Known for excellence.
Built on trust.

17-21 Wharton Place Rezoning

Environmental Assessment Statement

Address: 17-21 Wharton Place, Brooklyn, New York 11208

Block 4105, Lots 72, 75, 77, 178, 179, 180, 181, 81, 82, and part of 182

CEQR Reference: Pending

ULURP Reference: Pending

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

Prepared for:
CCM Capital Group

Prepared by:
GZA GeoEnvironmental



Date Submitted:
July 15, 2025

GZA GeoEnvironmental
55 Lane Road | Fairfield, NJ 07004
104 West 29th St, 10th Fl | New York, NY 10001
www.gza.com | GZA LinkedIn

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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* 17-21 Wharton Place Rezoning

3. *Reference Numbers*

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

4a. *Lead Agency Information*			**4b. *Applicant Information***		
NAME OF LEAD AGENCY New York City Department of City Planning			NAME OF APPLICANT CCM Capital Group		
NAME OF LEAD AGENCY CONTACT PERSON Stephanie Shellooe, AICP, Director of EARD			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON Amber Kartalyan - GZA GeoEnvironmental		
ADDRESS 120 Broadway, 31st Floor			ADDRESS 55 Lane Road		
CITY New York	STATE NY	ZIP 10271	CITY Fairfield	STATE NJ	ZIP 07004
TELEPHONE 212-720-3328	EMAIL sshellooe@planning.nyc.gov		TELEPHONE 201-757-3561	EMAIL amber.kartalyan@gza.com	

5. *Project Description*

The "Applicant," CCM Capital Group, seeks a Zoning Map Amendment from R5 to R6A that would affect Block 4105, Lots 72, 75, 77, 178, 179, 180, 181, 81, 82, and part of 182 (The Affected Area) in the Cypress Hills neighborhood of Brooklyn Community District 5. The Affected Area comprises approximately 25,229 SF of area, 15,214 SF of which is controlled by the Applicant. The Affected Area is located within an R5 zoning district and is bounded by Wharton Place to the north, Euclid Avenue to the west, Etna Street to the south, and Crescent Street to the east. The Affected Area is also situated just south of Jamaica Avenue, a major commercial corridor.

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. The Zoning Map Amendment and Zoning Text Amendment constitute the "Proposed Actions".

The Proposed Actions are sought to facilitate the Applicant's development of 17-21 Wharton Place, located on Block 4105, Lots 72, 75 and 77 ("Projected Development Site 1"). The "Proposed Development" involves the construction of a single 7-story plus cellar 68,169 gross square foot "GSF" (56,197 zoning square foot "ZSF", 3.69-FAR) mixed residential and community facility building. The building would contain approximately 1,341 GSF (1,341 ZSF, 0.09 FAR) of ground floor community facility use and 66,828 GSF (54,856 ZSF, 3.61 FAR) of residential uses. The Proposed Development would result in 73 dwelling units, 20-30% (15-22 units) of which would be affordable at an average of 60-80% AMI pursuant to Options 1, 2, or 3, depending on the option selected. The Applicant intends to pursue MIH Option 1, which would result in 18 affordable units at an average of 60% AMI. The building would reach a base height of 65 feet and a maximum height of 75 feet. The building would set back 7' after the proposed base height of 65 feet per ZR Section 23-433(a). No parking would be required or provided per ZR Section 25-222, and no new curb cuts would be proposed. The Proposed Development will include a 76' diameter fire apparatus turnaround on Wharton Place, a dead-end roadway.

The environmental assessment examines the incremental differences between the Reasonable Worst Case Development Scenario (RWCDS) of the future without the project in place (Future No-Action Condition) and the future with the Proposed Actions (Future With-Action Condition). The RWCDS under Future With-Action Conditions is as follows:

The Projected Development Site (Applicant-owned Block 4105, Lot 72, 75, 77) would be developed with a single 71,305 GSF (59,333 ZSF, 3.90 FAR) mixed residential and community facility building containing approximately 69,964 GSF (57,992 ZSF, 3.81 FAR) of residential uses and 1,341 GSF (1,341 ZSF, 0.09 FAR) of ground floor community facility use. There would be approximately 73 dwelling units, 20-30% (15-22 units) of which would be affordable at an average of 60-80% AMI pursuant to MIH Option 1, 2 or 3, depending on the option selected. It is the Applicant's intention to map Option 1, which would result in 18 affordable units (25%) at an average of 60% AMI. For the purposes of Early Childhood Programs analysis, 20% of the residential floor area (15 units) is assumed to be affordable at or below 60% AMI. The building would have 9 stories and rise to 95 feet. No parking would be required or provided per ZR Section 25-222, and no new curb cuts would be proposed.

The Proposed Actions are discretionary actions subject to environmental review. The New York City 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).

Project Location

BOROUGH Brooklyn	COMMUNITY DISTRICT(S) 5	STREET ADDRESS 17-21 Wharton Place
TAX BLOCK(S) AND LOT(S) Block 4105, Lots 72, 75, 77, 178, 179, 180, 181, 81, 82, and part of 182		ZIP CODE 11208

DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS The Affected Area is bounded by Jamaica Avenue and Wharton Place to the north, Euclid Avenue to the west, Etna Street to the south, and Crescent Street to the east.

EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY R5 | ZONING SECTIONAL MAP NUMBER 17c

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 (1) a Zoning Map Amendment to map an R6A zoning district in the Affected Area currently zoned as R5 (2) Zoning Text Amendment to Appendix F to add a Mandatory Inclusionary Housing (MIH) area coterminous with the Affected Area

***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.): 25,229 Waterbody area (sq. ft) and type:

Roads, buildings, and other paved surfaces (sq. ft.): 25,229 Other, describe (sq. ft.):

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): 71,305

NUMBER OF BUILDINGS: 1 GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): 71,305

HEIGHT OF EACH BUILDING (ft.): 95 NUMBER OF STORIES OF EACH BUILDING: 9

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: 15,214

The total square feet not owned or controlled by the applicant: 10,015

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: 9,082 sq. ft. (width x length) VOLUME OF DISTURBANCE: 90,820 cubic ft. (width x length x depth)

AREA OF PERMANENT DISTURBANCE: 9,082 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.)	69,964		1,341	
Type (*e.g.,* retail, office, school)	73 units		Medical Office	

Does the proposed project increase the population of residents and/or on-site workers? ☒ YES ☐ NO

If "yes," please specify: NUMBER OF ADDITIONAL RESIDENTS: 197 NUMBER OF ADDITIONAL WORKERS: 8

Provide a brief explanation of how these numbers were determined: Assumes 2.9 residents per household for Brooklyn Community District 5, 1 employee per 25 DU and 1 employee per 250 gsf of medical office

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): 2028

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 18

WOULD THE PROJECT BE IMPLEMENTED IN A SINGLE PHASE? ☒ YES ☐ NO IF MULTIPLE PHASES, HOW MANY?

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: The analysis year for the Proposed Project is based on a projected 14-month CEQR review period, a 7-month ULURP process, 6 months of design development and permitting, and an 18-month single-phase construction schedule for the Applicant-owned Projected Development Site.

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

☒ RESIDENTIAL ☒ MANUFACTURING ☒ COMMERCIAL ☒ PARK/FOREST/OPEN SPACE ☒ OTHER, specify: Institutional, parking, and transportation and utility

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 2.3		
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:	☒	☐
(j) Based on the Phase I Assessment, is a Phase II Investigation needed? See Section 2.5	☒	☐
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): 3367.55		
○ 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): 9,200,578.20		
(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)	☐	☒
(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; 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		

	YES	NO
preliminary analysis, if necessary. No significant unmitigated adverse impact is found in other CEQR analysis areas, such as air quality, water quality, hazardous materials, or noise; accordingly a public health analysis 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. An assessment of neighborhood character is generally recommended when a proposed project has the potential to result in significant adverse impacts in any technical area presented above, or when the project may have moderate effects on several of the elements that define a neighborhood's character. There would be no significant impacts to any of the constituent elements of Neighborhood Character.		
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.		

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
Amber Kartalyan	7/15/2025

SIGNATURE Amber Kartalyan

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.

