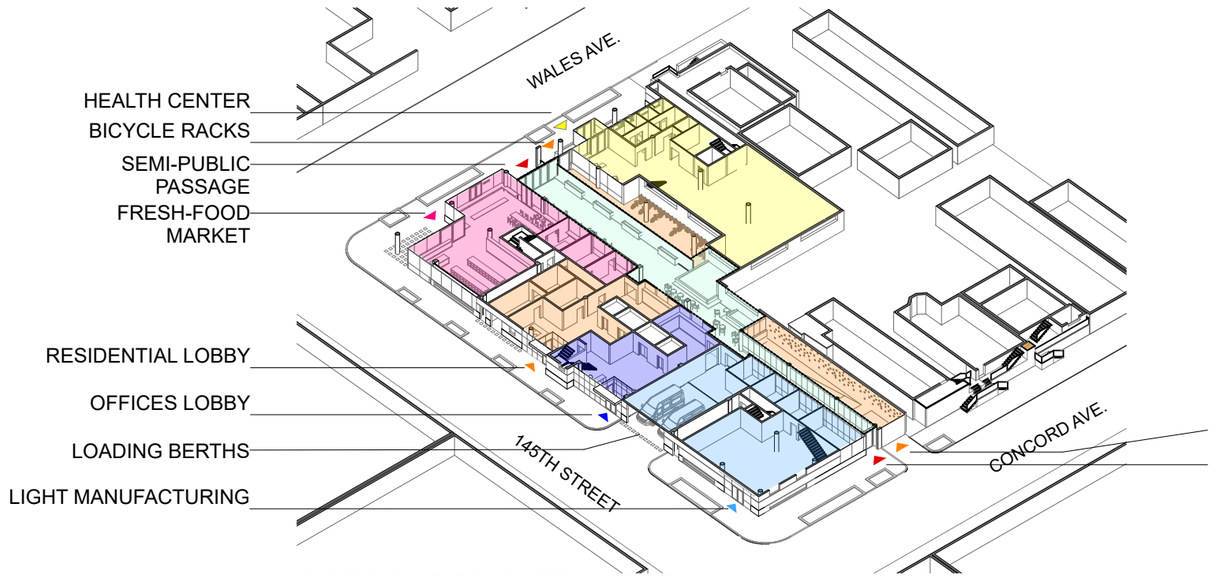
Martin della Paolera Architects 65 Saint Felix Street, Brooklyn NY11217 Marina della Paolera ADE HMONP	**438 CONCORD AVENUE BRONX, NY 10045**	08-22-2023 SCALE	TITLESHEET Figure 3



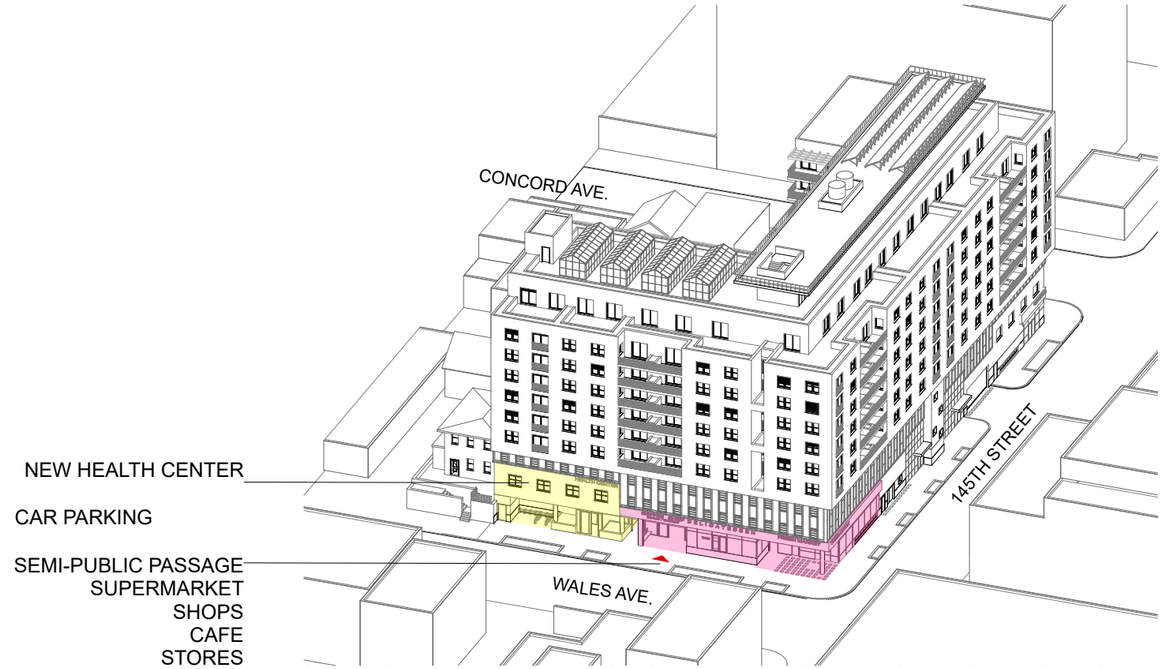
A MIXED-USE BUILDING



NEW SHOPS AND A SEMI-PUBLIC PASSAGE



FIRST FLOOR ENTRANCES



NEW COMMUNITY FACILITY AND A SEMI-PUBLIC PASSAGE

Martin della Paolera Architects
65 Saint Felix Street, Brooklyn NY11217
Marina della Paolera
ADE HMONP

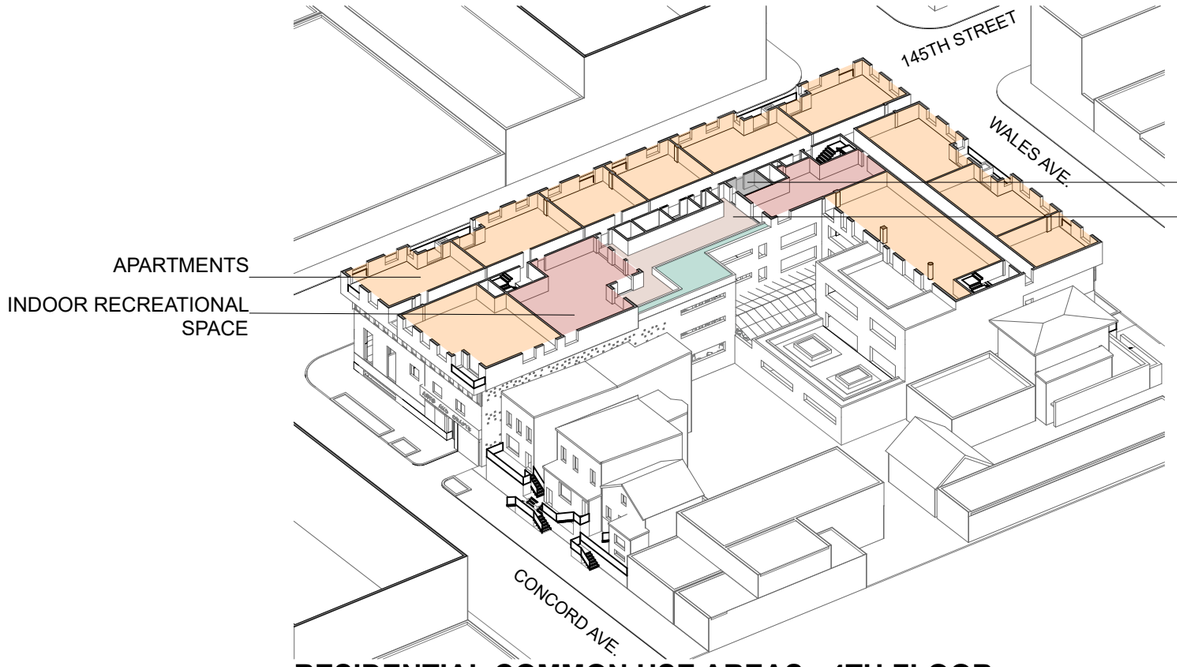
438 CONCORD AVENUE
BRONX, NY 10045

08-22-2023

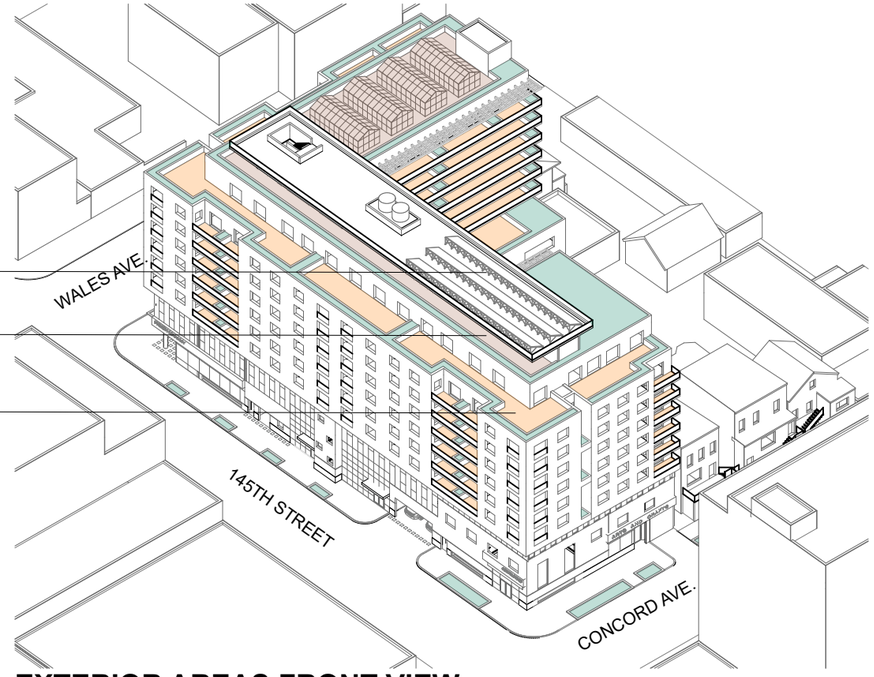
SCALE

DIAGRAMS

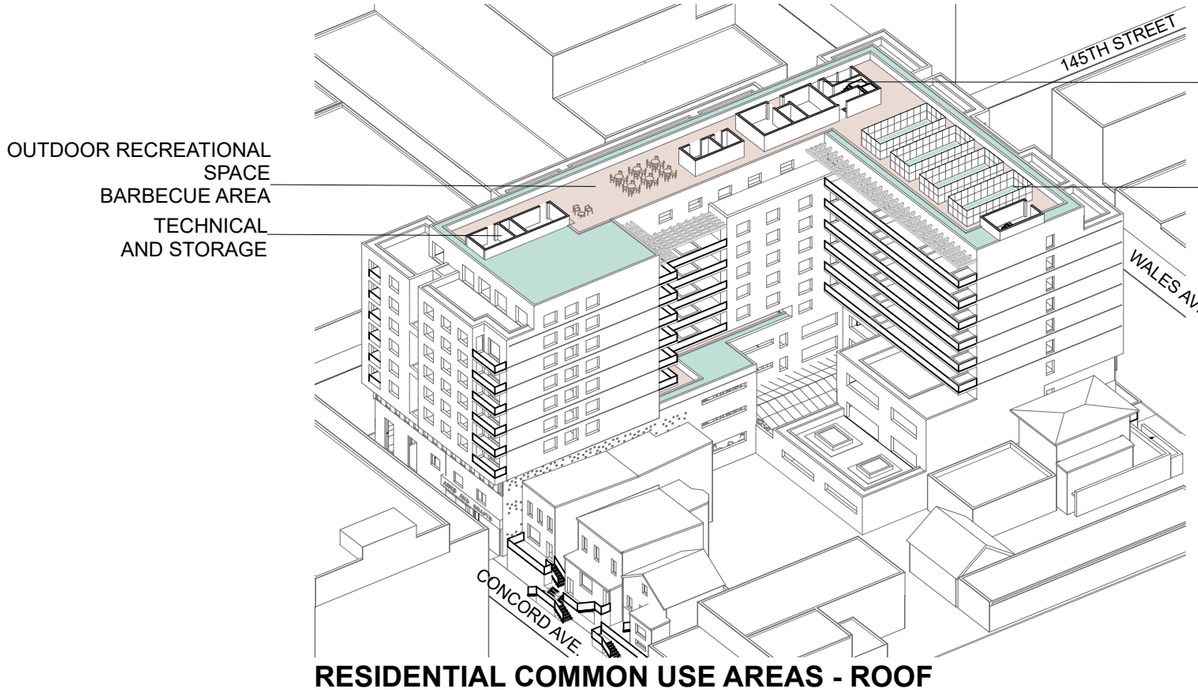
A - 10



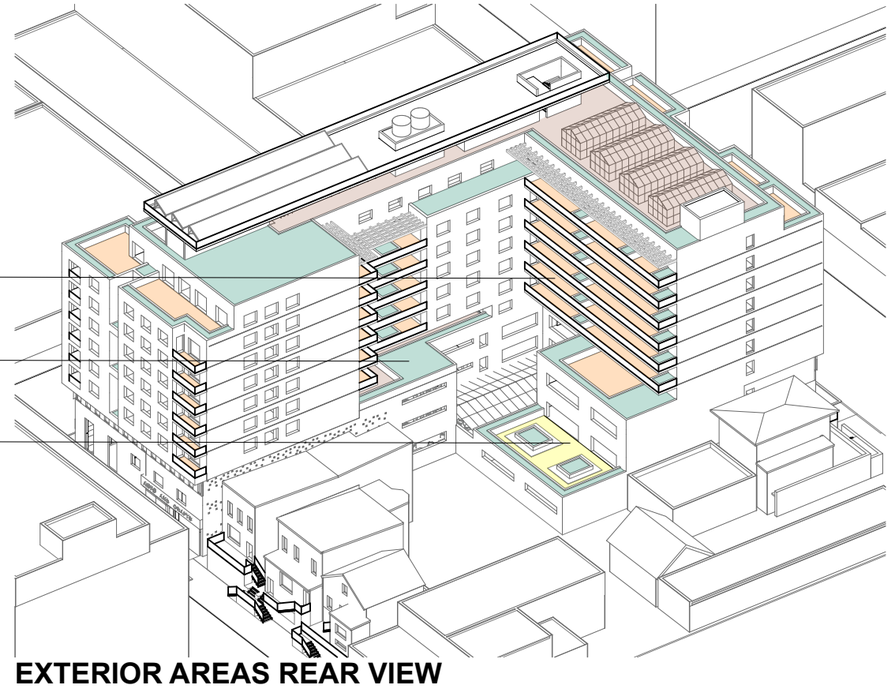
RESIDENTIAL COMMON USE AREAS - 4TH FLOOR



EXTERIOR AREAS FRONT VIEW



RESIDENTIAL COMMON USE AREAS - ROOF



EXTERIOR AREAS REAR VIEW

Martin della Paolera Architects
65 Saint Felix Street, Brooklyn NY11217
Marina della Paolera
ADE HMONP

438 CONCORD AVENUE
BRONX, NY 10045

08-22-2023

SCALE

DIAGRAMS

A - 11

Legend

- 438 Concord Avenue
- Soil Borings

N

0 15 30 60 US Feet

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438 CONCORD AVENUE
BRONX, NEW YORK

SAMPLE LOCATION PLAN

PREPARED BY: equity environmental engineering, A Division of GZA		PREPARED FOR: 100 WEST 33RD STREET INC.	
PROJ MGR: RLJ	REVIEWED BY: JV	CHECKED BY: RLJ	FIG/DWG 4
DESIGNED BY: GB	DRAWN BY: GB	SCALE: 1:458	
DATE: 05/09/2023	PROJECT NO: 12.0077425.00	REVISION NO:	SHEET NO: 1 OF 1

Legend

438 Concord Avenue

Excavation and Vapor Barrier Area

N

100

US Feet

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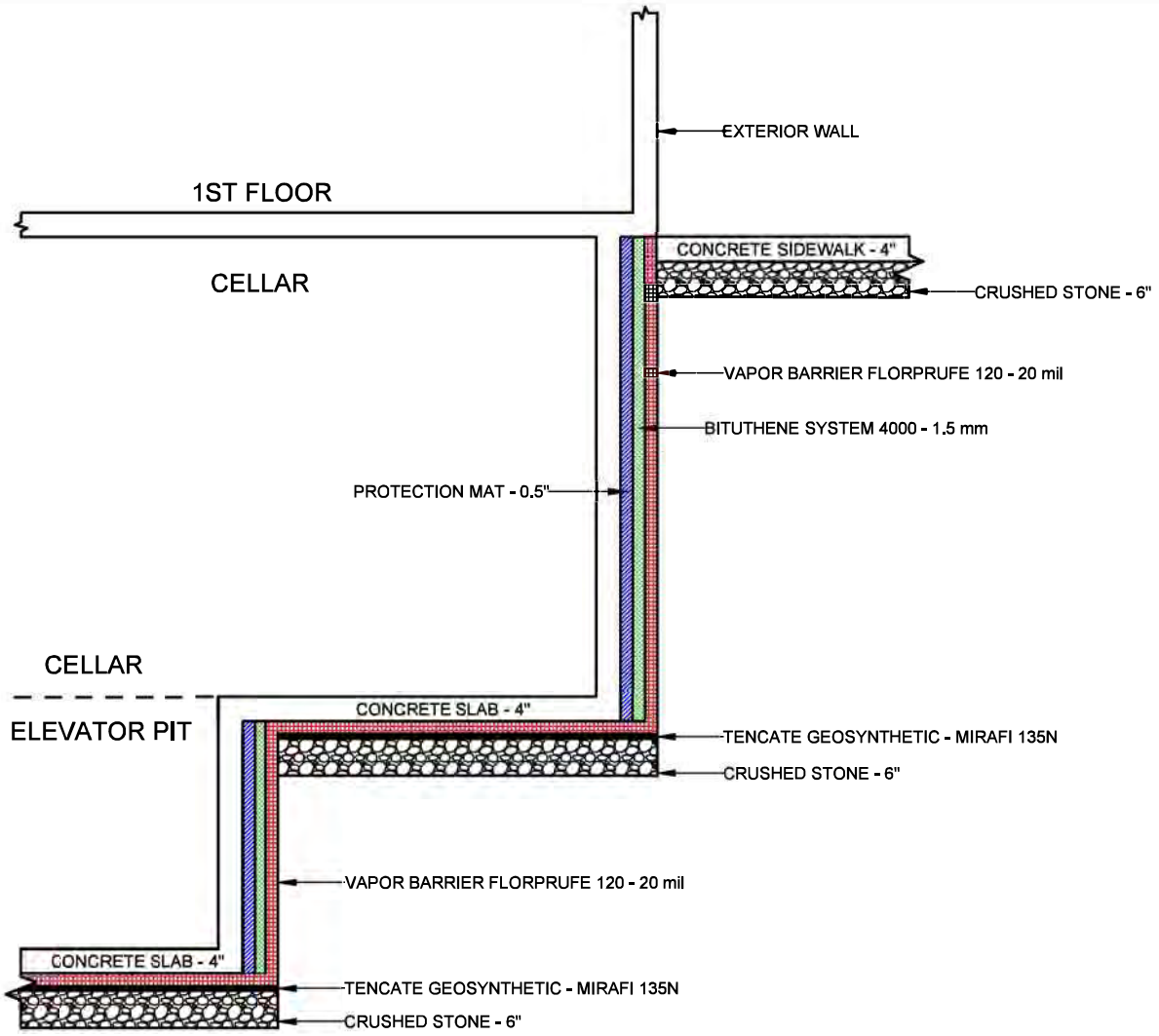
438 CONCORD AVENUE
BRONX, NEW YORK

EXCAVATION AND VAPOR BARRIER AREA

PREPARED BY: equity environmental engineering, A Division of GZA		PREPARED FOR: 100 WEST 33RD STREET INC.	
PROJ MGR: RJ	REVIEWED BY: RJ	CHECKED BY: RJ	FIG/DWG 5
DESIGNED BY: RJ	DRAWN BY: JV	SCALE: 1:716	
DATE: 10/31/2023	PROJECT NO: 12.0077425.00	REVISION NO:	SHEET NO: 1 OF 1



NOTES:
1.) All vapor barrier seams to be sealed with PREPRUFE Detail Tape.
2.) All penetrations to be sealed with Bituthene.

FIGURE NOT DRAWN TO SCALE

PREPARED BY:
equity environmental engineering
A Division of GZA

EQUITY ENVIRONMENTAL ENGINEERING LLC,
A DIVISION OF GZA GEOENVIRONMENTAL INC.
55 LANE ROAD, SUITE 407
FAIRFIELD, NEW JERSEY 07004
PHONE: (973) 697-3496

CLIENT:
BronxCo, LLC

STATEMENT:
IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ENGINEER/ARCHITECT, TO ALTER IN ANY WAY, ANY ITEM ON THESE DRAWINGS. IF AN ITEM BEARING THE SEAL OF AN ENGINEER/ARCHITECT IS ALTERED, THE ALTERING ENGINEER/ARCHITECT SHALL AFFIX TO THIS ITEM THEIR SEAL AND THE NOTATION "ALTERED BY", FOLLOWED BY HIS/HER SIGNATURE AND THE DATE OF SUCH ALTERATION, ALONG WITH A SPECIFIC DESCRIPTION OF THE ALTERATION ON THE DRAWING.

NO	DATE	DESCRIPTION

PROJECT:
438 Concord Avenue, Bronx, NY

DESIGN BY:	IM	5/24/22
DRAWN BY:	IM	5/24/22
CHECKED BY:		
FINALIZE BY:		

PAGE: 1 OF 1

PROJECT NO.:
12.0077425.00

DRAWING TITLE:
PROPOSED COMPOSITE COVER SYSTEM AND VAPOR BARRIER SYSTEM

DRAWING NO.:
FIGURE 6

ENGINEER SEAL:

Tables

Table 1
Soil Analytical Data Report
438 Concord Avenue
Bronx, New York 10455

												May 26, 2023 14:16 pm
Job Number:	**JD64767**											
Account:	**GZA Environmental, Inc.**											
Project:	**Concord Wales, 438 Concord Avenue, Bronx, NY**											
Project Number:	**12.0077425.00**											
Results flagged as "Exceed" if any of the selected criteria exceeded (most stringent).									**Legend:**	Hit	**Exceed**	
Client Sample ID:		**NY SCO - Unrestricted Use (6 NYCRR 375-6 12/06)**	**NY SCO - Residential w/CP-51 (10/10) (6 NYCRR 375-6 12/06)**	**NY SCO - Restricted Residential w/CP-51 (10/10) (6 NYCRR 375-6 12/06)**	**FB-1**	**FB-1**	**TB-1**					
Lab Sample ID:					**JD64767-10**	**JD64767-10A**	**JD64767-11**					
Date Sampled:					**4/28/2023**	**4/28/2023**	**4/28/2023**					
Matrix:					**Field Blank Soil**	**Field Blank Soil**	**Trip Blank Soil**					
MS Volatiles (SW846 8260D)												
Acetone	ug/l	-	-	-	ND (3.1) [a]	-	ND (3.1) [a]					
Benzene	ug/l	-	-	-	ND (0.43)	-	ND (0.43)					
Bromochloromethane	ug/l	-	-	-	ND (0.48)	-	ND (0.48)					
Bromodichloromethane	ug/l	-	-	-	ND (0.45)	-	ND (0.45)					
Bromoform	ug/l	-	-	-	ND (0.63)	-	ND (0.63)					
Bromomethane	ug/l	-	-	-	ND (1.6)	-	ND (1.6)					
2-Butanone (MEK)	ug/l	-	-	-	ND (2.7)	-	ND (2.7)					
Carbon disulfide	ug/l	-	-	-	ND (0.46)	-	ND (0.46)					
Carbon tetrachloride	ug/l	-	-	-	ND (0.55)	-	ND (0.55)					
Chlorobenzene	ug/l	-	-	-	ND (0.56)	-	ND (0.56)					
Chloroethane	ug/l	-	-	-	ND (0.73)	-	ND (0.73)					
Chloroform	ug/l	-	-	-	ND (0.50)	-	ND (0.50)					
Chloromethane	ug/l	-	-	-	ND (0.76)	-	ND (0.76)					
Cyclohexane	ug/l	-	-	-	ND (0.78)	-	ND (0.78)					
1,2-Dibromo-3-chloropropane	ug/l	-	-	-	ND (0.53)	-	ND (0.53)					
Dibromochloromethane	ug/l	-	-	-	ND (0.56)	-	ND (0.56)					
1,2-Dibromoethane	ug/l	-	-	-	ND (0.48)	-	ND (0.48)					
1,2-Dichlorobenzene	ug/l	-	-	-	ND (0.53)	-	ND (0.53)					
1,3-Dichlorobenzene	ug/l	-	-	-	ND (0.54)	-	ND (0.54)					
1,4-Dichlorobenzene	ug/l	-	-	-	ND (0.51)	-	ND (0.51)					
Dichlorodifluoromethane	ug/l	-	-	-	ND (0.56)	-	ND (0.56)					
1,1-Dichloroethane	ug/l	-	-	-	ND (0.57)	-	ND (0.57)					
1,2-Dichloroethane	ug/l	-	-	-	ND (0.60)	-	ND (0.60)					
1,1-Dichloroethene	ug/l	-	-	-	ND (0.59) [b]	-	ND (0.59) [b]					
cis-1,2-Dichloroethene	ug/l	-	-	-	ND (0.51)	-	ND (0.51)					
trans-1,2-Dichloroethene	ug/l	-	-	-	ND (0.54)	-	ND (0.54)					
1,2-Dichloropropane	ug/l	-	-	-	ND (0.51)	-	ND (0.51)					
cis-1,3-Dichloropropene	ug/l	-	-	-	ND (0.47)	-	ND (0.47)					
trans-1,3-Dichloropropene	ug/l	-	-	-	ND (0.43)	-	ND (0.43)					
Ethylbenzene	ug/l	-	-	-	ND (0.60)	-	ND (0.60)					
Freon 113	ug/l	-	-	-	ND (0.58)	-	ND (0.58)					
2-Hexanone	ug/l	-	-	-	ND (2.0)	-	ND (2.0)					

Isopropylbenzene	ug/l	-	-	-	ND (0.65)	-	ND (0.65)				
Methyl Acetate	ug/l	-	-	-	ND (0.80)	-	ND (0.80)				
Methylcyclohexane	ug/l	-	-	-	ND (0.60)	-	ND (0.60)				
Methyl Tert Butyl Ether	ug/l	-	-	-	ND (0.51)	-	ND (0.51)				
4-Methyl-2-pentanone(MIBK)	ug/l	-	-	-	ND (1.9)	-	ND (1.9)				
Methylene chloride	ug/l	-	-	-	ND (1.0)	-	ND (1.0)				
Styrene	ug/l	-	-	-	ND (0.49)	-	ND (0.49)				
1,1,2,2-Tetrachloroethane	ug/l	-	-	-	ND (0.65)	-	ND (0.65)				
Tetrachloroethene	ug/l	-	-	-	ND (0.56)	-	ND (0.56)				
Toluene	ug/l	-	-	-	ND (0.49)	-	ND (0.49)				
1,2,3-Trichlorobenzene	ug/l	-	-	-	ND (0.50)	-	ND (0.50)				
1,2,4-Trichlorobenzene	ug/l	-	-	-	ND (0.50)	-	ND (0.50)				
1,1,1-Trichloroethane	ug/l	-	-	-	ND (0.54)	-	ND (0.54)				
1,1,2-Trichloroethane	ug/l	-	-	-	ND (0.53)	-	ND (0.53)				
Trichloroethene	ug/l	-	-	-	ND (0.53)	-	ND (0.53)				
Trichlorofluoromethane	ug/l	-	-	-	ND (0.40)	-	ND (0.40)				
Vinyl chloride	ug/l	-	-	-	ND (0.52)	-	ND (0.52)				
m,p-Xylene	ug/l	-	-	-	ND (0.78)	-	ND (0.78)				
o-Xylene	ug/l	-	-	-	ND (0.59)	-	ND (0.59)				
Xylene (total)	ug/l	-	-	-	ND (0.59)	-	ND (0.59)				
MS Semi-volatiles (EPA 537M BY ID)											
Perfluorobutanoic acid	ng/l	-	-	-	-	ND (1.9)	-				
Perfluoropentanoic acid	ng/l	-	-	-	-	ND (0.93)	-				
Perfluorohexanoic acid	ng/l	-	-	-	-	ND (0.93)	-				
Perfluoroheptanoic acid	ng/l	-	-	-	-	ND (0.93)	-				
Perfluorooctanoic acid	ng/l	-	-	-	-	ND (0.93)	-				
Perfluorononanoic acid	ng/l	-	-	-	-	ND (0.93)	-				
Perfluorodecanoic acid	ng/l	-	-	-	-	ND (0.93)	-				
Perfluoroundecanoic acid	ng/l	-	-	-	-	ND (0.93)	-				
Perfluorododecanoic acid	ng/l	-	-	-	-	ND (0.93)	-				
Perfluorotridecanoic acid	ng/l	-	-	-	-	ND (0.93)	-				
Perfluorotetradecanoic acid	ng/l	-	-	-	-	ND (0.93)	-				
Perfluorobutanesulfonic acid	ng/l	-	-	-	-	ND (0.93)	-				
Perfluorohexanesulfonic acid	ng/l	-	-	-	-	ND (0.93)	-				
Perfluoroheptanesulfonic acid	ng/l	-	-	-	-	ND (0.93)	-				
Perfluorooctanesulfonic acid	ng/l	-	-	-	-	ND (0.93)	-				
Perfluorodecanesulfonic acid	ng/l	-	-	-	-	ND (0.93)	-				
PFOSA	ng/l	-	-	-	-	ND (1.9)	-				
MeFOSAA	ng/l	-	-	-	-	ND (1.9)	-				
EtFOSAA	ng/l	-	-	-	-	ND (1.9)	-				
6:2 Fluorotelomer sulfonate	ng/l	-	-	-	-	ND (1.9)	-				
8:2 Fluorotelomer sulfonate	ng/l	-	-	-	-	ND (1.9)	-				
MS Semi-volatiles (SW846 8270E)											
2-Chlorophenol	ug/l	-	-	-	ND (0.82)	-	-				
4-Chloro-3-methyl phenol	ug/l	-	-	-	ND (0.90)	-	-				
2,4-Dichlorophenol	ug/l	-	-	-	ND (1.3)	-	-				

2,4-Dimethylphenol	ug/l	-	-	-	ND (2.4)	-	-				
2,4-Dinitrophenol	ug/l	-	-	-	ND (1.6) [a]	-	-				
4,6-Dinitro-o-cresol	ug/l	-	-	-	ND (1.3) [a]	-	-				
2-Methylphenol	ug/l	-	-	-	ND (0.89)	-	-				
3&4-Methylphenol	ug/l	-	-	-	ND (0.88)	-	-				
2-Nitrophenol	ug/l	-	-	-	ND (0.96) [a]	-	-				
4-Nitrophenol	ug/l	-	-	-	ND (1.2) [c]	-	-				
Pentachlorophenol	ug/l	-	-	-	ND (1.4) [c]	-	-				
Phenol	ug/l	-	-	-	ND (0.39) [a]	-	-				
2,3,4,6-Tetrachlorophenol	ug/l	-	-	-	ND (1.5)	-	-				
2,4,5-Trichlorophenol	ug/l	-	-	-	ND (1.3)	-	-				
2,4,6-Trichlorophenol	ug/l	-	-	-	ND (0.93)	-	-				
Acenaphthene	ug/l	-	-	-	ND (0.19)	-	-				
Acenaphthylene	ug/l	-	-	-	ND (0.14)	-	-				
Acetophenone	ug/l	-	-	-	ND (0.21)	-	-				
Anthracene	ug/l	-	-	-	ND (0.21)	-	-				
Atrazine	ug/l	-	-	-	ND (0.45)	-	-				
Benzaldehyde	ug/l	-	-	-	ND (0.29)	-	-				
Benzo(a)anthracene	ug/l	-	-	-	ND (0.20)	-	-				
Benzo(a)pyrene	ug/l	-	-	-	ND (0.21)	-	-				
Benzo(b)fluoranthene	ug/l	-	-	-	ND (0.21)	-	-				
Benzo(g,h,i)perylene	ug/l	-	-	-	ND (0.34)	-	-				
Benzo(k)fluoranthene	ug/l	-	-	-	ND (0.21)	-	-				
4-Bromophenyl phenyl ether	ug/l	-	-	-	ND (0.41)	-	-				
Butyl benzyl phthalate	ug/l	-	-	-	ND (0.46) [a]	-	-				
1,1'-Biphenyl	ug/l	-	-	-	ND (0.21)	-	-				
2-Chloronaphthalene	ug/l	-	-	-	ND (0.24)	-	-				
4-Chloroaniline	ug/l	-	-	-	ND (0.34)	-	-				
Carbazole	ug/l	-	-	-	ND (0.23)	-	-				
Caprolactam	ug/l	-	-	-	ND (0.65) [a]	-	-				
Chrysene	ug/l	-	-	-	ND (0.18)	-	-				
bis(2-Chloroethoxy)methane	ug/l	-	-	-	ND (0.28)	-	-				
bis(2-Chloroethyl)ether	ug/l	-	-	-	ND (0.25)	-	-				
2,2'-Oxybis(1-chloropropane)	ug/l	-	-	-	ND (0.40)	-	-				
4-Chlorophenyl phenyl ether	ug/l	-	-	-	ND (0.37)	-	-				
2,4-Dinitrotoluene	ug/l	-	-	-	ND (0.55)	-	-				
2,6-Dinitrotoluene	ug/l	-	-	-	ND (0.48) [a]	-	-				
3,3'-Dichlorobenzidine	ug/l	-	-	-	ND (0.51) [a]	-	-				
1,4-Dioxane	ug/l	-	-	-	ND (0.66)	-	-				
Dibenzo(a,h)anthracene	ug/l	-	-	-	ND (0.33)	-	-				
Dibenzofuran	ug/l	-	-	-	ND (0.22)	-	-				
Di-n-butyl phthalate	ug/l	-	-	-	ND (0.50)	-	-				
Di-n-octyl phthalate	ug/l	-	-	-	ND (0.23) [a]	-	-				
Diethyl phthalate	ug/l	-	-	-	ND (0.26)	-	-				
Dimethyl phthalate	ug/l	-	-	-	ND (0.22)	-	-				
bis(2-Ethylhexyl)phthalate	ug/l	-	-	-	ND (1.7) [a]	-	-				
Fluoranthene	ug/l	-	-	-	ND (0.17)	-	-				
Fluorene	ug/l	-	-	-	ND (0.17)	-	-				

Hexachlorobenzene	ug/l	-	-	-	ND (0.33)	-	-				
Hexachlorobutadiene	ug/l	-	-	-	ND (0.49)	-	-				
Hexachlorocyclopentadiene	ug/l	-	-	-	ND (2.8) [c]	-	-				
Hexachloroethane	ug/l	-	-	-	ND (0.39)	-	-				
Indeno(1,2,3-cd)pyrene	ug/l	-	-	-	ND (0.33)	-	-				
Isophorone	ug/l	-	-	-	ND (0.28)	-	-				
2-Methylnaphthalene	ug/l	-	-	-	ND (0.21)	-	-				
2-Nitroaniline	ug/l	-	-	-	ND (0.28) [a]	-	-				
3-Nitroaniline	ug/l	-	-	-	ND (0.39)	-	-				
4-Nitroaniline	ug/l	-	-	-	ND (0.44) [a]	-	-				
Naphthalene	ug/l	-	-	-	ND (0.23)	-	-				
Nitrobenzene	ug/l	-	-	-	ND (0.64)	-	-				
N-Nitroso-di-n-propylamine	ug/l	-	-	-	ND (0.48)	-	-				
N-Nitrosodiphenylamine	ug/l	-	-	-	ND (0.22)	-	-				
Phenanthrene	ug/l	-	-	-	ND (0.18)	-	-				
Pyrene	ug/l	-	-	-	ND (0.22)	-	-				
1,2,4,5-Tetrachlorobenzene	ug/l	-	-	-	ND (0.37)	-	-				
GC/LC Semi-volatiles (SW846 8081B)											
Aldrin	ug/l	-	-	-	ND (0.0041)	-	-				
alpha-BHC	ug/l	-	-	-	ND (0.0042)	-	-				
beta-BHC	ug/l	-	-	-	ND (0.0064)	-	-				
delta-BHC	ug/l	-	-	-	ND (0.0053)	-	-				
gamma-BHC (Lindane)	ug/l	-	-	-	ND (0.0048)	-	-				
alpha-Chlordane	ug/l	-	-	-	ND (0.0039)	-	-				
gamma-Chlordane	ug/l	-	-	-	ND (0.0034)	-	-				
Dieldrin	ug/l	-	-	-	ND (0.0061)	-	-				
4,4'-DDD	ug/l	-	-	-	ND (0.0046)	-	-				
4,4'-DDE	ug/l	-	-	-	ND (0.0040)	-	-				
4,4'-DDT	ug/l	-	-	-	0.012 B	-	-				
Endrin	ug/l	-	-	-	ND (0.0048)	-	-				
Endosulfan sulfate	ug/l	-	-	-	ND (0.0044)	-	-				
Endrin aldehyde	ug/l	-	-	-	ND (0.0054)	-	-				
Endrin ketone	ug/l	-	-	-	ND (0.0050)	-	-				
Endosulfan-I	ug/l	-	-	-	ND (0.0042)	-	-				
Endosulfan-II	ug/l	-	-	-	ND (0.0039)	-	-				
Heptachlor	ug/l	-	-	-	ND (0.0036)	-	-				
Heptachlor epoxide	ug/l	-	-	-	ND (0.0048)	-	-				
Methoxychlor	ug/l	-	-	-	ND (0.0054)	-	-				
Toxaphene	ug/l	-	-	-	ND (0.13)	-	-				
GC/LC Semi-volatiles (SW846 8082A)											
Aroclor 1016	ug/l	-	-	-	ND (0.16)	-	-				
Aroclor 1221	ug/l	-	-	-	ND (0.34)	-	-				
Aroclor 1232	ug/l	-	-	-	ND (0.21)	-	-				
Aroclor 1242	ug/l	-	-	-	ND (0.18)	-	-				
Aroclor 1248	ug/l	-	-	-	ND (0.10)	-	-				
Aroclor 1254	ug/l	-	-	-	ND (0.33)	-	-				