Figure 1.1-1: Site Location Map

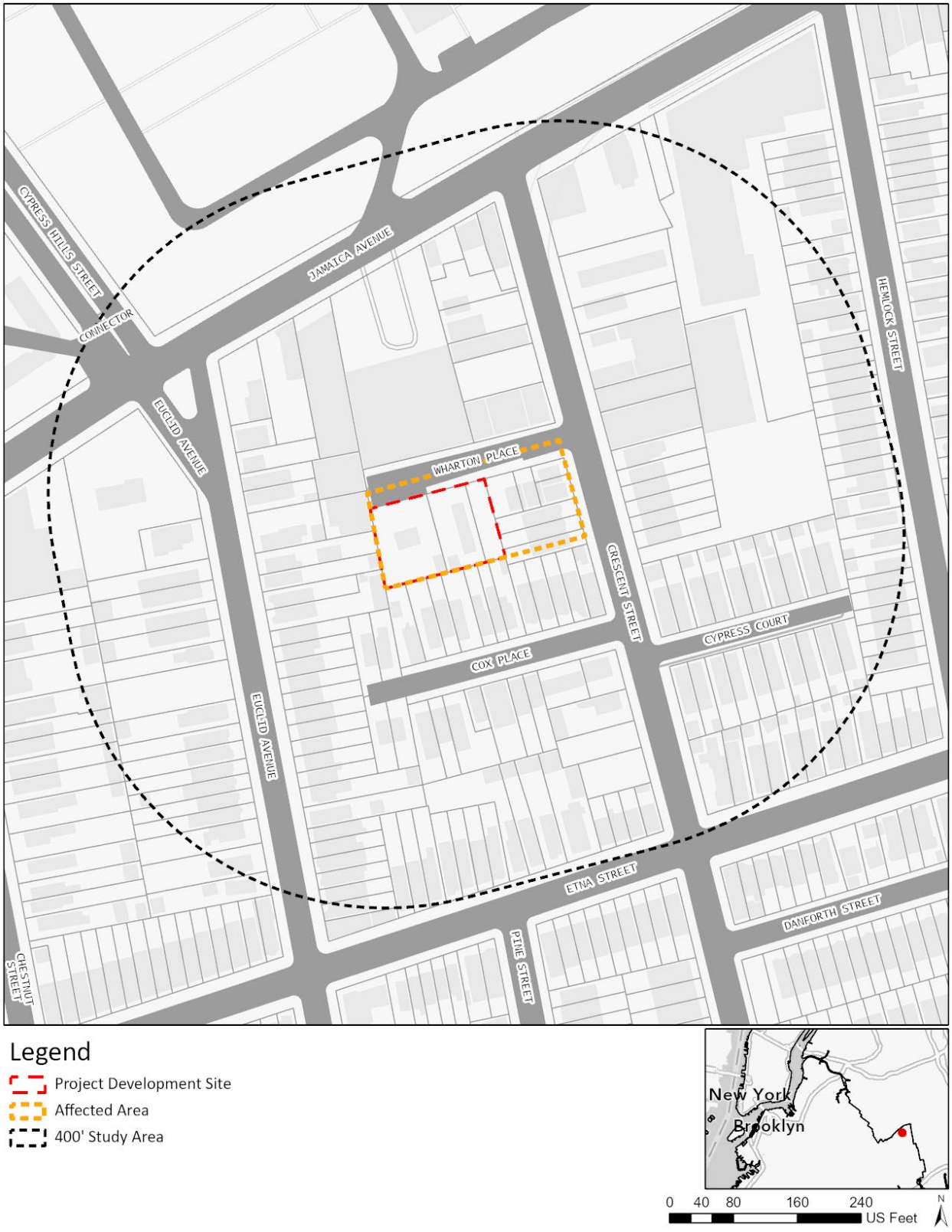


Figure 1.1-2: Existing Land Use Map

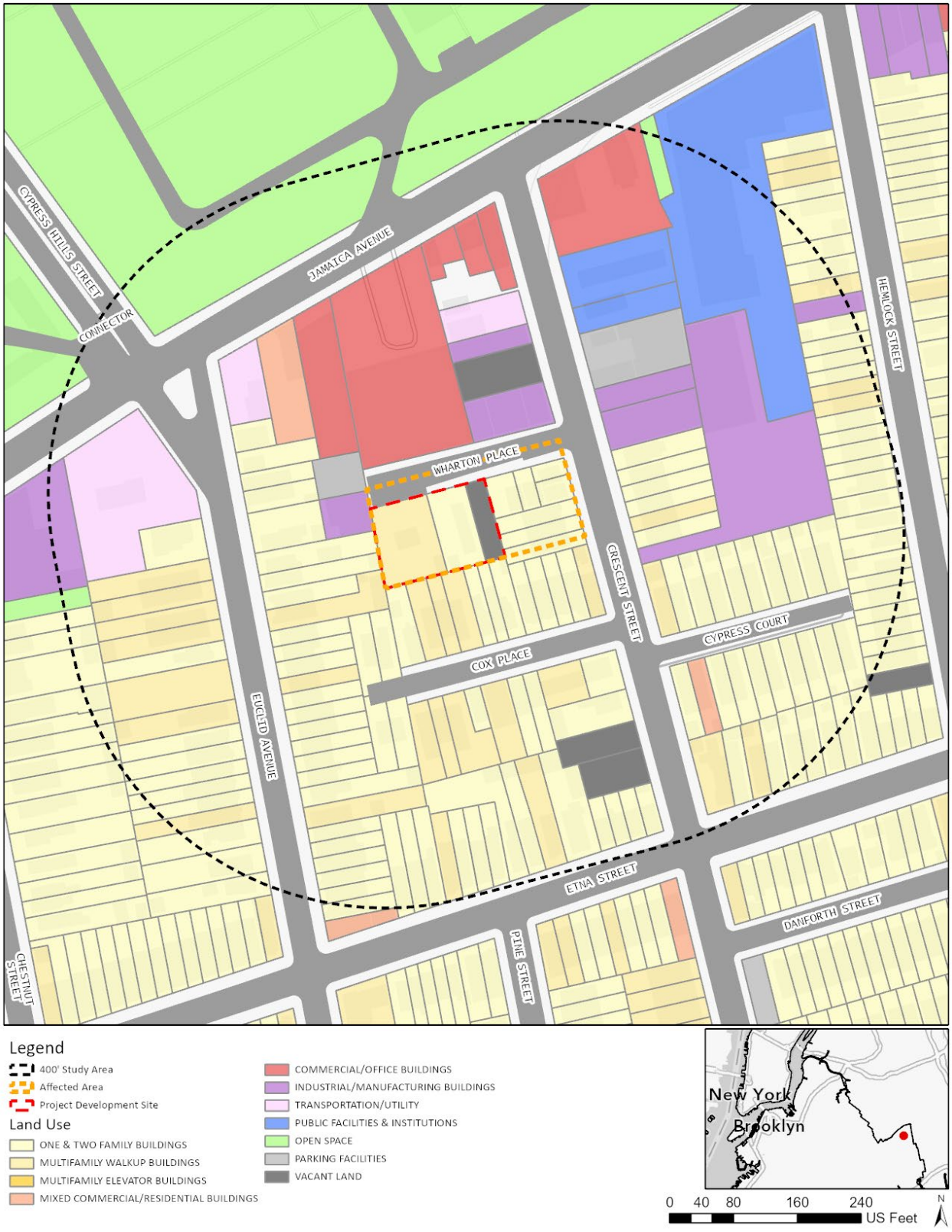


Figure 1.1-3: Zoning Sectional Map

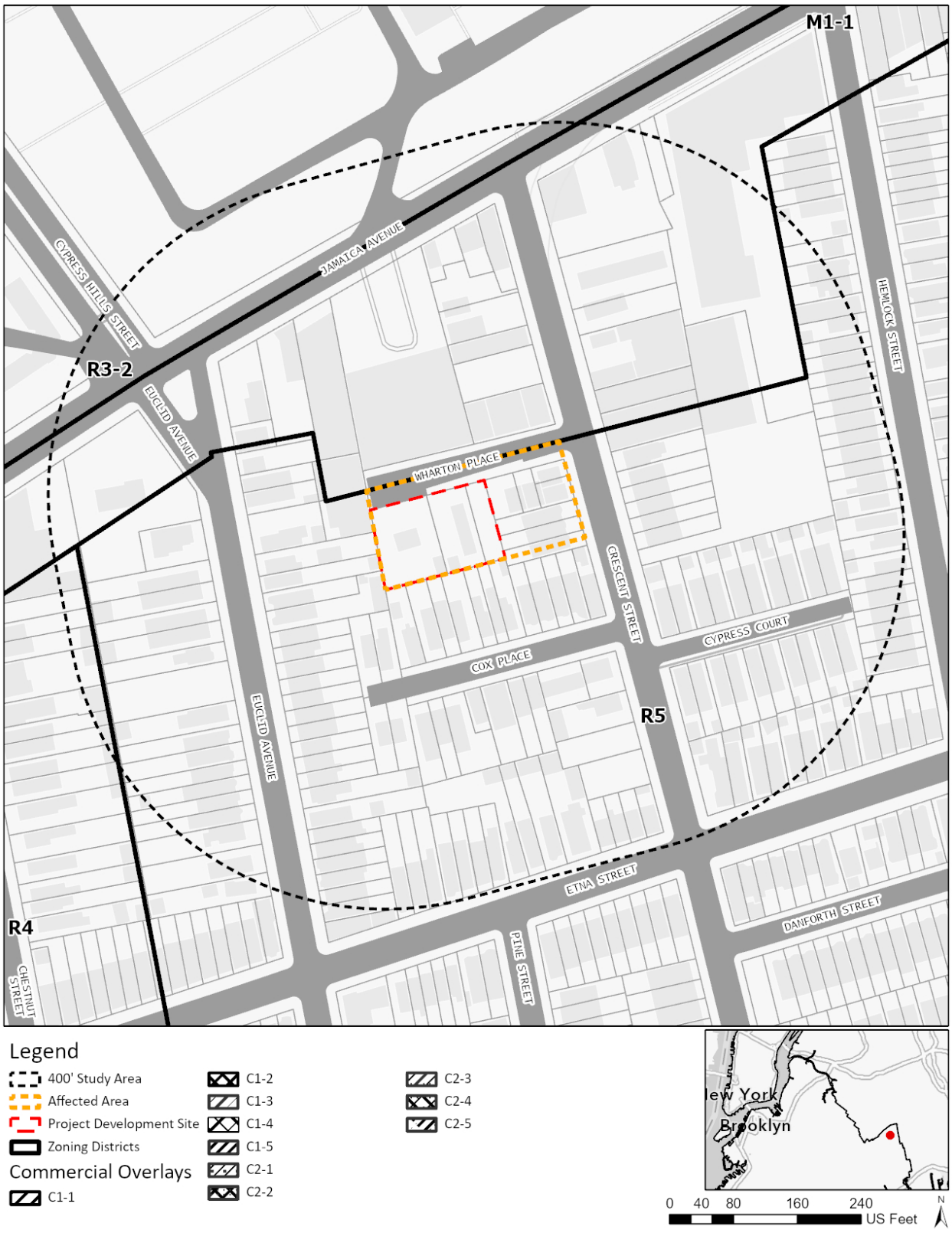


Figure 1.1-4: Zoning Change Map



Figure 1.1-5: Tax Map



Figure 1.1-6: Site/Area Photos



1 View of the Development Site facing southeast from Wharton Place.



Project Site Photo Key



2 View of the Development Site facing south from Wharton Place.



3 View of the Development Site facing southwest from Wharton Place.

Figure 1.1-7: Site/Area Photos



4 View of the north side of Wharton Place facing northwest from the Development Site.



Project Site Photo Key



5 View of the sidewalk along the south side of Wharton Place facing east (Development Site at right)



6 View of Wharton Place facing east (Development Site at right).

Figure 1.1-8: Site/Area Photos



7 View of the sidewalk along the south side of Wharton Place facing west



Project Site Photo Key



8 View of the north side of Wharton Place facing northeast from the Development Site.



9 View of the sidewalk along the south side of Wharton Place facing east (Project Area at right).

Figure 1.1-9: Site/Area Photos



10 View of the Project Area facing southeast from Wharton Place.



Project Site Photo Key



11 View of the Project Area facing south from Wharton Place.



12 View of the Project Area facing southwest from Wharton Place.

Figure 1.1-10: Site/Area Photos



13 View of the sidewalk along the south side of Wharton Place facing west from Crescent Street (Project Area at left).



Project Site Photo Key



14 View of the east side of Crescent Street facing northeast from the Project Area.



15 View of the sidewalk along the west side of Crescent Street facing southfrom Wharton Place (Project Area at right).

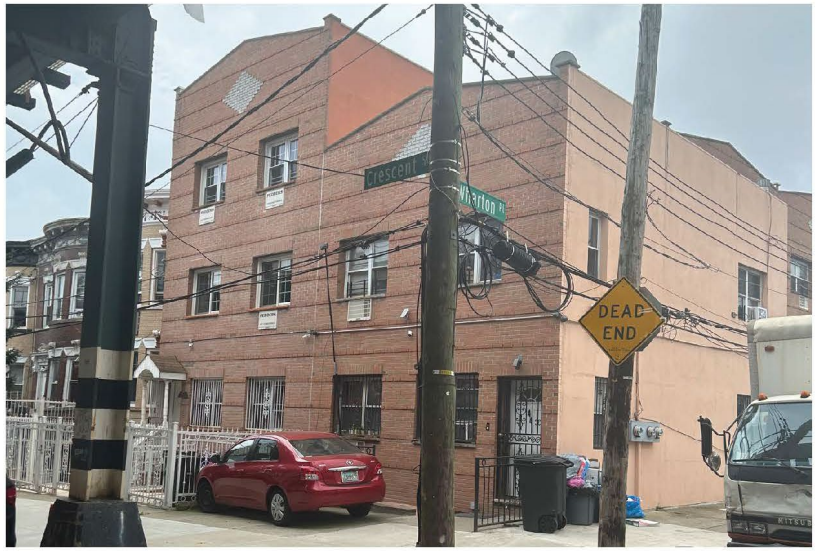
Figure 1.1-11: Site/Area Photos



16 View of Wharton Place facing west from Crescent Street (Project Area at left).



Project Site Photo Key



17 View of the Project Area facing southwest from Crescent Street.



18 View of the Project Area facing west from Crescent Street.

Figure 1.1-12: Site/Area Photos



19 View of the Project Area facing northwest from Crescent Street.



Project Site Photo Key



20 View of Crescent Street facing north (Project Area ahead at left).



21 View of the east side of Crescent Street facing southeast from the Project Area.

1 PROJECT DESCRIPTION

1.1 Introduction

The Applicant, CCM Capital Group, seeks a Zoning Map Amendment from R5 to R6A that would affect Block 4105, Lots 72, 75, 77, 178, 179, 180, 181, 81, 82, and part of Lot 182 ("The Affected Area") in the Cypress Hills neighborhood of Brooklyn Community District 5. 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. The Affected Area comprises approximately 25,229 square feet of area, with 15,214 square feet under the Applicant's control. The Affected Area is bounded by Wharton Place to the north, Euclid Avenue to the west, Etna Street to the south, and Crescent Street to the east. It is also situated just south of Jamaica Avenue, a major commercial corridor.

As discussed below under Section 1.5, the Proposed Actions are sought to facilitate the Applicant's development of 17-21 Wharton Place, located on Block 4105, Lots 72, 75 and 77 ("Projected Development Site 1"). "The Proposed Development" involves the construction of a single 7-story plus cellar 68,169 gross square foot ("GSF") or 56,197 zoning square foot ("ZSF"), 3.69-FAR mixed residential and community facility building. The building would contain approximately 1,341 GSF (1,341 ZSF, 0.09 FAR) of ground floor community facility use and 66,828 GSF (54,856 ZSF, 3.61 FAR) of residential uses. The Proposed Development would include 73 dwelling units, 20-30% (15-22 units) of which would be affordable at an average of 60-80% AMI pursuant to Options 1, 2, or 3, depending on the option selected. The Applicant intends to pursue MIH Option 1, which would result in 18 affordable units at an average of 60% AMI. The building would rise to a base height of 65 feet and a maximum height of 75 feet. The building would set back 7' after the proposed base height of 65 feet per ZR Section 23-433(a). No parking would be required or provided per ZR Section 25-222, and no new curb cuts would be proposed. The Proposed Development will include a 76' diameter fire apparatus turnaround on Wharton Place, a dead-end roadway.

The Zoning Map Amendment and Zoning Text Amendment constitute the Proposed Actions. The Proposed Actions are discretionary actions subject to environmental review. The New York City 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).

1.2 Background and Site History

The Affected Area was initially mapped R5 with the enactment of the zoning ordinance in 1961 and has not been rezoned since then.

There are several records of Certificates of Occupancy (COs) for existing buildings within the Affected Area:

Lot 72:

- A 1991 CO permitted 2 story two-family dwelling building.

Lot 75:

- A 2018 CO permitted a cellar accessory use, boiler room, and storage, a one family dwelling on the first floor, and a second-floor one family dwelling.

Lot 179:

- A 2009 CO permitted two family dwellings on first and second floors, respectively, for a total of 2 family dwellings.

Lot 180

- A 2009 CO permitted storage and boiler room in the cellar and two apartments on the first through second floors.

Lot 181:

- A 2009 CO permitted two family dwellings on the first through third floors, respectively, for a total of 2 family dwellings.

There are no existing E-designations, historic or other designations within the Affected Area.

There is one prior rezoning in "the Surrounding Area" or the area within 400 feet of the Affected Area. Cypress Hills Rezoning (ULURP No. 980131ZMX, CEQR No. 98DCP021K, effective April 28, 1998) included a zoning map amendment filed by the Cypress Hills Community Coalition and the Department of City Planning. The Cypress Hills Rezoning rezoned a portion of the residential mid-blocks of a row of eight blocks bounded by Jamaica Avenue to the north, Logan Street to the west, Etna Street to the south, and Nichols Avenue to the east from M1-1 to R4, R4/C2-4 and R5. This rezoning sought to limit new industrial and commercial uses to Jamaica Avenue and was indicative of the area's trend toward non-contextual residential zoning districts.

In addition, in 2016, a private application by Western Beef requested a FRESH Certification (N 170379ZCK) to allow a store over 10,000 square feet in an M1-1 district and a reduction in the required parking, at 814 Jamaica Avenue, Block 4105 Lot 36, located north across the street from the Projected Development Site.

1.3 Description of the Surrounding Area

The Affected Area is located within the Cypress Hills neighborhood of Brooklyn, Community District 5. The Affected Area is bounded by Wharton Place to the north, Euclid Avenue to the west, Etna Street to the south, and Crescent Street to the east. The Affected Area is also situated just south of Jamaica Avenue, a major commercial corridor.

- Wharton Place is a 50-foot-wide, dead-end local roadway that runs east-west along the northern edge of the Affected Area. Wharton Place allows one moving lane of traffic in each direction and terminates at Crescent Street. Wharton Place provides access to residential properties along the south side of the roadway and access to commercial properties along the north side.

- Etna Street is a 70-foot-wide one-way westbound roadway that runs along the southern boundary of the Affected Area. Etna Street provides one moving lane of traffic and curbside parking on both sides of the roadway. Etna Street is a local roadway, except for the segment which falls between Crescent Street and Hemlock Street, which is classified as a major collector.

- Crescent Street is a 60-foot-wide two-way minor arterial roadway that runs north and south. Crescent Street includes one moving lane of traffic in each direction, and curbside parking along the west side of the roadway. It connects principal arterial Jamaica Avenue to the north with principal arterials Atlantic Avenue and Linden Boulevard to the south, and serves as an important thoroughfare. An elevated BMT Jamaica Line runs over the portion of Crescent Street within the Surrounding Area, serving the J and Z trains.

- Jamaica Avenue, just north of Wharton Place, is a 70-foot-wide two-way principal arterial roadway and commercial thoroughfare that runs east and west. Jamaica Avenue includes one moving lane of traffic in each direction, and curbside parking is generally provided on both sides of the roadway. The elevated BMT Jamaica Line serving the J and Z trains runs over the portion of Jamaica Avenue east of Crescent Street.

- Euclid Avenue is a 66-foot-wide one-way southbound principal arterial roadway with one moving lane of traffic and curbside parking on both sides of the roadway. Similar to Jamaica Avenue, Euclid Avenue is an important thoroughfare, but serves a more residential area compared to the commercial sections along Jamaica Avenue.

The Surrounding Area (within 400 feet of the Affected Area) contains a varied mix of residential, open space, commercial, public facilities and institutions, manufacturing and industrial, vacant land and transportation/utility land uses.

Residential uses within the Surrounding Area predominantly consist of 2-3 story one- and two-family homes, many of which are attached or semi-detached, with brick or vinyl facades. Additionally, the Surrounding Area includes low-rise multi-family walk-up buildings ranging from 2 to 4 stories. There are a few mixed commercial and residential buildings dispersed throughout the Surrounding Area, and are 2-3 stories tall, with retail spaces at the ground level and apartments above.

Open spaces within the Affected Area include the Cypress Hills Cemetery to the north of the Affected Area along Jamaica Avenue and Chestnut Street Community Gardens to the west of the Affected Area along Chestnut Street. P.S. 7 -The Abraham Lincoln Elementary School is the only

institutional use located within the Surrounding Area. The 3-story school building fronts Jamaica Avenue and the school play area fronts Crescent Street.

Commercial uses in the Surrounding Area are concentrated along Jamaica Avenue, including local retail stores, restaurants, and small service businesses. Western Beef Supermarket is located immediately north of the Development Site, accessed from Jamaica Avenue. In addition, there are two gas stations, located on corner lots across the street from one another along the southeast and southwest corners of Euclid Avenue and Jamaica Avenue. Commercial uses within the Surrounding Area range in height from 1-2 stories tall.

Industrial and Manufacturing uses predominantly consist of contractors and construction company shops and offices, as well as small warehouses, which are interspersed throughout the area, particularly along Crescent Street. These buildings range in height from 1-2 stories tall.

Zoning in the Surrounding Area includes R5, R4, R3-2, and M1-1. The Affected Area and the area east, west and south are zoned R5. West of the R5 zoning district that covers the Affected Area is zoned R4. An M1-1 zoning district is mapped immediately north of the Affected Area, within the area north of Wharton Place and south of Jamaica Avenue. Lastly, the area north of Jamaica Avenue, which includes the Cypress Hill Cemetery, is zone R3-2.

The Affected Area is located within the Outer Transit Zone. The area is well-served by public transit. The Cypress Hills Subway Station, an elevated station part of the BMT Jamaica Line, is located 0.2 miles north of the Affected Area on Jamaica Avenue. This station serves the J Train at all times, and the Z Train during rush hours in the peak direction. There are multiple MTA bus lines within walking distance of the Affected Area. The Q56 bus line runs along Jamaica Avenue from Jamaica Center – Parsons/Archer (Jamaica, Queens) to Broadway Junction (East New York, Brooklyn). The nearest stop is located 0.1 miles north of the Affected Area at Jamaica Ave/Crescent Street. The B13 bus line runs along Crescent Street, Cypress Hills Street, and Fresh Pond Road from Jamaica Center – Parsons/Archer (Jamaica, Queens) to Broadway Junction (East New York, Brooklyn). The nearest stop is located 0.1 miles north of the Affected Area at Jamaica Ave/Crescent Street.

1.4 Description of the Affected Area

The Affected Area includes Block 4105, Lots 72, 75, 77, 178, 179, 180, 181, 81, 82, and part of Lot 182 in the Cypress Hills neighborhood of Brooklyn Community District 5. The Affected Area comprises approximately 25,229 square feet of area, 15,214 square feet of which is controlled by the Applicant. The Affected Area is located within an R5 zoning district and is bounded by Wharton Place to the north, Euclid Avenue to the west, Etna Street to the south, and Crescent Street to the east. It is also situated just south of Jamaica Avenue, a major commercial corridor.

Projected Development Site 1 - Applicant-controlled Block 4105, Lots 72, 75, and 77:

- Lot 72 (17 Wharton Place): a 7,714-SF lot with frontage on Wharton Place. The lot is currently improved with a 2-story, 2,991 GSF (2,991 ZSF, 0.39 FAR) three-family (3-dwelling unit) residential walk-up building constructed in 1930. In addition, the lot is developed with a single 210 GSF detached garage with parking for one vehicle for a total built floor area on Lot 72 of 3,201 GSF.
- Lot 75 (21 Wharton Place): a 5,000-SF lot with frontage on Wharton Place. The lot is currently improved with a 2-story, 1,458 GSF (1,458 ZSF, 0.29 FAR) one and two-family (2-dwelling unit) residential building constructed in 1930. In addition, the lot is developed with a single 288 GSF detached garage with parking for one vehicle for a total built floor area on Lot 75 of 1,746 GSF.
- Lot 77 (11 Wharton Place): a 2,500-SF lot with frontage on Wharton Place. The lot is currently vacant.

Other Non-Applicant Controlled Lots

Other non-applicant-controlled lots within the Affected Area include Block 4105, Lots 178, 179, 180, 181, 81, 82, and part of Lot 182:

- Lot 178 (9 Wharton Place): a 1,842-SF rectangular lot with frontage on Wharton Place. The lot is currently improved with an existing 2-story, 1,955 GSF (1,955 ZSF, 1.00 FAR) two-family (2 dwelling unit) residential building constructed in 2007.
- Lot 179 (7 Wharton Place): a 1,158-SF rectangular lot with frontage on Wharton Place. The lot is currently improved with an existing 2-story, 1,955 GSF (1,955 ZSF, 1.70 FAR) two-family (2 dwelling unit) residential building constructed in 2007.
- Lot 180 (44 Crescent Street): an 840-SF corner lot with frontage on Wharton Place and Crescent Street. The lot is currently improved with an existing 2-story, 1,837 GSF (1,837 ZSF, 2.2 FAR) two-family (2 dwelling unit) residential building constructed in 2007.
- Lot 181 (48 Crescent Street): a 1,160-SF rectangular lot with frontage on Crescent Street. The lot is currently improved with an existing 3-story, 2,070 GSF (2,070 ZSF, 1.80 FAR) two-family (2 dwelling unit) residential building constructed in 2007.
- Lot 81 (50 Crescent Street): a 2,133-SF rectangular lot with frontage on Crescent Street. The lot is currently improved with an existing 2-story, 1,948 GSF (1,948 ZSF, 0.90 FAR) two-family (2 dwelling unit) residential building constructed in 1901.
- Lot 82 (52 Crescent Street): a 1,948-SF rectangular lot with frontage on Crescent Street. The lot is currently improved with an existing 2-story, 1,948 GSF (1,948 ZSF, 1.00 FAR) two-family (2 dwelling unit) residential building constructed in 1901.

- Lot 182 p/o (54 Crescent Street): a 1,933-SF rectangular lot with frontage on Crescent Street. The lot is currently improved with an existing 2-story, 1,980 GSF (1,980 ZSF, 1.00 FAR) two-family (2 dwelling unit) residential building constructed in 1901. Approximately 934 SF of this lot is within the Affected Area.

1.5 Description of the Proposed Project

The "Proposed Development" involves the development of a single 7-story plus cellar 68,169 GSF (56,197 ZSF, 3.69-FAR) mixed residential and community facility building on the Applicant-controlled Block 4105, Lots 72, 75, and 77 (Projected Development Site 1). The building would contain approximately 1,341 GSF (1,341 ZSF, 0.09 FAR) of ground floor community facility use and 66,828 GSF (54,856 ZSF, 3.61 FAR) of residential uses on floors one through seven. The Proposed Development would include 73 dwelling units, 20-30% (15-22 units) of which would be affordable at an average of 60-80% AMI pursuant to Options 1, 2, or 3, depending on the option selected. The Applicant intends to pursue MIH Option 1, which would result in 18 affordable units at an average of 60% AMI. The building would rise to a base height of 65 feet and a maximum height of 75 feet. The building would set back 7' after the proposed base height of 65 feet per ZR Section 23-433(a). No parking would be required or provided per ZR Section 25-222, and no new curb cuts would be proposed. The Proposed Development will include a 76' diameter fire apparatus turnaround on Wharton Place, a dead-end roadway.

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 an R6A zoning district in the Affected Area currently zoned as R5

(2) Zoning Text Amendment to Appendix F to add a Mandatory Inclusionary Housing (MIH) area coterminous with the Affected Area

1.7 Purpose and Need

The proposed rezoning from an R5 district to an R6A zoning district would facilitate new development within the Affected Area. The proposed R6A zoning district would provide opportunities for new mid-rise mixed-use building construction and help induce the development of underutilized lots within the Affected Area. Additionally, the proposed Zoning Text Amendment to Appendix F to add Mandatory Inclusionary Housing (MIH) would allow for residential growth, furthering the development of affordable housing in an area supported by transit, recreational facilities, and supportive commercial and community facility uses. Therefore, the Proposed Actions would be supportive of the City's housing goals as identified in Housing New York 2.0, Where We Live NYC, Get Stuff Built, and Housing Our Neighbors: A Blueprint for Housing and Homelessness.

1.8 Analysis Framework

The analysis framework compares the incremental difference between the projected and potential development under the Proposed Actions (Future With-Action Condition) and the development that could occur under the existing zoning (Future No-Action Condition) 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. 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 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 (Future No-Action Condition) and the future with the Proposed Actions (Future With-Action Condition).

The *2021 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 actions. Potential 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 *2021 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

A build year of 2028 is anticipated for the Proposed Project. The analysis year for the Proposed Project is based on a projected 14-month CEQR review period, a 7-month ULURP process, 6 months of design development and permitting, and an 18-month single-phase construction schedule for the Applicant-owned Projected Development Site.

Future Without the Proposed Actions (Future No-Action Condition)

Projected Development Site 1 (Applicant-controlled Block 4105, Lots 72, 75, and 77):

- Lot 72 (17 Wharton Place): a 7,714-SF lot with frontage on Wharton Place. The lot is currently improved with a 2-story, 2,991 GSF (2,991 ZSF, 0.39 FAR) three-family (3-dwelling unit) residential walk-up building constructed in 1930. In addition, the lot is developed with a single 210 GSF detached garage with parking for one vehicle for a total built floor area on Lot 72 of 3,201 GSF.
- Lot 75 (21 Wharton Place): a 5,000-SF lot with frontage on Wharton Place. The lot is currently improved with a 2-story, 1,458 GSF (1,458 ZSF, 0.29 FAR) one and two-family (2-dwelling unit) residential building constructed in 1930. In addition, the lot is developed with a single 288 GSF detached garage with parking for one vehicle for a total built floor area on Lot 75 of 1,746 GSF.
- Lot 77 (11 Wharton Place): a 2,500-SF lot with frontage on Wharton Place. The lot is currently vacant.