Aroclor 1260	ug/l	-	-	-	ND (0.12)	-	-				
Aroclor 1268	ug/l	-	-	-	ND (0.14)	-	-				
Aroclor 1262	ug/l	-	-	-	ND (0.15)	-	-				
Metals Analysis											
Aluminum	ug/l	-	-	-	<200	-	-				
Antimony	ug/l	-	-	-	<6.0	-	-				
Arsenic	ug/l	-	-	-	<3.0	-	-				
Barium	ug/l	-	-	-	<200	-	-				
Beryllium	ug/l	-	-	-	<1.0	-	-				
Cadmium	ug/l	-	-	-	<3.0	-	-				
Calcium	ug/l	-	-	-	<5000	-	-				
Chromium	ug/l	-	-	-	<10	-	-				
Cobalt	ug/l	-	-	-	<50	-	-				
Copper	ug/l	-	-	-	<10	-	-				
Iron	ug/l	-	-	-	<100	-	-				
Lead	ug/l	-	-	-	<3.0	-	-				
Magnesium	ug/l	-	-	-	<5000	-	-				
Manganese	ug/l	-	-	-	<15	-	-				
Mercury	ug/l	-	-	-	<0.20	-	-				
Nickel	ug/l	-	-	-	<10	-	-				
Potassium	ug/l	-	-	-	<10000	-	-				
Selenium	ug/l	-	-	-	<10	-	-				
Silver	ug/l	-	-	-	<10	-	-				
Sodium	ug/l	-	-	-	<10000	-	-				
Thallium	ug/l	-	-	-	<10	-	-				
Vanadium	ug/l	-	-	-	<50	-	-				
Zinc	ug/l	-	-	-	<20	-	-				
Client Sample ID:		**NY SCO - Unrestricted Use (6 NYCRR 375-6 12/06)**	**NY SCO - Residential w/CP-51 (10/10) (6 NYCRR 375-6 12/06)**	**NY SCO - Restricted Residential w/CP-51 (10/10) (6 NYCRR 375-6 12/06)**	**SB-1 (0-2')**	**SB-1 (0-2')**	**SB-2 (0-2')**	**SB-2 (0-2')**	**SB-3 (0-2')**	**SB-3 (0-2')**	**SB-4 (0-2')**
Lab Sample ID:					**JD64767-1**	**JD64767-1A**	**JD64767-2**	**JD64767-2A**	**JD64767-3**	**JD64767-3A**	**JD64767-4**
Date Sampled:					**4/28/2023**	**4/28/2023**	**4/28/2023**	**4/28/2023**	**4/28/2023**	**4/28/2023**	**4/28/2023**
Matrix:					**Soil**	**Soil**	**Soil**	**Soil**	**Soil**	**Soil**	**Soil**
MS Volatiles (SW846 8260D)											
Acetone	mg/kg	0.05	100	100	ND (0.0037)	-	0.0030 J	-	0.0061 J	-	ND (0.0038)
Benzene	mg/kg	0.06	2.9	4.8	0.00045	-	ND (0.00031)	-	ND (0.00043)	-	ND (0.00042)
Bromochloromethane	mg/kg	-	-	-	ND (0.00050)	-	ND (0.00038)	-	ND (0.00053)	-	ND (0.00051)
Bromodichloromethane	mg/kg	-	-	-	ND (0.00038)	-	ND (0.00029)	-	ND (0.00040)	-	ND (0.00039)
Bromoform	mg/kg	-	-	-	ND (0.0012)	-	ND (0.00093)	-	ND (0.0013)	-	ND (0.0012)
Bromomethane	mg/kg	-	-	-	ND (0.00068)	-	ND (0.00052)	-	ND (0.00072)	-	ND (0.00070)
2-Butanone (MEK)	mg/kg	0.12	100	100	ND (0.0022)	-	ND (0.0017)	-	ND (0.0023)	-	ND (0.0022)
Carbon disulfide	mg/kg	-	100		ND (0.00047)	-	ND (0.00037)	-	ND (0.00050)	-	ND (0.00049)
Carbon tetrachloride	mg/kg	0.76	1.4	2.4	ND (0.00055)	-	ND (0.00042)	-	ND (0.00058)	-	ND (0.00056)
Chlorobenzene	mg/kg	1.1	100	100	ND (0.00041)	-	ND (0.00031)	-	ND (0.00043)	-	ND (0.00042)
Chloroethane	mg/kg	-			ND (0.00052)	-	ND (0.00040)	-	ND (0.00056)	-	ND (0.00054)

Chloroform	mg/kg	0.37	10	49	ND (0.00046)	-	ND (0.00036)	-	ND (0.00049)	-	ND (0.00047)
Chloromethane	mg/kg	-	-	-	ND (0.0017) [b]	-	ND (0.0013) [b]	-	ND (0.0018) [b]	-	ND (0.0018) [b]
Cyclohexane	mg/kg	-	-	-	ND (0.00058)	-	ND (0.00045)	-	ND (0.00062)	-	ND (0.00060)
1,2-Dibromo-3-chloropropane	mg/kg	-	-	-	ND (0.00062)	-	ND (0.00047)	-	ND (0.00065)	-	ND (0.00063)
Dibromochloromethane	mg/kg	-			ND (0.00050)	-	ND (0.00038)	-	ND (0.00053)	-	ND (0.00051)
1,2-Dibromoethane	mg/kg	-	-	-	ND (0.00037)	-	ND (0.00029)	-	ND (0.00040)	-	ND (0.00038)
1,2-Dichlorobenzene	mg/kg	1.1	100	100	ND (0.00048)	-	ND (0.00037)	-	ND (0.00051)	-	ND (0.00050)
1,3-Dichlorobenzene	mg/kg	2.4	17	49	ND (0.00044)	-	ND (0.00034)	-	ND (0.00047)	-	ND (0.00045)
1,4-Dichlorobenzene	mg/kg	1.8	9.8	13	ND (0.00044)	-	ND (0.00034)	-	ND (0.00046)	-	ND (0.00045)
Dichlorodifluoromethane	mg/kg	-	-	-	ND (0.00064)	-	ND (0.00050)	-	ND (0.00068)	-	ND (0.00066)
1,1-Dichloroethane	mg/kg	0.27	19	26	ND (0.00044)	-	ND (0.00034)	-	ND (0.00047)	-	ND (0.00045)
1,2-Dichloroethane	mg/kg	0.02	2.3	3.1	ND (0.00042)	-	ND (0.00032)	-	ND (0.00044)	-	ND (0.00043)
1,1-Dichloroethene	mg/kg	0.33	100	100	ND (0.00058)	-	ND (0.00045)	-	ND (0.00062)	-	ND (0.00060)
cis-1,2-Dichloroethene	mg/kg	0.25	59	100	ND (0.00074)	-	ND (0.00057)	-	ND (0.00079)	-	ND (0.00077)
trans-1,2-Dichloroethene	mg/kg	0.19	100	100	ND (0.00054)	-	ND (0.00042)	-	ND (0.00058)	-	ND (0.00056)
1,2-Dichloropropane	mg/kg	-			ND (0.00042)	-	ND (0.00032)	-	ND (0.00045)	-	ND (0.00043)
cis-1,3-Dichloropropene	mg/kg	-	-	-	ND (0.00042)	-	ND (0.00033)	-	ND (0.00045)	-	ND (0.00043)
trans-1,3-Dichloropropene	mg/kg	-	-	-	ND (0.00041)	-	ND (0.00031)	-	ND (0.00043)	-	ND (0.00042)
Ethylbenzene	mg/kg	1	30	41	ND (0.00040)	-	ND (0.00031)	-	ND (0.00043)	-	ND (0.00041)
Freon 113	mg/kg	-	100		ND (0.0024)	-	ND (0.0018)	-	ND (0.0025)	-	ND (0.0024)
2-Hexanone	mg/kg	-	-	-	ND (0.0019)	-	ND (0.0015)	-	ND (0.0020)	-	ND (0.0019)
Isopropylbenzene	mg/kg	-	100		ND (0.0013)	-	ND (0.00097)	-	ND (0.0013)	-	ND (0.0013)
Methyl Acetate	mg/kg	-	-	-	ND (0.0012)	-	ND (0.00095)	-	ND (0.0013)	-	ND (0.0013)
Methylcyclohexane	mg/kg	-	-	-	ND (0.00078)	-	ND (0.00060)	-	ND (0.00082)	-	ND (0.00080)
Methyl Tert Butyl Ether	mg/kg	0.93	62	100	ND (0.00042)	-	ND (0.00032)	-	ND (0.00044)	-	ND (0.00043)
4-Methyl-2-pentanone(MIBK)	mg/kg	-			ND (0.0020)	-	ND (0.0016)	-	ND (0.0021)	-	ND (0.0021)
Methylene chloride	mg/kg	0.05	51	100	ND (0.0023)	-	ND (0.0018)	-	ND (0.0025)	-	ND (0.0024)
Styrene	mg/kg	-			ND (0.00036)	-	ND (0.00028)	-	ND (0.00038)	-	0.00078 J
1,1,2,2-Tetrachloroethane	mg/kg	-	35		ND (0.00053)	-	ND (0.00041)	-	ND (0.00056)	-	ND (0.00055)
Tetrachloroethene	mg/kg	1.3	5.5	19	0.0010 J	-	ND (0.00040)	-	ND (0.00055)	-	ND (0.00053)
Toluene	mg/kg	0.7	100	100	ND (0.00047)	-	ND (0.00036)	-	ND (0.00049)	-	ND (0.00048)
1,2,3-Trichlorobenzene	mg/kg	-			ND (0.0022)	-	ND (0.0017)	-	ND (0.0024)	-	ND (0.0023)
1,2,4-Trichlorobenzene	mg/kg	-			ND (0.0022)	-	ND (0.0017)	-	ND (0.0024)	-	ND (0.0023)
1,1,1-Trichloroethane	mg/kg	0.68	100	100	ND (0.00043)	-	ND (0.00033)	-	ND (0.00045)	-	ND (0.00044)
1,1,2-Trichloroethane	mg/kg	-	-	-	ND (0.00049)	-	ND (0.00038)	-	ND (0.00052)	-	ND (0.00051)
Trichloroethene	mg/kg	0.47	10	21	ND (0.00068)	-	ND (0.00052)	-	ND (0.00072)	-	ND (0.00070)
Trichlorofluoromethane	mg/kg	-	-	-	ND (0.00061)	-	ND (0.00047)	-	ND (0.00064)	-	ND (0.00062)
Vinyl chloride	mg/kg	0.02	0.21	0.9	ND (0.00043)	-	ND (0.00033)	-	ND (0.00045)	-	ND (0.00044)
m,p-Xylene	mg/kg	0.26	100	100	ND (0.00079)	-	ND (0.00061)	-	ND (0.00084)	-	ND (0.00082)
o-Xylene	mg/kg	0.26	100	100	ND (0.00041)	-	ND (0.00031)	-	ND (0.00043)	-	ND (0.00042)
Xylene (total)	mg/kg	0.26	100	100	ND (0.00041)	-	ND (0.00031)	-	ND (0.00043)	-	ND (0.00042)
MS Semi-volatiles (EPA 537M BY ID)											
Perfluorobutanoic acid	mg/kg	-	-	-	-	ND (0.00040)	-	ND (0.00043)	-	ND (0.00041)	-
Perfluoropentanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-
Perfluorohexanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-
Perfluoroheptanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-
Perfluorooctanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-
Perfluorononanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-

Perfluorodecanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-
Perfluoroundecanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-
Perfluorododecanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-
Perfluorotridecanoic acid	mg/kg	-	-	-	-	ND (0.00028)	-	ND (0.00030)	-	ND (0.00029)	-
Perfluorotetradecanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-
Perfluorobutanesulfonic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-
Perfluorohexanesulfonic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-
Perfluoroheptanesulfonic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-
Perfluorooctanesulfonic acid	mg/kg	-	-	-	-	0.00030 J	-	ND (0.00023)	-	ND (0.00022)	-
Perfluorodecanesulfonic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-
PFOSA	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-
MeFOSAA	mg/kg	-	-	-	-	ND (0.00053)	-	ND (0.00057)	-	ND (0.00054)	-
EtFOSAA	mg/kg	-	-	-	-	ND (0.00053)	-	ND (0.00057)	-	ND (0.00054)	-
6:2 Fluorotelomer sulfonate	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-
8:2 Fluorotelomer sulfonate	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00027)	-
MS Semi-volatiles (SW846 8270E)											
2-Chlorophenol	mg/kg	-	100		ND (0.017)	-	ND (0.018)	-	ND (0.017)	-	ND (0.018)
4-Chloro-3-methyl phenol	mg/kg	-	-	-	ND (0.021)	-	ND (0.023)	-	ND (0.022)	-	ND (0.023)
2,4-Dichlorophenol	mg/kg	-	100		ND (0.029)	-	ND (0.032)	-	ND (0.030)	-	ND (0.031)
2,4-Dimethylphenol	mg/kg	-	-	-	ND (0.061)	-	ND (0.066) [a]	-	ND (0.063) [a]	-	ND (0.066)
2,4-Dinitrophenol	mg/kg	-	100		ND (0.13)	-	ND (0.14)	-	ND (0.13)	-	ND (0.14) [a]
4,6-Dinitro-o-cresol	mg/kg	-	-	-	ND (0.037)	-	ND (0.040) [a]	-	ND (0.038) [a]	-	ND (0.039) [a]
2-Methylphenol	mg/kg	0.33	100	100	ND (0.022)	-	ND (0.024)	-	ND (0.023)	-	ND (0.024)
3&4-Methylphenol	mg/kg	-	-	-	ND (0.028)	-	ND (0.031)	-	ND (0.029)	-	ND (0.030)
2-Nitrophenol	mg/kg	-			ND (0.023) [a]	-	ND (0.025) [a]	-	ND (0.023) [a]	-	ND (0.024)
4-Nitrophenol	mg/kg	-			ND (0.092) [c]	-	ND (0.10) [d]	-	ND (0.094) [d]	-	ND (0.098)
Pentachlorophenol	mg/kg	0.8	2.4	6.7	ND (0.032) [c]	-	ND (0.035) [d]	-	ND (0.033) [d]	-	ND (0.035) [c]
Phenol	mg/kg	0.33	100	100	ND (0.018) [a]	-	ND (0.019)	-	ND (0.018)	-	ND (0.019)
2,3,4,6-Tetrachlorophenol	mg/kg	-	-	-	ND (0.023)	-	ND (0.025)	-	ND (0.023)	-	ND (0.024)
2,4,5-Trichlorophenol	mg/kg	-	100		ND (0.026)	-	ND (0.028)	-	ND (0.026)	-	ND (0.028)
2,4,6-Trichlorophenol	mg/kg	-			ND (0.020)	-	ND (0.022)	-	ND (0.021)	-	ND (0.022)
Acenaphthene	mg/kg	20	100	100	ND (0.012)	-	0.0144 J	-	0.0139 J	-	ND (0.013)
Acenaphthylene	mg/kg	100	100	100	ND (0.017)	-	0.0481	-	ND (0.018)	-	ND (0.019)
Acetophenone	mg/kg	-	-	-	ND (0.0074)	-	0.0096 J	-	ND (0.0076)	-	ND (0.0079)
Anthracene	mg/kg	100	100	100	0.0296 J	-	0.0677	-	0.0373	-	ND (0.023)
Atrazine	mg/kg	-	-	-	ND (0.015)	-	ND (0.016)	-	ND (0.015)	-	ND (0.016)
Benzo(a)anthracene	mg/kg	1	1	1	0.15	-	0.178	-	0.128	-	0.0675
Benzo(a)pyrene	mg/kg	1	1	1	0.149	-	0.193	-	0.163	-	0.079
Benzo(b)fluoranthene	mg/kg	1	1	1	0.168	-	0.2	-	0.183	-	0.088
Benzo(g,h,i)perylene	mg/kg	100	100	100	0.094	-	0.139	-	0.109	-	0.0552
Benzo(k)fluoranthene	mg/kg	0.8	1	3.9	0.0472	-	0.0723	-	0.0594	-	0.0352 J
4-Bromophenyl phenyl ether	mg/kg	-	-	-	ND (0.013)	-	ND (0.014)	-	ND (0.014)	-	ND (0.014)
Butyl benzyl phthalate	mg/kg	-	100		ND (0.0084) [a]	-	ND (0.0091)	-	0.144	-	ND (0.0090) [a]
1,1'-Biphenyl	mg/kg	-			ND (0.0047)	-	0.0114 J	-	0.0058 J	-	ND (0.0050)
Benzaldehyde	mg/kg	-	-	-	ND (0.0085)	-	ND (0.0092)	-	ND (0.0088)	-	ND (0.0091)
2-Chloronaphthalene	mg/kg	-	-	-	ND (0.0082)	-	ND (0.0089)	-	ND (0.0084)	-	ND (0.0088)
4-Chloroaniline	mg/kg	-	100		ND (0.012)	-	ND (0.013)	-	ND (0.013)	-	ND (0.013)

Carbazole	mg/kg	-	-	-	ND (0.0050)	-	0.0121 J	-	0.0180 J	-	0.0078 J
Caprolactam	mg/kg	-	-	-	ND (0.014) [a]	-	ND (0.015) [a]	-	ND (0.014) [a]	-	ND (0.015) [a]
Chrysene	mg/kg	1	1	3.9	0.139	-	0.176	-	0.159	-	0.0835
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	ND (0.0073)	-	ND (0.0080)	-	ND (0.0076)	-	ND (0.0079)
bis(2-Chloroethyl)ether	mg/kg	-	-	-	ND (0.015) [a]	-	ND (0.016)	-	ND (0.015)	-	ND (0.016)
2,2'-Oxybis(1-chloropropane)	mg/kg	-	-	-	ND (0.012)	-	ND (0.013)	-	ND (0.013)	-	ND (0.013)
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	ND (0.011)	-	ND (0.012)	-	ND (0.011)	-	ND (0.012)
2,4-Dinitrotoluene	mg/kg	-	-	-	ND (0.011)	-	ND (0.012)	-	ND (0.011)	-	ND (0.011) [a]
2,6-Dinitrotoluene	mg/kg	-	1.03		ND (0.017)	-	ND (0.019)	-	ND (0.018)	-	ND (0.018) [a]
3,3'-Dichlorobenzidine	mg/kg	-	-	-	ND (0.029) [a]	-	ND (0.031)	-	ND (0.029)	-	ND (0.031)
1,4-Dioxane	mg/kg	0.1	9.8	13	ND (0.023)	-	ND (0.025)	-	ND (0.023)	-	ND (0.024)
Dibenzo(a,h)anthracene	mg/kg	0.33	0.33	0.33	0.0271 J	-	0.0358 J	-	0.0303 J	-	0.0197 J
Dibenzofuran	mg/kg	7	14	59	ND (0.014)	-	ND (0.015)	-	ND (0.014)	-	ND (0.015)
Di-n-butyl phthalate	mg/kg	-	100		ND (0.0056)	-	ND (0.0061)	-	0.0839	-	ND (0.0060)
Di-n-octyl phthalate	mg/kg	-	100		ND (0.0085)	-	ND (0.0093)	-	ND (0.0088)	-	ND (0.0092)
Diethyl phthalate	mg/kg	-	100		ND (0.0073)	-	ND (0.0079)	-	ND (0.0075)	-	ND (0.0078)
Dimethyl phthalate	mg/kg	-	100		ND (0.0061)	-	ND (0.0066)	-	ND (0.0063)	-	ND (0.0066)
bis(2-Ethylhexyl)phthalate	mg/kg	-	50		ND (0.0080) [a]	-	0.121	-	0.0631 J	-	0.0231 J
Fluoranthene	mg/kg	100	100	100	0.226	-	0.24	-	0.242	-	0.0992
Fluorene	mg/kg	30	100	100	ND (0.016)	-	0.0386	-	ND (0.016)	-	ND (0.017)
Hexachlorobenzene	mg/kg	0.33	0.41	1.2	ND (0.0087)	-	ND (0.0094)	-	ND (0.0089)	-	ND (0.0093)
Hexachlorobutadiene	mg/kg	-	-	-	ND (0.014)	-	ND (0.015)	-	ND (0.014)	-	ND (0.015)
Hexachlorocyclopentadiene	mg/kg	-			ND (0.014) [c]	-	ND (0.015) [d]	-	ND (0.014) [d]	-	ND (0.015) [c]
Hexachloroethane	mg/kg	-	-	-	ND (0.017)	-	ND (0.018)	-	ND (0.017)	-	ND (0.018)
Indeno(1,2,3-cd)pyrene	mg/kg	0.5	0.5	0.5	0.0764	-	0.109	-	0.0915	-	0.0441
Isophorone	mg/kg	-	100		ND (0.0073)	-	ND (0.0080)	-	ND (0.0076)	-	ND (0.0079)
2-Methylnaphthalene	mg/kg	-	0.41		ND (0.0078)	-	0.0182 J	-	0.0132 J	-	0.0107 J
2-Nitroaniline	mg/kg	-			ND (0.0081) [a]	-	ND (0.0088)	-	ND (0.0083)	-	ND (0.0087)
3-Nitroaniline	mg/kg	-			ND (0.0086)	-	ND (0.0093)	-	ND (0.0088)	-	ND (0.0092)
4-Nitroaniline	mg/kg	-	-	-	ND (0.0089) [a]	-	ND (0.0097)	-	ND (0.0092)	-	ND (0.0095)
Naphthalene	mg/kg	12	100	100	ND (0.0097)	-	0.0231 J	-	0.0198 J	-	ND (0.010)
Nitrobenzene	mg/kg	-	3.7	15	ND (0.013)	-	ND (0.014)	-	ND (0.014)	-	ND (0.014)
N-Nitroso-di-n-propylamine	mg/kg	-	-	-	ND (0.0099)	-	ND (0.011)	-	ND (0.010)	-	ND (0.011)
N-Nitrosodiphenylamine	mg/kg	-			ND (0.013)	-	ND (0.014)	-	ND (0.013)	-	ND (0.013)
Phenanthrene	mg/kg	100	100	100	0.105	-	0.209	-	0.178	-	0.0489
Pyrene	mg/kg	100	100	100	0.238	-	0.344	-	0.273	-	0.126
1,2,4,5-Tetrachlorobenzene	mg/kg	-	-	-	ND (0.0087)	-	ND (0.0095)	-	ND (0.0090)	-	ND (0.0094)
GC/LC Semi-volatiles (SW846 8081B)											
Aldrin	mg/kg	0.005	0.019	0.097	ND (0.00056)	-	ND (0.0030)	-	ND (0.00059)	-	ND (0.0030)
alpha-BHC	mg/kg	0.02	0.097	0.48	ND (0.00056)	-	ND (0.0030)	-	ND (0.00058)	-	ND (0.0029)
beta-BHC	mg/kg	0.036	0.072	0.36	ND (0.00062)	-	ND (0.0033)	-	ND (0.00065)	-	ND (0.0033)
delta-BHC	mg/kg	0.04	100	100	ND (0.00066)	-	ND (0.0035)	-	ND (0.00068)	-	ND (0.0035)
gamma-BHC (Lindane)	mg/kg	0.1	0.28	1.3	ND (0.00050)	-	ND (0.0027)	-	ND (0.00053)	-	ND (0.0027)
alpha-Chlordane	mg/kg	0.094	0.91	4.2	0.00076	-	ND (0.0030)	-	0.0018	-	0.0037
gamma-Chlordane	mg/kg	-	0.54		0.0011 [e]	-	ND (0.0017)	-	ND (0.00032)	-	ND (0.0016)
Dieldrin	mg/kg	0.005	0.039	0.2	0.00074	-	ND (0.0025)	-	0.0012	-	0.0029 J
4,4'-DDD	mg/kg	0.0033	2.6	13	ND (0.00063)	-	ND (0.0034)	-	**0.0137**	-	ND (0.0033)

4,4'-DDE	mg/kg	0.0033	1.8	8.9	0.00061 J [e]	-	**0.0065**	-	**0.0135**	-	**0.0093**
4,4'-DDT	mg/kg	0.0033	1.7	7.9	**0.0141**	-	ND (0.0033)	-	**0.0127**	-	**0.0046**
Endrin	mg/kg	0.014	2.2	11	ND (0.00053)	-	ND (0.0029)	-	ND (0.00055)	-	ND (0.0028)
Endosulfan sulfate	mg/kg	2.4	4.8	24	ND (0.00053)	-	0.0041	-	ND (0.00056)	-	ND (0.0028)
Endrin aldehyde	mg/kg	-	-	-	ND (0.00039)	-	ND (0.0021)	-	ND (0.00040)	-	ND (0.0020)
Endosulfan-I	mg/kg	2.4	4.8	24	ND (0.00039)	-	ND (0.0021)	-	ND (0.00041)	-	ND (0.0021)
Endosulfan-II	mg/kg	2.4	4.8	24	0.00057 J [e]	-	ND (0.0023)	-	ND (0.00045)	-	ND (0.0022)
Heptachlor	mg/kg	0.042	0.42	2.1	ND (0.00059)	-	ND (0.0032)	-	ND (0.00062)	-	ND (0.0031)
Heptachlor epoxide	mg/kg	-	0.077		ND (0.00048)	-	ND (0.0026)	-	0.00054 J [e]	-	ND (0.0025)
Methoxychlor	mg/kg	-	100		ND (0.00054)	-	ND (0.0029)	-	ND (0.00057)	-	ND (0.0029)
Endrin ketone	mg/kg	-	-	-	ND (0.00049)	-	ND (0.0027)	-	ND (0.00052)	-	ND (0.0026)
Toxaphene	mg/kg	-	-	-	ND (0.016)	-	ND (0.086)	-	ND (0.017)	-	ND (0.084)
GC/LC Semi-volatiles (SW846 8082A)											
Aroclor 1016	mg/kg	0.1	1	1	ND (0.016) [a]	-	ND (0.086) [a]	-	ND (0.017) [a]	-	ND (0.084) [a]
Aroclor 1221	mg/kg	0.1	1	1	ND (0.021)	-	ND (0.11)	-	ND (0.022)	-	ND (0.11)
Aroclor 1232	mg/kg	0.1	1	1	ND (0.022)	-	ND (0.12)	-	ND (0.023)	-	ND (0.11)
Aroclor 1242	mg/kg	0.1	1	1	ND (0.014)	-	ND (0.076)	-	ND (0.015)	-	ND (0.074)
Aroclor 1248	mg/kg	0.1	1	1	ND (0.030)	-	ND (0.16)	-	ND (0.032)	-	ND (0.16)
Aroclor 1254	mg/kg	0.1	1	1	ND (0.018)	-	ND (0.099)	-	ND (0.019)	-	ND (0.097)
Aroclor 1260	mg/kg	0.1	1	1	ND (0.015) [a]	-	ND (0.079) [a]	-	ND (0.015) [a]	-	ND (0.077) [a]
Aroclor 1268	mg/kg	0.1	1	1	ND (0.014)	-	ND (0.078)	-	ND (0.015)	-	ND (0.076)
Aroclor 1262	mg/kg	0.1	1	1	ND (0.022)	-	ND (0.12)	-	ND (0.023)	-	ND (0.12)
Metals Analysis											
Aluminum	mg/kg	-			17200	-	10000	-	20200	-	12200
Antimony	mg/kg	-			<11 [f]	-	<2.4	-	<11 [f]	-	<2.3
Arsenic	mg/kg	13	16	16	<11 [f]	-	6.2	-	<11 [f]	-	3.6
Barium	mg/kg	350	350	400	187	-	135	-	**414**	-	157
Beryllium	mg/kg	7.2	14	72	2.9 [f]	-	1.6 [f]	-	2.3 [f]	-	2.0 [f]
Cadmium	mg/kg	2.5	2.5	4.3	0.55	-	<0.59	-	1.2	-	<0.58
Calcium	mg/kg	-			24700 [f]	-	59000	-	33600	-	55300
Chromium	mg/kg	-	-	-	34.2	-	21	-	61.7	-	27.4
Cobalt	mg/kg	-	30		<27 [f]	-	<30 [f]	-	<28 [f]	-	<29 [f]
Copper	mg/kg	50	270	270	38.6 [f]	-	37	-	46.6 [f]	-	25.7
Iron	mg/kg	-	2000		**29000**	-	**16900**	-	**28600**	-	**19400**
Lead	mg/kg	63	400	400	**98.0 [f]**	-	**108**	-	**249 [f]**	-	**70.2**
Magnesium	mg/kg	-	-	-	13000	-	19200	-	14500	-	19600
Manganese	mg/kg	1600	2000	2000	277 [f]	-	232	-	406 [f]	-	213
Mercury	mg/kg	0.18	0.81	0.81	0.17	-	**0.27**	-	0.15	-	0.13
Nickel	mg/kg	30	140	310	26.5	-	19.8	-	**43.3**	-	20.3
Potassium	mg/kg	-	-	-	9120	-	3730	-	7260	-	6160
Selenium	mg/kg	3.9	36	180	<11 [f]	-	<2.4	-	<11 [f]	-	<2.3
Silver	mg/kg	2	36	180	<2.7 [f]	-	<0.59	-	<2.8 [f]	-	<0.58
Sodium	mg/kg	-	-	-	<1100	-	<1200	-	<1100	-	<1200
Thallium	mg/kg	-			<5.4 [f]	-	<1.2	-	<5.7 [f]	-	<1.2

Vanadium	mg/kg	-	100		47.8	-	42.3	-	58.3	-	39.1	
Zinc	mg/kg	109	2200	10000	**146**	-	**132**	-	**314**	-	**248**	
General Chemistry												
Solids, Percent	%	-	-	-	95.6	-	89.1	-	91.6	-	88.4	
Client Sample ID:		**NY SCO - Unrestricted Use (6 NYCRR 375-6 12/06)**	**NY SCO - Residential w/CP-51 (10/10) (6 NYCRR 375-6 12/06)**	**NY SCO - Restricted Residential w/CP-51 (10/10) (6 NYCRR 375-6 12/06)**	**SB-4 (0-2')**	**SB-5 (0-2')**	**SB-5 (0-2')**	**SB-5 (0-2') 01**	**SB-5 (0-2') 01**	**SB-9 (5-6')**	**SB-9 (5-6')**	
Lab Sample ID:					**JD64767-4A**	**JD64767-5**	**JD64767-5A**	**JD64767-12**	**JD64767-12A**	**JD64767-13**	**JD64767-13A**	
Date Sampled:					**4/28/2023**	**4/28/2023**	**4/28/2023**	**4/28/2023**	**4/28/2023**	**4/28/2023**	**4/28/2023**	
Matrix:					**Soil**	**Soil**	**Soil**	**Soil**	**Soil**	**Soil**	**Soil**	
MS Volatiles (SW846 8260D)												
Acetone	mg/kg	0.05	100	100	-	0.0063 J	-	0.0081 J	-	0.0331	-	
Benzene	mg/kg	0.06	2.9	4.8	-	ND (0.00051)	-	ND (0.00040)	-	ND (0.00048)	-	
Bromochloromethane	mg/kg	-	-	-	-	ND (0.00063)	-	ND (0.00049)	-	ND (0.00059)	-	
Bromodichloromethane	mg/kg	-	-	-	-	ND (0.00048)	-	ND (0.00038)	-	ND (0.00045)	-	
Bromoform	mg/kg	-	-	-	-	ND (0.0015)	-	ND (0.0012)	-	ND (0.0014)	-	
Bromomethane	mg/kg	-	-	-	-	ND (0.00086)	-	ND (0.00067)	-	ND (0.00081)	-	
2-Butanone (MEK)	mg/kg	0.12	100	100	-	ND (0.0027)	-	ND (0.0021)	-	0.0067 J	-	
Carbon disulfide	mg/kg	-	100		-	0.0012 J	-	0.00093 J	-	0.00066 J [g]	-	
Carbon tetrachloride	mg/kg	0.76	1.4	2.4	-	ND (0.00070)	-	ND (0.00054)	-	ND (0.00065)	-	
Chlorobenzene	mg/kg	1.1	100	100	-	ND (0.00052)	-	ND (0.00040)	-	ND (0.00049)	-	
Chloroethane	mg/kg	-			-	ND (0.00066)	-	ND (0.00052)	-	ND (0.00062)	-	
Chloroform	mg/kg	0.37	10	49	-	ND (0.00058)	-	ND (0.00045)	-	ND (0.00055)	-	
Chloromethane	mg/kg	-	-	-	-	ND (0.0022) [b]	-	ND (0.0017) [b]	-	ND (0.0021) [b]	-	
Cyclohexane	mg/kg	-	-	-	-	ND (0.00074)	-	ND (0.00058)	-	ND (0.00069) [b]	-	
1,2-Dibromo-3-chloropropane	mg/kg	-	-	-	-	ND (0.00078)	-	ND (0.00061)	-	ND (0.00073)	-	
Dibromochloromethane	mg/kg	-			-	ND (0.00063)	-	ND (0.00049)	-	ND (0.00059)	-	
1,2-Dibromoethane	mg/kg	-	-	-	-	ND (0.00047)	-	ND (0.00037)	-	ND (0.00045)	-	
1,2-Dichlorobenzene	mg/kg	1.1	100	100	-	ND (0.00061)	-	ND (0.00048)	-	ND (0.00058)	-	
1,3-Dichlorobenzene	mg/kg	2.4	17	49	-	ND (0.00056)	-	ND (0.00043)	-	ND (0.00052)	-	
1,4-Dichlorobenzene	mg/kg	1.8	9.8	13	-	ND (0.00056)	-	ND (0.00043)	-	ND (0.00052)	-	
Dichlorodifluoromethane	mg/kg	-	-	-	-	ND (0.00082)	-	ND (0.00064)	-	ND (0.00077) [b]	-	
1,1-Dichloroethane	mg/kg	0.27	19	26	-	ND (0.00056)	-	ND (0.00043)	-	ND (0.00052)	-	
1,2-Dichloroethane	mg/kg	0.02	2.3	3.1	-	ND (0.00053)	-	ND (0.00041)	-	ND (0.00050)	-	
1,1-Dichloroethene	mg/kg	0.33	100	100	-	ND (0.00074)	-	ND (0.00057)	-	ND (0.00069) [b]	-	
cis-1,2-Dichloroethene	mg/kg	0.25	59	100	-	ND (0.00094)	-	ND (0.00074)	-	ND (0.00089)	-	
trans-1,2-Dichloroethene	mg/kg	0.19	100	100	-	ND (0.00069)	-	ND (0.00054)	-	ND (0.00065)	-	
1,2-Dichloropropane	mg/kg	-			-	ND (0.00053)	-	ND (0.00041)	-	ND (0.00050)	-	
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	ND (0.00053)	-	ND (0.00042)	-	ND (0.00050)	-	
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	ND (0.00051)	-	ND (0.00040)	-	ND (0.00048)	-	
Ethylbenzene	mg/kg	1	30	41	-	ND (0.00051)	-	ND (0.00040)	-	ND (0.00048)	-	
Freon 113	mg/kg	-	100		-	ND (0.0030)	-	ND (0.0023)	-	ND (0.0028)	-	
2-Hexanone	mg/kg	-	-	-	-	ND (0.0024)	-	ND (0.0019)	-	ND (0.0022)	-	
Isopropylbenzene	mg/kg	-	100		-	ND (0.0016)	-	ND (0.0012)	-	ND (0.0015)	-	

Methyl Acetate	mg/kg	-	-	-	-	ND (0.0016)	-	ND (0.0012)	-	0.0057	-
Methylcyclohexane	mg/kg	-	-	-	-	ND (0.00098)	-	ND (0.00077)	-	ND (0.00092)	-
Methyl Tert Butyl Ether	mg/kg	0.93	62	100	-	ND (0.00053)	-	ND (0.00041)	-	ND (0.00050)	-
4-Methyl-2-pentanone(MIBK)	mg/kg	-			-	ND (0.0026)	-	ND (0.0020)	-	ND (0.0024)	-
Methylene chloride	mg/kg	0.05	51	100	-	ND (0.0029)	-	ND (0.0023)	-	ND (0.0028) [b]	-
Styrene	mg/kg	-			-	ND (0.00045)	-	ND (0.00035)	-	0.0023	-
1,1,2,2-Tetrachloroethane	mg/kg	-	35		-	ND (0.00067)	-	ND (0.00053)	-	ND (0.00063)	-
Tetrachloroethene	mg/kg	1.3	5.5	19	-	ND (0.00065)	-	ND (0.00051)	-	ND (0.00061)	-
Toluene	mg/kg	0.7	100	100	-	0.00099 J	-	0.00096	-	ND (0.00055)	-
1,2,3-Trichlorobenzene	mg/kg	-			-	ND (0.0028)	-	ND (0.0022)	-	ND (0.0026)	-
1,2,4-Trichlorobenzene	mg/kg	-			-	ND (0.0028)	-	ND (0.0022)	-	ND (0.0026)	-
1,1,1-Trichloroethane	mg/kg	0.68	100	100	-	ND (0.00054)	-	ND (0.00042)	-	ND (0.00051)	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	ND (0.00062)	-	ND (0.00049)	-	ND (0.00059)	-
Trichloroethene	mg/kg	0.47	10	21	-	ND (0.00086)	-	ND (0.00067)	-	ND (0.00081)	-
Trichlorofluoromethane	mg/kg	-	-	-	-	ND (0.00077)	-	ND (0.00060)	-	ND (0.00072)	-
Vinyl chloride	mg/kg	0.02	0.21	0.9	-	ND (0.00054)	-	ND (0.00042)	-	ND (0.00051) [b]	-
m,p-Xylene	mg/kg	0.26	100	100	-	ND (0.0010)	-	ND (0.00079)	-	ND (0.00095)	-
o-Xylene	mg/kg	0.26	100	100	-	ND (0.00052)	-	ND (0.00040)	-	ND (0.00048)	-
Xylene (total)	mg/kg	0.26	100	100	-	ND (0.00052)	-	ND (0.00040)	-	ND (0.00048)	-
MS Semi-volatiles (EPA 537M BY ID)											
Perfluorobutanoic acid	mg/kg	-	-	-	ND (0.00042)	-	ND (0.00041)	-	ND (0.00042)	-	ND (0.00044)
Perfluoropentanoic acid	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
Perfluorohexanoic acid	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
Perfluoroheptanoic acid	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
Perfluorooctanoic acid	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
Perfluorononanoic acid	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
Perfluorodecanoic acid	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
Perfluoroundecanoic acid	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
Perfluorododecanoic acid	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
Perfluorotridecanoic acid	mg/kg	-	-	-	ND (0.00029)	-	ND (0.00029)	-	ND (0.00029)	-	ND (0.00031)
Perfluorotetradecanoic acid	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
Perfluorobutanesulfonic acid	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
Perfluorohexanesulfonic acid	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
Perfluoroheptanesulfonic acid	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
Perfluorooctanesulfonic acid	mg/kg	-	-	-	ND (0.00022)	-	ND (0.00022)	-	ND (0.00022)	-	ND (0.00023)
Perfluorodecanesulfonic acid	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
PFOSA	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
MeFOSAA	mg/kg	-	-	-	ND (0.00055)	-	ND (0.00055)	-	ND (0.00055)	-	ND (0.00058)
EtFOSAA	mg/kg	-	-	-	ND (0.00055)	-	ND (0.00055)	-	ND (0.00055)	-	ND (0.00058)
6:2 Fluorotelomer sulfonate	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
8:2 Fluorotelomer sulfonate	mg/kg	-	-	-	ND (0.00028)	-	ND (0.00027)	-	ND (0.00028)	-	ND (0.00029)
MS Semi-volatiles (SW846 8270E)											
2-Chlorophenol	mg/kg	-	100		-	ND (0.018)	-	ND (0.017)	-	ND (0.019)	-
4-Chloro-3-methyl phenol	mg/kg	-	-	-	-	ND (0.022)	-	ND (0.021)	-	ND (0.023)	-
2,4-Dichlorophenol	mg/kg	-	100		-	ND (0.031)	-	ND (0.030)	-	ND (0.033)	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	ND (0.064)	-	ND (0.062)	-	ND (0.068)	-

2,4-Dinitrophenol	mg/kg	-	100		-	ND (0.13) [a]	-	ND (0.13)	-	ND (0.14)	-
4,6-Dinitro-o-cresol	mg/kg	-	-	-	-	ND (0.038) [a]	-	ND (0.037)	-	ND (0.041)	-
2-Methylphenol	mg/kg	0.33	100	100	-	ND (0.023)	-	ND (0.022)	-	ND (0.024)	-
3&4-Methylphenol	mg/kg	-	-	-	-	ND (0.029)	-	ND (0.029)	-	ND (0.031)	-
2-Nitrophenol	mg/kg	-			-	ND (0.024)	-	ND (0.023) [a]	-	ND (0.025) [a]	-
4-Nitrophenol	mg/kg	-			-	ND (0.095)	-	ND (0.093) [c]	-	ND (0.10) [c]	-
Pentachlorophenol	mg/kg	0.8	2.4	6.7	-	ND (0.034) [c]	-	ND (0.033) [c]	-	ND (0.036) [c]	-
Phenol	mg/kg	0.33	100	100	-	ND (0.019)	-	ND (0.018) [a]	-	ND (0.020) [a]	-
2,3,4,6-Tetrachlorophenol	mg/kg	-	-	-	-	ND (0.024)	-	ND (0.023)	-	ND (0.025)	-
2,4,5-Trichlorophenol	mg/kg	-	100		-	ND (0.027)	-	ND (0.026)	-	ND (0.029)	-
2,4,6-Trichlorophenol	mg/kg	-			-	ND (0.021)	-	ND (0.021)	-	ND (0.023)	-
Acenaphthene	mg/kg	20	100	100	-	ND (0.012)	-	ND (0.012)	-	ND (0.013)	-
Acenaphthylene	mg/kg	100	100	100	-	ND (0.018)	-	ND (0.018)	-	ND (0.019)	-
Acetophenone	mg/kg	-	-	-	-	ND (0.0077)	-	ND (0.0075)	-	ND (0.0082)	-
Anthracene	mg/kg	100	100	100	-	ND (0.022)	-	ND (0.021)	-	ND (0.023)	-
Atrazine	mg/kg	-	-	-	-	ND (0.015)	-	ND (0.015)	-	ND (0.016)	-
Benzo(a)anthracene	mg/kg	1	1	1	-	0.0395	-	0.0697	-	0.0112 J	-
Benzo(a)pyrene	mg/kg	1	1	1	-	0.0514	-	0.0827	-	ND (0.017)	-
Benzo(b)fluoranthene	mg/kg	1	1	1	-	0.0483	-	0.0858	-	ND (0.017)	-
Benzo(g,h,i)perylene	mg/kg	100	100	100	-	0.0241 J	-	0.0599	-	ND (0.019)	-
Benzo(k)fluoranthene	mg/kg	0.8	1	3.9	-	0.0207 J	-	0.0317 J	-	ND (0.018)	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	ND (0.014)	-	ND (0.013)	-	ND (0.015)	-
Butyl benzyl phthalate	mg/kg	-	100		-	ND (0.0087) [a]	-	ND (0.0085) [a]	-	ND (0.0093) [a]	-
1,1'-Biphenyl	mg/kg	-			-	ND (0.0049)	-	ND (0.0048)	-	ND (0.0052)	-
Benzaldehyde	mg/kg	-	-	-	-	ND (0.0089)	-	ND (0.0087)	-	ND (0.0095)	-
2-Chloronaphthalene	mg/kg	-	-	-	-	ND (0.0085)	-	ND (0.0083)	-	ND (0.0091)	-
4-Chloroaniline	mg/kg	-	100		-	ND (0.013)	-	ND (0.013)	-	ND (0.014)	-
Carbazole	mg/kg	-	-	-	-	0.0076 J	-	ND (0.0051)	-	ND (0.0055)	-
Caprolactam	mg/kg	-	-	-	-	ND (0.014) [a]	-	ND (0.014) [a]	-	ND (0.015) [a]	-
Chrysene	mg/kg	1	1	3.9	-	0.0484	-	0.0777	-	ND (0.012)	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	ND (0.0077)	-	ND (0.0075)	-	ND (0.0082)	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	ND (0.015)	-	ND (0.015) [a]	-	ND (0.016) [a]	-
2,2'-Oxybis(1-chloropropane)	mg/kg	-	-	-	-	ND (0.013)	-	ND (0.013)	-	ND (0.014)	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	ND (0.012)	-	ND (0.011)	-	ND (0.012)	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	ND (0.011) [a]	-	ND (0.011)	-	ND (0.012)	-
2,6-Dinitrotoluene	mg/kg	-	1.03		-	ND (0.018) [a]	-	ND (0.018)	-	ND (0.019)	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	ND (0.030)	-	ND (0.029) [a]	-	ND (0.032) [a]	-
1,4-Dioxane	mg/kg	0.1	9.8	13	-	ND (0.024)	-	ND (0.023)	-	ND (0.025)	-
Dibenzo(a,h)anthracene	mg/kg	0.33	0.33	0.33	-	ND (0.016)	-	0.0217 J	-	ND (0.017)	-
Dibenzofuran	mg/kg	7	14	59	-	ND (0.015)	-	ND (0.014)	-	ND (0.016)	-
Di-n-butyl phthalate	mg/kg	-	100		-	0.0119 J	-	ND (0.0057)	-	ND (0.0062)	-
Di-n-octyl phthalate	mg/kg	-	100		-	ND (0.0089)	-	ND (0.0087)	-	ND (0.0095)	-
Diethyl phthalate	mg/kg	-	100		-	ND (0.0076)	-	ND (0.0074)	-	ND (0.0081)	-
Dimethyl phthalate	mg/kg	-	100		-	ND (0.0064)	-	ND (0.0062)	-	ND (0.0068)	-
bis(2-Ethylhexyl)phthalate	mg/kg	-	50		-	0.0361 J	-	ND (0.0082) [a]	-	ND (0.0089) [a]	-
Fluoranthene	mg/kg	100	100	100	-	0.0565	-	0.0993	-	0.0186 J	-
Fluorene	mg/kg	30	100	100	-	ND (0.016)	-	ND (0.016)	-	ND (0.017)	-
Hexachlorobenzene	mg/kg	0.33	0.41	1.2	-	ND (0.0090)	-	ND (0.0088)	-	ND (0.0096)	-

Hexachlorobutadiene	mg/kg	-	-	-	-	ND (0.014)	-	ND (0.014)	-	ND (0.015)	-
Hexachlorocyclopentadiene	mg/kg	-			-	ND (0.014) [c]	-	ND (0.014) [c]	-	ND (0.015) [c]	-
Hexachloroethane	mg/kg	-	-	-	-	ND (0.018)	-	ND (0.017)	-	ND (0.019)	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.5	0.5	0.5	-	0.0182 J	-	0.0486	-	ND (0.018)	-
Isophorone	mg/kg	-	100		-	ND (0.0077)	-	ND (0.0075)	-	ND (0.0082)	-
2-Methylnaphthalene	mg/kg	-	0.41		-	ND (0.0081)	-	ND (0.0079)	-	ND (0.0086)	-
2-Nitroaniline	mg/kg	-			-	ND (0.0084)	-	ND (0.0082) [a]	-	ND (0.0090) [a]	-
3-Nitroaniline	mg/kg	-			-	ND (0.0089)	-	ND (0.0087)	-	ND (0.0095)	-
4-Nitroaniline	mg/kg	-	-	-	-	ND (0.0093)	-	ND (0.0091) [a]	-	ND (0.0099) [a]	-
Naphthalene	mg/kg	12	100	100	-	ND (0.010)	-	ND (0.0099)	-	ND (0.011)	-
Nitrobenzene	mg/kg	-	3.7	15	-	ND (0.014)	-	ND (0.013)	-	ND (0.015)	-
N-Nitroso-di-n-propylamine	mg/kg	-	-	-	-	ND (0.010)	-	ND (0.010)	-	ND (0.011)	-
N-Nitrosodiphenylamine	mg/kg	-			-	ND (0.013)	-	ND (0.013)	-	ND (0.014)	-
Phenanthrene	mg/kg	100	100	100	-	0.0339 J	-	0.0403	-	ND (0.013)	-
Pyrene	mg/kg	100	100	100	-	0.0752	-	0.12	-	0.0201 J	-
1,2,4,5-Tetrachlorobenzene	mg/kg	-	-	-	-	ND (0.0091)	-	ND (0.0089)	-	ND (0.0097)	-
GC/LC Semi-volatiles (SW846 8081B)											
Aldrin	mg/kg	0.005	0.019	0.097	-	ND (0.00058)	-	ND (0.0028)	-	ND (0.00063)	-
alpha-BHC	mg/kg	0.02	0.097	0.48	-	ND (0.00057)	-	ND (0.0028)	-	ND (0.00063)	-
beta-BHC	mg/kg	0.036	0.072	0.36	-	ND (0.00063)	-	ND (0.0031)	-	ND (0.00070)	-
delta-BHC	mg/kg	0.04	100	100	-	ND (0.00067)	-	ND (0.0033)	-	ND (0.00074)	-
gamma-BHC (Lindane)	mg/kg	0.1	0.28	1.3	-	ND (0.00052)	-	ND (0.0025)	-	ND (0.00057)	-
alpha-Chlordane	mg/kg	0.094	0.91	4.2	-	ND (0.00057)	-	ND (0.0028)	-	ND (0.00062)	-
gamma-Chlordane	mg/kg	-	0.54		-	ND (0.00032)	-	ND (0.0016)	-	ND (0.00035)	-
Dieldrin	mg/kg	0.005	0.039	0.2	-	0.00058 J [e]	-	ND (0.0024)	-	ND (0.00053)	-
4,4'-DDD	mg/kg	0.0033	2.6	13	-	0.0032	-	ND (0.0032)	-	0.00085 [e]	-
4,4'-DDE	mg/kg	0.0033	1.8	8.9	-	0.0018	-	ND (0.0030)	-	**0.135**	-
4,4'-DDT	mg/kg	0.0033	1.7	7.9	-	0.0026	-	ND (0.0030)	-	**0.0037**	-
Endrin	mg/kg	0.014	2.2	11	-	ND (0.00054)	-	ND (0.0027)	-	ND (0.00060)	-
Endosulfan sulfate	mg/kg	2.4	4.8	24	-	ND (0.00055)	-	ND (0.0027)	-	ND (0.00060)	-
Endrin aldehyde	mg/kg	-	-	-	-	ND (0.00040)	-	ND (0.0020)	-	ND (0.00044)	-
Endosulfan-I	mg/kg	2.4	4.8	24	-	ND (0.00040)	-	ND (0.0020)	-	ND (0.00044)	-
Endosulfan-II	mg/kg	2.4	4.8	24	-	ND (0.00044)	-	ND (0.0021)	-	ND (0.00048)	-
Heptachlor	mg/kg	0.042	0.42	2.1	-	ND (0.00060)	-	ND (0.0030)	-	ND (0.00066)	-
Heptachlor epoxide	mg/kg	-	0.077		-	ND (0.00049)	-	ND (0.0024)	-	ND (0.00054)	-
Methoxychlor	mg/kg	-	100		-	ND (0.00056)	-	ND (0.0027)	-	ND (0.00061)	-
Endrin ketone	mg/kg	-	-	-	-	ND (0.00051)	-	ND (0.0025)	-	ND (0.00056)	-
Toxaphene	mg/kg	-	-	-	-	ND (0.016)	-	ND (0.080)	-	ND (0.018)	-
GC/LC Semi-volatiles (SW846 8082A)											
Aroclor 1016	mg/kg	0.1	1	1	-	ND (0.016) [a]	-	ND (0.016) [a]	-	ND (0.018) [a]	-
Aroclor 1221	mg/kg	0.1	1	1	-	ND (0.022)	-	ND (0.021)	-	ND (0.024)	-
Aroclor 1232	mg/kg	0.1	1	1	-	ND (0.022)	-	ND (0.022)	-	ND (0.025)	-
Aroclor 1242	mg/kg	0.1	1	1	-	ND (0.014)	-	ND (0.014)	-	ND (0.016)	-
Aroclor 1248	mg/kg	0.1	1	1	-	ND (0.031)	-	ND (0.031)	-	ND (0.034)	-
Aroclor 1254	mg/kg	0.1	1	1	-	ND (0.019)	-	ND (0.019)	-	ND (0.021)	-

Aroclor 1260	mg/kg	0.1	1	1	-	ND (0.015) [a]	-	ND (0.015) [a]	-	ND (0.016) [a]	-
Aroclor 1268	mg/kg	0.1	1	1	-	ND (0.015)	-	ND (0.015)	-	ND (0.016)	-
Aroclor 1262	mg/kg	0.1	1	1	-	ND (0.023)	-	ND (0.022)	-	ND (0.025)	-
Metals Analysis											
Aluminum	mg/kg	-			-	22500	-	13000	-	19000	-
Antimony	mg/kg	-			-	<11 [f]	-	<2.3	-	<11 [f]	-
Arsenic	mg/kg	13	16	16	-	<11 [f]	-	2.3	-	<11 [f]	-
Barium	mg/kg	350	350	400	-	163	-	101	-	107	-
Beryllium	mg/kg	7.2	14	72	-	3.9 [f]	-	2.2 [f]	-	3.5 [f]	-
Cadmium	mg/kg	2.5	2.5	4.3	-	<0.57	-	<0.57	-	<0.56	-
Calcium	mg/kg	-			-	9490	-	46300	-	10800	-
Chromium	mg/kg	-	-	-	-	41.4	-	25.9	-	36.6	-
Cobalt	mg/kg	-	30		-	<28 [f]	-	<29 [f]	-	<28 [f]	-
Copper	mg/kg	50	270	270	-	27.4 [f]	-	20.1	-	<14 [f]	-
Iron	mg/kg	-	2000		-	**35100**	-	**19100**	-	**28100**	-
Lead	mg/kg	63	400	400	-	**108** [f]	-	35.3	-	13.9 [f]	-
Magnesium	mg/kg	-	-	-	-	12500	-	26400	-	9950	-
Manganese	mg/kg	1600	2000	2000	-	428 [f]	-	315	-	309 [f]	-
Mercury	mg/kg	0.18	0.81	0.81	-	0.056	-	0.059	-	<0.037	-
Nickel	mg/kg	30	140	310	-	**37.2**	-	27.6	-	**37.3**	-
Potassium	mg/kg	-	-	-	-	14700	-	7730	-	12800	-
Selenium	mg/kg	3.9	36	180	-	<11 [f]	-	<2.3	-	<11 [f]	-
Silver	mg/kg	2	36	180	-	<2.8 [f]	-	<0.57	-	<2.8 [f]	-
Sodium	mg/kg	-	-	-	-	<1100	-	<1100	-	<1100	-
Thallium	mg/kg	-			-	<5.7 [f]	-	<1.1	-	<5.6 [f]	-
Vanadium	mg/kg	-	100		-	57.7	-	44.2	-	45.9	-
Zinc	mg/kg	109	2200	10000	-	**141**	-	102	-	100	-
General Chemistry											
Solids, Percent	%	-	-	-	-	92.6	-	92	-	86	-
Client Sample ID:		**NY SCO - Unrestricted Use (6 NYCRR 375-6 12/06)**	**NY SCO - Residential w/CP-51 (10/10) (6 NYCRR 375-6 12/06)**	**NY SCO - Restricted Residential w/CP-51 (10/10) (6 NYCRR 375-6 12/06)**	**SB-6 (5-6')**	**SB-6 (5-6')**	**SB-8 (5-6')**	**SB-8 (5-6')**	**SB-7 (6-7')**	**SB-7 (6-7')**	
Lab Sample ID:					**JD64767-14**	**JD64767-14A**	**JD64767-15**	**JD64767-15A**	**JD64767-16**	**JD64767-16A**	
Date Sampled:					**4/28/2023**	**4/28/2023**	**4/28/2023**	**4/28/2023**	**4/28/2023**	**4/28/2023**	
Matrix:					**Soil**	**Soil**	**Soil**	**Soil**	**Soil**	**Soil**	
MS Volatiles (SW846 8260D)											
Acetone	mg/kg	0.05	100	100	**0.475 J**	-	0.008	-	0.0299	-	
Benzene	mg/kg	0.06	2.9	4.8	ND (0.045)	-	ND (0.00029)	-	ND (0.00051)	-	
Bromochloromethane	mg/kg	-	-	-	ND (0.055)	-	ND (0.00036)	-	ND (0.00062)	-	
Bromodichloromethane	mg/kg	-	-	-	ND (0.042)	-	ND (0.00027)	-	ND (0.00048)	-	
Bromoform	mg/kg	-	-	-	ND (0.13)	-	ND (0.00086)	-	ND (0.0015)	-	

Bromomethane	mg/kg	-	-	-	ND (0.076) [a]	-	ND (0.00048)	-	ND (0.00085)	-	
2-Butanone (MEK)	mg/kg	0.12	100	100	ND (0.24)	-	ND (0.0015)	-	ND (0.0027)	-	
Carbon disulfide	mg/kg	-	100		ND (0.053)	-	ND (0.00034)	-	ND (0.00060)	-	
Carbon tetrachloride	mg/kg	0.76	1.4	2.4	ND (0.061)	-	ND (0.00039)	-	ND (0.00069)	-	
Chlorobenzene	mg/kg	1.1	100	100	ND (0.045)	-	ND (0.00029)	-	ND (0.00051)	-	
Chloroethane	mg/kg	-			ND (0.059)	-	ND (0.00037)	-	ND (0.00066)	-	
Chloroform	mg/kg	0.37	10	49	ND (0.051)	-	ND (0.00033)	-	ND (0.00058)	-	
Chloromethane	mg/kg	-	-	-	ND (0.19)	-	ND (0.0012) [b]	-	ND (0.0022) [b]	-	
Cyclohexane	mg/kg	-	-	-	ND (0.065)	-	ND (0.00042)	-	ND (0.00073)	-	
1,2-Dibromo-3-chloropropane	mg/kg	-	-	-	ND (0.069)	-	ND (0.00044)	-	ND (0.00077)	-	
Dibromochloromethane	mg/kg	-			ND (0.055)	-	ND (0.00036)	-	ND (0.00062)	-	
1,2-Dibromoethane	mg/kg	-	-	-	ND (0.042)	-	ND (0.00027)	-	ND (0.00047)	-	
1,2-Dichlorobenzene	mg/kg	1.1	100	100	ND (0.054)	-	ND (0.00035)	-	ND (0.00061)	-	
1,3-Dichlorobenzene	mg/kg	2.4	17	49	ND (0.049)	-	ND (0.00031)	-	ND (0.00055)	-	
1,4-Dichlorobenzene	mg/kg	1.8	9.8	13	ND (0.049)	-	ND (0.00031)	-	ND (0.00055)	-	
Dichlorodifluoromethane	mg/kg	-	-	-	ND (0.072) [b]	-	ND (0.00046)	-	ND (0.00081)	-	
1,1-Dichloroethane	mg/kg	0.27	19	26	ND (0.049)	-	ND (0.00031)	-	ND (0.00055)	-	
1,2-Dichloroethane	mg/kg	0.02	2.3	3.1	ND (0.047)	-	ND (0.00030)	-	ND (0.00052)	-	
1,1-Dichloroethene	mg/kg	0.33	100	100	ND (0.065) [b]	-	ND (0.00042)	-	ND (0.00073)	-	
cis-1,2-Dichloroethene	mg/kg	0.25	59	100	ND (0.083)	-	ND (0.00053)	-	ND (0.00094)	-	
trans-1,2-Dichloroethene	mg/kg	0.19	100	100	ND (0.061)	-	ND (0.00039)	-	ND (0.00068)	-	
1,2-Dichloropropane	mg/kg	-			ND (0.047)	-	ND (0.00030)	-	ND (0.00053)	-	
cis-1,3-Dichloropropene	mg/kg	-	-	-	ND (0.047)	-	ND (0.00030)	-	ND (0.00053)	-	
trans-1,3-Dichloropropene	mg/kg	-	-	-	ND (0.045)	-	ND (0.00029)	-	ND (0.00051)	-	
Ethylbenzene	mg/kg	1	30	41	0.115	-	ND (0.00029)	-	ND (0.00050)	-	
Freon 113	mg/kg	-	100		ND (0.26)	-	ND (0.0017)	-	ND (0.0030)	-	
2-Hexanone	mg/kg	-	-	-	ND (0.21)	-	ND (0.0013)	-	ND (0.0024)	-	
Isopropylbenzene	mg/kg	-	100		ND (0.14)	-	ND (0.00090)	-	ND (0.0016)	-	
Methyl Acetate	mg/kg	-	-	-	1.8	-	ND (0.00088)	-	ND (0.0015)	-	
Methylcyclohexane	mg/kg	-	-	-	ND (0.087)	-	ND (0.00055)	-	ND (0.00097)	-	
Methyl Tert Butyl Ether	mg/kg	0.93	62	100	ND (0.046)	-	ND (0.00030)	-	ND (0.00052)	-	
4-Methyl-2-pentanone(MIBK)	mg/kg	-			ND (0.22)	-	ND (0.0014)	-	ND (0.0025)	-	
Methylene chloride	mg/kg	0.05	51	100	ND (0.26)	-	ND (0.0017)	-	0.0050 J	-	
Styrene	mg/kg	-			ND (0.040)	-	ND (0.00025)	-	ND (0.00045)	-	
1,1,2,2-Tetrachloroethane	mg/kg	-	35		ND (0.059)	-	ND (0.00038)	-	ND (0.00067)	-	
Tetrachloroethene	mg/kg	1.3	5.5	19	0.128 J	-	0.00061 J	-	ND (0.00065)	-	
Toluene	mg/kg	0.7	100	100	0.129	-	ND (0.00033)	-	ND (0.00058)	-	
1,2,3-Trichlorobenzene	mg/kg	-			ND (0.25) [b]	-	ND (0.0016)	-	ND (0.0028)	-	
1,2,4-Trichlorobenzene	mg/kg	-			ND (0.25)	-	ND (0.0016)	-	ND (0.0028)	-	
1,1,1-Trichloroethane	mg/kg	0.68	100	100	ND (0.048)	-	ND (0.00031)	-	0.00097 J	-	
1,1,2-Trichloroethane	mg/kg	-	-	-	ND (0.055)	-	ND (0.00035)	-	ND (0.00062)	-	
Trichloroethene	mg/kg	0.47	10	21	ND (0.075)	-	ND (0.00048)	-	ND (0.00085)	-	
Trichlorofluoromethane	mg/kg	-	-	-	ND (0.068)	-	ND (0.00043)	-	ND (0.00076)	-	
Vinyl chloride	mg/kg	0.02	0.21	0.9	ND (0.048)	-	ND (0.00030)	-	ND (0.00054)	-	
m,p-Xylene	mg/kg	0.26	100	100	**0.348**	-	ND (0.00057)	-	ND (0.0010)	-	
o-Xylene	mg/kg	0.26	100	100	0.231	-	ND (0.00029)	-	ND (0.00051)	-	
Xylene (total)	mg/kg	0.26	100	100	**0.579**	-	ND (0.00029)	-	ND (0.00051)	-	
MS Semi-volatiles (EPA 537M BY ID)											

Perfluorobutanoic acid	mg/kg	-	-	-	-	ND (0.00042)	-	ND (0.00044)	-	ND (0.00043)	
Perfluoropentanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
Perfluorohexanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
Perfluoroheptanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
Perfluorooctanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
Perfluorononanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
Perfluorodecanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
Perfluoroundecanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
Perfluorododecanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
Perfluorotridecanoic acid	mg/kg	-	-	-	-	ND (0.00029)	-	ND (0.00031)	-	ND (0.00030)	
Perfluorotetradecanoic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
Perfluorobutanesulfonic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
Perfluorohexanesulfonic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
Perfluoroheptanesulfonic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
Perfluorooctanesulfonic acid	mg/kg	-	-	-	-	ND (0.00022)	-	0.00057 J	-	ND (0.00023)	
Perfluorodecanesulfonic acid	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
PFOSA	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
MeFOSAA	mg/kg	-	-	-	-	ND (0.00055)	-	ND (0.00058)	-	ND (0.00057)	
EtFOSAA	mg/kg	-	-	-	-	ND (0.00055)	-	0.0025	-	ND (0.00057)	
6:2 Fluorotelomer sulfonate	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
8:2 Fluorotelomer sulfonate	mg/kg	-	-	-	-	ND (0.00027)	-	ND (0.00029)	-	ND (0.00029)	
MS Semi-volatiles (SW846 8270E)											
2-Chlorophenol	mg/kg	-	100		ND (0.018)	-	ND (0.019)	-	ND (0.019)	-	
4-Chloro-3-methyl phenol	mg/kg	-	-	-	ND (0.022)	-	ND (0.023)	-	ND (0.023)	-	
2,4-Dichlorophenol	mg/kg	-	100		ND (0.030)	-	ND (0.032)	-	ND (0.032)	-	
2,4-Dimethylphenol	mg/kg	-	-	-	ND (0.064)	-	ND (0.067)	-	ND (0.067)	-	
2,4-Dinitrophenol	mg/kg	-	100		ND (0.13)	-	ND (0.14)	-	ND (0.14)	-	
4,6-Dinitro-o-cresol	mg/kg	-	-	-	ND (0.038)	-	ND (0.040)	-	ND (0.040)	-	
2-Methylphenol	mg/kg	0.33	100	100	ND (0.023)	-	ND (0.024)	-	ND (0.024)	-	
3&4-Methylphenol	mg/kg	-	-	-	ND (0.029)	-	ND (0.031)	-	ND (0.031)	-	
2-Nitrophenol	mg/kg	-			ND (0.024) [a]	-	ND (0.025) [a]	-	ND (0.025) [a]	-	
4-Nitrophenol	mg/kg	-			ND (0.095) [c]	-	ND (0.10) [c]	-	ND (0.10) [c]	-	
Pentachlorophenol	mg/kg	0.8	2.4	6.7	ND (0.034) [c]	-	ND (0.035) [c]	-	ND (0.035) [c]	-	
Phenol	mg/kg	0.33	100	100	ND (0.019) [a]	-	ND (0.020) [a]	-	ND (0.020) [a]	-	
2,3,4,6-Tetrachlorophenol	mg/kg	-	-	-	ND (0.024)	-	ND (0.025)	-	ND (0.025)	-	
2,4,5-Trichlorophenol	mg/kg	-	100		ND (0.027)	-	ND (0.028)	-	ND (0.028)	-	
2,4,6-Trichlorophenol	mg/kg	-			ND (0.021)	-	ND (0.022)	-	ND (0.022)	-	
Acenaphthene	mg/kg	20	100	100	0.109	-	ND (0.013)	-	ND (0.013)	-	
Acenaphthylene	mg/kg	100	100	100	ND (0.018)	-	ND (0.019)	-	ND (0.019)	-	
Acetophenone	mg/kg	-	-	-	ND (0.0077)	-	ND (0.0081)	-	ND (0.0081)	-	
Anthracene	mg/kg	100	100	100	0.0444	-	ND (0.023)	-	ND (0.023)	-	
Atrazine	mg/kg	-	-	-	ND (0.015)	-	ND (0.016)	-	ND (0.016)	-	
Benzo(a)anthracene	mg/kg	1	1	1	0.0359 J	-	ND (0.011)	-	0.0577	-	
Benzo(a)pyrene	mg/kg	1	1	1	0.0504	-	ND (0.017)	-	0.064	-	
Benzo(b)fluoranthene	mg/kg	1	1	1	0.054	-	ND (0.017)	-	0.0758	-	
Benzo(g,h,i)perylene	mg/kg	100	100	100	0.0389	-	ND (0.019)	-	0.043	-	

Benzo(k)fluoranthene	mg/kg	0.8	1	3.9	0.0173 J	-	ND (0.018)	-	0.0248 J	-	
4-Bromophenyl phenyl ether	mg/kg	-	-	-	ND (0.014)	-	ND (0.014)	-	ND (0.014)	-	
Butyl benzyl phthalate	mg/kg	-	100		ND (0.0087) [a]	-	ND (0.0092) [a]	-	ND (0.0092) [a]	-	
1,1'-Biphenyl	mg/kg	-			ND (0.0049)	-	ND (0.0051)	-	ND (0.0051)	-	
Benzaldehyde	mg/kg	-	-	-	ND (0.0089)	-	ND (0.0093)	-	ND (0.0093)	-	
2-Chloronaphthalene	mg/kg	-	-	-	ND (0.0085)	-	ND (0.0089)	-	ND (0.0089)	-	
4-Chloroaniline	mg/kg	-	100		ND (0.013)	-	ND (0.014)	-	ND (0.014)	-	
Carbazole	mg/kg	-	-	-	ND (0.0052)	-	ND (0.0054)	-	0.0103 J	-	
Caprolactam	mg/kg	-	-	-	ND (0.014) [a]	-	ND (0.015) [a]	-	ND (0.015) [a]	-	
Chrysene	mg/kg	1	1	3.9	0.046	-	ND (0.012)	-	0.0616	-	
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	ND (0.0077)	-	ND (0.0080)	-	ND (0.0080)	-	
bis(2-Chloroethyl)ether	mg/kg	-	-	-	ND (0.015) [a]	-	ND (0.016) [a]	-	ND (0.016) [a]	-	
2,2'-Oxybis(1-chloropropane)	mg/kg	-	-	-	ND (0.013)	-	ND (0.013)	-	ND (0.013)	-	
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	ND (0.012)	-	ND (0.012)	-	ND (0.012)	-	
2,4-Dinitrotoluene	mg/kg	-	-	-	ND (0.011)	-	ND (0.012)	-	ND (0.012)	-	
2,6-Dinitrotoluene	mg/kg	-	1.03		ND (0.018)	-	ND (0.019)	-	ND (0.019)	-	
3,3'-Dichlorobenzidine	mg/kg	-	-	-	ND (0.030) [a]	-	ND (0.031) [a]	-	ND (0.031) [a]	-	
1,4-Dioxane	mg/kg	0.1	9.8	13	ND (0.024)	-	ND (0.025)	-	ND (0.025)	-	
Dibenzo(a,h)anthracene	mg/kg	0.33	0.33	0.33	ND (0.016)	-	ND (0.017)	-	ND (0.017)	-	
Dibenzofuran	mg/kg	7	14	59	ND (0.015)	-	ND (0.015)	-	ND (0.015)	-	
Di-n-butyl phthalate	mg/kg	-	100		ND (0.0058)	-	ND (0.0061)	-	ND (0.0061)	-	
Di-n-octyl phthalate	mg/kg	-	100		ND (0.0089)	-	ND (0.0094)	-	ND (0.0093)	-	
Diethyl phthalate	mg/kg	-	100		ND (0.0076)	-	ND (0.0080)	-	ND (0.0080)	-	
Dimethyl phthalate	mg/kg	-	100		ND (0.0064)	-	ND (0.0067)	-	ND (0.0067)	-	
bis(2-Ethylhexyl)phthalate	mg/kg	-	50		0.412 [h]	-	ND (0.0088) [a]	-	ND (0.0088) [a]	-	
Fluoranthene	mg/kg	100	100	100	0.0982	-	ND (0.017)	-	0.123	-	
Fluorene	mg/kg	30	100	100	0.108	-	ND (0.017)	-	ND (0.017)	-	
Hexachlorobenzene	mg/kg	0.33	0.41	1.2	ND (0.0090)	-	ND (0.0095)	-	ND (0.0095)	-	
Hexachlorobutadiene	mg/kg	-	-	-	ND (0.014)	-	ND (0.015)	-	ND (0.015)	-	
Hexachlorocyclopentadiene	mg/kg	-			ND (0.014) [c]	-	ND (0.015) [c]	-	ND (0.015) [c]	-	
Hexachloroethane	mg/kg	-	-	-	ND (0.018)	-	ND (0.019)	-	ND (0.019)	-	
Indeno(1,2,3-cd)pyrene	mg/kg	0.5	0.5	0.5	0.0324 J	-	ND (0.018)	-	0.0364 J	-	
Isophorone	mg/kg	-	100		ND (0.0077)	-	ND (0.0080)	-	ND (0.0080)	-	
2-Methylnaphthalene	mg/kg	-	0.41		0.136	-	ND (0.0085)	-	ND (0.0085)	-	
2-Nitroaniline	mg/kg	-			ND (0.0084) [a]	-	ND (0.0089) [a]	-	ND (0.0089) [a]	-	
3-Nitroaniline	mg/kg	-			ND (0.0089)	-	ND (0.0094)	-	ND (0.0094)	-	
4-Nitroaniline	mg/kg	-	-	-	ND (0.0093) [a]	-	ND (0.0097) [a]	-	ND (0.0097) [a]	-	
Naphthalene	mg/kg	12	100	100	0.0849	-	ND (0.011)	-	ND (0.011)	-	
Nitrobenzene	mg/kg	-	3.7	15	ND (0.014)	-	ND (0.014)	-	ND (0.014)	-	
N-Nitroso-di-n-propylamine	mg/kg	-	-	-	ND (0.010)	-	ND (0.011)	-	ND (0.011)	-	
N-Nitrosodiphenylamine	mg/kg	-			ND (0.013)	-	ND (0.014)	-	ND (0.014)	-	
Phenanthrene	mg/kg	100	100	100	0.21	-	ND (0.013)	-	0.082	-	
Pyrene	mg/kg	100	100	100	0.268	-	ND (0.012)	-	0.112	-	
1,2,4,5-Tetrachlorobenzene	mg/kg	-	-	-	ND (0.0091)	-	ND (0.0095)	-	ND (0.0095)	-	
GC/LC Semi-volatiles (SW846 8081B)											
Aldrin	mg/kg	0.005	0.019	0.097	ND (0.00059)	-	ND (0.00064)	-	ND (0.00063)	-	
alpha-BHC	mg/kg	0.02	0.097	0.48	ND (0.00058)	-	ND (0.00063)	-	ND (0.00062)	-	

beta-BHC	mg/kg	0.036	0.072	0.36	ND (0.00065)	-	ND (0.00071)	-	ND (0.00069)	-	
delta-BHC	mg/kg	0.04	100	100	ND (0.00069)	-	ND (0.00075)	-	ND (0.00074)	-	
gamma-BHC (Lindane)	mg/kg	0.1	0.28	1.3	ND (0.00053)	-	ND (0.00058)	-	ND (0.00057)	-	
alpha-Chlordane	mg/kg	0.094	0.91	4.2	ND (0.00058)	-	0.0011	-	ND (0.00062)	-	
gamma-Chlordane	mg/kg	-	0.54		ND (0.00032)	-	ND (0.00035)	-	ND (0.00035)	-	
Dieldrin	mg/kg	0.005	0.039	0.2	ND (0.00049)	-	ND (0.00054)	-	ND (0.00053)	-	
4,4'-DDD	mg/kg	0.0033	2.6	13	0.0025	-	ND (0.00072)	-	0.00083	-	
4,4'-DDE	mg/kg	0.0033	1.8	8.9	**0.019**	-	**0.0349**	-	**0.0045**	-	
4,4'-DDT	mg/kg	0.0033	1.7	7.9	0.0024	-	0.0018	-	0.0032	-	
Endrin	mg/kg	0.014	2.2	11	0.0010 [e]	-	ND (0.00061)	-	ND (0.00060)	-	
Endosulfan sulfate	mg/kg	2.4	4.8	24	ND (0.00056)	-	ND (0.00061)	-	ND (0.00060)	-	
Endrin aldehyde	mg/kg	-	-	-	ND (0.00041)	-	ND (0.00044)	-	ND (0.00044)	-	
Endosulfan-I	mg/kg	2.4	4.8	24	ND (0.00041)	-	ND (0.00045)	-	ND (0.00044)	-	
Endosulfan-II	mg/kg	2.4	4.8	24	ND (0.00045)	-	ND (0.00049)	-	ND (0.00048)	-	
Heptachlor	mg/kg	0.042	0.42	2.1	ND (0.00062)	-	ND (0.00067)	-	ND (0.00066)	-	
Heptachlor epoxide	mg/kg	-	0.077		ND (0.00050)	-	0.00091 [e]	-	0.0018 [e]	-	
Methoxychlor	mg/kg	-	100		ND (0.00057)	-	ND (0.00062)	-	0.014	-	
Endrin ketone	mg/kg	-	-	-	ND (0.00052)	-	ND (0.00056)	-	ND (0.00055)	-	
Toxaphene	mg/kg	-	-	-	ND (0.017)	-	ND (0.018)	-	ND (0.018)	-	
GC/LC Semi-volatiles (SW846 8082A)											
Aroclor 1016	mg/kg	0.1	1	1	ND (0.017) [a]	-	ND (0.018) [a]	-	ND (0.018)	-	
Aroclor 1221	mg/kg	0.1	1	1	ND (0.022)	-	ND (0.024)	-	ND (0.024)	-	
Aroclor 1232	mg/kg	0.1	1	1	ND (0.023)	-	ND (0.025)	-	ND (0.024)	-	
Aroclor 1242	mg/kg	0.1	1	1	ND (0.015)	-	ND (0.016)	-	ND (0.016)	-	
Aroclor 1248	mg/kg	0.1	1	1	ND (0.032)	-	ND (0.035)	-	0.0466	-	
Aroclor 1254	mg/kg	0.1	1	1	ND (0.019)	-	ND (0.021)	-	ND (0.021)	-	
Aroclor 1260	mg/kg	0.1	1	1	ND (0.015) [a]	-	ND (0.017) [a]	-	ND (0.016)	-	
Aroclor 1268	mg/kg	0.1	1	1	ND (0.015)	-	ND (0.016)	-	ND (0.016)	-	
Aroclor 1262	mg/kg	0.1	1	1	ND (0.023)	-	ND (0.026)	-	ND (0.025)	-	
Metals Analysis											
Aluminum	mg/kg	-			13500	-	18500	-	15400	-	
Antimony	mg/kg	-			<2.3	-	<12 [f]	-	<12 [f]	-	
Arsenic	mg/kg	13	16	16	<2.3	-	<12 [f]	-	<12 [f]	-	
Barium	mg/kg	350	350	400	129	-	217	-	155	-	
Beryllium	mg/kg	7.2	14	72	2.4 [f]	-	3.2 [f]	-	2.2 [f]	-	
Cadmium	mg/kg	2.5	2.5	4.3	<0.56	-	<0.61	-	1	-	
Calcium	mg/kg	-			5990	-	17600	-	3690	-	
Chromium	mg/kg	-	-	-	25.5	-	37	-	36.4	-	
Cobalt	mg/kg	-	30		<28 [f]	-	<30 [f]	-	<29 [f]	-	
Copper	mg/kg	50	270	270	34.2	-	**51.2** [f]	-	**80.6** [f]	-	
Iron	mg/kg	-	2000		**22600**	-	**31600**	-	**53500**	-	
Lead	mg/kg	63	400	400	53.8	-	49.9 [f]	-	**176** [f]	-	
Magnesium	mg/kg	-	-	-	6670	-	9700	-	5760	-	
Manganese	mg/kg	1600	2000	2000	599	-	371 [f]	-	383 [f]	-	
Mercury	mg/kg	0.18	0.81	0.81	0.039	-	0.035	-	0.14	-	

Nickel	mg/kg	30	140	310	24.6	-	25.3	-	**38.7**	-	
Potassium	mg/kg	-	-	-	7840	-	11000	-	5730	-	
Selenium	mg/kg	3.9	36	180	<2.3	-	<12 [f]	-	<12 [f]	-	
Silver	mg/kg	2	36	180	0.65	-	<3.0 [f]	-	<2.9 [f]	-	
Sodium	mg/kg	-	-	-	<1100	-	<1200	-	<1200	-	
Thallium	mg/kg	-			<1.1	-	<6.1 [f]	-	<5.8 [f]	-	
Vanadium	mg/kg	-	100		38.2	-	61.6	-	40.2	-	
Zinc	mg/kg	109	2200	10000	**115**	-	107	-	**226**	-	
General Chemistry											
Solids, Percent	%	-	-	-	91.4	-	84.8	-	86.3	-	

Footnotes:

[a] Associated CCV outside of control limits high, sample was ND.