There are no records of building work permits submitted by the Applicant. Therefore, it is conservatively assumed that under the No-Action Scenario, existing conditions would continue at Projected Development Site 1.

Future With the Proposed Actions (Future With-Action Condition)

Projected Development Site 1 (Applicant-controlled Block 4105, Lots 72, 75, and 77):

The Projected Development Site would be developed with a single 71,305 GSF (59,333 ZSF, 3.90 FAR) mixed residential and community facility building containing approximately 69,964 GSF (57,992 ZSF, 3.81 FAR) of residential uses and 1,341 GSF (1,341 ZSF, 0.09 FAR) of ground floor community facility use. There would be approximately 73 dwelling units (assuming 965 GSF of residential floor area per dwelling unit), 20-30% (15-22 units) of which would be affordable at an average of 60-80% AMI pursuant to MIH Option 1, 2 or 3, depending on the option selected. It is the Applicant's intention to map Option 1, which would result in 18 affordable units (25%) at an average of 60% AMI. For the purposes of Early Childhood Programs analysis, 20% of the residential floor area (15 units) is assumed to be affordable at or below 60% AMI. The building would have 9 stories and rise to 95 feet. No parking would be required or provided per ZR Section 25-222, and no new curb cuts would be proposed.

The RWCDS assumes mixed residential and community facility development, as is proposed by the Applicant, built to the maximum permitted FAR (3.9) and building height (95') under the proposed zoning district. A 10-foot mechanical bulkhead with the Projected Development built at 100% lot coverage and no setback would be assumed for a conservative shadows analysis under CEQR.

The Projected Development Site is located within the Outer Transit Zone. R6A zoning districts within the Outer Transit Zone require off-street parking for 25 percent of market-rate residential dwelling units. No parking is required for income-restricted housing units, and parking can be waived if fewer than 15 parking stalls are required. The Projected Development would require 14 parking stalls, assuming 55 market-rate units would be provided under MIH Option 1. Accordingly, parking would be waived, and it is assumed that no parking would be provided.

The other lots within the Affected Area (Other Affected Sites) not projected to redevelop include Block 4105, Lots 178, 179, 180, 181, 81, 82, and part of Lot 182:

All other Lots within the Affected Area are under separate ownership. In addition, all other lots within the Affected Area are under 5,000-SF in lot area. Accordingly, these lots do not pass the soft site criteria established by the *2021 CEQR Technical Manual, Chapter 2*. Therefore, redevelopment of all other lots within the Affected Area is not anticipated.

The Projected Development Site and Other Affected Sites are shown in **Figure 1.1-1**. The RWCDS Existing, No-Action, and With-Action Scenarios at the Projected Development Site are shown below in **Table 1.8-1**. The RWCDS increment of Analysis on the Projected Development Site within the Affected Area is 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)	Parking (gsf)	Total gsf	Afford. DU	Total DU	Zoning	MF (gsf)	Com. (gsf)	CF (gsf)	Res. (gsf)	Parking (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 Site 1	4105	72	7,714	R5	0	0	0	2,991	210	3,201	0	3	R5	0	0	0	2,991	210	3,201	0	3	R6A	0	0	1,341	69,964	0	71,305	18	73
		75	5,000		0	0	0	1,458	288	1,746	0	2		0	0	0	1,458	288	1,746	0	2									
		77	2,500		0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0									
Total			15,214	-	**0**	**0**	**0**	**4,449**	**498**	**4,947**	**0**	**5**	-	**0**	**0**	**0**	**4,449**	**498**	**4,947**	**0**	**5**	-	**0**	**0**	**1,341**	**69,964**	**0**	**71,305**	**18**	**73**

DU = Dwelling Units
gsf = gross square feet
Res. = Residential
Com. = Commercial
Mf = Manufacturing
CF = Community Facility
Afford. = Affordable

Table 1.8-2: RWCDS Increment of Analysis

Use	No-Action Condition	With-Action Condition	Increment
Commercial GSF	0	0	0
Manufacturing GSF	0	0	0
Community Facility GSF	0	1,341	1,341
Residential GSF	4,449	69,964	65,515
Parking GSF	498	0	-498
Total GSF	4,947	71,305	66,358
Residential Dus	5	73	68
Residents[1]	15	212	197
Workers[2]	0	8	8

1. Assumes 2.9 residents per household average per 2020 Decennial Census Data for Brooklyn Community District 5
2. Assumes 1 worker per 25 DU for residential and 1 worker per 250 SF for medical office

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 form 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 *2021 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 analysis areas on the EAS Short Form:

- Land Use, Zoning, and Public Policy
- Shadows
- Historic and Cultural Resources
- Urban Design and Visual Resources
- Hazardous Materials
- Air Quality
- Noise
- Public Health
    - No significant unmitigated adverse impact is found in other CEQR analysis areas, such as air quality, water quality, hazardous materials, or noise; accordingly, a public health analysis is not warranted.
- Neighborhood Character
    - An assessment of neighborhood character is generally recommended when a proposed project has the potential to result in significant adverse impacts in any technical area presented above, or when the project may have moderate effects on several of the elements that define a neighborhood's character. There would be no significant impacts on any of the constituent elements of Neighborhood Character. Further, there would be no combination of moderate effects to several elements that cumulatively may affect neighborhood character. Therefore, no further analysis is warranted.

2.1 Land Use, Zoning, and Public Policy

The *2021 CEQR Technical Manual* recommends procedures for the analysis of land use, zoning, and public policy to ascertain the impacts of a project on the Study Area. The *2021 CEQR Technical Manual* suggests that a land use, zoning, and public policy study area should generally extend 400 feet from the Project Site (the "Surrounding Area" or "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 change the zoning in the Affected Area, 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 23v2 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

DCP's Primary Land Use Tax Lot Output (PLUTO) database provides data on the following land use types: one- and two-family residential buildings, multi-family walk-up residential buildings, multi-family elevator residential buildings, mixed residential and commercial buildings, commercial and office buildings, industrial and manufacturing, transportation and utility, public facilities and institutions, open space and outdoor recreation, parking and loading facilities, and vacant land. 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 (within 400 feet of the Affected Area) contains a varied mix of residential, open space, commercial, public facilities and institutions, manufacturing and industrial, vacant land and transportation/utility land uses.

Residential uses within the Surrounding Area predominantly consist of 2-3 story one- and two-family homes, many of which are attached or semi-detached, with brick or vinyl facades. Additionally, the Surrounding Area includes low-rise multi-family walk-up buildings ranging from 2 to 4 stories. There are a few mixed commercial and residential buildings dispersed throughout the Surrounding Area, and are 2-3 stories tall, with retail spaces at the ground level and apartments above.

Open spaces within the Affected Area include the Cypress Hills Cemetery to the north of the Affected Area along Jamaica Avenue and Chestnut Street Community Gardens to the west of the Affected Area along Chestnut Street. P.S. 7 -The Abraham Lincoln Elementary School is the only institutional use located within the Surrounding Area. The 3-story school building fronts Jamaica Avenue and the school play area fronts Crescent Street.

Commercial uses in the Surrounding Area are concentrated along Jamaica Avenue, including local retail stores, restaurants, and small service businesses. Western Beef Supermarket is located immediately north of the Development Site, accessed from Jamaica Avenue. In addition, there are two gas stations, located on corner lots across the street from one another along the southeast and southwest corners of Euclid Avenue and Jamaica Avenue. Commercial uses within the Surrounding Area range in height from 1-2 stories tall.

Industrial and Manufacturing uses predominantly consist of contractors and construction company shops and offices, as well as small warehouses, which are interspersed throughout the area, particularly along Crescent Street. These buildings range in height from 1-2 stories tall.

Affected Area

A full breakdown of each lot within the Affected Area can be found in **Section 1.4**.

Projected Development Site 1: Applicant-controlled Block 4105, Lots 72, 75, and 77:

- Lot 72 (17 Wharton Place): a 7,714-SF lot with frontage on Wharton Place. The lot is currently improved with a 2-story, 2,991 GSF (2,991 ZSF, 0.39 FAR) three-family (3-dwelling unit) residential walk-up building constructed in 1930. In addition, the lot is developed with a single 210 GSF detached garage with parking for one vehicle for a total built floor area on Lot 72 of 3,201 GSF.
- Lot 75 (21 Wharton Place): a 5,000-SF lot with frontage on Wharton Place. The lot is currently improved with a 2-story, 1,458 GSF (1,458 ZSF, 0.29 FAR) one and two-family (2-dwelling unit) residential building constructed in 1930. In addition, the lot is developed with a single 288 GSF detached garage with parking for one vehicle for a total built floor area on Lot 75 of 1,746 GSF.
- Lot 77 (11 Wharton Place): a 2,500-SF lot with frontage on Wharton Place. The lot is currently vacant.

Future No-Action Condition

Land Use Study Area

There is one active construction permit in the Surrounding Area. A new 2-story, 10,917 GSF (4,959 ZSF) industrial/manufacturing building with five enclosed parking stalls, accessed by a curb cut on Crescent Street, is under construction at 24 Crescent Street, Block 4105, Lot 49.

Affected Area

Within the Affected Area, existing conditions are expected to remain the same as the No-Action Condition. No changes to land use would occur within the Affected Area under future conditions absent the Proposed Actions.

Future With-Action Condition

Land Use Study Area

With the exception of the development anticipated within the Affected Area, land use and development patterns in the Study Area are expected to remain unchanged in the future with the Proposed Actions. Any new development in the Study Area would be consistent with the underlying zoning regulations.

Affected Area

Projected Development Site 1 (Applicant-controlled Block 4105, Lots 72, 75, and 77):

The Projected Development Site would be developed with a single 71,305 GSF (59,333 ZSF, 3.90 FAR) mixed residential and community facility building containing approximately 69,964 GSF (57,992 ZSF, 3.81 FAR) of residential uses and 1,341 GSF (1,341 ZSF, 0.09 FAR) of ground floor community facility use. There would be approximately 73 dwelling units (assuming 965 GSF of residential floor area per dwelling unit), 20-30% (15-22 units) of which would be affordable at an average of 60-80% AMI pursuant to MIH Option 1, 2 or 3, depending on the option selected. It is the Applicant's intention to map Option 1, which would result in 18 affordable units (25%) at an average of 60% AMI. For the purposes of Early Childhood Programs analysis, 20% of the residential floor area (15 units) is assumed to be affordable at or below 60% AMI. The building would have 9 stories and rise to 95 feet. No parking would be required or provided per ZR Section 25-222, and no new curb cuts would be proposed.

The other lots within the Affected Area (Other Affected Sites) not projected to be redeveloped include Block 4105, Lots 178, 179, 180, 181, 81, 82, and part of Lot 182:

Conclusion

The proposed rezoning from an R5 to an R6A zoning district would facilitate residential and community facility land use, which is consistent with permitted uses under the existing zoning, but at a density not otherwise possible under existing zoning regulations. The Proposed Actions would effectuate new residential and supportive community facility uses at the Projected Development Site Area, while also maintaining conformance of the current residential uses on the other lots not anticipated to develop within the Affected Area. The Proposed Actions would introduce a land use mix that is compatible with surrounding uses, and would not alter or accelerate development patterns in the area. Therefore, there would be no adverse impacts on land use as a result of the Proposed Actions, and further analysis is not required.

2.1.2 Zoning

The New York City Zoning Resolution dictates the use, density, and bulk of developments within New York City. The city has three basic zoning district classifications – residential (R), commercial (C), and manufacturing (M). These classifications are further divided into low, medium, and high-density districts. In addition to the three main zoning district categories, a property may also be located in a Special Purpose District that serves a diverse range of planning goals specific to the areas where the special district is mapped. Special purpose districts are generally created where area-wide conditions warrant modification of some generally applicable zoning provisions.

The Zoning Map Amendment would rezone Block 4105, Lots 72, 75, 77, 178, 179, 180, 181, 81, 82, and part of Lot 182 in the Cypress Hills neighborhood of Brooklyn Community District 5 from an R5 to an R6A zoning district. The Affected Area comprises approximately 25,229 square feet of area, 15,214 square feet of which is controlled by the Applicant. Existing zoning districts within approximately 400 feet of the Affected Area are presented in **Figure 1.1-3**. The proposed zoning change over the Affected Area is presented in **Figure 1.1-4**. Because the Proposed Actions would change the zoning in the Affected Area, a preliminary assessment of Zoning is provided below.

Existing Conditions

Zoning Study Area

The zoning districts within 400 feet of the Affected Area include R5, R4, R3-2, and M1-1, as illustrated in **Table 2.1-1** and discussed below. The Affected Area and the area east, west and south are zoned R5. West of the R5 zoning district that covers the Affected Area is zoned R4. An M1-1 zoning district is mapped immediately north of the Affected Area, within the area north of Wharton Place and south of Jamaica Avenue. Lastly, the area north of Jamaica Avenue, which includes the Cypress Hill Cemetery, is zone R3-2.