[b] Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

[c] Associated CCV outside of control limits low. Low-level verification was analyzed to demonstrate system suitability to detect affected analytes. Sample was ND.

[d] Associated CCV outside of control limits low. Low level standard analyzed to demonstrate system suitability to detect affected analytes. Sample was ND.

[e] More than 40 % RPD for detected concentrations between the two GC columns.

[f] Elevated detection limit due to dilution required for high interfering element.

[g] Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte.

[h] Associated CCV outside of control limits high. Estimated value, due to corresponding failure in the batch associated CCV.

Regulatory limits listed in this document have been obtained from the latest version of the regulations cited and are used for advisory purposes only. SGS assumes no responsibility for errors in regulatory documents or changes to criteria detailed in later versions of the referenced regulation. It is the responsibility of the user to verify these limits before using or reporting any data.

46 results exceeded regulatory criteria.

APPENDIX E

AIR QUALITY BACKUP

NCM USA BRONX, LLC

390 Concord Ave. Bronx, NY 10454
Tel: 212 719-2322 Fax: 718 585-2627

NYS Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau A
Radiation Section, 12th Floor
625 Broadway
Albany, New York 12233-7255
Attn Tiffany Fischer

RECEIVED
NYS DEC
FEB 09 2021
DIVISION OF
MATERIALS MANAGEMENT

Date: February 4, 2021

Reference: Annual Emissions Report for Calendar Year 2020 (ref. Permit No. 2-6007-00869/00001)

Dear Ms. Fischer,

This letter is written in reference to the special condition of NCM's DEC Part 380 Permit which requires an annual report of all radionuclides released into the air be submitted to the Department.

During calendar 2020, 252.27 mCi of $^{11}C_2$ were released in calibration efforts for the PET exhaust stack monitoring system.

The PET stack monitoring system employs 2 radiation detectors (a NaI scintillator and a GM detector) placed in the exhaust stream. The GM detector can underestimate emissions totals due to its lack of sensitivity to very small releases, and the NaI detector can overestimate releases due to its high sensitivity to varying background radiation. However, in our normal operating range, both detectors appear to operate linearly and agree well in their computation of running totals. For analyzing individual peaks, NCM uses the GM probe for quantifying released activity that registers greater than 25 mCi. For all other releases, the NaI detector data is utilized. The emissions totals recorded by the monitoring system (for daily operations) are the totals for all positron emitting isotopes. Quantification of specific positron emitting isotopes in the effluent is done through comparing specific detection times with production times for C-11, N-13, and F-18.

For I-131, exhaust monitoring is performed by sample collection. The sample is collected by pulling air from the exhaust ductwork after filtration treatment has taken place through a charcoal sampling filter. This filter is then analyzed via NaI detection system.

Total emissions for calendar year 2020:

N-13: 411.5 mCi

F-18: 5.4 mCi

NCM USA BRONX, LLC

390 Concord Ave. Bronx, NY 10454
Tel: 212 719-2322 Fax: 718 585-2627

C-11: 252.3 mCi from Exhaust System Calibration

I-131: 0.0 mCi (There were no I-131 releases detected for the year)

The average annual concentrations for calendar year 2020, based on an average measured flow rate of 2,165 cfm (3.22×10^{13} ml/year) is:

N-13: 1.28×10^{-8} uCi/ml

F-18: 1.68×10^{-10} uCi/ml

C-11: 7.83×10^{-9} uCi/ml

I-131: 0.0 uCi/ml

Environmental Dosimeters:

Net 2020 Environmental Dosimetry Data for the roof space of NCM Bronx (mrem ambient dose eq.)

Month	NORTH	SOUTH	EAST	WEST
January	0.0	22.1	12.3	4.2
February	2.0	27.5	10.1	29.5
March	-2.9	21.2	7.5	3.7
April	-3.9	4.8	11.8	-0.5
May	-5.0	3.9	8.7	1.5
June	-4.3	8.7	10.6	1.8
July	-2.3	6.9	10.3	1.4
August	-5.1	12.1	14.4	2.2
September	-1.3	9.0	11.5	1.5
October	-3.5	10.4	14.9	1.9
November	-1.3	8.3	10.4	4.4
December	-1.6	13.3	14.1	8.6

NOTES:

Projection for Calendar Year 2021: Based on year 2020 emissions and projected workload, NCM Bronx projects a 10% increase in F-18 and N-13 workload and no increase in C-11 workload. With these increases in 2020, NCM would still be well within current permit limits. No permit amendment requests for N-13, F-18, C-11, or I-131 are currently anticipated for 2021.

NCM USA BRONX, LLC

390 Concord Ave. Bronx, NY 10454
Tel: 212 719-2322 Fax: 718 585-2627

If you have any questions or require any further information, please do not hesitate to contact us.

Respectfully,

Anthony Pecoraro, R. Ph.
Radiation Safety Officer

Shankar Vallabjahusola, Ph.D.
President

NYC Environmental Protection
Emily Lloyd
Commissioner

THE CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Environmental Compliance
59-17 Junction Boulevard, 9th Floor, Flushing, New York 11373
Records Control (718) 595-3855

TCO Rev 05/2014

Michael Gilsenan
Assistant Commissioner
Environmental Compliance

TRIENNIAL CERTIFICATE OF OPERATION

DISPLAY CERTIFICATE ON PREMISES NEAR EQUIPMENT

☐ PA ☒ PB 0122-08L	07/30/14	07/30/14	09/15/17	1	B	MT
Application	Date Inspected	Date Issued	Expiration Date	E.P. #	E.R.	Issued By

Professional Engineer:

Owner:
FIRST CLASS AUTO COLLISION CTR.
436 WALES AVENUE
BRONX, NY 10455

APPLICATION FOR RENEWAL OF THIS CERTIFICATE OF OPERATION MUST BE FILED AT THE DEPARTMENT OF ENVIRONMENTAL PROTECTION **NO LATER THAN NINETY (90) DAYS PRIOR TO ITS EXPIRATION DATE.**

Premise Information:

436 WALES AVE.	-					
Street Address				Name of Premise (if any)		
1st	-	Bronx	10455	-	-	-
Floor	Room No.	Borough	Zip Code	BIN	Block	Lot

The holder of this Certificate is responsible for the use of the equipment in accordance with all applicable requirements and provisions of the New York City Air Pollution Control Code. The Commissioner may suspend or revoke this Certificate for willful or continued violation of the Code. Any purported or attempted transfer of a Certificate of Operation from one location to another or from one piece of equipment to another automatically revokes the Certificate. Section 24-135 NYC Air Pollution Code.

Description of Installation: AUTO BODY SHOP	**USED:** Hours / Day: 8.0	Days / Year: 250

Description of Equipment: A AUTO PAINT SPRAY AREA (12'x29') ONLY FOR TOUCH UP PAINT WORK ON AUTOMOBILE.
PAINT SPRAY USAGE: 0.04GPH.

Exhaust Equipment: (1) EXHAUST FAN WITH 1/3HP MOTOR, 1725RPM, DELIVERING 3,000CFM @70F.

Control Equipment: REPLACEABLE CUSTOM FILTER.

Should significant scientific evidence from a recognized institution should result in a decision by NYSDEC that lower ambient guideline concentrations must be established, it may be necessary to reduce emissions from this source(s) prior to the expiration of this Triennial Certificate of Operation.

SPECIAL CONDITIONS / REMARKS

FILTER MUST BE REPLACED WHEN CLOGGED.

RECERTIFICATION

R. Radhakrishnan

R. Radhakrishnan, P.E.
Director of Engineering / For the Commissioner

FOR GENERAL INFORMATION, QUESTIONS, AND INQUIRIES: Please visit our website at www.nyc.gov/dep or call 311

Application for Certificate to Operate
An Existing Autobody Shop

ORIGINAL KEEP IN FILE

OP | LOCATION | FACILITY | EMISSION POINT | 1

| | | |

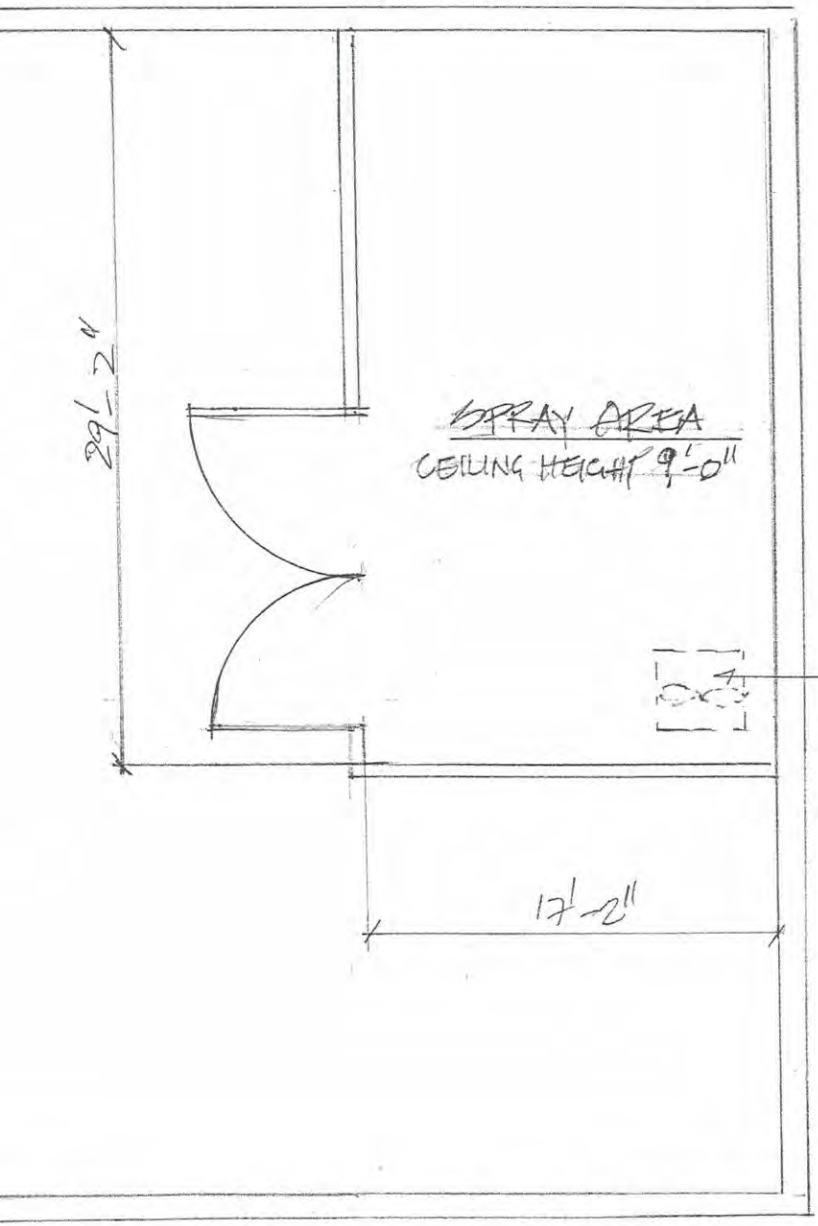
Emissions Worksheet

ORIGINAL-KEEP IN FILE

		(A) Solids	(B) Solvents
W1	Enter the maximum gallons of coatings used in any one hour in columns (A) and (B). (See note below)	0.02	0.02
W2	Weight fraction factor	0.65	6.20
W3	Multiply the values in line W1 by values in line W2. Enter the results in boxes (a) and (c)	(a) 0.013	(c) 0.124
W4	Enter Control Factor from instructions for appl box 43	1.0	
W5	Multiply the value in box (a) by value in line W4. Enter the result in box (b).	(b) 0.013	

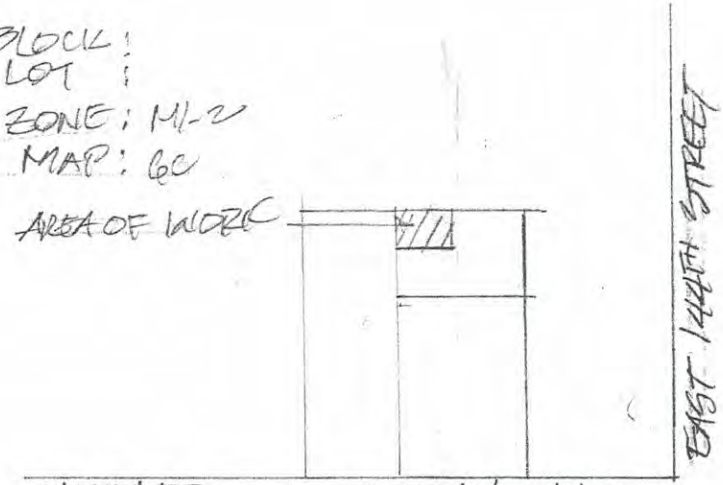
		(A) Solids	(B) Solvents
W6	Enter gallons of coatings used per year from appl box 56 in both columns (A) and (B)	36	36
W7	Weight fraction factor	0.65	6.20
W8	Multiply the values in line W6 by values in line W7. Enter the results in boxes (d) and (f)	(d) 23.4	(f) 223.2
W9	Enter Control Factor from instructions for appl box 43		
W10	Multiply the value in box (d) by value in line W9. Enter the result in box (e).	(e)	

Note: The gallons of coating used per hour is the sum of all coatings actually sprayed on a vehicle. This includes primer, base coats, topcoats, clear coats, thinner, reducer, surfacers and any other paint additives.



EXHAUST FAN
3,000 CFM @ 0" SP, 1725 RPM, 1/3 HP, 115V, 60 HZ

BLOCK:
LOT:
ZONE: M1-2
MAP: 6C



PLOT PLAN
NTS

STATE OF NEW YORK
ANTHONY O. SOMEFUN
LICENSE
096396
PROFESSIONAL ENGINEER

OOR PLAN
0"

FIRST CLASS AUTO COLLISION CENTER 436 WALES AVENUE BRONX, NY 10455	DRAWN BY: A.S.
	CHECKED BY: A.S.
ANTHONY SOMEFUN 650 LENOX AVENUE NEW YORK, NY 10037	SCALE: AS NOTED
	DATE 3/12/08 — DWG. NO. 1 OF 1

NYC Environmental Protection

THE CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Environmental Compliance
59-17 Junction Boulevard, 9th Floor, Flushing, New York 11373
Records Control (718) 595–3855

Rev. 02/11

INDUSTRIAL PROCESSES
FIELD INSPECTION REPORT

Date: 7/30/14

Installation: PB0122-085

Company Name: First Class Auto Collision Center.

Premise Information:

Street Address	Floor	Room No.	Borough	Zip Code	Name of Premise (if any)	BIN	Block	Lot
436 Wales Ave.	1st	-	BX	10455	-	-	-	-

Inspection:

Inspected by:	M.T. - E093		Plant Representative:		
Emission Point:	1	Receptor Distances:		Nuisance Possibility:	
Equipment Description:	Auto Paint Spray Area.				

Agreement with filing

☑ Yes ☐ No Sketch:

Reason for Inspection:

☐ C.O. ☑ T.C.O. ☐ Complaint ☐ Survey

Conditions Observed: Spray Area was in Used. Painting of Front Bumper of Cars. Using "DE Beer" Paint.

Observed Emissions: Emissions Thru Exhaust Fan over Roof.

Comments: Filter Exhaust Fan

FAX

FIRSTCLASSAUTOCOLLISIONCENTER
436-440 WALES AVE. ST
BRONX, NY 10455
347-862-6102 Fax:718-401-2490
Firstclassauto84@yahoo.com

To: Mo Torabi Engineering Unit
Fax number: 718-595-3846

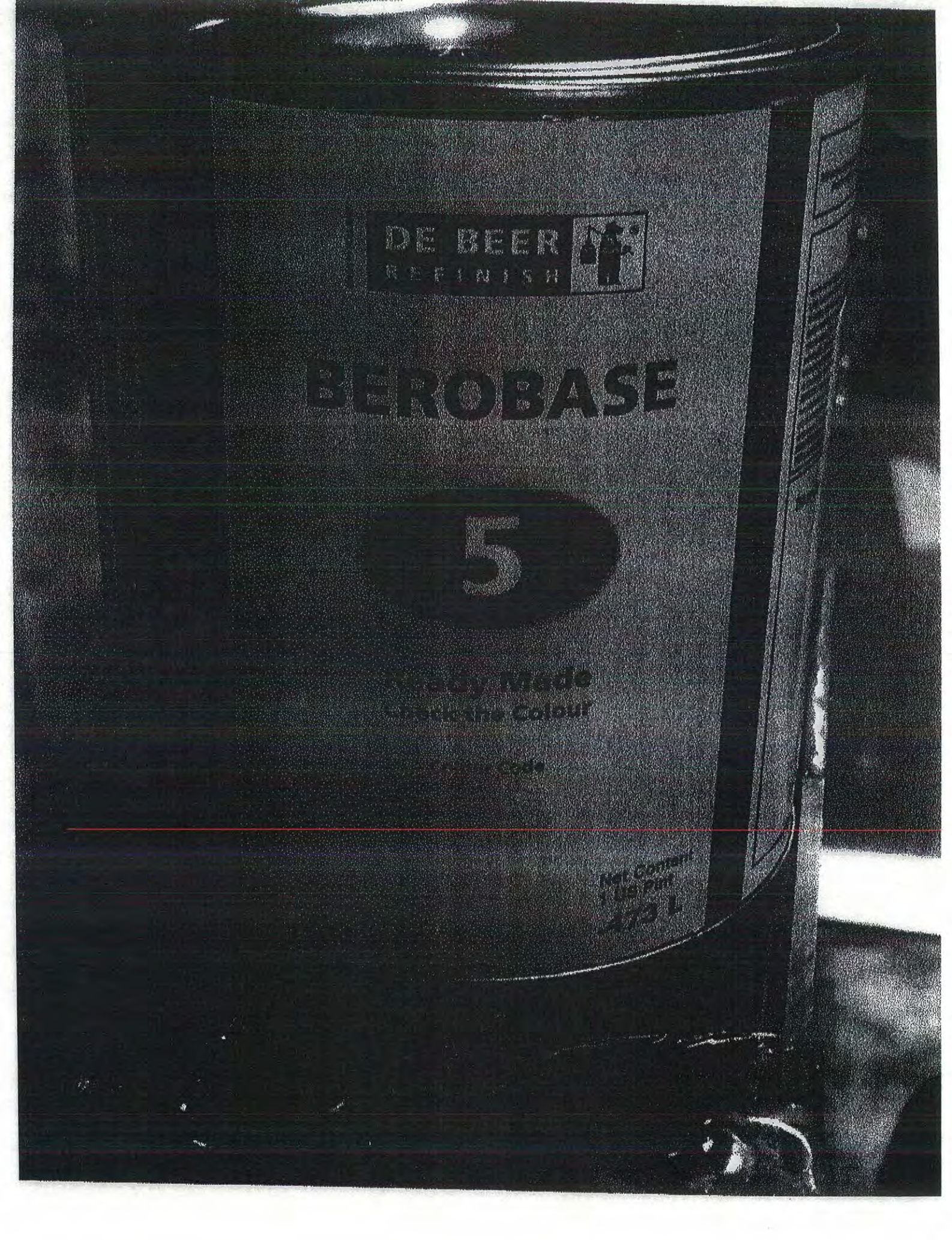
From: FIRST CLASS AUTO COLLISION CENTER
Fax number:718-401-2490

Date:7/30/2014

Regarding:

Phone number for follow-up:
347-862-6102

ATTENTION: To whom it may concern. Valspar is the parent company Berobase and De Beer automotive paint. De Beer is a subdivision of Berobase which are the automotive paint product we use at First Class Auto Collision Center


DE BEER
REFINISH
BEROBASE
5
Net Content
1 US Gal
3.79 L

valspar

if it matters, we're on it.®

Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product ID:	**9500L03**
Product Name:	BERO BASE MIXING COLOR 500
Product Use:	Paint product.
Print date:	12/Jan/2012
Revision Date:	12/May/2010

Company Identification
The Valspar Corporation
PO Box 1461
Minneapolis, MN 55440

Manufacturer's Phone:	1-612-851-7000
24-Hour Medical Emergency Phone:	1-888-345-5732

2. HAZARDS IDENTIFICATION

Primary Routes of Exposure:
Inhalation
Ingestion
Skin absorption

Eye Contact:

- Severe eye irritation
- Risk of serious damage to eyes.

Skin Contact:

- Causes skin irritation.
- May cause defatting of the skin.
- Dermatitis
- Harmful if absorbed through skin.
- Can be absorbed through skin.

Ingestion:

- Irritation of the mouth, throat, and stomach.
- Aspiration hazard if swallowed - can enter lungs and cause damage.

Inhalation:

- Causes respiratory tract irritation.
- Harmful by inhalation.
- May cause damage to nasal and respiratory passages.

Target Organ and Other Health Effects:
- Causes headache, drowsiness or other effects to the central nervous system.
- Kidney injury may occur.
- Blood disorders
- Hearing loss.
- Liver injury may occur.

This product contains ingredients that may contribute to the following potential chronic health effects:
- Notice: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

3. COMPOSITION / INFORMATION ON HAZARDOUS INGREDIENTS

Ingredient Name CAS-No.	Approx. Weight %	Chemical Name
BUTYL ACETATE 123-86-4	25 - 30	n-Butyl acetate
XYLENE 1330-20-7	15 - 20	Xylenes (o-, m-, p- isomers)
ETHYLBENZENE 100-41-4	5 - 10	Ethyl benzene
N-BUTYL ALCOHOL 71-36-3	1 - 5	n-Butyl alcohol
PROPYLENEGLYCOL MONOMETHYL ETHER ACETATE 108-65-6	1 - 5	2-methoxy-1-methylethyl acetate

If this section is blank there are no hazardous components per OSHA guidelines.

4. FIRST AID MEASURES

Eye Contact:
In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. If medical assistance is not immediately available, flush an additional 15 minutes. Get medical attention immediately.

Skin Contact:
Remove contaminated clothing and shoes. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention, if symptoms develop or persist.

Ingestion:
Rinse mouth with water. Give one or two glasses of water. Only induce vomiting at the instruction of medical personnel. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If vomiting occurs, keep head lower than hips to prevent aspiration. Get medical attention immediately.

Inhalation:
Move injured person into fresh air and keep person calm under observation. Get medical attention immediately. For breathing difficulties, oxygen may be necessary. If breathing stops, provide artificial respiration.

Medical conditions aggravated by exposure:
Any respiratory or skin condition.

5. FIRE FIGHTING MEASURES

Flash point (Fahrenheit):	73
Flash point (Celsius):	23
Lower explosive limit (%):	1
Upper explosive limit (%):	11
Autoignition temperature:	not determined
Sensitivity to impact:	no
Sensitivity to static discharge:	Subject to static discharge hazards. Please see bonding and grounding information in Section 7.
Hazardous combustion products:	See Section 10.

Unusual fire and explosion hazards:
None known.

Extinguishing media:
Carbon dioxide, dry chemical, foam and/or water fog.

Fire fighting procedures:
Firefighters should be equipped with self-contained breathing apparatus and turn out gear. Keep containers and surroundings cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

Action to be taken if material is released or spilled:
Ventilate the area. Avoid breathing dust or vapor. Use self-containing breathing apparatus or airmask for large spills in a confined area. Wipe, scrape or soak up in an inert material and put in a container for disposal. See section 7, "Handling and Storage", for proper container and storage procedures. Remove all sources of ignition. Soak up with inert absorbent material. Use only non-sparking tools. Avoid contact with eyes.

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage:
Keep away from heat, sparks and open flame. - No smoking. Keep container closed when not in use. Do not store above 120 degrees F. (49 degrees C). Based on flash point and vapor pressure, suitable storage should be provided in accordance with OSHA regulation 1910.106, Ontario OH&S regulation 851 section 22. Empty containers may contain product residue, including flammable or explosive vapors. Do not cut, puncture or weld on or near container. All label warnings must be observed until the container has been commercially cleaned or reconditioned. If the product is used near or above the flashpoint, an ignition hazard may be present. Activities, uses, or operations which liberate vapor (such as mixing or free fall of liquids) may also present an ignition hazard. Please ensure containers and other interconnected equipment are properly bonded and grounded at all times.

8. PERSONAL PROTECTIVE EQUIPMENT AND EXPOSURE CONTROLS

Personal Protective Equipment

Eye and face protection:
Wear chemical goggles with splash shields or face shield. Contact lenses should not be worn when working with chemicals because contact lenses may contribute to the severity of an eye injury in case of exposure.

Skin protection:

Appropriate chemical resistant gloves should be worn.

Other Personel Protection Data:
To prevent skin contact wear protective clothing covering all exposed areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Respiratory protection:
If exposure cannot be controlled below applicable limits, use the appropriate NIOSH approved respirator such as an air purifying respirator with organic vapor cartridge and dust/mist filter. Consult the respirator manufacturer's literature to ensure that the respirator will provide adequate protection. Read and follow all respirator manufacturer's instructions.

Ventilation
Use only in well-ventilated areas. Ensure adequate ventilation, especially in confined areas. Ovens used for curing should contain a fresh air purge to prevent vapours from accumulating and creating a possible explosive mixture. Where the product is used in a hazardous classified area, use explosion-proof electrical/ventilating/lighting/equipment.

Exposure Guidelines

OSHA Permissible Exposure Limits (PEL's)

Ingredient Name CAS-No.	Approx. Weight %	TWA (final)	Ceilings limits (final)	Skin designations
BUTYL ACETATE 123-86-4	25 - 30	150 ppm TWA 710 mg/m³ TWA		
XYLENE 1330-20-7	15 - 20	100 ppm TWA 435 mg/m³ TWA		
ETHYLBENZENE 100-41-4	5 - 10	100 ppm TWA 435 mg/m³ TWA		
N-BUTYL ALCOHOL 71-36-3	1 - 5	100 ppm TWA 300 mg/m³ TWA		

ACGIH Threshold Limit Value (TLV's)

Ingredient Name CAS-No.	Approx. Weight %	TWA	STEL	Ceiling limits	Skin designations
BUTYL ACETATE 123-86-4	25 - 30	150 ppm TWA	200 ppm STEL		
XYLENE 1330-20-7	15 - 20	100 ppm TWA	150 ppm STEL		
ETHYLBENZENE 100-41-4	5 - 10	100 ppm TWA	125 ppm STEL		
N-BUTYL ALCOHOL 71-36-3	1 - 5	20 ppm TWA			

9. PHYSICAL PROPERTIES

Odor:	Normal for this product type.
Physical State:	liquid
pH:	not determined
Vapor pressure:	90.2255639 mmHg @ 77°F (25°C)
Vapor density (air = 1.0):	4.6
Boiling point:	not determined
Solubility in water:	Negligible (less than 0.1%)
Coefficient of water/oil distribution:	not determined
Density (lbs per US gallon):	9.99
Specific Gravity:	1.199

9. PHYSICAL PROPERTIES

Evaporation rate (butyl acetate = 1.0):	1
Flash point (Fahrenheit):	73
Flash point (Celsius):	23
Lower explosive limit (%):	1
Upper explosive limit (%):	11
Autoignition temperature:	not determined

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	Heat.
Incompatibility:	Strong oxidizing agents
Hazardous Polymerization:	None anticipated.
Hazardous Decomposition Products:	Carbon monoxide and carbon dioxide.

Sensitivity to static discharge: Subject to static discharge hazards. Please see bonding and grounding information in Section 7.

11. TOXICOLOGICAL INFORMATION

Ingredient Name CAS-No.	Approx. Weight %	NIOSH - Selected LD50s and LC50s
BUTYL ACETATE 123-86-4	25 - 30	= 10768 mg/kg Oral LD50 Rat = 390 ppm Inhalation LC50 Rat 4 h > 17600 mg/kg Dermal LD50 Rabbit
XYLENE 1330-20-7	15 - 20	= 4300 mg/kg Oral LD50 Rat = 47635 mg/L Inhalation LC50 Rat 4 h = 5000 ppm Inhalation LC50 Rat 4 h > 1700 mg/kg Dermal LD50 Rabbit
ETHYLBENZENE 100-41-4	5 - 10	= 15354 mg/kg Dermal LD50 Rabbit = 17.2 mg/L Inhalation LC50 Rat 4 h = 3500 mg/kg Oral LD50 Rat
N-BUTYL ALCOHOL 71-36-3	1 - 5	= 3400 mg/kg Dermal LD50 Rabbit = 790 mg/kg Oral LD50 Rat = 8000 ppm Inhalation LC50 Rat 4 h > 17.7 mg/L Inhalation LC50 Rat 4 h
PROPYLENEGLYCOL MONOMETHYL ETHER ACETATE 108-65-6	1 - 5	= 8532 mg/kg Oral LD50 Rat > 5000 mg/kg Dermal LD50 Rabbit

Mutagens/Teratogens/Carcinogens:

Contains ethylbenzene, which has been determined by NTP to be an animal carcinogen with no known relevance to humans. IARC has classified ethylbenzene as possibly carcinogenic to humans (2b) on the basis of sufficient evidence of carcinogenicity in laboratory animals but inadequate evidence of cancer in humans.

Ingredient Name CAS-No.	Approx. Weight %	California Prop 65 - Reproductive (Female)	California Prop 65 - Carcinogen
ETHYLBENZENE 100-41-4	5 - 10		Listed. Initial date 6/11/04 - carcinogen

Ingredient Name CAS-No.	Approx. Weight %	IARC Group 1 - Human Evidence	IARC Group 2A - Limited Human Data	IARC Group 2B - Sufficient Animal Data
ETHYLBENZENE 100-41-4	5 - 10			Monograph 77 [2000]

Ingredient Name CAS-No.	Approx. Weight %	NTP Known Carcinogens	NTP Suspect Carcinogens	NTP Evidence of Carcinogenicity
XYLENE 1330-20-7	15 - 20			male rat-no evidence; female rat-no evidence; male mice-no evidence; female mice-no evidence
ETHYLBENZENE 100-41-4	5 - 10			male rat-clear evidence; female rat-some evidence; male mice-some evidence; female mice-some evidence

Ingredient Name CAS-No.	Approx. Weight %	OSHA - Hazard Communication Carcinogens	OSHA - Specifically Regulated Carcinogens	ACGIH Carcinogens
ETHYLBENZENE 100-41-4	5 - 10	Present		A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans

12. ECOLOGICAL DATA

No information on ecology is available.

13. DISPOSAL CONSIDERATIONS

Disposal should be made in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

U.S. Department of Transportation

UN ID Number (msds):	UN1263
Proper Shipping Name:	PAINT
Hazard Class:	3
Packing Group:	III

U.S Hazmat and/or International DG shipment exceptions

The supplier may apply one of the following exceptions: Combustible Liquid, Consumer Commodity, Limited Quantity, Viscous Liquid, Does Not Sustain Combustion, or others, as allowed under 49CFR Hazmat Regulations. Please consult 49CFR Subchapter C to ensure that subsequent shipments comply with these exceptions.

Reportable Quantity Description:

International Air Transport Association (IATA):

UN ID Number (msds):	UN1263
Proper Shipping Name:	PAINT
Hazard Class:	3
Packing Group:	III

International Maritime Organization (IMO):

IMO UN/ID Number (msds):	UN1263
Proper Shipping Name:	PAINT
Hazard Class:	3
Packing Group:	III

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

Ingredient Name CAS-No.	Approx. Weight %	SARA 302	SARA 313	CERCLA RQ in lbs.
BUTYL ACETATE 123-86-4	25 - 30			5000
XYLENE 1330-20-7	15 - 20		form R reporting required for 1.0% de minimis concentration	100
ETHYLBENZENE 100-41-4	5 - 10		form R reporting required for 1.0% de minimis concentration	1000
N-BUTYL ALCOHOL 71-36-3	1 - 5		form R reporting required for 1.0% de minimis concentration	5000

SARA 311/312 Hazard Class:

Acute:	yes
Chronic:	yes
Flammability:	yes
Reactivity:	no
Sudden Pressure:	no

U.S. STATE REGULATIONS:

Right to Know:
The specific chemical identity of a component may be withheld as a trade secret under 34 Pennsylvania Code, Chapter 317.

Pennsylvania Right To Know:

ETHYLBENZENE	100-41-4	
PROPYLENEGLYCOL MONOMETHYL ETHER ACETATE		108-65-6
BUTYL ACETATE	123-86-4	
XYLENE	1330-20-7	
N-BUTYL ALCOHOL	71-36-3	

Additional Non-Hazardous Materials

PROPRIETARY ADDITIVE	Trade Secret

California Proposition 65:
WARNING! This product contains a chemical known in the State of California to cause cancer.

Rule 66 status of product Not photochemically reactive.

INTERNATIONAL REGULATIONS - Chemical Inventories

US TSCA Inventory:
All components of this product are in compliance with U.S. TSCA Chemical Substance Inventory Requirements.

Canada Domestic Substances List:
All components of this product are listed on the Domestic Substances List.

16. OTHER INFORMATION

HMIS Codes

16. OTHER INFORMATION

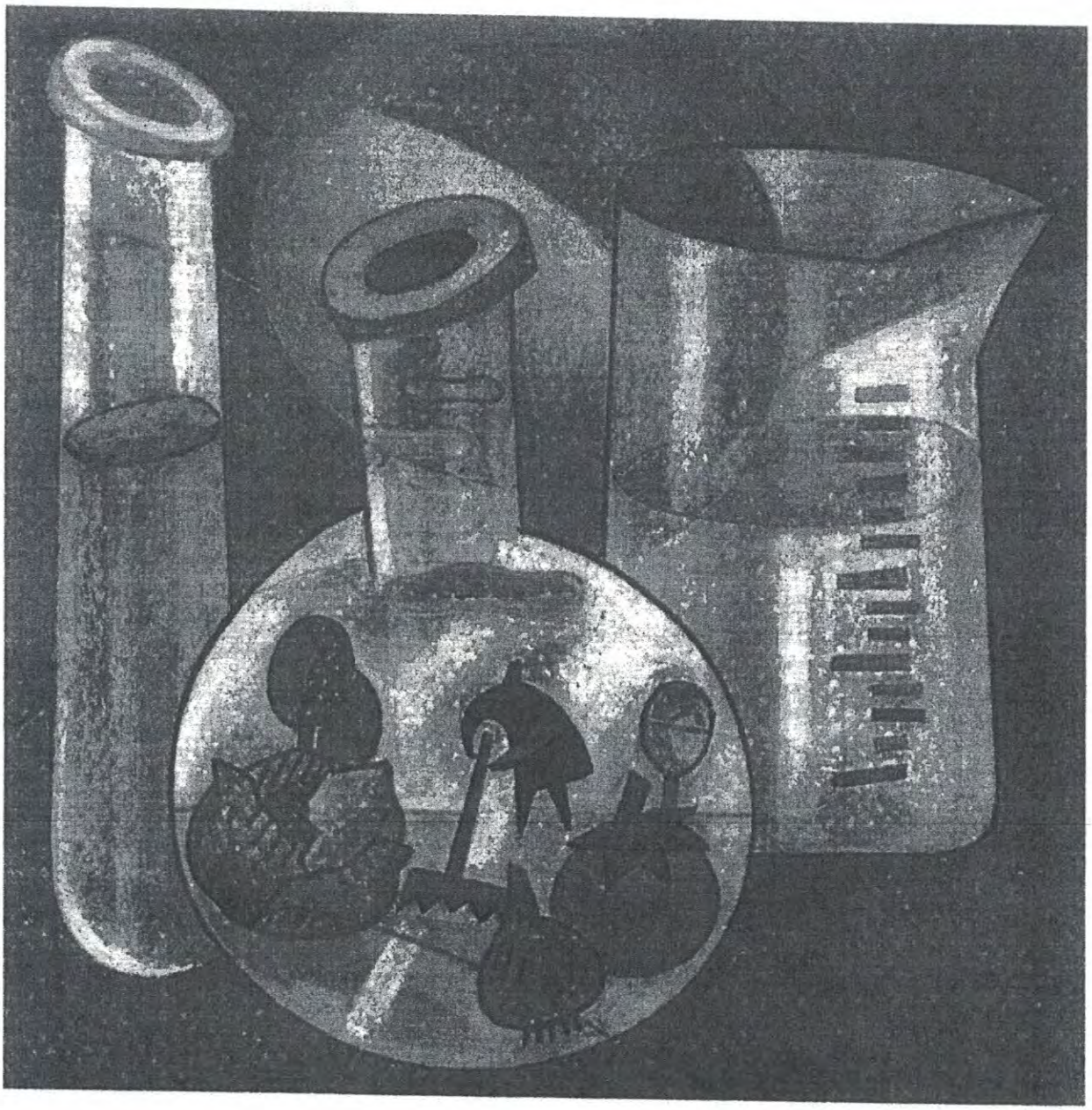
Health:	2
Flammability:	3
Reactivity:	0
PPE:	X - See Section 8 for Personal Protective Equipment (PPE).

Abbreviations:
OSHA - Occupational Safety and Health Administration, IARC - International Agency for Research on Cancer, NIOSH - National Institute of Occupational Safety and Health, NTP - National Toxicology Program, ACGIH - American Conference of Governmental Industrial Hygienists, SCAQMD - South Coast Air Quality Management District, TSCA - Toxic Substances Control Act, IATA - International Air Transport Association, IMO - International Maritime Organization, DOT - Department of Transportation, NA - Not applicable, NOT ESTAB - Not established, N.A.V. - Not available, RQ - Reportable quantity, WT - Weight, MG/CU M - Milligrams per cubic meter, G/L - Grams per liter, MM - Millimeters, MPPCF - Millions of particles per cubic foot, PPM - parts per million, PPT - parts per thousand, TCC/PM - Tag closed cup / Pensky-Martens, PB - Lead, PEL - Permissible exposure level, TWA - Time Weighted Average, STEL - Short term exposure limit, C - Celsius, F - Fahrenheit.