M1-1

M1 districts are often developed with multistory lofts, one- or two-story warehouses characterized by loading bays, serving as a buffer between M2 or M3 districts of intensive industrial uses and adjacent residential or commercial districts. These districts are designed for a wide range of manufacturing and related uses, which can conform to a high level of performance standards. M1 districts typically include light industrial uses, such as woodworking shops, repair shops, and wholesale service and storage facilities.

Permitted uses in M1-1 districts are as follows: UG I, III(B) and IV-X. M1-1 districts permit a FAR of 1.0 for permitted commercial and manufacturing uses, and 2.40 for permitted community facility uses. M1-1 districts are subject to parking requirements based on the type of use, size of an establishment, and location. Building heights are regulated by a sky exposure plane beginning at 30 feet (or two stories) above the street line. For community facility building, the maximum height of a front wall shall be 35 feet or three stories, whichever is less, and the height above the street line shall be 35 feet.

R3-2

R3-2 districts are low-density non-contextual residential districts designed to provide for all types of residential buildings. R3-2 districts permit a variety of housing types, including detached, semi-detached, and attached one- and two-family homes, as well as low-rise multifamily buildings. These districts also include community facilities and open uses, which serve the residents of these districts or benefit from a residential environment. R3-2 districts permit the following Use Groups: UGs I, II, III(A), III(B), IV(B), IV(C).

R3-2 districts require a minimum lot area of 2,850 square feet, and a minimum lot width of 30 feet. The amount of required open space on residential lots in R3-2 districts is governed by yard requirements. New single or two-family detached homes must have two side yards totaling at least five feet, but there is no minimum width requirement for either one. R3-2 districts also permit semi-detached and zero lot line buildings, which are set along a side lot line, and require one side yard at least five feet wide, subject to certain modifications per ZR Section 23-33. For all other residences, no side yards are required, subject to certain modifications per ZR Section 23-33. The front yard of a new home must be at least 15 feet deep. For qualifying residential sites with a lot width of at least 150 feet, and for corner lots, the front yard depth may be reduced by five feet, except that a front yard shall be no shallower than 5 feet. The minimum required rear yard depth is 20-30 feet, subject to modifications pursuant to ZR Section 23-343.

The maximum FAR is 0.75[1] for standard zoning lots or 1.0 for qualifying residential sites[2]. The maximum community facility FAR is 1.0. The maximum height of a residential building is governed by either a pitched roof or a flat roof envelope. For the pitched roof envelope, the height of a building is governed by a perimeter wall height of 25 feet before additional height must conform to the sky exposure plane. Above the 25-foot perimeter wall height, sloping planes control the maximum height of the building or other structure requiring either a setback or a pitched roof. These planes start at the maximum permitted height of the perimeter walls and meet at a ridge line of 35 feet above the base plane. For a flat roof envelope, the maximum permitted height is 35 feet. For qualifying residential sites and qualifying senior housing, the maximum building and base height is 35 feet.

Parking requirements vary depending on the use and transit zone designation. In the Inner Transit Zone, one off-street parking space is required for each standard market dwelling unit within multiple dwellings, while no parking is required for affordable dwelling units and qualifying senior units. In the Outer Transit Zone, parking is required for 35% of all standard market dwelling units,

[1] For standard zoning lots with a lot area that exceeds 4,000 square feet, the maximum residential floor area associated with any single dwelling unit shall not exceed an equivalent FAR of 0.60.

[2] Qualifying residential sites generally consist of (a) lots in the Greater Transit Zone that are 5,000 SF or greater on a wide street or the short end of a block, (b) lots in the Greater Transit Zone that include a building with community facility space as of December 5, 2024, (c) lots located outside of the Greater Transit Zone that have a minimum lot area of at least 5,000 square feet and include a building with community facility space as of December 5, 2024 or (d) lots located in an R3-2, R4, R5 or R5B District containing qualifying senior housing.

while no parking is required for affordable dwelling units and qualifying senior units, and can be waived if 5 spaces or fewer are required. Beyond the Greater Transit Zone, parking is required for 50% of market rate and affordable dwelling units, and 10% of qualifying senior units; here, parking can be waived if fewer than 1 space is required. In the Outer Transit Zone and beyond the Greater Transit Zone the following applies: For qualifying residential sites parking is waived where the number of dwelling units is 75 or less. For zoning lots existing on December 5, 2024 where the lot width is 25 feet or less, no parking shall be required.

R4

R4 districts are low-density non-contextual residential districts designed to provide for all types of residential buildings, in order to permit a broad range of housing types. These districts also include community facilities and open uses that serve the residents of these districts or benefit from a residential environment. R4 districts permit the following Use Groups: UGs I, II, III(A), III(B), IV(B), IV(C).

R4 districts permit a minimum lot width of 30 feet and a minimum lot area of 2,850 square feet. The maximum permitted residential FAR is 1.0 for standard and 1.5 for qualifying residential sites. The maximum community facility FAR is 2.0. The maximum height of a residential building is governed by either a pitched roof or a flat roof envelope. For the pitched roof envelope, the height of a building is governed by a perimeter wall height of 25 feet before additional height must conform to the sky exposure plane. Above the 25-foot perimeter wall height, sloping planes control the maximum height of the building or other structure requiring either a setback or a pitched roof. These planes start at the maximum permitted height of the perimeter walls and meet at a ridge line of 35 feet above the base plane. For a flat roof envelope, the maximum permitted height is 35 feet. For qualifying residential sites and qualifying senior housing, the maximum building height is 45 feet, and the maximum base height is 35 feet. Above the permitted base height, a setback of 15 feet (for narrow streets) or 10 feet (for wide streets) is required from the street wall of the building.

The front yard of a new home must be at least 10 feet deep. For qualifying residential sites with a lot width of at least 150 feet, and for corner lots, the front yard depth may be reduced by five feet, except that a front yard shall be no shallower than 5 feet. New single or two-family detached homes must have two side yards totaling at least five feet, but there is no minimum width requirement for either one. R4 districts also permit semi-detached and zero lot line buildings, which are set along a side lot line, and require one side yard at least five feet wide, subject to certain modifications per ZR Section 23-33. For all other residences, no side yards are required, subject to certain modifications per ZR Section 23-33. The minimum required rear yard depth is 20-30 feet, subject to modifications pursuant to ZR Section 23-343.

Parking requirements vary depending on the use and transit zone designation. In the Inner Transit Zone, one off-street parking space is required for each standard market dwelling unit within multiple dwellings, while no parking is required for affordable dwelling units and qualifying senior

units, and can be waived if 1 space is required. In the Outer Transit Zone, parking is required for 35% of all standard market dwelling units, while no parking is required for affordable dwelling units and qualifying senior units, and can be waived if 5 spaces or fewer are required. Beyond the Greater Transit Zone, parking is required for 50% of market-rate and affordable dwelling units, and 10% of qualifying senior units; here, parking can be waived if fewer than 3 spaces are required. In the Outer Transit Zone and beyond the Greater Transit Zone, the following applies: For qualifying residential sites, parking is waived where the number of dwelling units is 75 or fewer. Further, no parking is required for zoning lots existing on December 5, 2024, where the lot width is 25 feet or less.

R5

R5 districts are low-density non-contextual zoning districts intended for neighborhoods with an assortment of housing types at densities higher than those found in R4 districts and are often transition districts between medium and lower density areas. These districts also include community facilities and open uses that serve the residents of these districts or benefit from a residential environment. R5 districts permit the following Use Groups: UGs I, II, III(A), III(B), IV(B), IV(C).

R5 districts permit a minimum lot width of 30 feet and a minimum lot area of 2,850 square feet. The maximum residential FAR is 1.50 for standard zoning lots, and 2.0 FAR for qualifying residential sites and community facility use. On qualifying residential sites located on any zoning lot or portion of a zoning lot in any commercial district in which such building is permitted and subject to the individual maximum floor area ratios for commercial, community facility and residential uses, the maximum permitted floor area for a zoning lot with buildings containing residential and non-residential uses is 2.5 FAR.

To ensure compatibility with the neighborhood scale, the maximum street wall height of a new building for standard zoning lots is 35 feet, and the maximum building height is 45 feet. For qualifying residential sites and senior housing, a maximum base height of 45 feet and a maximum building height of 55 feet is permitted. Above the permitted base height, a setback of 15 feet (for narrow streets) or 10 feet (for wide streets) is required from the street wall of the building.

The front yard of a new home must be at least 10 feet deep. For qualifying residential sites with a lot width of at least 150 feet, and for corner lots, the front yard depth may be reduced by five feet, except that a front yard shall be no shallower than 5 feet. New single or two-family detached homes must have two side yards totaling at least five feet, but there is no minimum width requirement for either one. R5 districts also permit semi-detached and zero lot line buildings, which are set along a side lot line, and require one side yard at least five feet wide, subject to certain modifications per ZR Section 23-33. For all other residences, no side yards are required, subject to certain modifications per ZR Section 23-33. The minimum required rear yard depth is 20-30 feet, subject to modifications pursuant to ZR Section 23-343.

Parking requirements vary depending on the use and transit zone designation. In the Inner Transit Zone, off-street parking space is required for 85% of standard market dwelling units within multiple dwellings, while no parking is required for income-restricted housing or qualifying senior units and can be waived if 1 space is required. In the Outer Transit Zone, parking is required for 35% of all standard market dwelling units, while no parking is required for income-restricted housing or qualifying senior units. Parking can be waived if 10 spaces or fewer are required. Beyond the Greater Transit Zone, parking is required for 50% of market-rate dwelling units, 25% of affordable dwelling units, and 10% of qualifying senior units; here, parking can be waived if fewer than 5 spaces are required. For qualifying residential sites, parking is waived where the number of dwelling units is 75 or less. Further, no parking is required for zoning lots existing on December 5, 2024, where the lot width is 25 feet or less.

Affected Area

The Affected Area is zoned R5. R5 zoning district regulations are described above. R5 zoning districts permit 1.5 FAR (Standard Lots) and 2.0 FAR (Qualifying Residential Sites) for residential use (UG II), and 2.0 FAR for community facility use (UG I, III, IV).

Table 2.1-1: Existing Zoning Districts in the Surrounding Area[3]

Zoning District	Type and Use Group[4]	Floor Area Ratio (FAR)	Parking
M1-1	Non-Contextual Light Manufacturing District (High Performance) UG I, III(B), IV(A), IV(B), IV(C), V, VI, VII, VIII, IX(A), IX(B), IX(C), X	1.0 FAR – Manufacturing 1.0 FAR - Commercial 2.4 FAR - Community Facility	Varies by use and size of establishment
R3-2	General Non-Contextual Residential District UG I, II, III(A), III(B), IV(B), IV(C)	0.75 FAR – Residential Standard 1.0 FAR– Residential Qualifying 1.0 FAR – Community Facility	ITZ: 1 per standard DU within multiple dwellings OTZ: 35% of standard DU Beyond the GTZ: 50% of standard DU; 50% of affordable DU; 10% of qualifying senior units Exemptions: Parking waived for 75-unit or smaller developments on qualifying residential sites in OTZ/Beyond the GTZ. No parking for small lots (≤25 ft width) existing as of December 5, 2024 in the OTZ/Beyond the GTZ: Non-residential varies by use, size of establishment, and TZ designation
R4	General Non-Contextual Residential District UG I, II, III(A), III(B), IV(B), IV(C)	1.0 FAR – Residential Standard 1.5 FAR – Residential Qualifying 2.0 FAR – Community Facility	ITZ: 1 per standard DU within multiple dwellings OTZ: 35% of standard DU Beyond the GTZ: 50% of affordable and market rate DU; 10% of qualifying senior units Exemptions: Parking waived for 75-unit or smaller developments on qualifying residential sites in OTZ/Beyond the GTZ. No parking for small lots (≤25 ft width) existing as of December 5, 2024 in the OTZ/Beyond the GTZ: Non-residential varies by use and size of establishment, and TZ designation
R5	General Non-Contextual Residential District UG I, II, III(A), III(B), IV(B), IV(C)	1.5 FAR – Residential Standard 2.0 FAR – Residential Qualifying 2.0 FAR – Community Facility	ITZ: 85% of standard DU within multiple dwellings OTZ: 35% of standard DU Beyond the GTZ: 50% of standard DU; 25% of affordable DU; 10% of qualifying senior units Exemptions: Parking waived for 75-unit or smaller developments on qualifying residential sites in OTZ/Beyond the GTZ. No parking for small lots (≤25 ft width) existing as of December 5, 2024 in the Outer TZ/Beyond the Greater TZ: Non-residential varies by use and size of establishment, and TZ designation

DU = Dwelling Unit; ITZ = Inner Transit Zone; OTZ = Outer Transit Zone; GTZ = Greater Transit Zone

[3] NYC Zoning Resolution

[4] Commercial Use: Any use listed in the following use groups depending on the district type (Commercial Districts – IV, V, VI, VII, VIII, IX, X; Manufacturing Districts – IV, V, VI, VII, VIII, IX). Community Facility Use: Any use listed in the following use groups depending on the district type (Residence Districts – I, III, IV; Commercial Districts – I, III; Manufacturing Districts - I, III). Manufacturing Use: Any use listed in the following use groups depending on the district type (Manufacturing Districts – X). Residential use: any use listed in Use Group II.
*There may be some exclusions within each use group, but use groups are listed where the majority of uses are permitted for the corresponding zoning district

Future No-Action Condition

Zoning Study Area and Affected 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 R5 zoning regulations.

Future With-Action Condition

Zoning Study Area

Zoning changes would only occur in the Affected Area in the future with the Proposed Actions.

Affected Area – R6A

The Zoning Map Amendment would rezone Block 4105, Lots 72, 75, 77, 178, 179, 180, 181, 81, 82, and part of Lot 182, an area of approximately 25,229 square feet, from an R5 zoning district to a R6A zoning district. 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. The Zoning Map Amendment and Zoning Text Amendment constitute the Proposed Actions.

The FAR in R6A districts is 3.0 for standard residences and community facility use. For buildings participating in the UAP program, a maximum residential FAR of 3.9 (for qualifying affordable or senior housing) is permitted, so long as any residential floor area exceeding the standard FAR is permanently income-restricted to an average of 60% AMI. The maximum base height is 65 feet, and the maximum building height is 75 feet (for standard residences). The maximum base height is 65 feet, and the maximum building height is 95 feet (for qualifying affordable or senior housing). Buildings must set back above the maximum base height to a depth of 10 feet on a wide street and 15 feet on a narrow street. The Projected Development Site fronts a narrow street, therefore, a 15’ setback is required. However, such minimum setbacks may be modified as follows per ZR Section 23-433:

a) The depth of such required setback may be reduced by one foot for every foot that the street wall is located beyond the street line, but in no event shall a setback of less than seven feet in depth be provided, except as otherwise set forth in this Section. To allow street wall articulation, where a street wall is divided into different segments and located at varying depths from the street line, such permitted setback reduction may be applied to each street wall portion separately.

b) The depth of such setbacks may include the depth of recesses or outer courts in the street wall of the building base, provided that the aggregate width of any such recessed portion of a street wall with a setback less than seven feet, as applicable, does not exceed 30 percent of the aggregate width of street wall at any level.

c) These setback provisions are optional for any building wall that either is located beyond 50 feet of a street line, or oriented so that lines drawn perpendicular to it, in plan, would intersect a street line at an angle of 65 degrees or less. In the case of an irregular street line, the line connecting the most extreme points of intersection shall be deemed to be the street line.

d) Dormers provided in accordance with the provisions of Section 23-413 (Permitted obstructions in certain districts) may penetrate a required setback area.

The Applicant's Proposed Development provides a 7' setback after the 65' base height per ZR 23-433(a).

The Projected Development Site is located within the Outer Transit Zone. R6A zoning districts within the Outer Transit Zone require off-street parking for 25 percent of market-rate residential dwelling units. No parking is required for income-restricted housing units. Parking can be waived if fewer than 15 parking stalls are required.

Conclusion

The proposed rezoning from R5 to R6A allows for a moderate density increase while maintaining compatibility with surrounding land uses and zoning patterns. The proposed R6A zoning district would provide opportunities for new mid-rise mixed-use building construction and help induce the development of underutilized Lots 72, 75 and 77, while also maintaining conformance of the existing residential uses present within the Affected Area.

The Affected Areas' proximity to the J/Z Subway line and multiple bus routes supports the City's transit-oriented housing goals and the proposed increase in density. Moreover, the proposed Zoning Text Amendment to Appendix F to add Mandatory Inclusionary Housing (MIH) would facilitate the development of new permanently affordable housing. Therefore, no significant adverse impacts are anticipated to zoning, and further analysis is not required.

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, that 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. The Affected Area is located within a designated FRESH-eligible area but would not include any FRESH programming.

The Proposed Actions include a Zoning Text Amendment to ZR Appendix F: Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing Areas for Community District 5, Brooklyn, to establish the Affected Area as an MIH Area. As a result, an analysis of the Proposed Development's alignment with Housing New York is warranted. In addition, an evaluation of the Proposed Actions consistency with "Rebuild, Renew, Reinvent: A Blueprint for New York City's Economic Recovery" is provided below.

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, supporting small businesses, entrepreneurship, and a more equitable economy
2. Driving inclusive sector growth
3. 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 73 dwelling units, 20-30% (15-22 units) of which would be affordable at an average of 60-80% AMI pursuant to MIH Option 1, Option 2, or Option 3. 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 new community facility space on the ground floor of Projected Development Site 1. The project would activate underutilized land, and foster economic growth through new community facility use, which aligns with neighborhood revitalization goals. The Proposed Actions would 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 Strategy 4 of "Rebuild, Renew, Reinvent: A Blueprint for New York City's Economic Recovery" which aims to connect New Yorkers to quality jobs and in-demand skills. Lastly, the Proposed Actions would facilitate the development of 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 development effectuated as a result of the Proposed Actions would not create a land use conflict, nor would it conflict with public policies and plans for the Affected Area or Surrounding Area. The Proposed Actions would also not result in significant material changes to existing regulations or policy. Therefore, no significant adverse impacts are anticipated on public policies, and no further analysis is warranted.

2.2 Shadows

The *2021 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 that 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. However, a project located adjacent to or across the street from a sunlight-sensitive open space resource (which is not a designated New York City Landmark or listed on the State/National Registers of Historic Places, or eligible for these programs) may not require a detailed shadow assessment if the project's height increase is ten feet or less.

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 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.

Analysis Framework

Future No-Action Condition

Projected Development Site 1 (Applicant-controlled Block 4105, Lots 72, 75, and 77):

- Lot 72 (17 Wharton Place): a 7,714-SF lot with frontage on Wharton Place. The lot is currently improved with a 2-story, 2,991 GSF (2,991 ZSF, 0.39 FAR) three-family (3-dwelling unit) residential walk-up building constructed in 1930. In addition, the lot is developed with a single 210 GSF detached garage with parking for one vehicle for a total built floor area on Lot 72 of 3,201 GSF.
- Lot 75 (21 Wharton Place): a 5,000-SF lot with frontage on Wharton Place. The lot is currently improved with a 2-story, 1,458 GSF (1,458 ZSF, 0.29 FAR) one and two-family (2-dwelling unit) residential building constructed in 1930. In addition, the lot is developed with a single 288 GSF detached garage with parking for one vehicle for a total built floor area on Lot 75 of 1,746 GSF.
- Lot 77 (11 Wharton Place): a 2,500-SF lot with frontage on Wharton Place. The lot is currently vacant.

There are no records of building work permits submitted by the Applicant. Therefore, it is conservatively assumed that under the No-Action Scenario, existing conditions would continue at Projected Development Site 1.

Future With-Action Condition

Projected Development Site 1 (Applicant-controlled Block 4105, Lots 72, 75, and 77):

Pursuant to the Proposed Actions, the Projected Development Site would be developed with a single 71,305 GSF (59,333 ZSF, 3.90 FAR) mixed residential and community facility building containing approximately 69,964 GSF (57,992 ZSF, 3.81 FAR) of residential uses and 1,341 GSF (1,341 ZSF, 0.09 FAR) of ground floor community facility use. The building would have 9 stories and rise to a base height of 65’ and a maximum height of 95’ (105’ inclusive of bulkheads).

The Projected Development Site would increase the height of the existing buildings developed on-site by greater than 50 feet under future With-Action Conditions. Further, the Projected Development Site is located south of a sunlight-sensitive resource (Cypress Hills Cemetery & Salem Fields Cemetery) and east of a sunlight-sensitive resource (Chestnut Street Community Garden). Accordingly, a shadow analysis was conducted pursuant to the *2021 CEQR Technical*

Manual to determine whether shadows resulting from the Proposed Development could reach these resources.

2.2.1 Preliminary Assessment

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 relation 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 a sunlight-sensitive resource is in the study area, a Tier 2 screening assessment is warranted. 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. If the Tier 2 screening shows that sunlight-sensitive resources are within an angle of 108 degrees from true north at the Project Site's southernmost point, a Tier 3 screening assessment is required.

2.2.1.1 Tier 1 Shadow Screening Assessment

A CEQR Tier 1 screening assessment identifies a study area based on the With-Action building height and the longest shadow a structure can cast, which in New York City is 4.3 times its height. If a sunlight-sensitive resource is in the study area, a Tier 2 screening assessment is warranted.

Under Future With-Action Conditions, Projected Development Site 1 would be developed with a new building rising to a height of 95' (105' plus an additional 10' to the rooftop bulkheads). The longest action-induced shadow would be approximately 451.5 feet (4.3 x 105 feet) in length.

The first step in a shadow analysis is to determine if there are any sunlight-sensitive resources located within the length of the 451.5-ft radius (the longest action-induced shadow area) from Projected Development Site 1. As shown in **Figure 2.2-1** below, there are three (3) sunlight-sensitive resources within the longest Shadow Study Area (Resource 1: Chestnut Street Community Garden, Resource 2: Salem Fields Cemetery, and Resource 3: Cypress Hills Cemetery). Accordingly, a Tier 2 screening assessment is required.

2.2.1.2 Tier 2 Shadow Screening Assessment

The Tier 2 screening assessment highlights the area that cannot be shaded by the Proposed Development because of the movement of the sun in the sky throughout the year. As discussed above, in New York City, this area lies between -108 and +108 degrees from true north. If the Tier 2 screening shows that sunlight-sensitive resources are within an angle of 108 degrees from true north at the Project Site's southernmost point, a Tier 3 screening assessment is required.

As shown in **Figure 2.2-2** below, the Tier 2 screening assessment shows that all three (3) Resources Chestnut Street Community Garden (Resource 1), Salem Fields Cemetery (Resource 2) and Cypress Hills Cemetery (Resource 3) are within the -108/+180-degree area. Accordingly, a Tier 3 shadow screening assessment is required.

2.2.1.3 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 Projected Development Sites. 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.

As shown in **Figure 2.2-3** to **Figure 2.2-6** below, shadows from the Projected Development would reach the sunlight-sensitive resource, Chestnut Street Community Garden (Resource 1), during the June 21st (Summer Solstice) month, and Cypress Hills Cemetery (Resource 3), during the December 21st (Winter Solstice). Therefore, a detailed shadow analysis is required to determine the impact on these resources.