Disclaimer:
The data on this sheet represent typical values. Since application variables are a major factor in product performance, this information should serve only as a general guide. Valspar assumes no obligation or liability for use of this information. UNLESS VALSPAR AGREES OTHERWISE IN WRITING, VALSPAR MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AND DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR FREEDOM FROM PATENT INFRINGEMENT. VALSPAR WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. Your only remedy for any defect in this product is the replacement of the defective product, or a refund of its purchase price, at our option. This MSDS contains additional information required by the state of Pennsylvania.

Preparation Information:

Prepared By:	Regulatory Affairs Department
Print date:	12/Jan/2012
Revision Date:	12/May/2010



MATERIAL SAFETY DATA SHEET

(MSDS)

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: XTREME 4.4 VOC FAST ACTIVATOR **HMIS CODES: H F R P**
5 STAR Part Number: FS-5186-QT **2*3 0 G**

SECTION I - MANUFACTURER IDENTIFICATION

MANUFACTURED FOR : ABI/Autobody Brands International
A division of IAMG/International Autobody Marketing Group
ADDRESS : 1505 North Hayden Road, Ste. 111
Scottsdale, AZ 85257
Web Site: www.autobodybrands.com
EMERGENCY PHONE : (800)424-9300 (24 hrs.) DATE PRINTED : 3/15/2012
INFORMATION PHONE : 1-87-REFINISH PREPARER NAME: MSDS Coordinator

SECTION II - HAZARDOUS INGREDIENTS/SARA III INFORMATION

REPORTABLE COMPONENTS	CAS NUMBER	VAPOR PRESSURE mm Hg @ TEMP		WEIGHT PERCENT
n-BUTYL ACETATE	123-86-4	8.4	68 F	38.4521
ACGIH TLV TWA: 150 ppm				
ACGIH TLV STEL: 200 ppm				
OSHA VPEL TWA: 150 ppm				
OSHA VPEL STEL: 200 ppm				
hexamethylene diisocyanate polymer	28182-81-2	N/A	N/A	25%-35%
isocyanate polymer	53880-05-0			15%-25%
light aromatic petroleum solvent	64742-95-6	4	68 F	0%-10%
* pseudocumene	95-63-6	1.58	68 F	2.89
ACGIH TLV: 25 ppm TWA				
OSHA PEL: 25 ppm TWA				
NIOSH: 25 ppm TWA				
NIOSH: 125 mg/m3 TWA				
XYLENES	1330-20-7	5.10	68 F	.35
ACGIH TWA 100 ppm				
ACGIH STEL 150 ppm				
OSHA TWA 100 ppm				
OSHA STEL 150 ppm				
(N120) hexamethylene diisocyanate	822-06-0	0.0003	77 F	<1%
ACGIH TLV: 0.005 ppm TWA				
ACGIH TLV: 0.34 mg/m3 TWA				
NIOSH: 0.005 ppm TWA				
NIOSH: 35 ug/m3 TWA				

* Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.
N/A

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING RANGE: 201.2 F - 334.4 F **SPECIFIC GRAVITY (H2O=1): 1.01**
VAPOR DENSITY: Heavier than air **EVAPORATION RATE: Slower than ether**
V.O.C. grams/liter: 469.82 **V.O.C. lbs./gal.: 3.92**
SOLUBILITY IN WATER: Insoluble **SOLIDS BY VOLUME: 46.422**
APPEARANCE AND ODOR: Clear liquid with organic solvent odor

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 78 F **METHOD USED: TAGCC**
FLAMMABLE LIMITS IN AIR BY VOLUME- LOWER: 0.90 UPPER: 15.0

EXTINGUISHING MEDIA: Foam, Carbon Dioxide, Dry Chemical, Water Fog

SPECIAL FIREFIGHTING PROCEDURES
Full protective equipment, including self contained breathing apparatus, is recommended. Water from fog nozzles may be used to cool closed containers to prevent pressure build up.

UNUSUAL FIRE AND EXPLOSION HAZARDS
When heated above flashpoint, emits flammable vapors which, when mixed with air, can burn or become explosive. Fine mists or sprays may be flammable below the flash point.

========== SECTION V - REACTIVITY DATA ==========

STABILITY: Stable
CONDITIONS TO AVOID
Avoid all sources of ignition

INCOMPATIBILITY (MATERIALS TO AVOID)
Water, strong acids, bases, alcohols, amines and oxidizing materials

HAZARDOUS DECOMPOSITION OR BYPRODUCTS
Carbon Dioxide, Carbon Monoxide and Isocyanate vapors.

HAZARDOUS POLYMERIZATION: Will not occur

========== SECTION VI - HEALTH HAZARD DATA ==========

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE
May cause nose and throat irritation. Repeated and prolonged exposure to organic solvents may lead to permanent brain and nervous system damage. Eye watering, headaches, nausea, dizziness, and loss of coordination are signs that solvent levels are too high. Exposure to isocyanates may cause sensitization. This effect may be permanent. Repeated exposure to isocyanates may result in a decrease in lung function that may be permanent.
Individuals with breathing problems or have had a prior reaction to isocyanates must not be exposed to this product. If affected by inhalation, remove to fresh air. If breathing difficulty persists, consult a physician.

SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE
May cause irritation or burning of the eyes. Repeated and prolonged skin contact may cause skin irritation or dermatitis. In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes; call a physician. In case of skin contact, wash with soap and water. If irritation occurs, contact a physician.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE
Gastrointestinal distress. In the unlikely event of ingestion, call a physician immediately and have the names of all ingredients available.

HEALTH HAZARDS (ACUTE AND CHRONIC)
ACUTE- Dizziness, irritation of the respiratory tract, weakness, nausea, or possible narcosis or even asphyxiation. May be accompanied by coughing, labored breathing, tightness in chest, and asthma-like symptoms.
CHRONIC- Overexposure to isocyanates can lead to lung sensitation and allergic respiratory reaction. Effects may be

permanent. Allergic reaction may occur in sensitized individuals at below recommended exposure limit. Reports have linked organic solvents with brain and nervous system damage.

CARCINOGENICITY: NTP CARCINOGEN: No IARC MONOGRAPHS: No
To the best of our knowledge this material contains no known carcinogens

OSHA REGULATED: Yes

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE
Do not use this product if you have chronic lung or breathing problems, or if you have ever had a reaction to isocyanates.

EMERGENCY AND FIRST AID PROCEDURES
If ingestion, or any type of overexposure or symptoms of overexposure occur during the use of this product, contact a poison control center, emergency room or physician immediately; have material safety data sheet available.

========== SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE ==========

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Remove all sources of ignition (sparks, flames, and hot surfaces). Avoid breathing vapors. Ventilate area. Remove with an inert absorbent and non-sparking tools.

WASTE DISPOSAL METHOD
Dispose in accordance with state ,federal and local regulations. Do not incinerate closed containers.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Keep containers tightly closed in a cool, dry, well ventilated area away from all possible ignition sources. Store large quanties of material in buildings designed for the storage of flammable liquids.

OTHER PRECAUTIONS
Employees should be trained in safety measures that should be taken when using this product.

========== SECTION VIII - CONTROL MEASURES ==========

RESPIRATORY PROTECTION
Avoid breathing vapors or spray mist. Wear a properly fitted respirator approved by NIOSH/MSHA (TC-23c) for use with paints during application and until all vapors are exhausted. In confined areas, or where continuous spray operations are typical, or proper respirator fit is not possible, wear a positive-pressure supplied air respirator (TC-19c). In all cases follow respirator manufactures directions for respirator use. Do not allow anyone without protection into the painting area.

VENTILATION
Provide sufficient ventilation to keep contaminates below applicable OSHA requirements.

PROTECTIVE GLOVES
Neoprene gloves impervious to organic solvents are recommended.

EYE PROTECTION
Use safety eyewear designed to protect against liquid splash.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT

Impervious coveralls are recommended.

WORK/HYGIENIC PRACTICES

Eye wash and safety showers in the work place are recommended. Wash hands before eating and smoking.

========== SECTION IX - DISCLAIMER ==========

The information contained in this material safety data sheet is information from our suppliers and other sources. It is believed to be reliable. This data is not to be taken as a warranty or representation for which this company assumes legal responsibility.

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: X-TREME 4.4 VOC KLEARCOAT
5 STAR Part Number: FS-5185-G

HMIS CODES: H F R P
2*3 0 G

SECTION I - MANUFACTURER IDENTIFICATION

MANUFACTURED FOR : **ABI/Autobody Brands International**
A division of IAMG/International Autobody Marketing Group
ADDRESS : **1505 North Hayden Road, Ste. 111**
Scottsdale, AZ 85257
Web Site: **www.autobodybrands.com**
EMERGENCY PHONE : **(800)424-9300 (24 hrs.)** **DATE PRINTED : 3/15/2012**
INFORMATION PHONE : **1-87-REFINISH** **PREPARER NAME: MSDS Coordinator**

SECTION II - HAZARDOUS INGREDIENTS/SARA III INFORMATION

REPORTABLE COMPONENTS	CAS NUMBER	VAPOR PRESSURE mm Hg @ TEMP		WEIGHT PERCENT
acrylic polyol/polymer/resin	*******			25%-35%
ACETONE	67-64-1	185	68 F	22.4484
ACGIH TLV STEL: 750 ppm				
ACGIH TLV TWA: 500 ppm				
OSHA VPEL TWA: 750 ppm				
OSHA VPEL STEL: 1000 ppm				
methyl n-amyl ketone	110-43-0	2.14	68 F	16.0960
ACGIH TLV: 50 ppm TWA				
ACGIH TLV: 233 mg/m3 TWA				
OSHA VPEL: 100 ppm TWA				
* XYLENES	1330-20-7	5.10	68 F	14.7501
ACGIH TWA 100 ppm				
ACGIH STEL 150 ppm				
OSHA TWA 100 ppm				
OSHA STEL 150 ppm				
n-BUTYL ACETATE	123-86-4	8.4	68 F	9.69
ACGIH TLV TWA: 150 ppm				
ACGIH TLV STEL: 200 ppm				
OSHA VPEL TWA: 150 ppm				
OSHA VPEL STEL: 200 ppm				
* ETHYL BENZENE	100-41-4	7.10	68 F	3.46
100 PPM TLV-TWA 100 PPM PEL-TWA				
5510 mg/Kg RABBIT DERMAL-LD50				
125.0000 PPM 15 MINUTES TLV-STEL				
125.0000 PPM 15 MINUTES PEL-STEL				
3500 mg/Kg RAT ORAL-LD50				
STYRENE MONOMER	100-42-5	4.5	68 F	.2427
OSHA PEL: 100 ppm				
ACGIH TLV: 20 ppm				
STEL: 40 ppm				
2-(2-hydroxy-3,5-di-(tert)-amylphenyl)benzotriazole	25973-55-1	N/A		0%-10%

* Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.
N/A

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING RANGE: 133 F - 300 F
VAPOR DENSITY: Heavier than air
V.O.C. grams/liter: 546.03
SOLUBILITY IN WATER: Insoluble
SPECIFIC GRAVITY (H2O=1): .91
EVAPORATION RATE: Slower than ether
V.O.C. lbs./gal.: 4.56
SOLIDS BY VOLUME: 26.332
APPEARANCE AND ODOR: Clear liquid with organic solvent odor

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: -4.0 F **METHOD USED: TAGCC**
FLAMMABLE LIMITS IN AIR BY VOLUME- LOWER: 1.0 UPPER: 15.0

EXTINGUISHING MEDIA: Foam, Carbon Dioxide, Dry Chemical, Water Fog

SPECIAL FIREFIGHTING PROCEDURES
Full protective equipment, including self contained breathing apparatus, is recommended. Water from fog nozzles may be used to cool closed containers to prevent pressure build up.

UNUSUAL FIRE AND EXPLOSION HAZARDS
When heated above flashpoint, emits flammable vapors which, when mixed with air, can burn or become explosive. Fine mists or sprays may be flammable below the flash point.

SECTION V - REACTIVITY DATA

STABILITY: Stable
CONDITIONS TO AVOID
Avoid all sources of ignition

INCOMPATIBILITY (MATERIALS TO AVOID)
Strong oxidizing materials

HAZARDOUS DECOMPOSITION OR BYPRODUCTS
May produce hazardous fumes when heated to decomposition. Fumes may contain Carbon Monoxide and Carbon Dioxide.

HAZARDOUS POLYMERIZATION: Will not occur

SECTION VI - HEALTH HAZARD DATA

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE
May cause nose and throat irritation. Repeated and prolonged exposure to organic solvents may lead to permanent brain and nervous system damage. Eye watering, headaches, nausea, dizziness, and loss of coordination are signs that solvent levels are too high.
Individuals with breathing problems must not be exposed to this product. If affected by inhalation, remove to fresh air. If breathing difficulty persists, consult a physician.

SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE
May cause irritation or burning of the eyes. Repeated and prolonged skin contact may cause skin irritation or dermatitis. In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes; call a physician. In case of skin contact, wash with soap and water. If irritation occurs, contact a physician.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE
Gastrointestinal distress. In the unlikely event of ingestion, call a physician immediately and have the names of all

ingredients available.

HEALTH HAZARDS (ACUTE AND CHRONIC)

ACUTE- Dizziness, irritation of the respiratory tract, weakness, nausea, or possible narcosis or even asphyxiation. May be accompanied by coughing or labored breathing.
CHRONIC- Reports have linked organic solvents with brain and nervous system damage. Misuse of this product by deliberately concentrating and inhaling the contents may be harmful or fatal.

CARCINOGENICITY: NTP CARCINOGEN: No IARC MONOGRAPHS: Yes

PROPOSITION 65 STATEMENT: WARNING! This product contains a chemical or chemicals known to the state of California to cause cancer and/or birth defects or other reproductive harm.

OSHA REGULATED: Yes

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE

Do not use this product if you have chronic lung or breathing problems.

EMERGENCY AND FIRST AID PROCEDURES

If ingestion, or any type of overexposure or symptoms of overexposure occur during the use of this product, contact a poison control center, emergency room or physician immediately; have material safety data sheet available.

========== SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE ==========

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition (sparks, flames, and hot surfaces). Avoid breathing vapors. Ventilate area. Remove with an inert absorbent and non-sparking tools.

WASTE DISPOSAL METHOD

Dispose in accordance with state ,federal and local regulations. Do not incinerate closed containers.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep containers tightly closed in a cool, dry, well ventilated area away from all possible ignition sources. Store large quanties of material in buildings designed for the storage of flammable liquids.

OTHER PRECAUTIONS

Employees should be trained in safety measures that should be taken when using this product.

========== SECTION VIII - CONTROL MEASURES ==========

RESPIRATORY PROTECTION

Avoid breathing vapors or spray mist. Wear a properly fitted respirator approved by NIOSH/MSHA (TC-23c) for use with paints during application and until all vapors are exhausted. In confined areas, or where continuous spray operations are typical, or proper respirator fit is not possible, wear a positive-pressure supplied air respirator (TC-19c). In all cases follow respirator manufactures directions for respirator use. Do not allow anyone without protection into the painting area.

VENTILATION

Provide sufficient ventilation to keep contaminates below applicable OSHA requirements.

PROTECTIVE GLOVES
Neoprene gloves impervious to organic solvents are recommended.

EYE PROTECTION
Use safety eyewear designed to protect against liquid splash.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT
Impervious coveralls are recommended.

WORK/HYGIENIC PRACTICES
Eye wash and safety showers in the work place are recommended. Wash hands before eating and smoking.

SECTION IX - DISCLAIMER

The information contained in this material safety data sheet is information from our suppliers and other sources. It is believed to be reliable. This data is not to be taken as a warranty or representation for which this company assumes legal responsibility.

MATERIAL SAFETY DATA SHEET

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity

Product Name: Dura Build Gray
Product Numbers: 102273 and 102274
Product Use: Acrylic Primer Surfacer

Company

ITW Evercoat
a Division of Illinois Tool Works Inc.
6600 Cornell Road
Cincinnati, Ohio USA
Phone: 513-489-7600

Emergency Telephone Numbers:

CHEMTREC: 1-800-424-9300
CANUTEC: 1-613-996-6666

Prepared By: Safety Department

SECTION 2. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	EINECS Number	% (by weight)
Talc	14807-96-6	238-877-9	30 – 35
Toluene	108-88-3	203-625-9	25 – 30
Acrylic Resin	Proprietary	Proprietary	15 – 20
Isobutyl Acetate	110-19-0	203-745-1	5 – 10
Titanium Dioxide	13463-67-7	236-675-5	5 – 10
Isopropyl Alcohol	67-63-0	200-661-7	5 – 10
Limestone	471-34-1	207-439-9	1 – 5
Xylene	1330-20-7	215-535-7	1 – 5
Carbon Black	1333-86-4	215-609-9	0 – 2
Ethyl Benzene	100-41-4	202-849-4	0 – 2

OSHA Regulatory Status: This material is classified as hazardous under OSHA regulations.

SECTION 3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

WARNING! FLAMMABLE LIQUID AND VAPOR. VAPOR HARMFUL. CAUSES EYE, SKIN, NOSE AND THROAT IRRITATION.

Potential Health Effects

Acute Effects (Short Term):

Eye: Contact with liquid or vapor may result in irritation, redness, tearing, and blurred vision.

Skin: May cause mild skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, drying and cracking of skin, and skin burns.

Swallowing: Ingestion of this material may cause gastrointestinal irritation, nausea, diarrhea, and vomiting. Aspiration of this material into the lungs due to vomiting may produce chemical pneumonitis which can be fatal.

Inhalation: Excessive inhalation of vapors may cause nasal and respiratory irritation, acute nervous system depression, fatigue, weakness, nausea, headache, and dizziness. Symptoms usually occur at air concentrations higher than the recommended exposure limits (See Section 8).

Chronic Effects of Overexposure (Long Term):

Toluene: Possible birth defects hazard. Toluene may be harmful to the human fetus based on positive results with laboratory animals. Overexposure to Toluene has been suggested as a cause of the following effects in humans: cardiac sensitization, kidney damage. The substance may have effects on the central nervous system, resulting in decreased learning ability and psychological disorders.

Xylene: The substance may have effects on the central nervous system, resulting in decreased learning ability.

Cancer Information: The IARC has classified carbon black as a group 2B carcinogen (possibly carcinogenic to humans) based on experimental animal data. The IARC has classified ethyl benzene as a group 2B carcinogen (possibly carcinogenic to humans) based on the increase of kidney tumors in rats and an increase in lung and liver cancer in mice. This material may contain trace amounts of chemicals considered to be carcinogenic by OSHA (Benzene, IARC-Group 1)

Other Health Effects: NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

Primary Route(s) of Entry: Inhalation, Skin contact, Eye contact, Ingestion, Skin absorption.

SECTION 4. FIRST AID MEASURES

Eyes: Flush eyes gently with water for at least 15 minutes. Seek immediate medical attention.

Skin: Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

Swallowing: Consult a physician or poison control center immediately. DO NOT INDUCE VOMITING. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. If possible, do not leave individual unattended.

Inhalation: If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, oxygen may be benificial if administered by trained personnel.

SECTION 5. FIRE FIGHTING MEASURES

Flash Point: 40.0 °F (4.4 °C)
Explosive Limit: **Lower:** 1.0% **Upper:** 12.7%
Autoignition Temperature: 790.0 °F (421.0 °C)
OSHA Flammability Class: Flammable Liquid – Class IB

Hazardous Products of Combustion: May form toxic and corrosive gases: carbon dioxide, carbon monoxide and various hydrocarbons.

Fire and Explosion Hazards: Vapors are heavier than air and may travel along the ground or may be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electric motors, static discharge, or other ignition sources at locations distant from material handling point.

Extinguishing Media: Regular foam, carbon dioxide, dry chemical.

Fire Fighting Instructions: Water may be used to keep fire-exposed containers cool until fire is out. Wear a self-contained breathing apparatus NIOSH approved with a full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment.

NFPA Rating: Health - 2, Flammability - 3, Reactivity - 0

SECTION 6. ACCIDENTAL RELEASE MEASURES

In Case of Spill: Eliminate all sources of ignition such as flares, flames (including pilot lights), and electrical sparks. Ventilate the area. Wear proper protective equipment (Section 8). Avoid breathing vapors. Collect with an inert absorbant and dispose of properly.

SECTION 7. HANDLING AND STORAGE

Handling: All hazard precautions given in the data sheet must be observed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Use only with adequate ventilation. Do not breathe sanding dust, vapors or spray mist. Do not take internally. Close container after each use. **Keep out of reach of children.**

Storage: Store material in a cool, well-ventilated area. For maximum product quality, avoid prolonged storage at temperatures above 75°F (25°C). Do not use or store near heat, sparks, or open flame. Keep container tightly closed. Avoid contact with incompatible materials.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection: Chemical splash goggles in compliance with OSHA regulations are recommended.

Skin Protection: Protective gloves and proper clothing should be worn to prevent skin contact. Gloves should be made of neoprene or natural rubber. To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

Respiratory Protection: Use a NIOSH approved respirator designed to remove particulate matter and organic solvent vapors.

Engineering Controls: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below acceptable limits. Explosion-proof ventilation system is acceptable.

Exposure Guidelines:

Hazardous Ingredients	CAS Number	OSHA PEL/TWA	ACGIH TLV
Carbon Black	1333-86-4	3.5 mg/m^3	3.5 mg/m^3
Isobutyl Acetate	110-19-0	150 ppm	150 ppm
Isopropyl Alcohol	67-63-0	400 ppm	400 ppm
Limestone	471-34-1	15 mg/m^3	10 mg/m^3
Talc	14807-96-6	20 mppcf	2 mg/m^3
Titanium Dioxide	13463-67-7	15 mg/m^3	10 mg/m^3
Toluene	108-88-3	200 ppm	50 ppm
Ethyl Benzene	100-41-4	100 ppm	100 ppm
Xylene	1330-20-7	100 ppm	100 ppm

Mppcf- millions of particles per cubic foot of air N/E-Not Established

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point:	178 - 246 °F/ 81 - 118 °C	**Vapor Density:**	Heavier than air.
Specific Gravity / Density:	1.26/ 10.49 lbs/gal	**Percent Volatiles by weight:**	40 - 45 %
Evaporation Rate:	Slower than ethyl ether.	**Physical State:**	Liquid
Melting Point:	-139 °F / -95 °C (toluene)	**pH:**	Neutral
Odor:	Sharp, aromatic odor.	**Solubility:**	Insoluble in water.
Vapor Pressure:	33 mmHg @ 68 °F / 20 °C (isopropyl alcohol)	**Appearance:**	Gray Liquid
Octanol/Water Partition Coeff.:	Unknown		
VOC (as packaged -less exempts and water):	4.46 lbs/gal or 535 g/L	**VOC (as applied*- less exempts and water):**	4.27 lbs/gal or 512 g/L
Percent Solids by weight – as packaged:	57.5 %	**Percent Solids by weight – as applied*:**	32.6 %
VHAP Content by weight – as packaged:	32.5 %	**VHAP Content by weight – as applied*:**	14.4 %

*NOTE: VOC as applied per mixing directions 1:1.25 Ready to Spray Dilution with Universal VOC Reducer.

SECTION 10. STABILITY AND REACTIVITY

Hazardous Polymerization: Product will not undergo hazardous polymerization.
Hazardous Decomposition: May form: carbon dioxide, carbon monoxide, nitrogen oxides and various hydrocarbons.
Chemical Stability: Stable under normal handling conditions.
Incompatibility: Avoid contact in uncontrolled conditions with: strong oxidizing agents, acids, isocyanates, alkalis and halogens.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Toxicity Data:

Ingredient	CAS #	LD_{50} Oral-Rat	LC_{50} Inhalation-Rat
Toluene	108-88-3	5,000 mg/kg	N/E
Isobutyl Acetate	110-19-0	13,400 mg/kg	N/E
Isopropyl Alcohol	67-63-0	5,045 mg/kg	N/E

Xylene	1330-20-7	4,300 mg/kg	5,000 ppm/4H
Ethyl Benzene	100-41-4	3,500 mg/kg	N/E

Carcinogenicity: See Cancer Information, Section 3.
Mutagenicity: No significant evidence found.
Teratogenicity: Possible birth defects hazard. Toluene may be harmful to the human fetus based on positive results with laboratory animals.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity: This material should not be released to sewage, draining systems or any body of water exceeding concentrations of approved limits under applicable regulations and permits.

SECTION 13. DISPOSAL CONSIDERATION

RCRA Hazardous Waste: This material as supplied, if discarded, would be regulated as a hazardous waste under RCRA (40 CFR 261). Dispose of in accordance with applicable federal, state, and local regulations.

RCRA Hazard Class: This material would be regulated as EPA Hazardous Waste Number D001 based on the characteristic of ignitablity.

SECTION 14. TRANSPORT INFORMATION

DOT Description: The DOT Classification for shipping is dependant on quantity, type of packaging or method of shipment.

SECTION 15. REGULATORY INFORMATION

US Federal Regulations

TSCA (Toxic Substances Control Act) Status
TSCA (USA) The intentional ingredients of this product are listed.

CERCLA RQ - 40 CFR 302.4(a)

Component	RQ (lbs.)
Toluene	1000
Isobutyl Acetate	5000
Ethyl Benzene	1000
Xylene	100

SARA Title III: Section 302- Extremely Hazardous Substances
None

SARA Title III: Section 313- Toxic Chemical List

Component	CAS Number	Percentage
Toluene	100-42-5	25 - 30 %
Isopropyl Alcohol	67-63-0	5 - 10 %
Xylene	1330-20-7	1 – 5 %
Ethyl Benzene	100-41-4	0 – 2 %

EPA Hazardous Air Pollutants (HAPS) 40 CFR 63

Component	CAS Number	Percentage
Toluene	100-42-5	29 %
Xylene	1330-20-7	3 %
Ethyl Benzene	100-41-4	0.5 %

International Regulations

EINECS (Europe) The intentional ingredients of this product are listed.
DSL (Canada) The intentional ingredients of this product are listed.
WHMIS Classification
Health Hazard: D2A, D2B (Other Toxic Effects)
Physical Hazard: B2 (Flammable)

State and Local Regulations
California Proposition 65:
This product contains the following chemical(s) known to the state of California to cause cancer. CARBON BLACK, BENZENE

This product contains the following chemical(s) known to the state of California to cause birth defects or reproductive harm. TOLUENE, BENZENE

SECTION 16. OTHER INFORMATION

HMIS Rating: Health – 2*, Flammability - 3, Reactivity - 0
Key- 0=Least, 1=Slight, 2=Moderate, 3=Serious, 4=Extreme, *=Chronic Effects

Other Precautions for Use: If product is to be sanded, the OSHA PEL/TLV of 10 mg/m^3 for nuisance dust should be observed.

Additional Information may be obtained by calling the Evercoat MSDS Hotline at 1-800-729-7600.

NOTICE: The information accumulated herein is believed to be correct as of the date issued from sources, which are believed to be accurate and reliable. Since it is not possible to anticipate all circumstances of use, recipients are advised to confirm, in advance of need, that the information is current, applicable and suitable to their circumstances.

INDUSTRIAL PROCESSES SECTION

Field Inspection Report

Date: 3/23/06

PA#: 397-05R

ENF:

Company Name: KENDI IRON WORKS

Address: 236 JOHNSON AVE Flr#: ____ Boro: ____

Inspected By: A. ODUBA Plant Rep.: MR ZARDEC PRES.

Equipment Description: FOUR (4) STATION WELDING IRON

Agreement with Filing? Yes ✓ No ___ Sketch:

Conditions Observed: Exhaust working properly

Emission Point: 1 Receptor Distances: ____ Nuisance/Possibility: ____

Observed Emissions: No Emissions observed

Comments: OK FOR T.C.O.

2/10/92
sld

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Date Issued: 10/11/07

DM 4-22-09

THE CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Environmental Compliance
59-17 Junction Boulevard, 9th Floor, Flushing, New York 11373-5108
Records Control (718) 595-3855

Emily Lloyd, Commissioner

Robert C. Avaltroni, Deputy Commissioner

DISPLAY CERTIFICATE ON PREMISES NEAR EQUIPMENT
"NOT VALID WITHOUT OFFICIAL SEAL"

Application PA#:	PB039705R
Date Inspected:	03-23-09
Date Issued:	
Expiration Date:	04-18-12

E.P.#:	1
E.R.:	B

P.E.

OWNER
ICENDI IRON WORKS INC.
236 JOHNSON AVENUE
BROOKLYN N.Y. 11206

DEP Premise Address: 236 JOHNSON AVENUE Flr.#: 1 Boro: BROOKLYN

TRIENNIAL CERTIFICATE OF OPERATION

The holder of this Certificate is responsible for the use of the equipment in accordance with all applicable requirements and provisions of the New York City Air Pollution Control Code. The Commissioner may suspend or revoke this Certificate for willful or continued violation of the Code. Any purported or attempted transfer of...a Certificate of Operation...from one location to another or from one piece of equipment to another automatically revokes the Certificate. Sec. 24-135 NYC Air Pollution Code.

Description of Installation: IRON WORKS

Used: 8 Hrs/Day 250 Days/Year

Description of Equipment: THREE (3) WELDING STATIONS

Exhaust System: ONE FAN, 3HP MOTOR, 1725 RPM 4000CFM AT 10"F (THRU DUCT EXHAUST SYSTEM ABOVE THE TABLES

Control Device: NONE

RECERTIFICATION

A. Adusa

Raphael Hodge, P.E.,
Director of Engineering
For the Commissioner

Application for Renewal of this Certificate of Operation must be filed at the Department of Environmental Protection no later than ninety (90) days prior to its Expiration Date

Should significant scientific evidence from a recognized institution should result in a decision by NYSDEC that lower ambient guideline concentrations must be established, it may be necessary to reduce emissions from this source (s) prior to the expiration of this Triennial Certificate of Operation

AR 505-A - (REV. 9/02)

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Application PA#: PB039705

Inspected: 04/18/06

E.R.:

[Browsing] PB039705 R Override

Reports

Original Application Date: 09/19/05

Facility: KENDI IRON WORKS FacilityNo: Y20412

236 JOHNSON STRET

BROOKLYN NY 11206

Application Type: REGISTRATION

Trans Type: CER

Status: Active

Owner: KENDI IRON WORKS

PE/RA: ANTHONY SOMEFUN, P.E.

Rep Name: ZIV ZADOCK

Installer

Maintainer

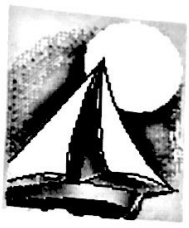
	Issue Dates	Expire Dates	Cancel Date
Work Permit	09/30/05	03/30/06	
Cert/Reg			

Folder Location: File Room

Superseded by:

Supersedes:

10/04/05



Next Screen ...

Save Edits

Cancel Edits

Close

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Christopher Ward, Commissioner

Bureau of Environmental Compliance
59-17 Junction Boulevard, 9th Floor, Corona, New York 11368-5107
Records Control (718) 595 - 3855

Robert C. Avaltroni, Deputy Commissioner

APPLICATION TO RENEW OPERATING CERTIFICATE

DEP AIR PERMITTING

2006 APR 20 P 5:55

DATE:	4/18/06
INSTALLATION:	P B039705K
FEE ENCLOSED:	$ 250.

PLEASE TYPE OR PRINT ALL INFORMATION. RETURN ORIGINAL OF THIS FORM TO EXPEDITE PROCESSING. MAKE CHECK OR MONEY ORDER PAYABLE TO: DEPARTMENT OF ENVIRONMENTAL PROTECTION

Premise Address: 236 JOHNSON AVE., BROOKLYN (BORO) 11206-2809 (ZIP CODE)

Name, address and telephone number of superintendent, contractor or other authorized agent who can be contacted to schedule inspection, provide access and operate equipment to demonstrate compliance.

Name: ZADOK ZVI (AUTHORIZED AGENT / SUPERINTENDENT) Telephone: 718 821-2722

Address: _____ Apt.

I request RENEWAL of the OPERATING CERTIFICATE for the equipment which is the subject of the above referenced installation number and which has been inspected by the Owner / Owner's Agent and IS READY for inspection by the Bureau of Environmental Compliance.

I am aware that if there is exposed friable asbestos in a damaged or deteriorated condition in the room/area where the equipment is located the inspection will not be completed and a NOTICE OF DISAPPROVAL will be issued.

I hereby affirm under penalty of perjury that the information provided on this form is true to the best of my knowledge and belief and that the equipment will be operated in accordance with the requirements of the N.Y.C. Air Pollution Control Code and acknowledge that any alteration of the equipment will be done in accordance with the N.Y.C. Air Pollution Control Code and appropriate requirements of other agencies. I recognize that false statements are punishable as a misdemeanor pursuant to Section 24 - 190 of the N.Y.C. Air Pollution Control Code and Section 210 -45 of the Penal Law.

OWNER / REPRESENTATIVE'S SIGNATURE — TITLE: PRESIDENT — DATE: 4/18/06

OWNER'S NAME: ZADOK ZVI

OWNER'S TELEPHONE: 718-821-2722

OWNER'S ADDRESS

Fee $ 250 Receipt No. 484475

B.E.C. Clerk

P.E. /R.A. SEAL & SIGNATURE

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59-17 Junction Boulevard, 9th Floor, Corona, New York 11368-5107
JOEL A. MIELE SR., P.E., Commissioner

ROBERT C. AVALTRONI
Deputy Commissioner

Bureau of Air Noise & Hazardous Materials

ORIGINAL – KEEP IN FILE

Date:

PB0397-05R
(Installation Number)

(EN Number)

Re: Kendi Iron Works, 236 Johnsop Ave. Street, Brooklyn, NY 11206
(Premise Address) (Boro)

PROFESSIONAL CERTIFICATION

Being duly mindful of my responsibilities as a Licensed Professional Engineer in the State of New York and acting as Designated Agent for the applicant, I hereby certify that the application, plans and all supplementary documents submitted in connection with this filing are complete and fully comply with all applicable laws, codes, rules, regulations and directives of the Department of Environmental Protection, Bureau of Air, Noise & Hazardous Materials of the City of New York in effect at the time filed.

Fee $ 280 Receipt No. 476255

B.E.C. Clerk

P.E. Seal & Signature

FOR DEP USE ONLY	

Company Name of Installer: LEGALIZATION

Company Address:

Town or Boro **State:** **Zip:**

Installer's Name: **Title:**

Installer's Signature:

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INDUSTRIAL PROCESSES DIVISION
ENVIRONMENTAL RATING REPORT
SUMMARY OF POINTS OF EMISSION

ORIGINAL - KEEP IN FILE

EN NO. _____

Premise Identification No.

1. **Company Name** Kendi Iron Works
2. **Premise Address** 236 Johnson Ave. Street, Brooklyn, NY **Zip** 11206
3. **Mailing Address** Same as above **Zip** _____

   Telephone No. (718) 821-2722
4. **Name of Person Preparing Report** Anthony Somefun
5. **Address** 650 Lenox Avenue, New York, NY **Zip** 10037
6. **Telephone No.** (212)690-1176

7. SEC.	LOT	BLOCK

8. Emission Point No.	9. Operation Producing Emission	10. Environmental Rating Proposed	Assigned By BAR
I0001	Metal Fabrication	~~B~~	C

This Report is: **New** ☒ **Revision** ☐ **Addendum** ☐

11. **Signature** _____ **Title** Agent **Date** 9/22/200

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ORIGINAL - KEEP IN FILE

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

PROCESS, EXHAUST OR VENTILATION SYSTEM

APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

1. NAME OF OWNER / FIRM	Kendi Iron Works
2. NUMBER AND STREET ADDRESS	236 Johnson Street
3. CITY - TOWN - VILLAGE	Brooklyn
4. STATE	NY
5. ZIP	11206
6. OWNER CLASSIFICATION	E. ☐ STATE H. ☐ HOSPITAL; A. ☐ COMMERCIAL C. ☐ UTILITY F. ☐ MUNICIPAL I. ☐ RESIDENTIAL; B. ☐ INDUSTRIAL D. ☐ FEDERAL G. ☐ EDUC. INST. J. ☐ OTHER
7. NAME & TITLE OF OWNERS REPRESENTATIVE	Ziv Zadock, President
8. TELEPHONE	718 821-2722
9. NAME OF AUTHORIZED AGENT	Anthony Somefun
10. NUMBER AND STREET ADDRESS	650 Lenox Avenue
11. CITY - TOWN - VILLAGE	New York
12. STATE	NY
13. ZIP	10037
14. TELEPHONE	212 690-1[illegible]
15. FACILITY NAME (IF DIFFERENT FROM OWNER / FIRM)	
16. FACILITY LOCATION (NUMBER AND STREET ADDRESS)	
17. CITY - TOWN - VILLAGE	
18. ZIP	
19. BUILDING NAME OR NUMBER	
20A. FLOOR NAME OR NUMBER	First
21. START UP DATE (MO / YR)	10 / 05
22. DRAWING NUMBERS OF PLANS SUBMITTED	1 of 1
23. PERMIT TO CONSTRUCT	A. ☐ NEW SOURCE B. ☐ MODIFICATION
24. CERTIFICATE TO OPERATE	A. ☐ NEW SOURCE C. ☐ EXISTING SOURCE B. ☐ MODIFICATION

NEW YORK STATE
ANTHONY SOMEFUN
F-039[illegible]
PROFESSIONAL [illegible]

SECTION B

25. EMISSION POINT ID.	26. GROUND ELEVATION (FT.)	27. HEIGHT ABOVE STRUCTURES (FT.)	28. STACK HEIGHT (FT.)	29. INSIDE DIMENSIONS (IN.)	30. EXIT FLOW RATE (ACFM)	31. EXIT FLOW TEMP. (°F)	32. SOURCE CODE	33A. HRS / DAY	33B. DAYS / YR	34. % OF OPERATION BY SEASON: Winter	Spring	Summer	Fall
1 0 001							1410	8	250	25	25	25	25

SECTION C

35. DESCRIBE PROCESS OR UNIT:	
1.	Fabrication and welding of metals
2.	
3.	
4.	
5.	
6.	
7.	
8.	

SECTION D

40. EMISSION CONTROL EQUIPMENT ID.	41. CONTROL TYPE	44. MANUFACTURER'S NAME AND MODEL NUMBER	45. DISPOSAL METHOD	46. DATE INSTALLED MONTH / YEAR	47. USEFUL LIFE
42.	43.		48.	/	49.
50.	51.		52.	/	53.