Figure 2.2-1: Tier 1 Shadows Screening

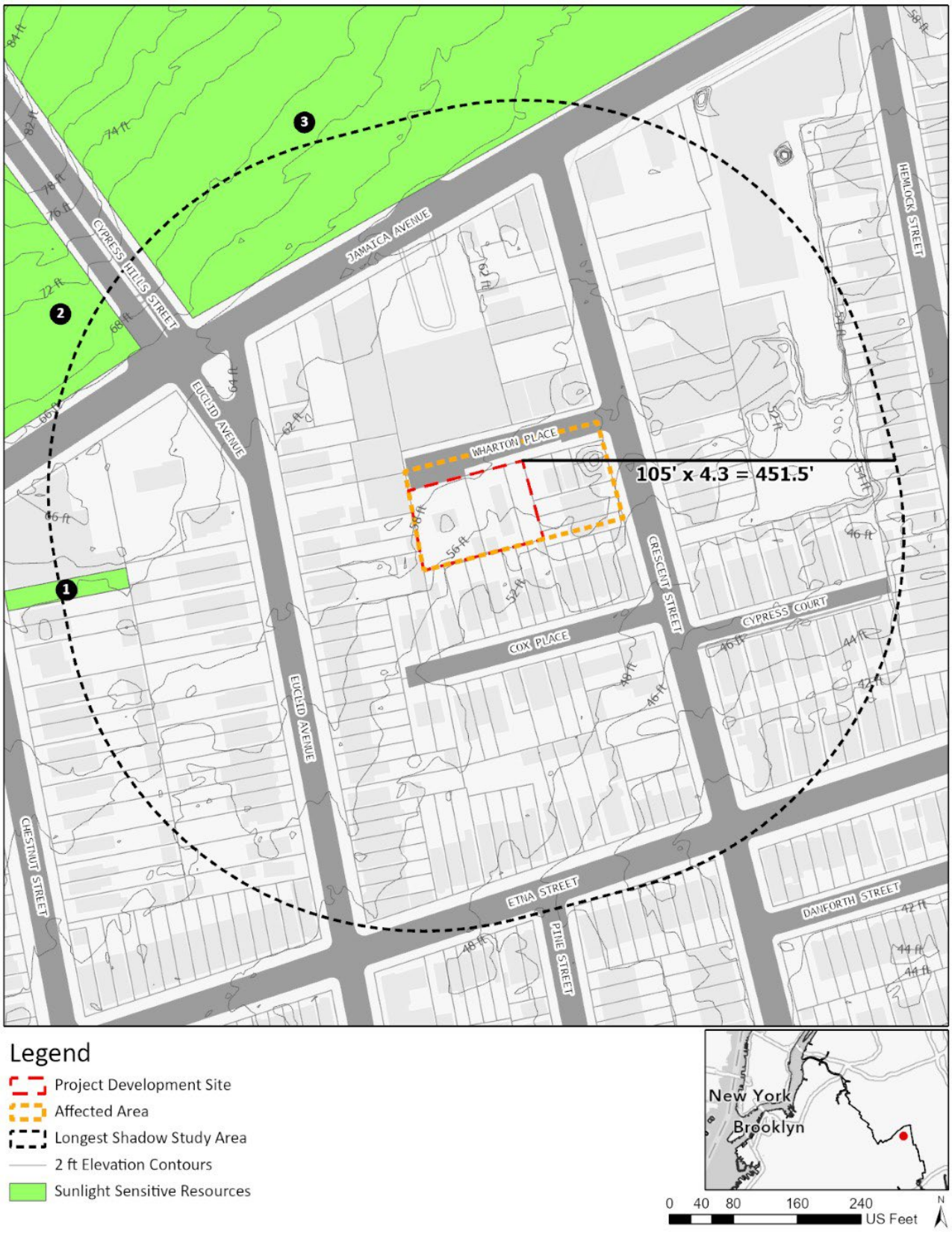


Figure 2.2-2: Tier 2 Shadows Screening

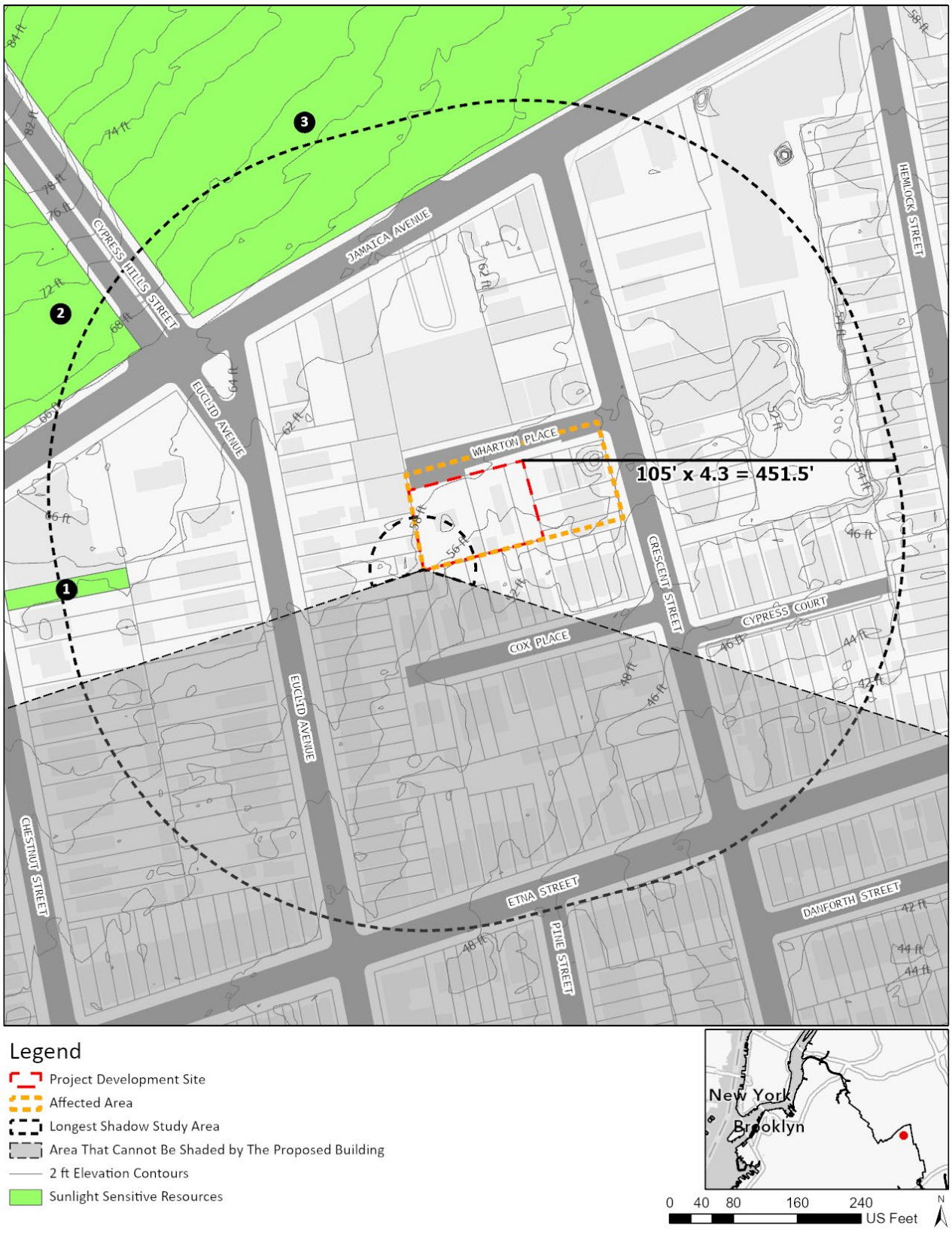


Figure 2.2-3: Tier 3 Shadow Screening December 21st (Winter Solstice)

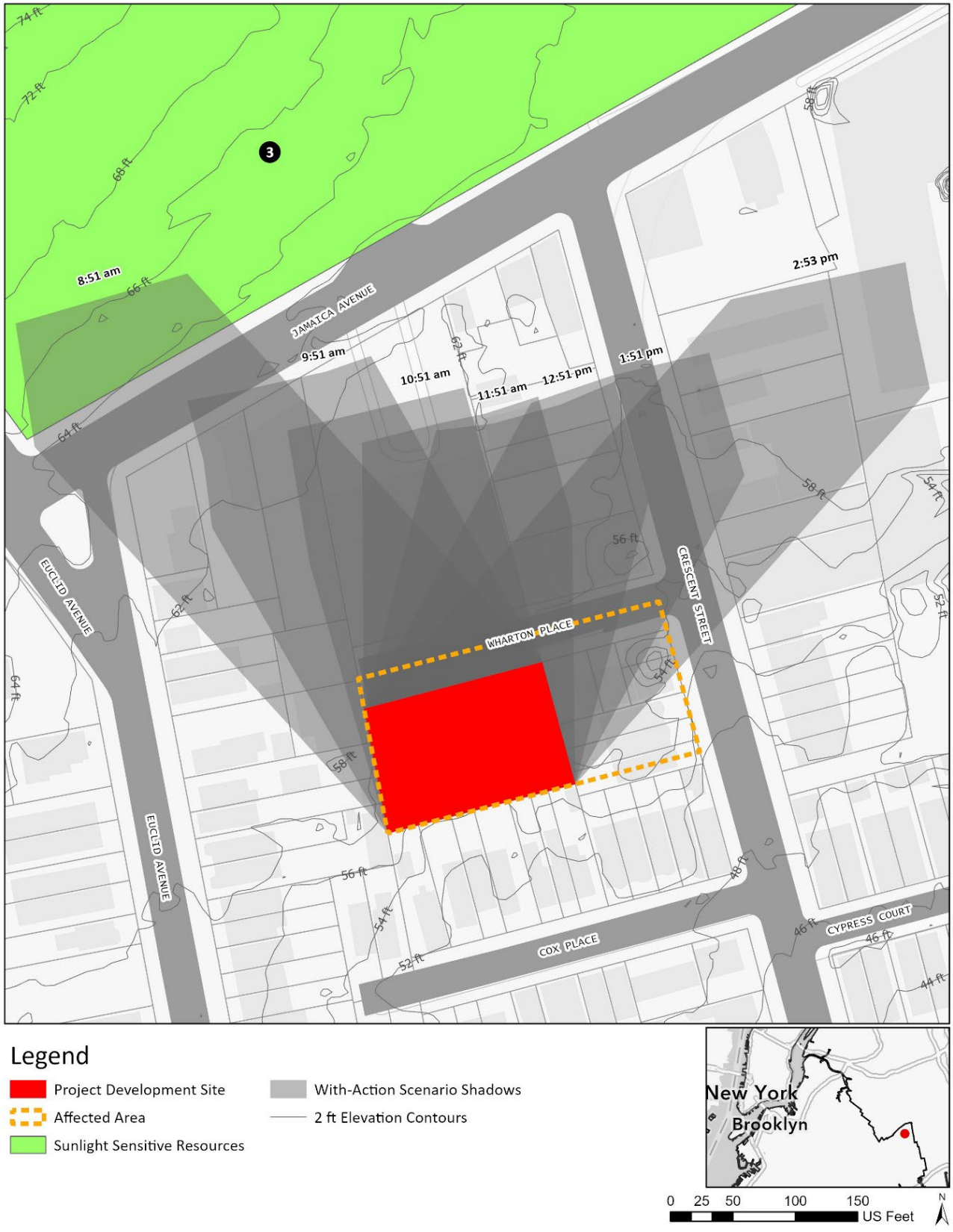


Figure 2.2-4: Tier 3 Shadow Screening March 21st/September 21st (Vernal and Autumnal Equinox)