SECTION E

CALCULATIONS

SECTION F

54. CONTAMINANT NAME	55. CAS NUMBER	56. INPUT OR PRODUCTION	57. UNIT	58. EMI. FACTOR	59. EMISSIONS ACTUAL	60. UNIT	61. ROM EST.	62. PERMISSIBLE	63. % CONTROL EFFICIENCY	64. HOURLY EMISSIONS (LBS/HR) BFP	65. ACTUAL	66. ANNUAL EMISSIONS (LBS/YR) ACTUAL	67. NP	68. PERMISSIBLE
54. Total Particulat	NY149 00 0	0		C	.002	1	9		0	.002	.002	4	0	.009
69.	70. - -	71.	72.	73.	74.	75.	76.	77.	78.	79.	80.	81.	82.	83.
84.	85. - -	86.	87.	88.	89.	90.	91.	92.	93.	94.	95.	96.	97.	98.
99.	100. - -	101.	102.	103.	104.	105.	106.	107.	108.	109.	110.	111.	112.	113.
114.	115. - -	116.	117.	118.	119.	120.	121.	122.	123.	124.	125.	126.	127.	128.
129.	130. - -	131.	132.	133.	134.	135.	136.	137.	138.	139.	140.	141.	142.	143.

SECTION G

SOLID FUEL TYPE	SOLID FUEL TONS / YR	SOLID FUEL % S	LIQUID FUEL TYPE	LIQUID FUEL THOUSANDS OF GALLONS/YR	LIQUID FUEL % S	GAS TYPE	GAS THOUSANDS OF CF/YR	GAS BTU/CF
144.	145.	146.	147.	148.	149.	150.	151.	152.

153. APPLICABLE RULE	154. APPLICABLE RULE
212	

Upon completion of construction sign the statement listed below and forward to the appropriate field representative

THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS.

155. SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT | DATE

156. LOCATION CODE	157. FACILITY ID. NO.	158. U.T.M. (E)	159. U.T.M. (N)	160. SIC NUMBER	161. DATE APPL. RECEIVED	162. DATE APPL. REVIEWED	163. REVIEWED BY:
				1799	09/26/05	09/30/05	M. Tzoulas

PERMIT TO CONSTRUCT

164. DATE ISSUED	165. EXPIRATION DATE	166. SIGNATURE OF APPROVAL	167. FEE
09/30/05	09/30/05	M. Tzoulas	

168.
1. DEVIATION FROM APPROVED APPLICATION SHALL VOID THIS PERMIT
2. THIS IS NOT A CERTIFICATE TO OPERATE
3. TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

CERTIFICATE TO OPERATE

173. 1. ☐ INSPECTED BY _____ DATE _____

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A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 78-11-12 BEFORE ANSWERING ANY QUESTION

WHITE - REGIONAL OFFICE
WHITE - FIELD REP.
YELLOW - APPLICANT

PROCESS, EXHAUST OR VENTILATION SYSTEM

APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

SECTION A

1. NAME OF OWNER / FIRM: Kendi Iron Works
9. NAME OF AUTHORIZED AGENT: Anthony Somefun
10. TELEPHONE: 212 690-1176
19. FACILITY NAME (IF DIFFERENT FROM OWNER / FIRM):
2. NUMBER AND STREET ADDRESS: 236 Johnson Ave-Street
11. NUMBER AND STREET ADDRESS: 650 Lenox Avenue
20. FACILITY LOCATION (NUMBER AND STREET ADDRESS):
3. CITY - TOWN - VILLAGE: Brooklyn
4. STATE: NY
5. ZIP: 11206
12. CITY - TOWN - VILLAGE: New York
13. STATE: NY
14. ZIP: 10037
21. CITY - TOWN - VILLAGE:
22. ZIP:
23. BUILDING NAME OR NUMBER:
24. FLOOR NAME OR NUMBER: First
6. OWNER CLASSIFICATION: A. ☐ COMMERCIAL B. ☑ INDUSTRIAL C. ☐ UTILITY D. ☐ FEDERAL E. ☐ STATE F. ☐ MUNICIPAL G. ☐ EDUC. INST. H. ☐ HOSPITAL I. ☐ RESIDENTIAL J. ☐ OTHER
15. NAME OF PERSON OR FIRM PREPARING APPLICATION:
16. R.V.S. P.E. OR ARCHITECT LICENSE NO.:
17. TELEPHONE:
25. START UP DATE: MO 10 / YR 05
26. DRAWING NUMBERS OF PLANS SUBMITTED: 1 of 1
7. NAME & TITLE OF OWNER'S REPRESENTATIVE: Ziv Zadock, President
8. TELEPHONE: 718 821-2722
18. SIGNATURE OF OWNER OR AUTHORIZED REPRESENTATIVE (BY WHOM APPLICATION IS SUBMITTED):
27. PERMIT TO CONSTRUCT: A. ☐ NEW SOURCE B. ☐ MODIFICATION
28. CERTIFICATE TO OPERATE: A. ☐ NEW SOURCE B. ☐ MODIFICATION C. ☐ EXISTING SOURCE

SECTION B

29a. EMISSION POINT ID.	29b. GROUND ELEVATION (FT.)	31. HEIGHT ABOVE STRUCTURES (FT.)	32. STACK HEIGHT (FT.)	33. INSIDE DIMENSIONS (IN.)	34. EXIT VELOCITY (FT./SEC.)	35. EXIT FLOW RATE (ACFM)	37. SOURCE CODE	38. HRS / DAY	39. DAYS / YR	40. % OPERATION BY SEASON: Winter	Spring	Summer	Fall
I D 001					0039		1410	8	250	25	25	25	25

SECTION C

41. DESCRIBE PROCESS OR UNIT:
1. Fabrication and welding of metals
3.
5.
7.
4.
6.
8.

SECTION D

42. EMISSION CONTROL EQUIPMENT I.D.	43. CONTROL TYPE	44. MANUFACTURER'S NAME AND MODEL NUMBER	45. DISPOSAL METHOD	46. DATE INSTALLED MONTH / YEAR	47. USEFUL LIFE
48.	49.	50.	51.	52. /	53.

SECTION E

CALCULATIONS

SECTION F

CONTAMINANT NAME	CAS NUMBER	56. INPUT OR PRODUCTION	57. UNIT	58. EMIS. FACTOR	EMISSIONS 59. ACTUAL	60. UNIT	61. ROW DET.	62. PERMISSIBLE	63. % CONTROL EFFIC'CY	HOURLY EMISSIONS (LBS/HR) 64. EPP	65. ACTUAL	ANNUAL EMISSIONS (LBS/YR) 66. ACTUAL	67. 10³	68. PERMISSIBLE
54. Total Particulat	55. NY149 00	0		C	.002	1	9		0	.002	.002	4	0	.002
69.	70. - -	71.	72.	73.	74.	75.	76.	77.	78.	79.	80.	81.	82.	83.
84.	85. - -	86.	87.	88.	89.	90.	91.	92.	93.	94.	95.	96.	97.	98.
99.	100. - -	101.	102.	103.	104.	105.	106.	107.	108.	109.	110.	111.	112.	113.
114.	115. - -	116.	117.	118.	119.	120.	121.	122.	123.	124.	125.	126.	127.	128.
129.	130. - -	131.	132.	133.	134.	135.	136.	137.	138.	139.	140.	141.	142.	143.

SECTION G

SOLID FUEL TYPE	SOLID FUEL TONS / YR	% S	LIQUID FUEL TYPE	LIQUID FUEL THOUSANDS OF GALLONS/YR	% S	GAS TYPE	GAS THOUSANDS OF CF/YR	BTU/CF
144.	145.	146.	147.	148.	149.	150.	151.	152.

APPLICABLE RULE	APPLICABLE RULE
153. 212	154.

155. SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT | DATE

Upon completion of construction sign the statement listed below and forward to the appropriate field representative

THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS.

156. LOCATION CODE	157. FACILITY ID. NO.	158. U.T.M. (E)	159. U.T.M. (N)	160. SIC NUMBER	161. DATE APPL. RECEIVED	162. DATE APPL. REVIEWED	163. REVIEWED BY:
				1799	09/26/05	09/30/05	M. Torab

PERMIT TO CONSTRUCT

164. DATE ISSUED	165. EXPIRATION DATE	166. SIGNATURE OF APPROVAL	167. FEE
09/30/05	09/30/05	M. Torab	

168.
1. DEVIATION FROM APPROVED APPLICATION SHALL VOID THIS PERMIT
2. THIS IS NOT A CERTIFICATE TO OPERATE
3. TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

CERTIFICATE TO OPERATE

169. DATE ISSUED	170. EXPIRATION DATE	171. SIGNATURE OF APPROVAL	172. FEE
/ /	/ /		

173.
1. ☐ INSPECTED BY _____ DATE _____
2. ☐ INSPECTION DISCLOSED DIFFERENCES AS BUILT VS. PERMIT. CHANGES INDICATED ON FORM
3. ☐ ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4. ☐ APPLICATION FOR C.O. DENIED _____ DATE _____ INITIALED

AGENCY USE ONLY

174. SPECIAL CONDITIONS:
1. PB0397-05R
2.
3.
4.
5.
6.
7. M.T.-E093
8.

AGENCY USE ONLY

76-19-3

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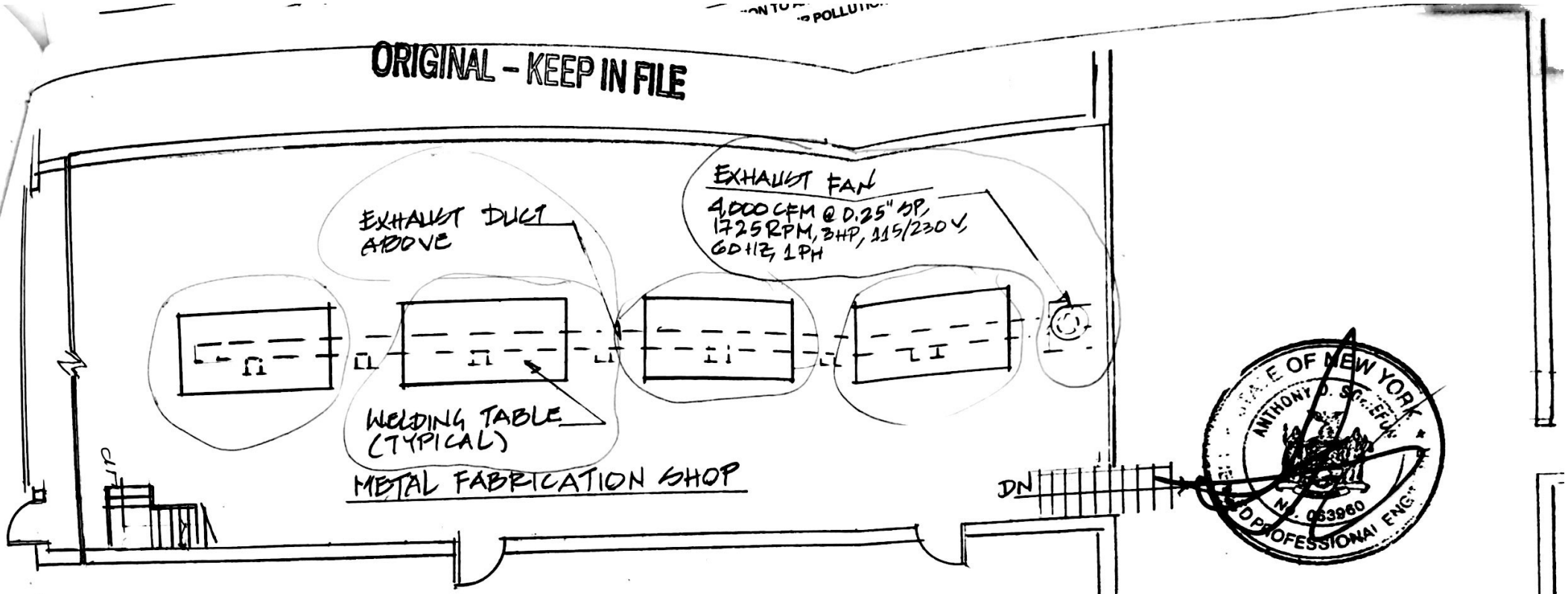
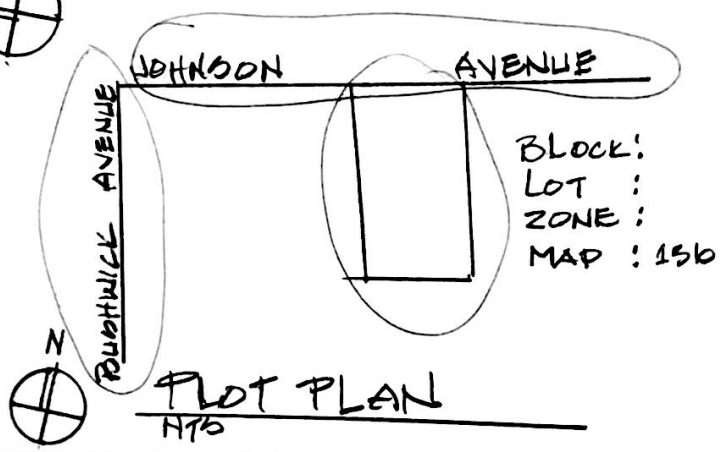
ORIGINAL - KEEP IN FILE



FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"



PLOT PLAN
NTS

APPROVED for construction in accordance with Application, Ammendment(s) and Work Permit No.
PB0397-05R
M-Total 09/30/05
Engineer Date

KENDI IRON WORKS 236 JOHNSON STREET BROOKLYN, NY 11206 ANTHONY SOMEFUN 650 LENOX AVENUE NEW YORK, NY 10037	DRAWN BY: A.S CHECKED BY: A.S. SCALE: AS NOTED DATE: 9-22-2005 DWG. NO. 1 OF

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THE CITY OF NEW YORK DEPARTMENT OF ENVIRONMENTAL PROTECTION

Bureau of Environmental Compliance
59-17 Junction Boulevard, 9th Floor, Corona, New York 11368-5107
Records Control (718) 595 - 3855

Christopher O. Ward, Commissioner

Robert C. Avallroni, Deputy Commissioner

DISPLAY CERTIFICATE ON PREMISES NEAR EQUIPMENT
"NOT VALID WITHOUT OFFICIAL SEAL"

Application PA#:	PB0397-05R
Date Inspected:	04/18/06
Date Issued:	04/18/06
Expiration Date:	04/18/09

E.P.#	1
E.R.:	C

P.E.
Anthony Somefun, P.E.
650 Kenox Ave.
N.Y., N.Y. 10037

OWNER
Kendi IRON WORKS
236 Johnson Ave.
Bklyn, N.Y. 11206

DEP Premise Address: 236 Johnson Ave. Flr.#: 1 Boro: Bklyn.

CERTIFICATE OF OPERATION

DESCRIPTION OF INSTALLATION: IRON WORKS

USED: 8 HRS/DAY 250 DAYS/YEAR

DESCRIPTION OF EQUIPMENT: (4) stations OF Welding and IRON Fabrication in IRON WORK shop.

EXHAUST EQUIPMENT: (1) FAN. 3 H.P. motor, 1725 RPM, 4,000 CFM at 70°F. Thru Duct exhaust System above the tables.

CONTROL DEVICE: None.

ANY PURPORTED OR ATTEMPTED TRANSFER OF...AN OPERATING CERTIFICATE ...FROM ONE LOCATION TO ANOTHER OR FROM ONE PIECE OF EQUIPMENT TO ANOTHER AUTOMATICALLY REVOKES...THE CERTIFICATE. SEC. 24-135 NEW YORK CITY AIR POLLUTION CONTROL CODE.

R.A. Hodge, P.E.,
Deputy Director

Installer
Legalization

APPLICATION FOR RENEWAL OF THIS CERTIFICATE OF OPERATION MUST BE FILED AT THE DEPARTMENT OF ENVIRONMENTAL PROTECTION NO LATER THAN NINETY (90) DAYS PRIOR TO ITS EXPIRATION DATE.

SHOULD SIGNIFICANT NEW SCIENTIFIC EVIDENCE FROM A RECOGNIZED INSTITUTION RESULT IN A DECISION BY DEC THAT LOWER AMBIENT GUIDELINE CONCENTRATIONS MUST BE ESTABLISHED, IT MAY BE NECESSARY TO REDUCE EMISSIONS FROM THIS SOURCE PRIOR TO THE EXPIRATION OF THIS CERTIFICATE TO OPERATE.

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Bureau of Environmental Compliance
59-17 Junction Boulevard, 9th Floor
Flushing, New York 11373-5108
Records Control (718) 595-3855

1206

March, 2009

TRIENNIAL REGISTRATION EXPIRATION NOTICE

2009 MAR 12 A 1:56

KENDI IRON WORKS, INC.
236 JOHNSON ~~STREET~~ AVE.
BROOKLYN, NY 11206 2819

RE:
EQUIPMENT:
FUEL TYPE:
KW RATING:

EXPIRATION DATE: 4/18/2009
INSTALLATION #: PB039705R
EQUIPMENT LOCATED AT: 236 JOHNSON ~~STREET~~ AVE.

280 Application No. 09703
D.E.C. Clerk

COMPLETE AND SIGN THIS RENEWAL APPLICATION FORM AND RETURN IT TO:

NYC DEPARTMENT OF ENVIRONMENTAL PROTECTION
59-17 JUNCTION BOULEVARD
RECORDS CONTROL, 9TH FLOOR
FLUSHING, NY 11373-5108.

INCLUDE YOUR CHECK OR MONEY ORDER PAYABLE TO NYC DEPARTMENT OF ENVIRONMENTAL PROTECTION. RENEW 90 DAYS PRIOR TO EXPIRATION DATE.

PLEASE PROVIDE NAME, ADDRESS AND TELEPHONE NUMBER OF SUPERINTENDENT, CONTRACTOR OR OTHER AUTHORIZED AGENT WHO CAN BE CONTACTED TO SCHEDULE AN INSPECTION, PROVIDE ACCESS AND OPERATE EQUIPMENT TO DEMONSTRATE COMPLIANCE.

ZADOK ZVI — 646-345-5270 Cell
SUPERINTENDENT / CONTRACTOR / AGENT — TELEPHONE NUMBER 718-821-2722

236 Johnson Ave
STREET ADDRESS — APT. NO.

BROOKLYN — NY — 11206-2819
CITY — STATE — ZIP

718-756-8006
FAX NUMBER

ZADOKZVI@gmail.com
E-MAIL ADDRESS

I REQUEST RENEWAL OF THE REGISTRATION FOR THE EQUIPMENT WHICH IS THE SUBJECT OF THE ABOVE REFERENCED INSTALLATION NUMBER AND WHICH HAS BEEN INSPECTED BY THE OWNER/OWNER'S AGENT AND IS READY FOR INSPECTION BY THE BUREAU OF ENVIRONMENTAL COMPLIANCE.

I AM AWARE THAT IF THERE IS EXPOSED FRIABLE ASBESTOS IN A DAMAGED OR DETERIORATED CONDITION IN THE ROOM/AREA WHERE THE EQUIPMENT IS LOCATED, THE INSPECTION WILL NOT BE COMPLETED AND A NOTICE OF DISAPPROVAL WILL BE ISSUED.

I HEREBY AFFIRM UNDER PENALTY OF PERJURY THAT THE INFORMATION PROVIDED ON THIS FORM IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF AND THAT THE EQUIPMENT WILL BE OPERATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NYC AIR POLLUTION CONTROL CODE AND ACKNOWLEDGE THAT ANY ALTERATION OF THE EQUIPMENT WILL BE DONE IN ACCORDANCE WITH THE NYC AIR POLLUTION CONTROL CODE AND APPROPRIATE REQUIREMENTS OF OTHER AGENCIES. I RECOGNIZE THAT FALSE STATEMENTS ARE PUNISHABLE AS A MISDEMEANOR PURSUANT TO SECTION 24-190 OF THE NYC AIR POLLUTION CONTROL CODE AND SECTION 210-45 OF THE PENAL LAW.

PLEASE MAKE ANY CORRECTIONS TO THE OWNER'S NAME AND ADDRESS IF NECSSARY.

DEP COMPUTER ESTIMATED FEE IS: $280.00
FINAL DEP FEE DETERMINATION WILL BE MADE BY DEP. FEES ARE NON-TRANSFERABLE.

OWNER/REPRESENTATIVE'S SIGNATURE — PRESIDENT (TITLE) — 03/09/09 (DATE)

IF ALREADY RENEWED, PLEASE DISREGARD THIS LETTER

14

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THE CITY OF NEW YORK DEPARTMENT OF ENVIRONMENTAL PROTECTION

Christopher O. Ward, Commissioner

Bureau of Environmental Compliance
59-17 Junction Boulevard, 9th Floor, Corona, New York 11368-5107
Records Control (718) 595 - 3855

Robert C. Avaltroni, Deputy Commissioner

11206

INDUSTRIAL PROCESSES SECTION
FIELD INSPECTION REPORT

DATE:	4/18/06
~~PA~~ / PB #	397-05R

1. COMPANY NAME: Kendi Iron Works.
2. ADDRESS: 236 Johnson Ave. BORO BK. FLR 1
3. INSPECTED BY: M.T. PLANT REP:
4. EMISSION POINT: #1 RECEPTOR DISTANCES: NUISANCE/POSSIBILITY:
5. EQUIPMENT DESCRIPTION: Welding / Iron Fabrication.
6. AGREEMENT WITH FILING: YES NO SKETCH:
7. REASON FOR INSPECTION: ☑ C.O. ☐ T.C.O. ☐ COMPLAINT ☐ SURVEY
8. CONDITIONS OBSERVED: Installation was working properly.
9. OBSERVED EMISSIONS:
10. COMMENTS: O.K. For C.O.
M.T.
04/18/06

AT Bushwick Ave.

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ENVIRONMENTAL PROTECTION
Environmental Compliance
Queens Boulevard, 9th Floor, Corona, New York 11368-5107

Robert C. Avaltroni
Deputy Commissioner

DISPLAY CERTIFICATE ON PREMISES NEAR EQUIPMENT
"NOT VALID WITHOUT OFFICIAL SEAL"

APPLICATION ~~BA~~ / PB	0397-05R
DATE ISSUED	09/30/05
DATE MAILED	
EXPIRATION DATE	03/30/06

E P #	1
E R	C

E
Anthony Somefun, P.E.
650 Lenox Ave.
New York, N.Y. 10037

OWNER
Kendi IRON WORKS.
236 Johnson Ave.
Bklyn, N.Y. 11206

EP PREMISE ADDRESS 236 Johnson Ave. (1st FL.) BORO Bklyn.

NOTICE OF APPLICATION / PLANS APPROVAL
WORK PERMIT

☑ WE ARE PLEASED TO ADVISE YOU THAT YOUR APPLICATION FOR LEGALIZATION OF THE EXISTING INSTALLATION HAS BEE APPORVED. ONE SET OF THE APPROVED PLANS IS RETURNED HEREQITH TO THE FILER OF THE RECORD. **NOTE BOTTOM PARAGRAPH.**

○ WE ARE PLEASED TO ADVISE YOU THAT YOUR APPLICATION FOR A WORK PERMIT FOR THE NEW INSTALLATION / ALTERATION HAS BEE APPORVED. ONE SET OF THE APPROVED PLANS IS RETURNED HEREQITH TO THE FILER OF THE RECORD. **NOTE BOTTOM PARAGRAPH.**

SCRIPTION OF INSTALLATION IRON WORKS

CRIPTION EQUIPMENT (4) Stations OF Welding and IRON Fabricat Used 8 Hrs/Day 250 Days/Year
in IRON WORK shop.

AUST EQUIPMENT (1) FAN, 3 H.P. motor, 1725 RPM 4,000 CFM @ 70°F
(Thru Duct Exhaust System above the Tables).

TROL EQUIPMENT None

ermit is issued pursuant to a Certification by the professional engineer of record, acting as designated agent for the equipment owner, that uments submitted in connection with this application are completed and fully comply with all applicable laws, codes, rules, regulations, and ves of the Department of Environmental Protection of the City of New York in effect at the time filed.

son shall cause or permit the use or operation of equipment or apparatus for which an installation or alteration permit is required, without first ng an Operating Certificate. Any purported or attempted transfer of this permit automatically revokes the permit, pursuant to the New York Pollution Control Code.

an a Certificate of Operation, a written request for an inspection must be made to this Division on Form# AR365. This must be done within 0) days after completon of a new or altered installation

Legalization

Raphael A. Hodge, P.E.
Director of Engineering
For the Commissioner

M.T. - E04

PC 137 - (REV. 9.02)

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039705 R ☐ Override

KENDI IRON WORKS | FacilityNo Y20412

236 | JOHNSON STRET

BROOKLYN | NY | 11206

Application Type: REGISTRATION

Trans Type: CER

Status: Active

Original Application Date: 09/19/05

Owner: KENDI IRON WORKS

PE/RA: ANTHONY SOMEFUN, P.E.

Rep Name: ZIV ZADOCK

Installer:

Maintainer:

	Issue Dates	Expire Dates	Cancel Date
Work Permit	09/30/05	03/30/06	
Cert/Reg			

Folder Location: File Room

Superseded by:

Supersedes:

10/04/05

Next Screen

Save Edits

Cancel Edits

Close

O.K.

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...MENT OF ENVIRONMENTAL PROTECTION
...Fl, 9th Floor, Corona, New York 11368-5107
JOEL A. MIELE SR., P.E., Commissioner

ROBERT C. AVALTRONI
Deputy Commissioner

Bureau of Air Noise & Hazardous Materials

INSPECTION SET

Date:

PB0397-05R
(Installation Number)

(EN Number)

Re: Kendi Iron Works,236 Johnsop Ave. Street,Brooklyn,NY 11206
(Premise Address) (Boro)

PROFESSIONAL CERTIFICATION

Being duly mindful of my responsibilities as a Licensed Professional Engineer in the State of New York and acting as Designated Agent for the applicant, I hereby certify that the application, plans and all supplementary documents submitted in connection with this filing are complete and fully comply with all applicable laws, codes, rules, regulations and directives of the Department of Environmental Protection, Bureau of Air, Noise & Hazardous Materials of the City of New York in effect at the time filed.

P.E. Seal & Signature

FOR DEP USE ONLY	

Company Name of Installer: LEGALIZATION

Company Address:

Town or Boro **State:** **Zip:**

Installer's Name: **Title:**

Installer's Signature:

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INDUSTRIAL PROCESSES DIVISION SECTION SET
ENVIRONMENTAL RATING REPORT
SUMMARY OF POINTS OF EMISSION

EN NO. _____

Premise Identification No.

1. **Company Name** Kendi Iron Works
2. **Premise Address** 236 Johnson Ave. Street, Brooklyn, NY **Zip** 11206
3. **Mailing Address** Same as above **Zip** _____

Telephone No. (718) 821-2722

4. **Name of Person Preparing Report** Anthony Somefun
5. **Address** 650 Lenox Avenue, New York, NY **Zip** 10037
6. **Telephone No.** (212)690-1176

7. SEC.	LOT	BLOCK

8. Emission Point No.	9. Operation Producing Emission	10. Environmental Rating Proposed	Assigned By BAR
I0001	Metal Fabrication	B	C

This Report is: **New** ☒ **Revision** ☐ **Addendum** ☐

11. **Signature** _____ **Title** Agent **Date** 9/22/2005

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SECTION A

1. NAME OF OWNER / FIRM	Kendi Iron Works
2. NUMBER AND STREET ADDRESS	236 Johnson Ave - Street
3. CITY - TOWN - VILLAGE	Brooklyn
4. STATE	NY
5. ZIP	11206
6. OWNER CLASSIFICATION	A. ☐ COMMERCIAL B. ☒ INDUSTRIAL C. ☐ UTILITY D. ☐ FEDERAL E. ☐ STATE F. ☐ MUNICIPAL G. ☐ EDUC. INST. H. ☐ HOSPITAL I. ☐ RESIDENTIAL J. ☐ OTHER
7. NAME & TITLE OF OWNER'S REPRESENTATIVE	Ziv Zadock, President
8. TELEPHONE	718 821-2722
9. NAME OF AUTHORIZED AGENT	Anthony Somefun
10. TELEPHONE	212 690-1[illegible]
11. NUMBER AND STREET ADDRESS	650 Lenox Avenue
12. CITY - TOWN - VILLAGE	New Y[illegible]
13. STATE	NY
14. ZIP	10037
15. NAME OF PROFESSIONAL ENGINEER PREPARING APPLICATION	
16. N.Y.S. P.E. OR ARCHITECT LICENSE NO.	
17. TELEPHONE	
18. SIGNATURE OF APPLYING OWNER'S REPRESENTATIVE OR PERMIT TO CONSTRUCT	
19. DATE	
20. IDENTIFICATION LOCATION (NUMBER AND STREET ADDRESS)	
21. CITY - TOWN - VILLAGE	
22. ZIP	
23. BUILDING NAME OR NUMBER	
24. FLOOR NAME OR NUMBER	First
25. START UP DATE	MO 10 / YR 05
26. DRAWING NUMBERS OF PLANS SUBMITTED	1 of 1
27. PERMIT TO CONSTRUCT	A. ☒ NEW SOURCE B. ☐ MODIFICATION
28. CERTIFICATE TO OPERATE	A. ☐ NEW SOURCE B. ☐ MODIFICATION C. ☐ EXISTING SOURCE

SECTION B

29. EMISSION POINT ID.	30. GROUND ELEVATION (FT.)	31. HEIGHT ABOVE STRUCTURES (FT.)	32. STACK HEIGHT (FT.)	33. INSIDE DIMENSIONS (IN.)	34. EXIT VELOCITY (FT./SEC.)	35. EXIT FLOW RATE (ACFM)	36. SOURCE CODE	37. HRS / DAY	38. DAYS / YR	40. % OPERATION BY SEASON: Winter	Spring	Summer	Fall
0 001					4639		1419	8	250	25	25	25	25

SECTION C

41. DESCRIBE PROCESS OR UNIT

1. Fabrication and welding of metals
2.
3.
4.
5.
6.
7.
8.

SECTION D

42. EMISSION CONTROL EQUIPMENT I.D.	43. CONTROL TYPE	44. MANUFACTURER'S NAME AND MODEL NUMBER	45. DISPOSAL METHOD	46. DATE INSTALLED MONTH / YEAR	47. USEFUL LIFE
				/	
48.	49.	50.	51.	52. /	53.

SECTION E

CALCULATIONS

SECTION F

54. CONTAMINANT NAME	55. CAS NUMBER	56. INPUT OR PRODUCTION	57. UNIT	58. T&M RATING	EMISSIONS 59. ACTUAL	60. UNIT	61. HOW DET.	62. PERMISSIBLE	63. % CONTROL EFFICIENCY	HOURLY EMISSIONS (LBS/HR) 64. EFF	65. ACTUAL	ANNUAL EMISSIONS (LBS/YR) 66. ACTUAL	67. 10³	68. PERMISSIBLE
Total Particulat	NY149 00	0	C		.002	1	9	.02	0	.002	.002	4	0	4.2
69.	70. - -	71.	72.	73.	74.	75.	76.	77.	78.	79.	80.	81.	82.	83.
84.	85. - -	86.	87.	88.	89.	90.	91.	92.	93.	94.	95.	96.	97.	98.
99.	100. - -	101.	102.	103.	104.	105.	106.	107.	108.	109.	110.	111.	112.	113.
114.	115. - -	116.	117.	118.	119.	120.	121.	122.	123.	124.	125.	126.	127.	128.
129.	130. - -	131.	132.	133.	134.	135.	136.	137.	138.	139.	140.	141.	142.	143.

SECTION G

SOLID FUEL TONS / YR TYPE	144.	145.	% S 146.	LIQUID FUEL THOUSANDS OF GALLONS/YR TYPE	147.	148.	% S 149.	GAS THOUSANDS OF CF/YR TYPE	150.	151.	BTU/CF 152.	APPLICABLE RULE 153.	212	APPLICABLE RULE 154.	

Upon completion of construction sign the statement listed below and forward to the appropriate field representative

THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS.

155. SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT — DATE

AGENCY USE ONLY

156. LOCATION CODE	157. FACILITY ID. NO.	158. U.T.M. (E)	159. U.T.M. (N)	160. SIC NUMBER	161. DATE APPL. RECEIVED	162. DATE APPL. REVIEWED	163. REVIEWED BY:
					/ /	/ /	

PERMIT TO CONSTRUCT

164. DATE ISSUED	165. EXPIRATION DATE	166. SIGNATURE OF APPROVAL	167. FEE
/ /	/ /		

168.
1. DEVIATION FROM APPROVED APPLICATION SHALL VOID THIS PERMIT
2. THIS IS NOT A CERTIFICATE TO OPERATE
3. TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

CERTIFICATE TO OPERATE

169. DATE ISSUED	170. EXPIRATION DATE	171. SIGNATURE OF APPROVAL	172. FEE
/ /	/ /		

173.
1. ☐ INSPECTED BY _____ DATE _____
2. ☐ INSPECTION DISCLOSED DIFFERENCES AS BUILT VS. PERMIT. CHANGES INDICATED ON FORM
3. ☐ ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4. ☐ APPLICATION FOR C.O. DENIED _____ DATE _____ INITIALED

174. SPECIAL CONDITIONS:

1.
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76-19-3

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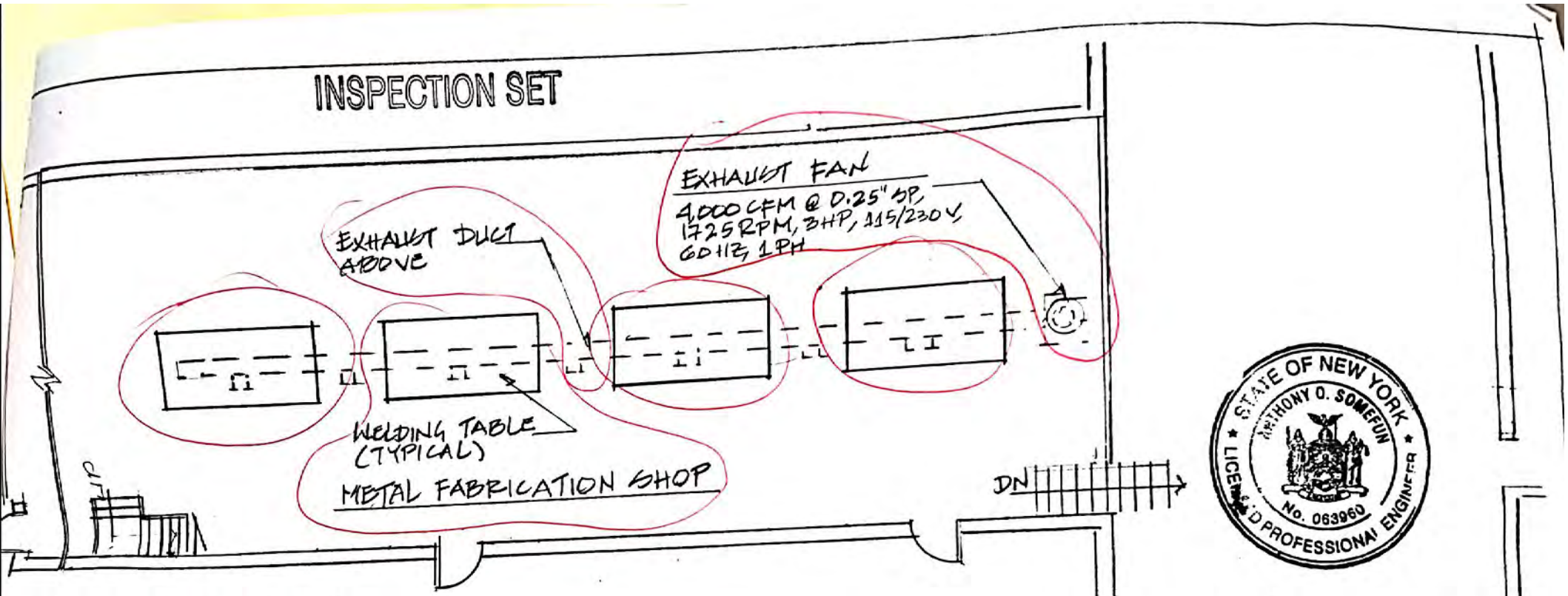
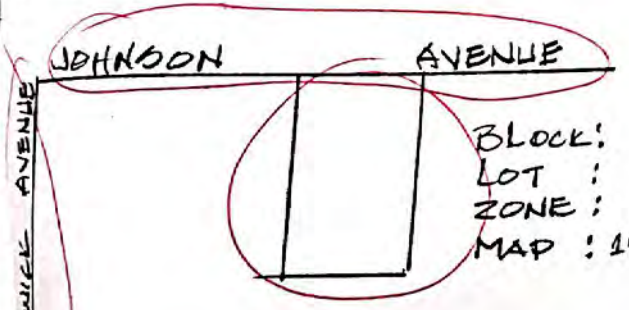
INSPECTION SET



FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"



PLOT PLAN
NTS

APPROVED for construction in accordance with Application, Ammendment(s) and Work Permit No.
PB0397-05R
M. Torabi 09/30/05
Engineer Date

STATE OF NEW YORK
ANTHONY O. SOMEFUN
LICENSED PROFESSIONAL ENGINEER
No. 063960

KENDI IRON WORKS 236 JOHNSON STREET BROOKLYN, NY 11206	DRAWN BY: A.S. CHECKED BY: A.S. SCALE: AS NOTED
ANTHONY SOMEFUN 650 LENOX AVENUE NEW YORK, NY 10037	DATE: 9-22-2005 DWG. NO. 1 OF 1

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AMC Engineering PLLC
18-36 42nd Street
Astoria, NY 11105
516.417.8588
Fax 516 706-3214

Emissions for Alex's Autobody Spraybooth Application

	CAS	Paint	Clear Coat		Reducer	Thinner	Emissions	
		DMD619 Blue Shade Violet	**DCA468** Hi-Performance Clear	**DC4000** Velocity Premium	**DRR1150** Reactive Reducer	**DTL876** Acrylic Lacquer Thinner	**(lb/yr)**	**(lb/hr)**
Density	lb/gal	8.1	7.84	7.84	6.68	6.68		
Volatility	w/w	53	65.78	60.32	96.45	100		
% Water	w/w	0	0	0	0	0		
% Solids	w/w	47	39.68	39.68	3.55	0		
% VOC*	w/w	60	95	67.1	165	115.5		
Toluene	108-88-3	5	50		20	12	144	0.053
Xylenes	1330-20-7			31		7.4	42	0.015
Ethylbenzene	100-41-4			5.6		1.3	7	0.003
Acetone	67-64-1			10	50	45	192	0.071
n-butyl acetate	123-86-4	50			5		410	0.152
Ligroine	8032-32-4	5					41	0.015
Butanone	78-93-3		20		50		69	0.026
Ethyl 3-ethoxypropionate	763-69-9		10		5		14	0.005
Benyzl butyl phthalate	85-68-7		10				9	0.003
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol	25973-55-1		5				5	0.002
4-Methylpentan-2-one	108-10-1			7.8			5	0.002
2-Methoxy-1-methylethyl acetate	108-65-6			10	5	10	41	0.015
Heptan-2-one	110-43-0			2.7			2	0.001
Solvent naphtha	64742-89-8				10		10	0.004
Methylcyclohexane	108-87-2				10	4.8	24	0.009
Heptane	142-82-5				10	20	70	0.026
Isobutyl acetate	110-19-0					10	30	0.011
Isopropyl alcohol	67-63-0					5	15	0.006
Calculated VOCs	lb VOC/gal	4.86	7.45	5.26	11.02	7.72		
Annual usage	gal/yr	100	12	8	15	45		
Maximum yearly VOC emission**	lb VOC/yr	486	89	42	165	347	1130	
Maximum hourly VOC emission	lb VOC/hr	0.18	0.033102222	0.015587081	0.061233333	0.12859		0.419

* All VOC weight percentages were reported in a range. The highest value was taken to determine a "worst case".

**MSDS lists the weight percent of each component individually and then the average volatile percentage separately. When using the maximum percentage listed for each component, the total volatility (overall weight percentage) is higher than the reported average value. For this calculation, the reported total emission for each component is the highest possible emission, assuming it is present in its highest possible concentration. The reported total emission is calculated from the volatility indicated in the manufacturer's literature.

Vincent Sapienza, P.E.
Acting Commissioner

THE CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Environmental Compliance
59-17 Junction Blvd. 9th Floor, Flushing, NY 11373
Records Control (718) 595-3855

Michael Gilsenan
Assistant Commissioner
Environmental Compliance

INDUSTRIAL PROCESS EQUIPMENT APPLICATION

APPLICATION ID:	PW001217
UPDATED DATE:	2/4/2017
REQUEST ID:	199017

PART I: FACILITY INFORMATION

PREMISE INFORMATION
(Location where the process is to take place)

1A. Facility Name (if any)	1B. Facility
Alex's Autobody	New

1C. Facility Location (House Number and Street Address)	1D. Floor / Suite no. (if any)	1E. Borough	1F. State	1G. Block	1H. Lot	1I. Zip Code	1J. Building Identification Number (BIN)
2250 McDonald Ave		Brooklyn	NY	07103	0032	11223	191424

1K. Equipment Location:	1L: Is this equipment a replacement for equipment presently certified?	1M: If YES, provide the installation number of the equipment it is replacing:	1N: Is this a legalized source?
1st floor			Yes

1O. Facility Classification: A. COMMERCIAL

OWNER INFORMATION

2A. Owner's Name:	2B. Owner's Address (House Number and Street Address)	2C. Floor / Suite No. (if any)
Alex's Autobody	2250 McDonald Ave	

2D. Borough / CIty	2E. State	2F. Zip Code	2G. Owner's Email Address	2H. Telephone	2I. Fax
Brooklyn	NY	11223	alexautobd@aol.com	718-738-6388	

P.E. AND INSTALLER INFORMATION

3A. Name of P.E. or R.A	3B. NYS License Number	3C. P.E. Email Address	3D. Telephone	3E. Fax
Ariel Czemerinski	076508	Ariel@AMC-Engineering.com	516-417-8588	
3F. Company Name	3G. P.E. Address	3H. City or Borough	3I. State	3J. Zip Code
AMC Engineering PLLC	18-36 42nd Street	Astoria	NY	11105
3K. Name of Installer	3L. NYC Installer License Number	3M. Installer Email Address	3N. Telephone	3O. Fax
John Chiafair		johnchiafair@gmail.com	631-841-3200	
3P. Company Name	3Q. Installer Address	3R. City or Borough	3S. State	3T. Zip Code
Centerline Spray Booths	195 Sunrise Highway, Unit C	Amityville	NY	11701

FEE EXEMPTION
(If applying for fee exemption, attach Department of Finance document along with this form.)

4A. Is Tax Exempt Property	4B. Agency Name	4C. Fee Waiver	4D. Fee Waiver Reason
No		No	

SUPPLEMENTAL INFORMATION

5A. What type of business is being conducted at this equipment location?

Autobody Spraybooth

5B. What emission sources are present at this facility?	5C. Building Type:
Facility contains spray booth and prep stations. The paint and lacquers are a VOC emission source.	Mixed Use (Other Occupants)

5D. If mixed-use, describe the other types of tenants:

EXERCISE / GYM / DANCE STUDIO

STACK PARAMETERS

6A. Emission Point ID:	6B. Ground Elevation (ft):	6C. Height Above Structure (ft):	6D. Stack Height (ft):	6E. Inside Diameter (in):	6F. Exit Velocity (ft/sec):	6G. Exit Flow Rate (ACFM):	6H. Exit Temperature (°F):
1	0	12	20	40	25.5	13500	75

6I. Fan Manufacturer:	6J. Fan Model Number:	6K. Number of Units:	6L. Total ACFM / Unit:	6M. Fan Diameter (in):	6N. Fan Motor (HP / RPM)
USI Italia	Model Master 80 (USBH04562C01)	1	13500	28	15

6O. Area of process space (ft2):	6Ob. Height of process space (ft)	6P. Are multiple pieces of equipment exhausted to this stack?
342.2		No

6Q. If Yes, list all pieces of equipment:

EMISSION CONTROL

7A. Does this equipment have an emission control?	7B. Is the control part of the equipment?	7C. Type(s) of pollutant(s) controlled:
Yes	Yes	VOC, PM

7D. Emission Controls(s):	7E. Description of Control Device(s):
Filter	Fiberglass Filters.

7F. CONTAMINANT		7G. EMISSIONS					
NAME	CAS NUMBER	EMISSION FACTOR AMT	EMISSION FACTOR UNITS	HOURLY EMISSIONS (lbs/hr)	ANNUAL EMISSIONS (lbs/year)	PERCENT REMOVAL	HOW DETERMINED
Toluene	108-88-3			0.053	144		Mass Balance
Xylenes	1330-20-7			0.015	42		Mass Balance
Ethylbenzene	100-41-4			0.003	7		Mass Balance
Acetone	67-64-1			0.071	192		Mass Balance
n-Butyl Acetate	123-86-4			0.152	410		Mass Balance
Ligroine	8032-32-4			0.015	41		Mass Balance
Butanone	78-93-3			0.026	69		Mass Balance
Ethyl 3 - ethoxyproprionate	763-69-9			0.005	14		Mass Balance
Benzyl butyl phthalate	85-68-7			0.003	9		Mass Balance
2-(2H-benzotriazol-2-yl)-4,6 - ditertpentylphenol	25873-55-1			0.002	5		Mass Balance
4-methylpentan-2-one	108-10-1			0.002	5		Mass Balance
2-methoxy-1-methylethyl acetate	108-65-6			0.015	41		Mass Balance
Heptan-2-one	110-43-0			0.001	2		Mass Balance
Solvent Naptha	64742-89-8			0.004	10		Mass Balance
Methylcyclohexane	108-87-2			0.009	24		Mass Balance
Heptane	142-82-5			0.026	70		Mass Balance
Isobutyl Acetate	110-19-0			0.011	30		Mass Balance

Isopropyl Alcohol	67-63-0			0.006	15		Mass Balance

7H. Detailed Calculations (Est. max hourly and max annually):

Max Annual Emissions: 1130 lb/year
Max Hourly: 0.419 lb/hour

These values represent the worst case. Please see attached sheet for detailed calculations, including manufacturer information. The calculations include footnotes regarding overestimation of volatiles.

a. Proposed Environmental Rating:	B

HEATER INFORMATION

If the process is equipped with a heater, please provide the following information.

Q8A. Is there a heater?	8A. Is the heater a separate unit?	8B. Input (BTU/hr):	8C. Output (BTU/hr):
Yes	Yes	1500000	1250000
8D. Firing Rate (CFH/GPH):	8E. Manufacturer:	8F. Model Number:	8G. Fuel Type:
1250	USI Italia	Model Master 80 (USBH04562C01)	Natural Gas

ADDITIONAL PERMITTED EQUIPMENT IN FACILITY

9A. INSTALLATION NO.	9B. DESCRIPTION	9C. CERTIFICATION OF OPERATION EXPIRATION DATE

PART III: SPRAY BOOTH / SPRAY AREA

Provide the following information only if you are operating a spray booth or spray area at your facility.

EQUIPMENT INFORMATION

12A. Equipment Type:	12B. Manufacturer	12C. Model Number	12D. Date of Installation
SPRAY BOOTH	USI Italia	Model Master 80 (USBH04562C01)	1/16/2017
12E. Type:	12F. Opening Height (ft.)	12G. Opening Width (ft.)	12H. Floor Area (ft2)
DOWNDRAFT	9.2	11	342.2

OPERATIONAL INFORMATION

13A. Hours / Day	13B. Days / Year	13C. Waterwash Pump (HP)	13D. Water Flowrate (GPM)
8	275	3	25
13E. Article(s) Sprayed	13F. Method of Application	13G. Gun Cleaning Method	
AUTOMOBILE	AIR ATOMIZATION, HVLP(HIGH VOLUME LOW PRESSURE)	ENCLOSED GUN CLEANING SYSTEM	

USAGE INFORMATION

14A. Type of Material	14B. Product Name and Product Number	14C. Material VOC (lbs VOC/gal material)	14D. Maximum Hourly Usage (gph)	14E. Annual Usage (gph)
Paint	Deltron, DMD619, Blue Shade Violet	4.86	0.18	100
Clear Coat	Deltron, DCA468, Performance Clear	7.45	0.033	12
Clear Coat	Deltron, DC4000, Velocity Premium	5.26	0.016	8
Reducer	Deltron, DRR1150, Reactive Reducer	11.02	0.06	15
Thinner	Deltron, DTL876, Lacquer Thinner	7.72	0.129	45

NYC Environmental Protection

Vincent Sapienza, P.E.
Acting Commissioner

THE CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Environmental Compliance
59-17 Junction Blvd. 9th Floor, Flushing, NY 11373
Records Control (718) 595-3855

Michael Gilsenan
Assistant Commissioner
Environmental Compliance

INDUSTRIAL WORK PERMIT

FACILITY ADDRESS: Alex's Autobody, 2250 McDonald Ave, Brooklyn, NY 11223

Owner Information: Alex's Autobody, 2250 McDonald Ave, Brooklyn, NY 11223

Installation #: **PW001217**
Issued: **2/6/2017**
Expiration: **2/6/2018**
Request ID: **199017**

Legalization: Yes

Environmental Rating: B

Emission Point: 1

Hours/day: 8

Days/year: 275

Number of units: 1

ACFM/Unit: 13500

Contaminant Controlled: VOC, PM

Controls: Filter

Description: Fiberglass Filters.

Installation Type: Spray Booth / Spray Area

Equipment Type: SPRAY BOOTH

USI Italia Model Master 80 (USBH04562C01)
Type: DOWNDRAFT
Article(s) Sprayed: AUTOMOBILE
Opening Height (ft): 9.2
Opening Width (ft): 11
Floor Area (ft2): 342.2

Description of Process:
Facility contains spray booth and prep stations. The paint and lacquers are a VOC emission source.

Special Conditions:
NA

The holder of this work permit is responsible for the use of the equipment in accordance with all the applicable requirements and provisions of the New York City Air Pollution Code. Violations of the Air Pollution Control Code can result in the imposition of penalties by the Environmental Control Board. This Certificate must be posted in the vicinity of the designated equipment. It may not be transferred to any other equipment.

Equipment may only be operated for testing purposes, not exceeding THIRTY (30) days, without first obtaining a Certificate of Operation from the Bureau of Environmental Compliance.

DISPLAY PERMIT ON PREMISES NEAR EQUIPMENT

PW001217

R. Radhakrishnan

R. Radhakrishnan, P.E.,
Director of Engineering/For the Commissioner

5 STAR XTREME AUTOBODY PRODUCTS
TECHNICAL DATA INFORMATION
DATED: JUNE 2013

PRODUCT NUMBER DESCRIPTION
#5185 – ORIGINAL KLEARKOTE 4.4 VOC

PRODUCT DESCRIPTION
5185 is a medium solids two component polyurethane clearcoat with a sprayable VOC of 4.4 lbs/gal. Formulated to offer Refinishers ease of application, great flow and leveling, superior gloss and excellent distinctness of image in a productive 2K polyurethane clearcoat.

PRODUCTS

#5185-1 Original Klearkote, Gallon
#5185-4 Original Klearkote, Quart

*#5186 Original Hardener, Fast 4.4 VOC Quart
*#5187 Original Hardener, Medium 4.4 VOC Quart
*#5188 Original Hardener, Slow 4.4 VOC Quart
* Also available in half pints
CAUTION ACCELERATOR NOT RECOMMENDED

SURFACE PREPARATION
Apply Undercoats and Basecoat per manufacturer's instruction. Over OEM or completely cured previously painted substrates scuff with a grey scuff pad or 600 grit then wipe clean with #5902 Final Wipe Surface Cleaner. Allow basecoat adequate flash time (follow manufacturer's recommendation) Follow basecoat manufacturer's recommendation for recoat intervals.

MIXING DIRECTIONS
Mix 4 parts 5185 base with 1 part 5186, 5187, or 5188 by volume. Activator selection should be based on the size of the part to be painted and the temperature of both the air and part at time of painting.

APPLICATION

Number of Coats: 2-3	Application Density: full wet coats
Overlap: 50%	Flash: Follow recommendations in "Dry Time" section
Film Thickness Range:	Dry 1 mil – 6 mils
	Wet 3 mils – 6 mils
Application Conditions:	Minimum Temp 50°F (Substrate Temp.)
	Max Temp 100°F (Substrate Temp.)
	Ambient Humidity Less than 80% preferred

POT LIFE
When properly covered at 77°F, 5185 will maintain a sprayable viscosity for at least from 3-5 hours depending on activator selection.

ADDITIVES
ACCELERATOR: N/A
FISHEYE: N/A
FLEX ADDITIVE: Not required
Note: Do not spray when surface temperature is below 50°F.

SUBSTRATES
Commercially available basecoats with a VOC of less than 6.6 lbs/gal.
Properly prepared previously painted surfaces.

CLEAN-UP & STORAGE
Clean spray equipment immediately after use with gun wash solvent.

GUN SETUPS:
CONVENTIONAL
Gravity Feed 1.3 – 1.5 mm tip
Siphon Feed 1.6 – 1.8 mm tip
HVLP 1.3 mm – 1.5 mm

AIR PRESSURES

Conventional @ Gun	PANEL	OVERALL
Gravity Feed	35-40 psi	45 psi
Siphon Feed	35-45 psi	45-50 psi
HVLP @ Cap	6-8 psi	9-10 psi

FLASH/DRY TIMES

	5186 @ or above 77ºF	**5187 @ or above 85ºF**	**5188 @ or above 95ºF**
Flash Between Coats	5-10 min	5-10 min	10-15 min
Dust Free	10-15 min	15 min	15-20 min
Sand/Polish	8-10 hours	10-12 hours	12-14 hours

Force Dry (Convection Heat)	**5186**	**5187**	**5188**
Purge time before applying heat	20 min	20 min	20 min
Force Dry Time	20 min@ 165ºF	20 min@ 165ºF	20 min@ 165ºF
Sand and Buff	After Cool Down		

TECHNICAL DATA
Density: 7.64 lbs/gal (unactivated)
Solids
By Weight: 36.2%
By Volume: 29.0%
VOC (Volatile Organic Content): 4.56 lbs/gal
Viscosity: 17-19 seconds Zahn #2
Flash Point: -4°F
Theoretical Coverage: 465 sq ft per gal @ 1 mil thickness

FIRST AID:
In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention. For skin: Wash thoroughly with water. If difficulty in breathing is experienced, get medical attention immediately. If swallowed, do not induce vomiting, get medical attention immediately. See Material Safety Data Sheet.

SAFETY INFORMATION - FOR INDUSTRY USE ONLY
Danger: Vapor and spray mist harmful. Overspray may cause lung damage. May cause allergic skin and respiratory reaction, effects may be permanent. Flammable liquid and vapor. Harmful if inhaled.May affect the brain or nervous system causing dizziness, headache, or nausea. May cause eye, skin, nose, and throat irritation. Contents: See product label for contents and CAS #'s.The contents of this package must be blended with other components before the product can be used. Any mixture of components will have hazards of all components. Before opening the packages, read all warning labels. Follow all precautions. The material is designed for application only by professional trained personnel using proper equipment under controlled conditions, and is not intended for sale to the general public.

KEEP OUT OF REACH OF CHILDREN.
ABI/Autobody Brands International a division of IAMG/International Autobody Marketing Group - Scottsdale, AZ - www.autobodybrands.com

Environmental Protection

Register with CATS
Login into CATS

.gov always open

NYC DEP CATS Information

PREMISES: 828 EAST 144 STREET BRONX BIN: 097197 BLOCK: 02599 LOT: 0035				
Owner: TRI-STATE INDUSTRIES	**Application #:** PB006702	**Type:** CERTIFICATE TO OPERATE - INDUSTRIAL	**Expiration Date:** 5/17/2005	
Business Type: ENGINEGENERATORS	**Request Type:** Industrial Request Renewal CO	**Status:** EXPIRED	**Submitted Date:** NA	**Decision Date:** 3/21/2002
Boiler Make / Model: NA	**Fuel Type 1:** NONE	**Fuel Type 2:** NA	**Heat Input (Million BTU/Hr.):** NA	
Burner Make / Model: NA	**Number of Identical Units:** 1			
	AKA : 360 SOUTHERN BOULEVARD BRONX | 390 SOUTHERN BOULEVARD BRONX			

THE CITY OF NEW YORK DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Environmental Compliance
59-17 Junction Boulevard, 9th Floor, Corona, New York 11368-5107

Christopher O. Ward, Commissioner

Robert C. Avaltroni, Deputy Commissioner

Records Control (718) 595 - 3855

DISPLAY CERTIFICATE ON PREMISES NEAR EQUIPMENT
"NOT VALID WITHOUT OFFICIAL SEAL"

Application PA#:	0067-02H
Date Inspected:	09/01/05
Date Issued:	09/01/05
Expiration Date:	05/17/08

E.P.#:	1
E.R.:	C

P.E.

OWNER

Lucky Polyethylene, MFG. Co. Inc.
828 E. 144th Street
Bx, N.Y. 10454

DEP Premise Address: 828 E. 144th St. Flr.#: 1 Boro: BRONX

TRIENNIAL CERTIFICATE OF OPERATION

The holder of this Certificate is responsible for the use of the equipment in accordance with all applicable requirements and provisions of the New York City Air Pollution Control Code. The Commissioner may suspend or revoke this Certificate for willful or continued violation of the Code. Any purported or attempted transfer of...a Certificate of Operation...from one location to another or from one piece of equipment to another automatically revokes the Certificate. Sec. 24-135 NYC Air Pollution Code.

Description of Installation: Generator

Used: 20 Hrs/Day 306.5 Days/Year

Description of Equipment: (1) Taylor DS 500 M Diesel Generator, Bi-Fuel Operation, Rated at 450 KW. Limited to 3.033 HRS. of Full Load Operation.

Exhaust System: To Exhaust 1,190 CFM @ 905 F.

Control Device: None.

RECERTIFICATION

Raphael Hodge, P.E.,
Director of Engineering
For the Commissioner

Application for Renewal of this Certificate of Operation must be filed at the Department of Environmental Protection no later than ninety (90) days prior to its Expiration Date

Should significant scientific evidence from a recognized institution should result in a decision by NYSDEC that lower ambient guideline concentrations must be established, it may be necessary to reduce emissions from this source (s) prior to the expiration of this Triennial Certificate of Operation

M.T. - E093

APC-111-PA
Rev. 12 - 83

CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR RESOURCES
59-17 JUNCTION BLVD., CORONA, NY 11368

The City of New York.

INSPECTION SET

INDUSTRIAL PROCESSES DIVISION
ENVIRONMENTAL RATING REPORT
SUMMARY OF POINTS OF EMISSION

NO. EN

Premises Identification No.

1. Company Name Tri-State Industries

2. Premises Address 828 East 144th Street, Bronx Zip 10451

3. Mailing Address 360 Southern Boulevard Zip 10451
Telephone No. 718 292-1700

4. Name of Person Preparing Report Joseph Botta, P.E.

5. Address 4809 Avenue N, Suite 222 Bklyn NY 11234 Zip 10001

6. Telephone No. 718 951-0208

7. SEC.	LOT.	BLOCK
M1-3	35	2599

8. Emission Point No.	9. Operation Producing Emission	10. Environmental Rating Proposed	Assigned (BY D.A.R.)
001	Bi-fueled Generator		C
002	Bi Fueled Generator		C

Continue on reverse side

This Report is: New ☒ Revision ☐ Addendum ☐

11. Signature Josh Botta Title Professional Eng. Date 3-19-02

12. For Department Use
Remarks

Signature [signature] Title Director of Engineering Date 03/26/02

19451

THE CITY OF NEW YORK DEPARTMENT OF ENVIRONMENTAL PROTECTION

Bureau of Environmental Compliance
59-17 Junction Boulevard, 9th Floor, Corona, New York 11368-5107
Records Control (718) 595 - 3855

Christopher O. Ward, Commissioner

Robert C. Avaltroni, Deputy Commissioner

INDUSTRIAL PROCESSES SECTION

FIELD INSPECTION REPORT

DATE:	9/01/05
~~PA~~ / PB #	0067-02H

Lucky Polyethylene MFG. Co; Inc.

1. COMPANY NAME: ~~ART View Packaging Co.~~
2. ADDRESS: 828 E. 144 St. BORO BX FLR 1st
3. INSPECTED BY: M.T. PLANT REP:
4. EMISSION POINT: #1 RECEPTOR DISTANCES: NUISANCE/POSSIBILITY:
5. EQUIPMENT DESCRIPTION: Bi-Fueled Generator
6. AGREEMENT WITH FILING? YES NO SKETCH:
7. REASON FOR INSPECTION: ☐ C.O. ☑ T.C.O. ☐ COMPLAINT ☐ SURVEY
8. CONDITIONS OBSERVED: Equipment Was in Operation
9. OBSERVED EMISSIONS: None Over The Stack.
10. COMMENTS: O.K. For TCO.
M.T.
09/01/05

CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR RESOURCES

PROCESS, EXHAUST OR VENTILATION SYSTEM

APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

INSPECTION SET

INSTALLATION NUMBER

1. NAME OF OWNER / FIRM: ri-State Industries			9. NAME OF AUTHORIZED AGENT: Joseph Botta			10 TELEPHONE: 718 951-0208	19. FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM):
2. NUMBER AND STREET ADDRESS: 360 Southern Boulevard			11. NUMBER AND STREET ADDRESS: 4809 Avenue N, Suite 222				20. FACILITY LOCATION (NUMBER AND STREET ADDRESS): 828 East 144th Street
3. CITY - TOWN - VILLAGE: Bronx	4. STATE: NY	5. ZIP: 10451	12. CITY - TOWN - VILLAGE: Brooklyn	13. STATE: NY	14. ZIP: 11234		21. CITY - TOWN - VILLAGE: Bronx, New York — 22 ZIP: 10451
OWNER CLASSIFICATION: E. ☐ STATE H. ☐ HOSPITAL; ☐ COMMERCIAL C. ☐ UTILITY F. ☐ MUNICIPAL I. ☐ RESIDENTIAL; ☒ INDUSTRIAL D. ☐ FEDERAL G. ☐ EDUC. INST. J. ☐ OTHER			15. NAME OF P.E. OR ARCHITECT PREPARING APPLICATION: Joseph Botta	16. N.Y.S. P.E. OR ARCHITECT LICENSE NO.: 062615	17. TELEPHONE: 718 951-0208		23. BUILDING NAME OR NUMBER: — 24. FLOOR NAME OR NUMBER: First
7. NAME & TITLE OF OWNERS REPRESENTATIVE: Jeno Friedman		8. TELEPHONE: 718 292-1700	18. SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT: Joseph Botta				25. START UP DATE: MO / YR — 26. DRAWING NUMBERS OF PLANS SUBMITTED
							27. PERMIT TO CONSTRUCT: A. ☐ NEW SOURCE B. ☐ MODIFICATION — 28. CERTIFICATE TO OPERATE: A. ☐ NEW SOURCE B. ☐ MODIFICATION C. ☐ EXISTING SOURCE

EMISSION POINT ID.	30. GROUND ELEVATION (FT.)	31. HEIGHT ABOVE STRUCTURES (FT.)	32. STACK HEIGHT (FT.)	33. INSIDE DIMENSIONS (IN.)	34. EXIT TEMP. (°F)	35. EXIT VELOCITY (FT/SEC)	36. EXIT FLOW RATE (ACFM)	38. HRS/DAY	39. DAYS/YR	40. % OPERATION BY SEASON: Winter	Spring	Summer	Fall
01	12	10	18	7	905	69	1,100	20	306.5	2.5	2.5	2.5	2.5

DESCRIBE PROCESS OR UNIT

1.	2.
3.	4.
5.	6.
7.	8.

EMISSION CONTROL EQUIPMENT I.D.	CONTROL TYPE	MANUFACTURER'S NAME AND MODEL NUMBER	DISPOSAL METHOD	DATE INSTALLED MONTH / YEAR	USEFUL LIFE
42.	43.	44.	45.	46. /	47.
48.	49.	50.	51.	52. /	53.

CALCULATIONS

See Attached Calculation sheets for 100% Diesel and Bi Fuel operation. Emissions based upon total of both operations.

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Air Permitting

Item 65 - Bifuel Emission Rate
Item 66 - Sum of Diesel and Bifuel emission

INSTALLATION NUMBER

SECTION F

CONTAMINANT NAME	CAS NUMBER	LIMIT ON QUANTITY	UNIT	ENV RATING	EMISSIONS ACTUAL	UNIT	TRANSFER	EMISSIONS PERMISSIBLE	% CONTROL EFFIC'CY	HOURLY EMISSIONS (LBS/HR) EMP	HOURLY EMISSIONS (LBS/HR) ACTUAL	ANNUAL EMISSIONS (LBS/YR) ACTUAL	ANNUAL EMISSIONS (LBS/YR) 10^3	ANNUAL EMISSIONS (LBS/YR) PERMISSIBLE
Nitrogen Oxides	NY210-00-0	KWH	1		8.03	1	3		—	18.59	8.03	24,956	—	
Carbon Monoxide	006-30-08-0	KWH	1		5.93	1	3			4.02	5.93	18,128	—	
Total Non Meth HC	68476-44-8	KWH	1		0.002	1	3			1.49	0.002	48.06	—	
Particulates	NY075-00-0	KWH	1		0.13	1	3			1.33	0.13	441	—	
Sulfur Dioxide	7446-09-5	KWH	1		1.24	1	3			1.24	1.24	3788	—	

SECTION G

SOLID FUEL TYPE	SOLID FUEL TONS/YR	SOLID FUEL %S	OIL TYPE	OIL THOUSANDS OF GALLONS/YR	OIL %S	GAS TYPE	GAS THOUSANDS OF CF/YR	GAS BTU/CF	APPLICABLE RULE	APPLICABLE RULE
			40	34,096	0.2	52	11,954		212	

Upon completion of construction sign the statement listed below and forward to the appropriate field representative
THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS

SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Joseph Botto

DATE: 3-19-02

LOCATION CODE	FACILITY ID. NO.	UTM (E)	UTM (N)	SIC NUMBER	DATE APPL RECEIVED	DATE APPL REVIEWED	REVIEWED BY
				4911	/ /	03/26/02	A.G

PERMIT TO CONSTRUCT

DATE ISSUED	EXPIRATION DATE	SIGNATURE OF APPROVAL	FEE
/ /	/ /		

1 DEVIATION FROM APPROVED APPLICATION SHALL VOID THIS PERMIT
2 THIS IS NOT A CERTIFICATE TO OPERATE
3 TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

RECOMMENDED ACTION RE: C.O.

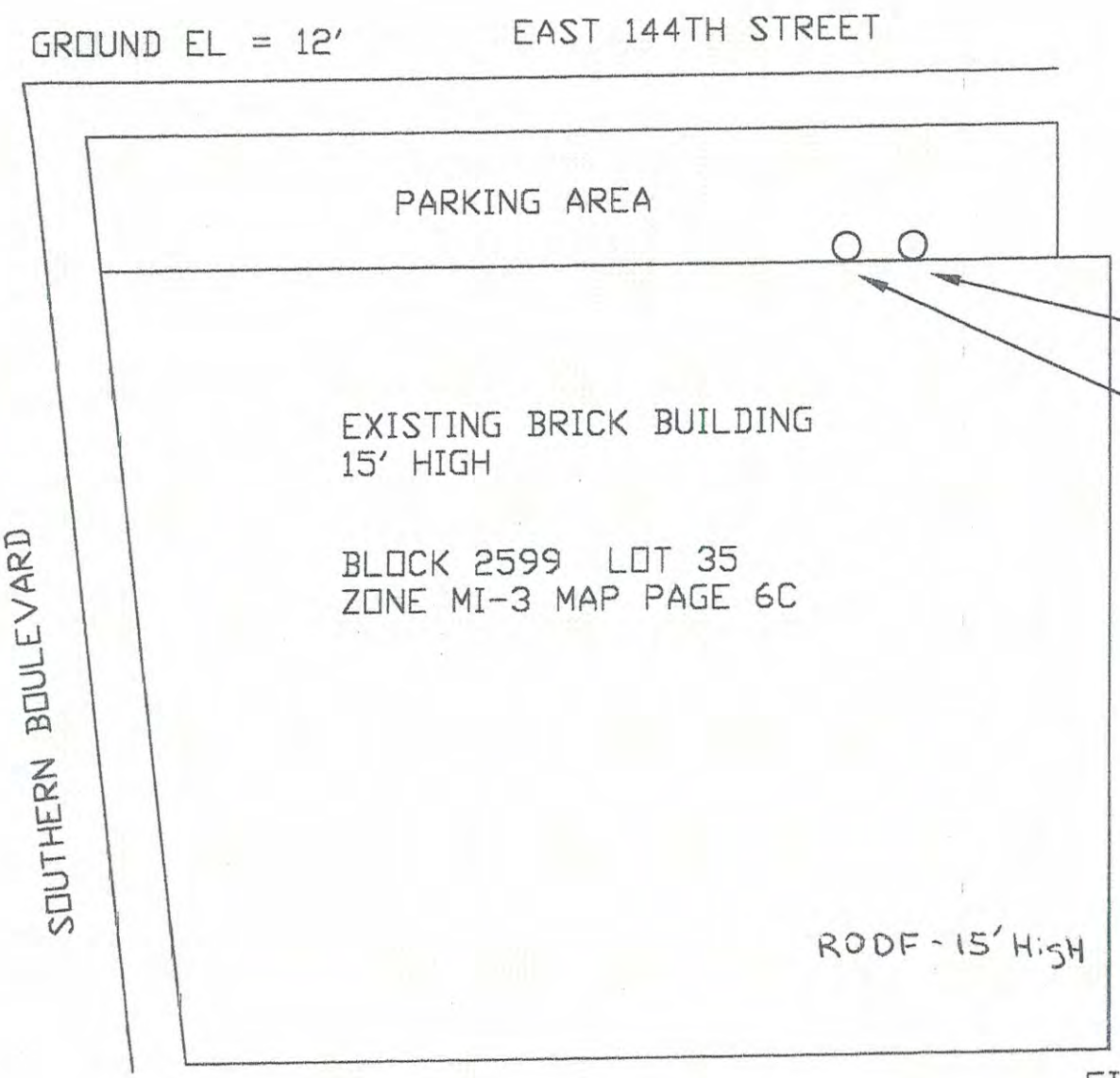
DATE ISSUED	EXPIRATION DATE	SIGNATURE OF APPROVAL	FEE
/ /	/ /		

- ☐ 1 INSPECTED BY _____ DATE _____
- ☐ 2 INSPECTION DISCLOSED DIFFERENCES AS BUILT VS PERMIT, CHANGES INDICATED ON FORM
- ☐ 3 ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
- ☐ 4 APPLICATION FOR C O DENIED _____ DATE _____ INITIALED

AGENCY USE ONLY

SPECIAL CONDITIONS:
1 PB 67-02H
2
3
4
5
6
7
8

(9)



APPROVED for construction in accordance with Application, Ammendment(s) and Work Permit No.
PB 67-024
Engineer
03/26/02
Date

STATE OF NEW YORK
JOSEPH BOTTA

INSPECTION SET

GENERATOR DAR FILING
828 EAST 144TH STREET
BRONX, NEW YORK 10451

FILER: JOSEPH BOTTA, P.E., P.C.
4809 AVENUE N, SUITE 222
BROOKLYN, NEW YORK 11234
(718) 951-0208

APPENDIX F

NOISE BACKUP

Certificate of Conformity and Calibration

Instrument Model:-	**CEL-633C**		
Serial Number	4278006		
Firmware revision	V006-05		
Microphone Type:-	**CEL-251**	**Preamplifier Type:-**	**CEL-495**
Serial Number	4372	Serial Number	005389
Instrument Class/Type:-	**1**		

Applicable standards:-

IEC 61672: 2002 / EN 60651 (Electroacoustics - Sound Level Meters)
IEC 60651 1979 (Sound Level Meters), ANSI S1.4: 1983 (Specifications For Sound Level Meters)

Note:- The test sequences performed in this report are in accordance with the current Sound level meter *Standard - IEC61672. The combination of tests performed are considered to confirm the products electro-acoustic performance to all applicable standards including superceeded Sound Level Meter Standards - IEC60651 and IEC60804.*

Test Conditions:-	21 °C 41 %RH 1002 mBar	**Test Engineer:-** **Date of Issue:-**	Paul Blackwell July 28, 2021

Declaration of conformity:-

This test certificate confirms that the instrument specified above has been successfully tested to comply with the manufacturer's published specifications. Tests are performed using equipment traceable to national standards in accordance with Casella's ISO 9001:2015 quality procedures. This product is certified as being compliant to the requirements of the CE Directive.

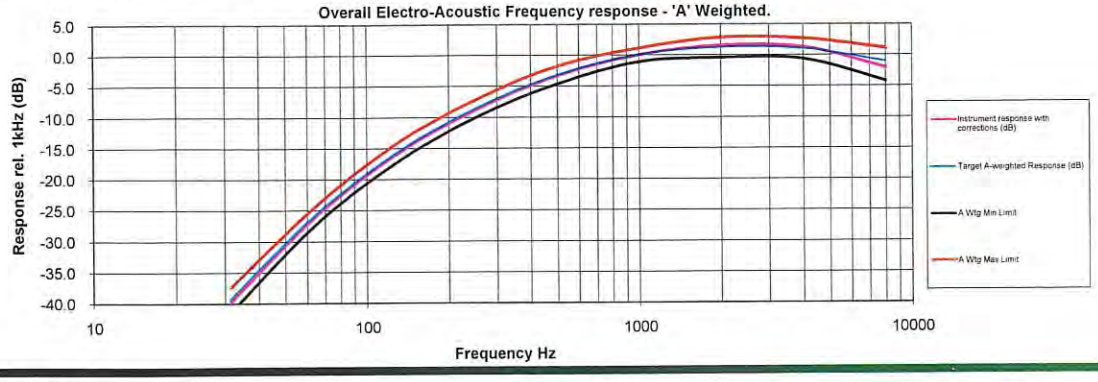
Test Summary:-

Self Generated Noise Test	**All Tests Pass**
Electrical Signal Test Of Frequency Weightings	**All Tests Pass**
Frequency & Time Weightings At 1 kHz	**All Tests Pass**
Level Linearity On The Reference Level Range	**All Tests Pass**
Toneburst Response Test	**All Tests Pass**
C-peak Sound Levels	**All Tests Pass**
Overload Indication	**All Tests Pass**
Acoustic Tests	**All Tests Pass**

Combined Electro-Acoustic Frequency Response - A Weighted

Combined Electro-Acoustic Frequency Response - A Weighted (IEC 61672-3:2006)

The following A-Weighted frequency response graph shows this instruments overall frequency response based upon the application of multi-frequency pressure field calibrations. The microphones Pressure to Free field correction coefficients are applied to pressure response. Reference level taken at 1kHz.



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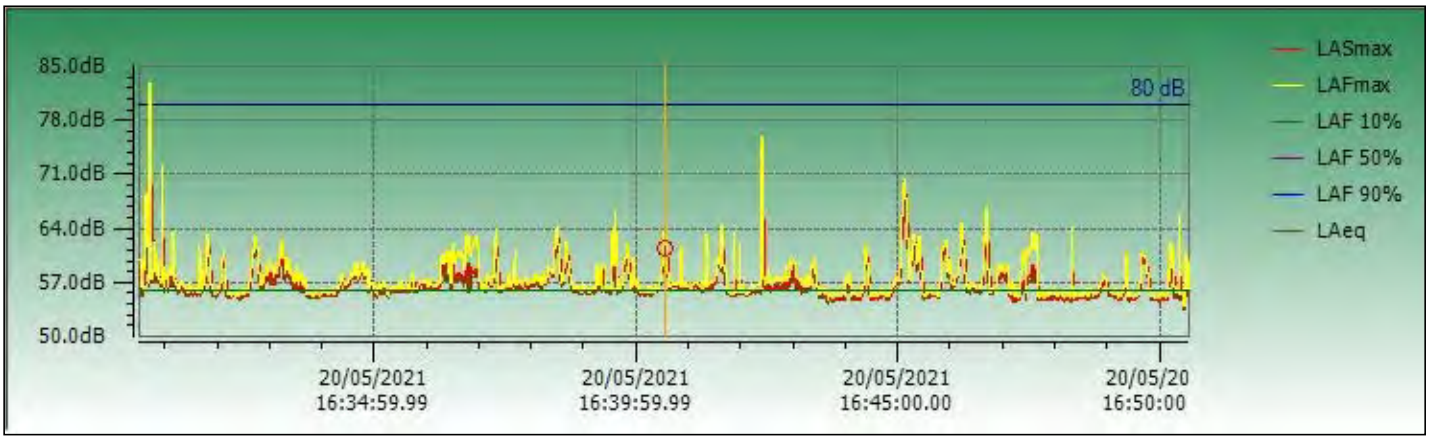
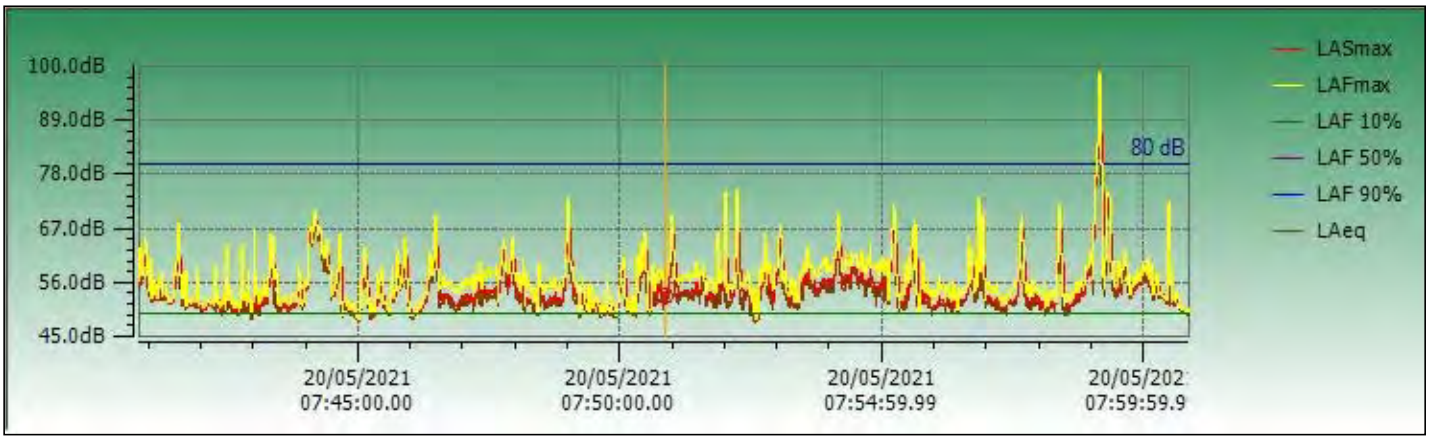
Casella CEL Ltd.

Report On CEL-63X

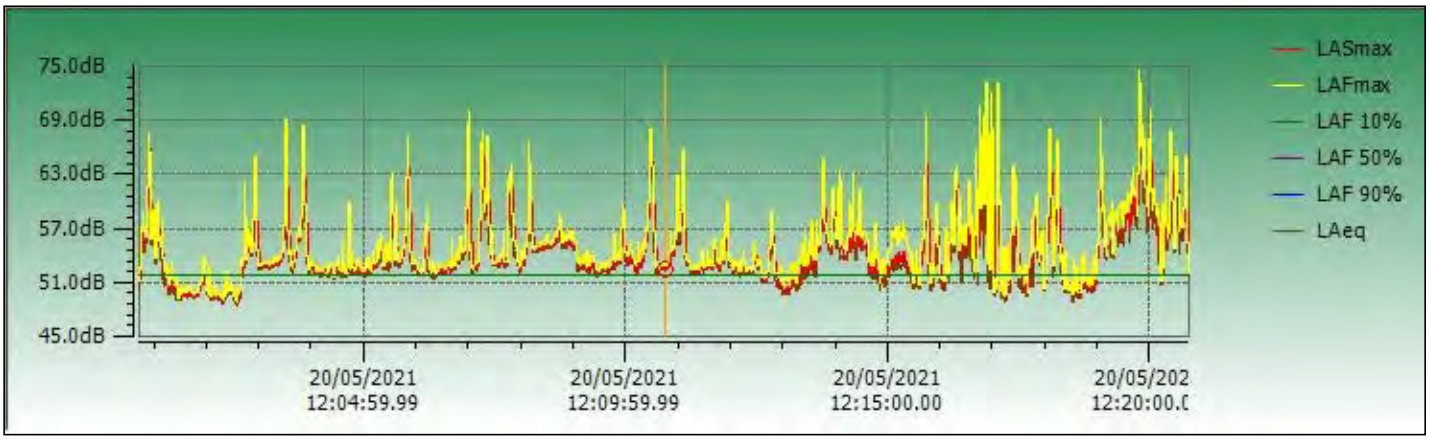
Instrument Model	**CEL-633C**			
Serial Number	4278006	LAS 10%	59 dB	Result
LASmax	76.2 dB	LAS 50%	56 dB	
LASmin	53.9 dB	LAS 90%	55 dB	
Start Date & Time	5/20/2021 4:30:30 PM	Calibration (Before) Date	5/20/2021 4:30:23 PM	
Duration	00:20:03 HH:MM:SS	Calibration (After) Date	5/20/2021 4:50:48 PM	
LAeq	57.5 dB	Calibration Drift	0.2 dB	
End Date & Time	5/20/2021 4:50:33 PM	Battery Low	No	
Notes				



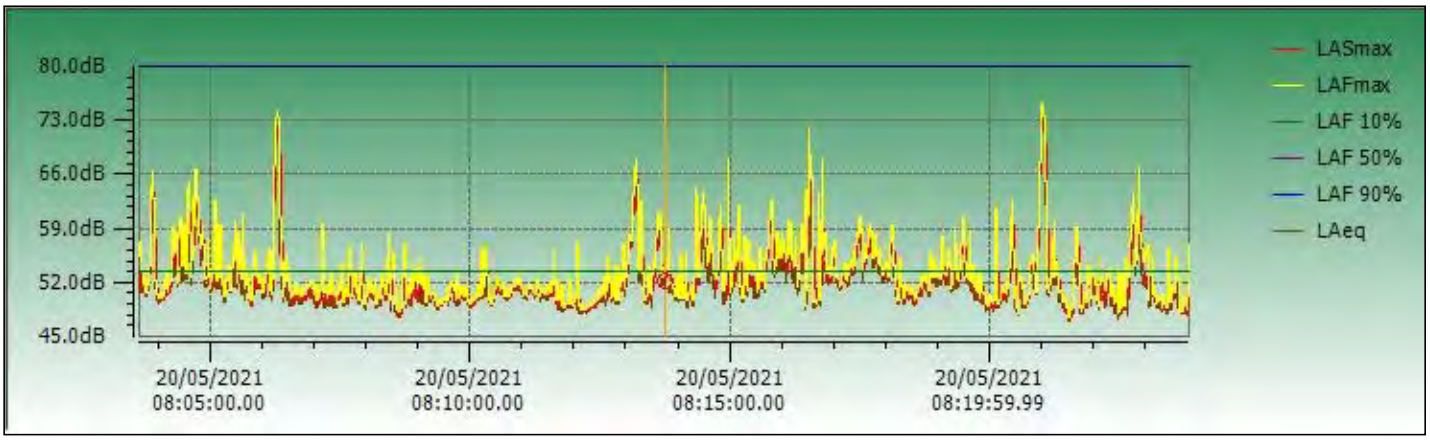
Instrument Model	CEL-633C			
Serial Number	4278006	LAS 10%	60.5 dB	Result
LASmax	92.4 dB	LAS 50%	53 dB	
LASmin	48.1 dB	LAS 90%	50.5 dB	
Start Date & Time	5/20/2021 7:40:49 AM	Calibration (Before) Date	5/20/2021 7:40:19 AM	
Duration	00:20:03 HH:MM:SS	Calibration (After) Date	5/20/2021 8:01:03 AM	
LAeq	64.7 dB	Calibration Drift	0.1 dB	
End Date & Time	5/20/2021 8:00:52 AM	Battery Low	No	
Notes				



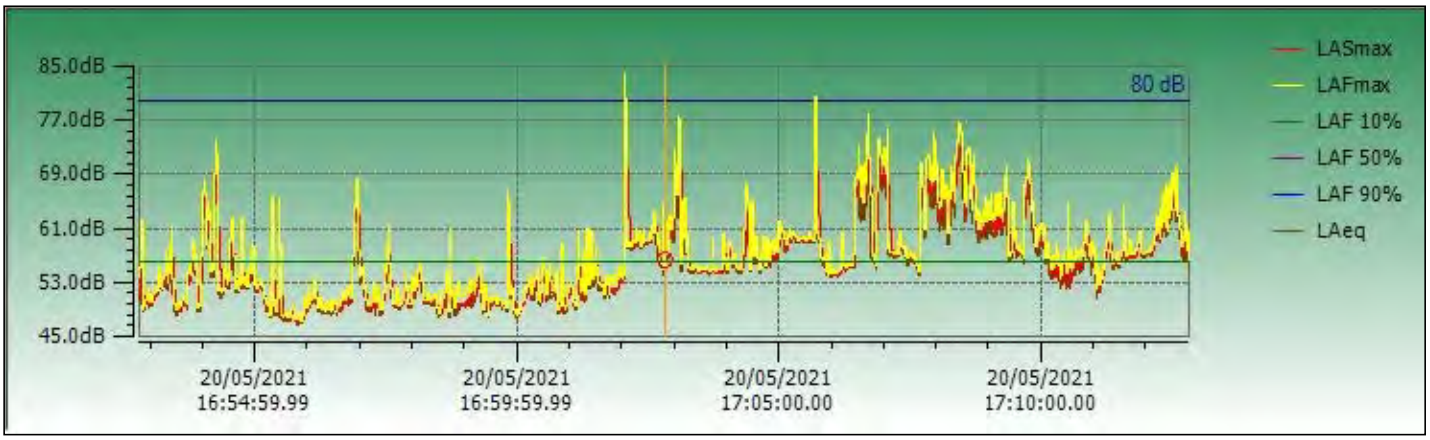
Instrument Model	CEL-633C			
Serial Number	4278006	LAS 10%	58.5 dB	Result
LASmax	71.1 dB	LAS 50%	53 dB	
LASmin	48.4 dB	LAS 90%	50.5 dB	
Start Date & Time	5/20/2021 12:00:43 PM	Calibration (Before) Date	5/20/2021 12:00:35 PM	
Duration	00:20:02 HH:MM:SS	Calibration (After) Date	5/20/2021 12:21:06 PM	
LAeq	56 dB	Calibration Drift	-0.4 dB	
End Date & Time	5/20/2021 12:20:45 PM	Battery Low	No	
Notes				



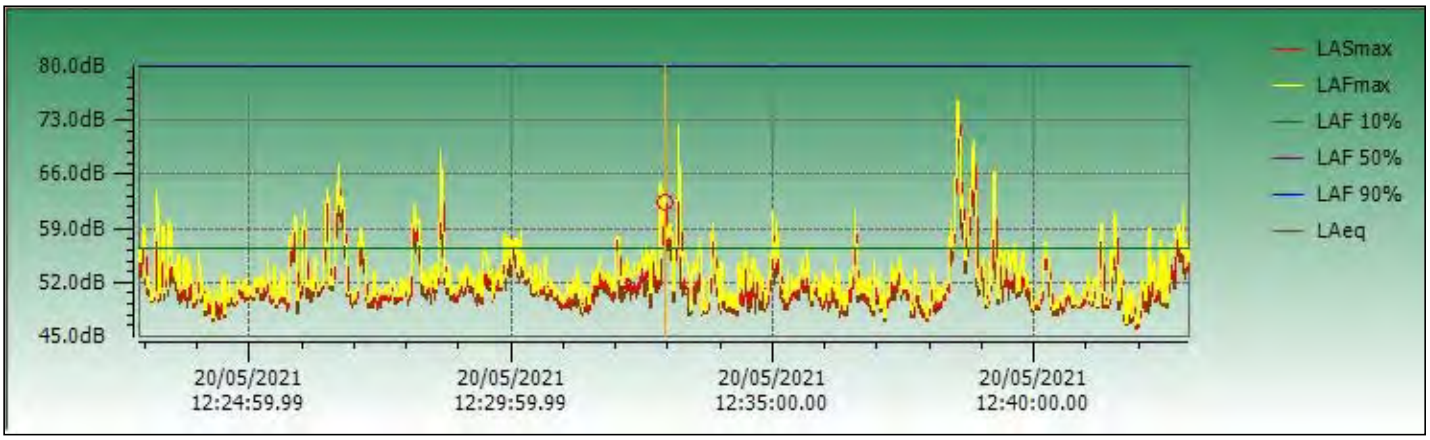
Instrument Model	**CEL-633C**			
Serial Number	4278006	LAS 10%	56 dB	Result
LASmax	72.9 dB	LAS 50%	51 dB	
LASmin	47.4 dB	LAS 90%	49 dB	
Start Date & Time	5/20/2021 8:03:37 AM	Calibration (Before) Date	5/20/2021 8:01:10 AM	
Duration	00:20:13 HH:MM:SS	Calibration (After) Date	5/20/2021 8:24:10 AM	
LAeq	54.9 dB	Calibration Drift	-0.2 dB	
End Date & Time	5/20/2021 8:23:50 AM	Battery Low	No	
Notes				



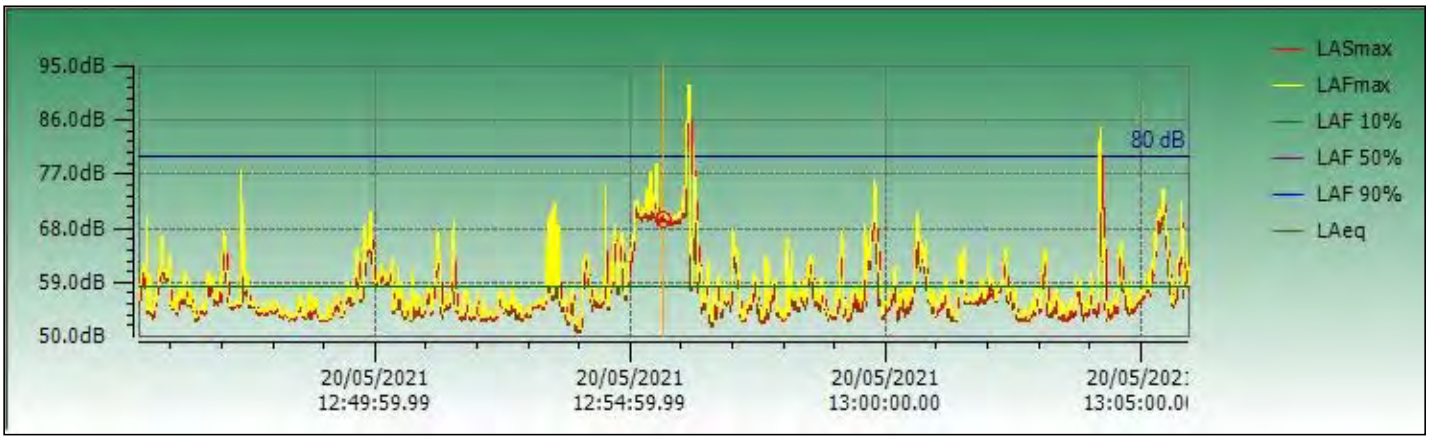
Instrument Model	CEL-633C			
Serial Number	4278006	LAS 10%	63.5 dB	Result
LASmax	78.4 dB	LAS 50%	55 dB	
LASmin	47 dB	LAS 90%	49 dB	
Start Date & Time	5/20/2021 4:52:47 PM	Calibration (Before) Date	5/20/2021 4:50:56 PM	
Duration	00:20:02 HH:MM:SS	Calibration (After) Date	5/20/2021 5:13:05 PM	
LAeq	60 dB	Calibration Drift	0.5 dB	
End Date & Time	5/20/2021 5:12:49 PM	Battery Low	No	
Notes				



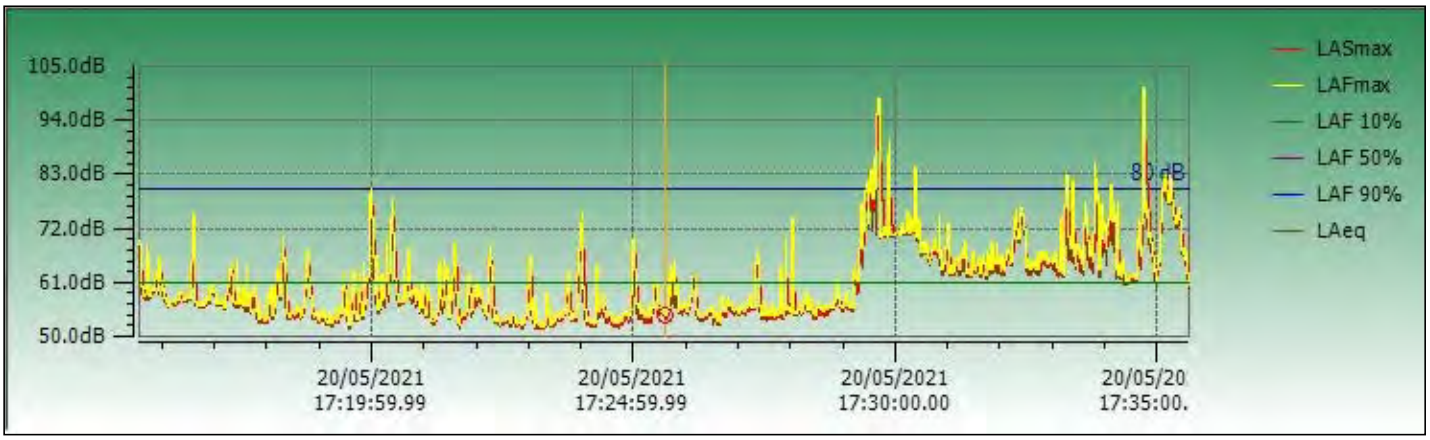
Instrument Model	**CEL-633C**			
Serial Number	4278006	LAS 10%	55.5 dB	Result
LASmax	72.9 dB	LAS 50%	50.5 dB	
LASmin	46.2 dB	LAS 90%	48.5 dB	
Start Date & Time	5/20/2021 12:22:53 PM	Calibration (Before) Date	5/20/2021 12:21:13 PM	
Duration	00:20:04 HH:MM:SS	Calibration (After) Date	5/20/2021 12:43:17 PM	
LAeq	54 dB	Calibration Drift	-0.4 dB	
End Date & Time	5/20/2021 12:42:57 PM	Battery Low	No	
Notes				



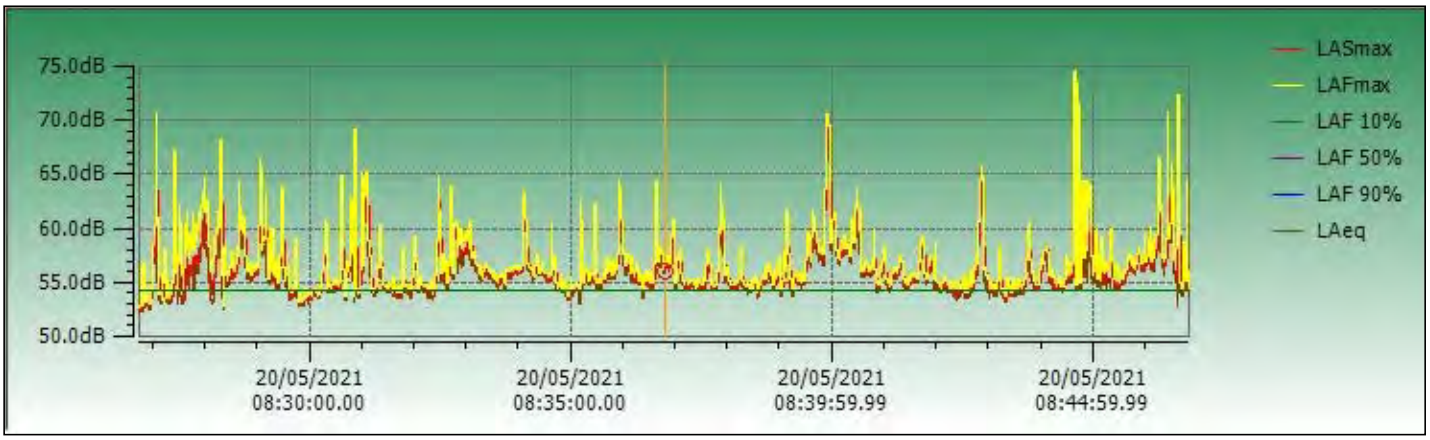
Instrument Model	**CEL-633C**			
Serial Number	4278006	LAS 10%	64.5 dB	Result
LASmax	89.5 dB	LAS 50%	55.5 dB	
LASmin	50.7 dB	LAS 90%	53 dB	
Start Date & Time	5/20/2021 12:45:23 PM	Calibration (Before) Date	5/20/2021 12:43:23 PM	
Duration	00:20:34 HH:MM:SS	Calibration (After) Date	5/20/2021 1:06:06 PM	
LAeq	65 dB	Calibration Drift	0.1 dB	
End Date & Time	5/20/2021 1:05:57 PM	Battery Low	No	
Notes				



Instrument Model	**CEL-633C**			
Serial Number	4278006	LAS 10%	71 dB	Result
LASmax	95.9 dB	LAS 50%	57.5 dB	
LASmin	51.5 dB	LAS 90%	53 dB	
Start Date & Time	5/20/2021 5:15:33 PM	Calibration (Before) Date	5/20/2021 5:13:05 PM	
Duration	00:20:03 HH:MM:SS	Calibration (After) Date	5/20/2021 5:36:26 PM	
LAeq	71.4 dB	Calibration Drift	-0.7 dB	
End Date & Time	5/20/2021 5:35:36 PM	Battery Low	No	
Notes				



Instrument Model	**CEL-633C**			
Serial Number	4278006	LAS 10%	58.5 dB	Result
LASmax	70.9 dB	LAS 50%	55.5 dB	
LASmin	52.2 dB	LAS 90%	54 dB	
Start Date & Time	5/20/2021 8:26:44 AM	Calibration (Before) Date	5/20/2021 8:24:17 AM	
Duration	00:20:06 HH:MM:SS	Calibration (After) Date	5/20/2021 8:47:24 AM	
LAeq	56.8 dB	Calibration Drift	0.4 dB	
End Date & Time	5/20/2021 8:46:50 AM	Battery Low	No	
Notes				



Noise Job Field Sheet

Name of Project: Concord Wales Rezoning 2021030

Project Address: 438 Concord Avenue Bronx

Date(s) of Field Work: 5/20/21

Personnel: John Vrabel

Project Specific Scope of Work:

3 x 20-minute locations AM, Midday, PM

Maximum Billable Hours for the Day: 15

I. Start of Noise Monitoring Day

Departure Time: 5:30 Arrival Time: 7:30

Weather Conditions (temp, wind speed, precipitation): Sunny 60's - 80's, dry low wind

Meter Type: Casella Meter Serial #: 4278006 Meter Location: 1, 2, +3
Meter Type: _____ Meter Serial #: _____ Meter Location: _____
Meter Type: _____ Meter Serial #: _____ Meter Location: _____
*If more locations are needed for a project use a second Field Sheet

Calibrator Serial #: 1090999 Meters used on: 4278006
Calibrator Serial #: _____ Meters used on: _____
Calibrator Serial #: _____ Meters used on: _____
Were Photos Taken of Each Location? (Y)/ N *Discuss specific photo instructions w/ Project Manager

**On a separate sheet of paper (field book) make a sketch of the noise meter locations and the distances to nearest wall, fence, building, or other solid surfaces.*

II. Morning Session 7:30 AM – 9:00 AM

Before Measurement:

Meter Serial #: ~~7240~~ 4278006 Time: 7:40 Calibration Passed at 114 dB? (Y) / N
Meter Serial #: " Time: 8:00 Calibration Passed at 114 dB? (Y) / N
Meter Serial #: " Time: 8:23 Calibration Passed at 114 dB? (Y) / N

After Measurement:

Meter Serial #: 4278006 Time: 8:00 Calibration Passed at 114 dB? (Y) / N
Meter Serial #: " Time: 8:23 Calibration Passed at 114 dB? (Y) / N
Meter Serial #: " Time: 8:46 Calibration Passed at 114 dB? (Y) / N

*If more locations are needed for a project use a second Field Sheet

Location #	Start Time	End Time
1	7:40	8:00
2	8:00	8:23
3	8:26	8:46

*If more locations are needed for a project use a second Field Sheet

Location #	Car	SUV	Medium Truck	Heavy Truck	Bus	Train
1	10	13	0	0	0	—
2	0	2	1	0	0	—
3	8	12	1	0	0	—

*If more locations are needed for a project use a second Field Sheet

Noise Source: please note any loud noises here and time (sirens, garbage truck, etc):
hand car washing adjacent to Loc. 2 during entirety of monitoring period.

Please place noise meters in their respective cases between sessions to avoid damage.

III. Midday Session 12:00 PM – 1:30 PM

Before Measurement:

Meter Serial #: 4278006 Time: 12:00 Calibration Passed at 114 dB? Y / N
Meter Serial #: " " Time: 12:20 Calibration Passed at 114 dB? Y / N
Meter Serial #: " " Time: 12:42 Calibration Passed at 114 dB? Y / N

After Measurement:

Meter Serial #: 4278006 Time: 12:20 Calibration Passed at 114 dB? Y / N
Meter Serial #: " " Time: 12:42 Calibration Passed at 114 dB? Y / N
Meter Serial #: " " Time: 13:05 Calibration Passed at 114 dB? Y / N
*If more locations are needed for a project use a second Field Sheet

Location #	Start Time	End Time
1	12:00	12:20
2	12:22	12:42
3	12:45	13:05

*If more locations are needed for a project use a second Field Sheet

Location #	Car	SUV	Medium Truck	Heavy Truck	Bus	Train
1	5	5	0	0	0	—
2	7	6	1	0	0	—
3	17	20	2	0	0	—

*If more locations are needed for a project use a second Field Sheet

Noise Source: please note any loud noises here and time (sirens, garbage truck, etc):

Please place noise meters in their respective cases between sessions to avoid damage.

IV. Evening Session 4:30 PM – 6:00 PM

Before Measurement:

Meter Serial #: 4278006 Time: 16:30 Calibration Passed at 114 dB? (Y) / N
Meter Serial #: " " Time: 16:50 Calibration Passed at 114 dB? (Y) / N
Meter Serial #: " " Time: 17:12 Calibration Passed at 114 dB? (Y) / N

After Measurement:

Meter Serial #: 4278006 Time: 16:50 Calibration Passed at 114 dB? (Y) / N
Meter Serial #: " " Time: 17:12 Calibration Passed at 114 dB? (Y) / N
Meter Serial #: " " Time: 17:35 Calibration Passed at 114 dB? (Y) / N
*If more locations are needed for a project use a second Field Sheet

Location #	Start Time	End Time
1	16:30	16:50
2	16:52	17:12
3	17:15	17:35

*If more locations are needed for a project use a second Field Sheet

Location #	Car	SUV	Medium Truck	Heavy Truck	Bus	Train
1	8	10	0	0	0	—
2	9	6	1	0	0	—
3	15	13	3	1	0	—

*If more locations are needed for a project use a second Field Sheet

Noise Source: please note any loud noises here and time (sirens, garbage truck, etc):
- tow truck w/ back up alarm at 17:01 - 17:07 near loc. 2
- box truck honks loudly and idles next to meter at location 3 at 17:30 - out of monitoring

Please place noise meters in their respective cases between sessions to avoid damage.

V. End of Noise Monitoring Day

- Please return all noise meters to their cases.
- Do not return dead batteries to the cases, throw them out.
- Did you take photos? Y / N
- Did you complete the site sketch? Y / N
- If a meter(s) was rented, please scan in calibration documents.

Anything of note/concern for the day: _____

_____

_____

Departure Time: 17:45 Arrival Time: _____

Total Time to Be Billed: 15

Legend

- Projected Development Site 1
- Projected Development Site 2
- Rezoning Area
- Noise Monitoring Locations

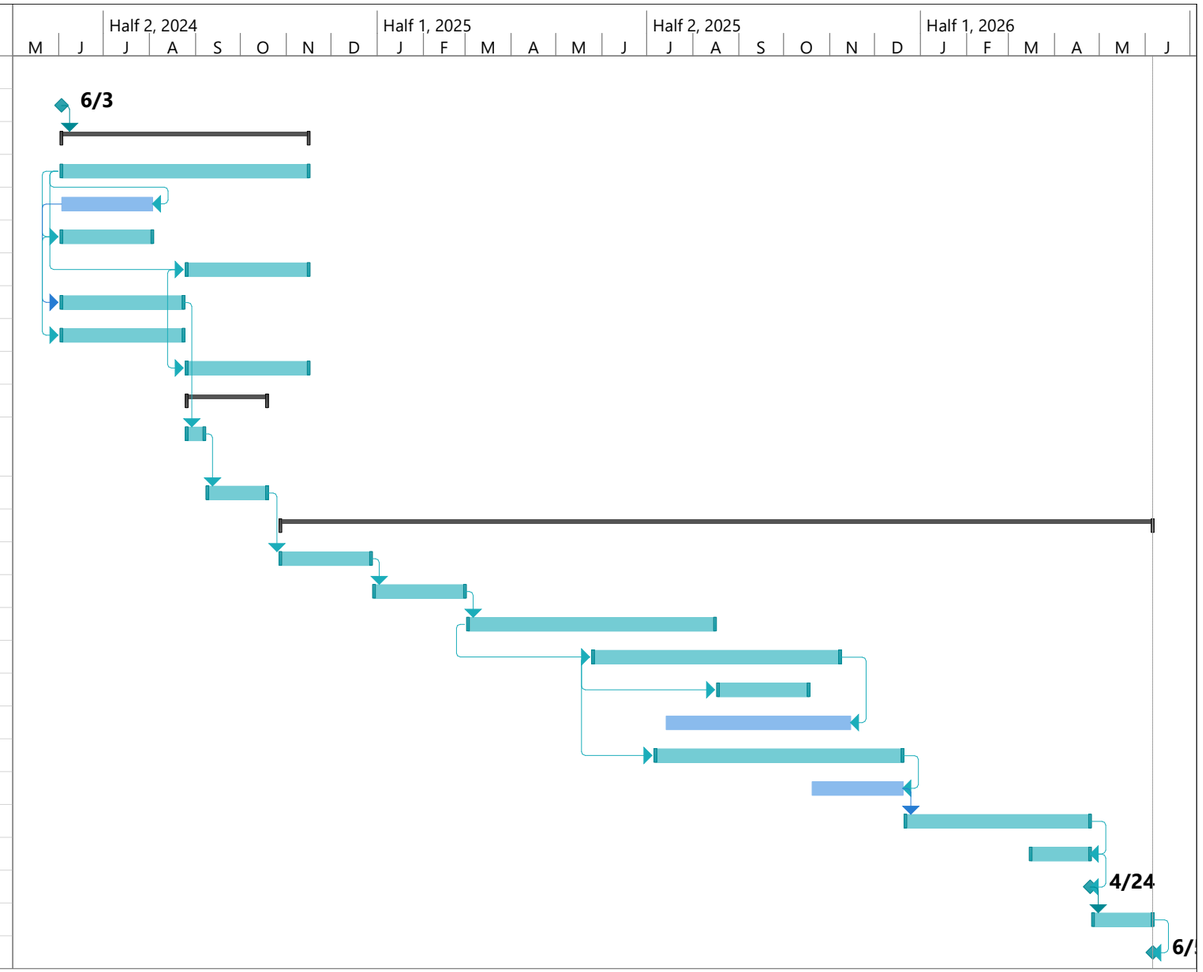
100 US Feet

N

APPENDIX G

CONSTRUCTION SCHEDULE

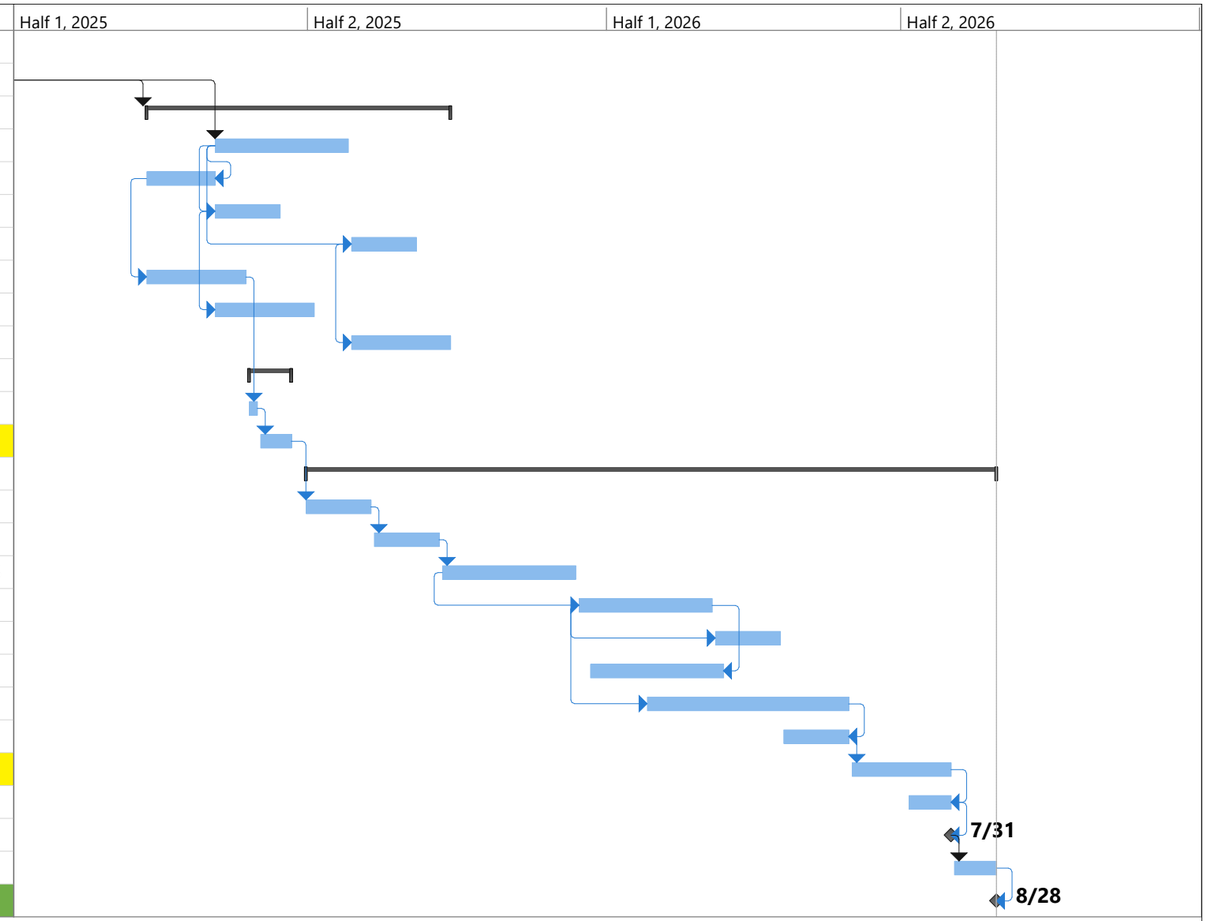
ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors
1		**Proejcted Devlopment Site 1**				
2		ULURP Approvals	0 days	6/3/2024	6/3/2024	
3		**Pre Construction Activities**	**120 days**	**6/3/2024**	**11/15/2024**	**2**
4		Schematic - Construction Documents	120 days	**6/3/2024**	11/15/2024	
5		BID & Award - Demolition	45 days	6/3/2024	8/2/2024	4SF
6		BID & Award - Foundation	45 days	6/3/2024	8/2/2024	4SS
7		BID & Award - Full Building	60 days	8/26/2024	11/15/2024	4SS+60 days
8		DOB Approval - Demolition	60 days	6/3/2024	8/23/2024	5SS
9		DOB Approval - Foundation	60 days	6/3/2024	8/23/2024	6SS
10		DOB Approval - Full Building	60 days	8/26/2024	11/15/2024	7SS
11		**Demolition and Site Clearance**	**40 days**	**8/26/2024**	**10/18/2024**	
12		Mobilization/ Building Protection/Temp Facilities	10 days	8/26/2024	9/6/2024	8
13		Demolition & Site Clearing	30 days	9/9/2024	10/18/2024	12
14		**Construction**	**420 days**	**10/28/2024**	**6/5/2026**	
15		Excavation and Support of Excavation	45 days	10/28/2024	12/27/2024	13FS+5 days
16		Foundation	45 days	12/30/2024	2/28/2025	15
17		Superstructure	120 days	3/3/2025	8/15/2025	16
18		Façade Enclosure	120 days	5/26/2025	11/7/2025	17SS+60 days
19		Roofing and Waterproofing	45 days	8/18/2025	10/17/2025	18SS+60 days
20		Elevator	90 days	7/14/2025	11/14/2025	18FF+5 days
21		Interior Core and Shell	120 days	7/7/2025	12/19/2025	18SS+30 days
22		DOB Inspection Core and Shell	45 days	10/20/2025	12/19/2025	21FF
23		Interior Finishes & Fitout	90 days	12/22/2025	4/24/2026	22
24		Fire Inspection Approval	30 days	3/16/2026	4/24/2026	23FF
25		Obtain TCO	0 days	4/24/2026	4/24/2026	24FF
26		Final Punchlist & Cleaning	30 days	4/27/2026	6/5/2026	25
27		Certificate of Occupancy	0 days	6/5/2026	6/5/2026	26FF



Project: Projected Developmen
Date: 11/16/2022

Task	Project Summary	Manual Task	Start-only	Deadline	
Split	Inactive Task	Duration-only	Finish-only	Progress	
Milestone	Inactive Milestone	Manual Summary Rollup	External Tasks	Manual Progress	
Summary	Inactive Summary	Manual Summary	External Milestone		

ID	Task	Task Name	Duration	Start	Finish
1		**Proejcted Devlopment Site 2**			
2		ULURP Approvals	0 days	6/3/2024	6/3/2024
3		**Pre Construction Activities**	**135 days**	**3/24/2025**	**9/26/2025**
4		Schematic - Construction Documents	60 days	5/5/2025	7/25/2025
5		BID & Award - Demolition	30 days	3/24/2025	5/5/2025
6		BID & Award - Foundation	30 days	5/5/2025	6/13/2025
7		BID & Award - Full Building	30 days	7/28/2025	9/5/2025
8		DOB Approval - Demolition	45 days	3/24/2025	5/23/2025
9		DOB Approval - Foundation	45 days	5/5/2025	7/4/2025
10		DOB Approval - Full Building	45 days	7/28/2025	9/26/2025
11		**Demolition and Site Clearance**	**20 days**	**5/26/2025**	**6/20/2025**
12		Mobilization/ Building Protection/Temp Facilities	5 days	5/26/2025	5/30/2025
13		Demolition & Site Clearing	15 days	6/2/2025	6/20/2025
14		**Construction**	**305 days**	**6/30/2025**	**8/28/2026**
15		Excavation and Support of Excavation	30 days	6/30/2025	8/8/2025
16		Foundation	30 days	8/11/2025	9/19/2025
17		Superstructure	60 days	9/22/2025	12/12/2025
18		Façade Enclosure	60 days	12/15/2025	3/6/2026
19		Roofing and Waterproofing	30 days	3/9/2026	4/17/2026
20		Elevator	60 days	12/22/2025	3/13/2026
21		Interior Core and Shell	90 days	1/26/2026	5/29/2026
22		DOB Inspection Core and Shell	30 days	4/20/2026	5/29/2026
23		Interior Finishes & Fitout	45 days	6/1/2026	7/31/2026
24		Fire Inspection Approval	20 days	7/6/2026	7/31/2026
25		Obtain TCO	0 days	7/31/2026	7/31/2026
26		Final Punchlist & Cleaning	20 days	8/3/2026	8/28/2026
27		Certificate of Occupancy	0 days	8/28/2026	8/28/2026



Project: Projected Developmen
Date: 11/16/2022

Task	Project Summary	Manual Task	Start-only	Deadline
Split	Inactive Task	Duration-only	Finish-only	Progress
Milestone	Inactive Milestone	Manual Summary Rollup	External Tasks	Manual Progress
Summary	Inactive Summary	Manual Summary	External Milestone	