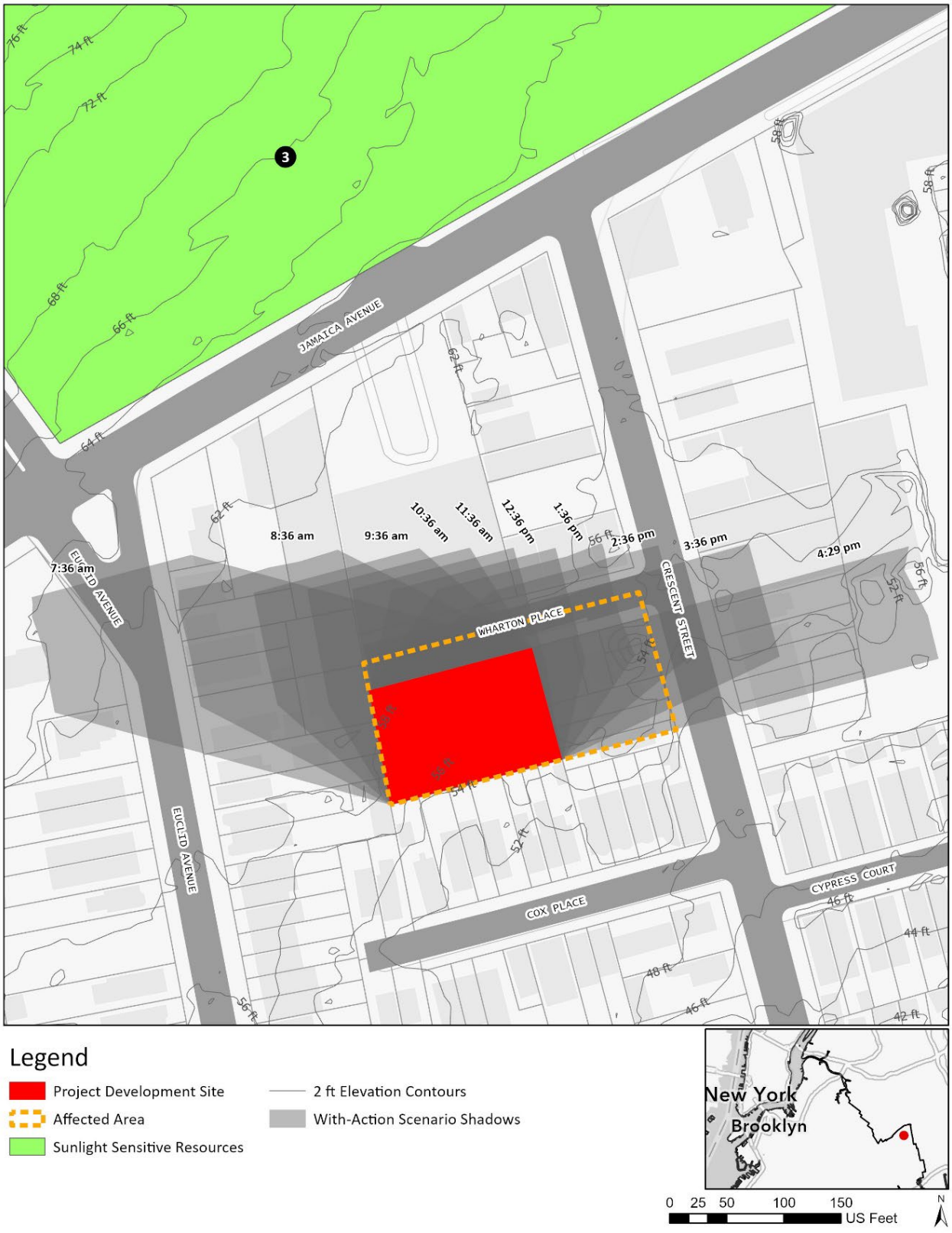


Figure 2.2-5: Tier 3 Shadow Screening May 6th/August 6th

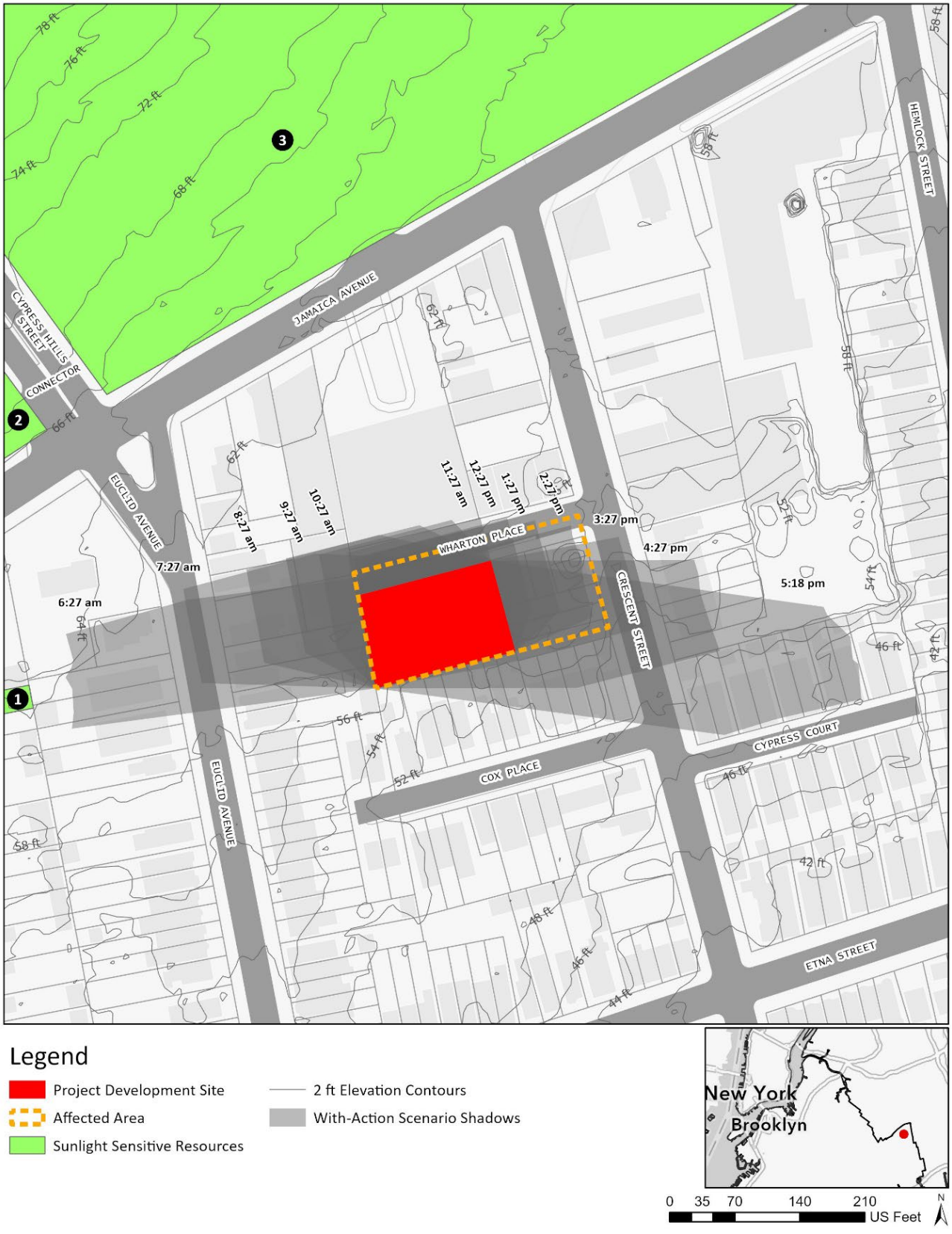
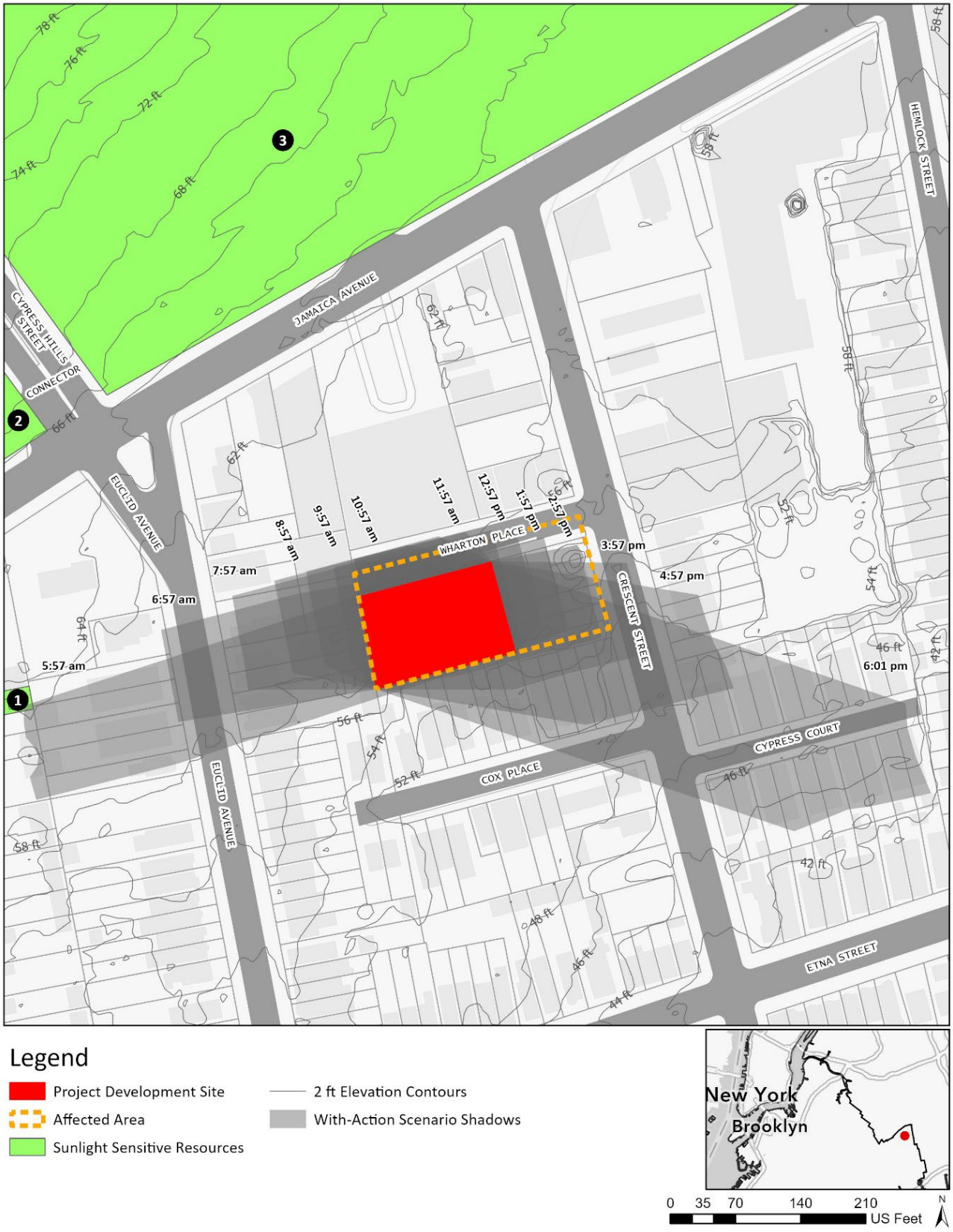


Figure 2.2-6: Tier 3 Shadow Screening June 21st (Summer Solstice)



2.2.2 Detailed Shadows Analysis

Methodology

The *2021 CEQR Technical Manual* states that a detailed shadow analysis is warranted when the screening analyses do not rule out the possibility that project-generated shadows, in absence of shadows cast by intervening buildings, would reach any sunlight-sensitive resources. The detailed analysis aims to determine the extent and duration of shadows that fall on a sunlight-sensitive resource due to the proposed project. To evaluate the extent and duration of new shadows that would be cast on a sunlight-sensitive resource as a result of the proposed project, shadows that would exist in the future without the proposed project are also defined.

Analysis

The results of the detailed shadow analysis on the identified resources of concern are summarized in **Table 2.2-1**. The incremental shadows cast by the Projected Development are shown below in **Figure 2.2-7** through **Figure 2.2-8**, based on the Detailed Shadow Analysis findings, the Projected Development would cast shadows on Cypress Hills Cemetery (Resource 3) during the December 21st (Winter Solstice). Cypress Hills Cemetery is a publicly accessible 70.01 70.01-acre cemetery located on Jamaica Avenue in Brooklyn. The Cemetery is owned and managed by the Cypress Hills Cemetery and is open from Monday – Sunday, 8 am-4:30 pm. The results of the Detailed Shadows Analysis are discussed further below.

Table 2.2-1: 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	Chestnut Street Community Garden			
Shadow enter - exit times	-	-	-	-
Incremental Shadow Duration	-	-	-	-
Sunlight Sensitive Resource 2	Salem Fields Cemetery			
Shadow enter - exit times	-	-	-	-
Incremental Shadow Duration	-	-	-	-
Sunlight Sensitive Resource 2	Cypress Hills Cemetery			
Shadow enter - exit times	8:51 - 9:21 a.m.	-	-	-
Incremental Shadow Duration	30 Minutes	-	-	-
Note: Daylight savings time not used				

Figure 2.2-7: Detailed Shadows December 21st, 8:51 AM

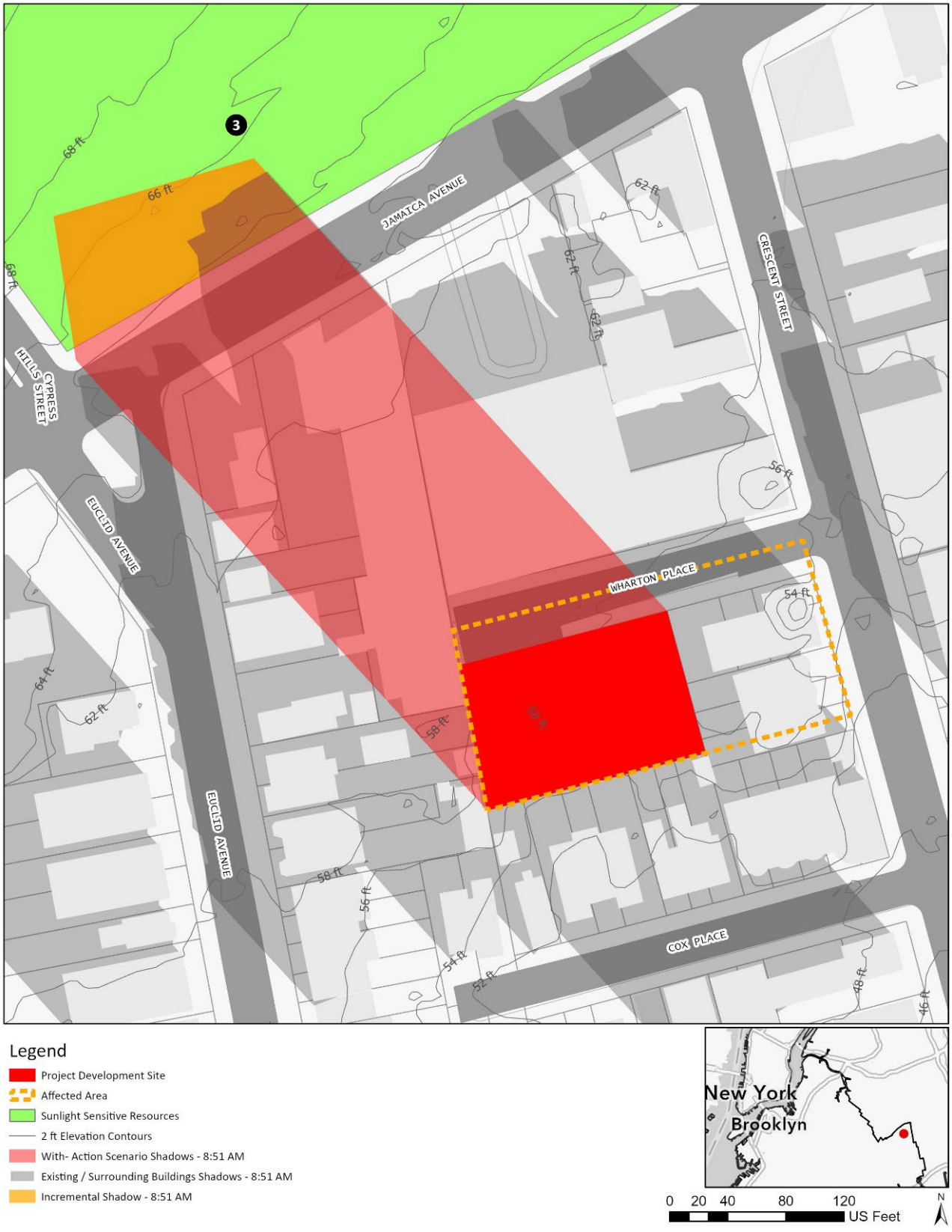
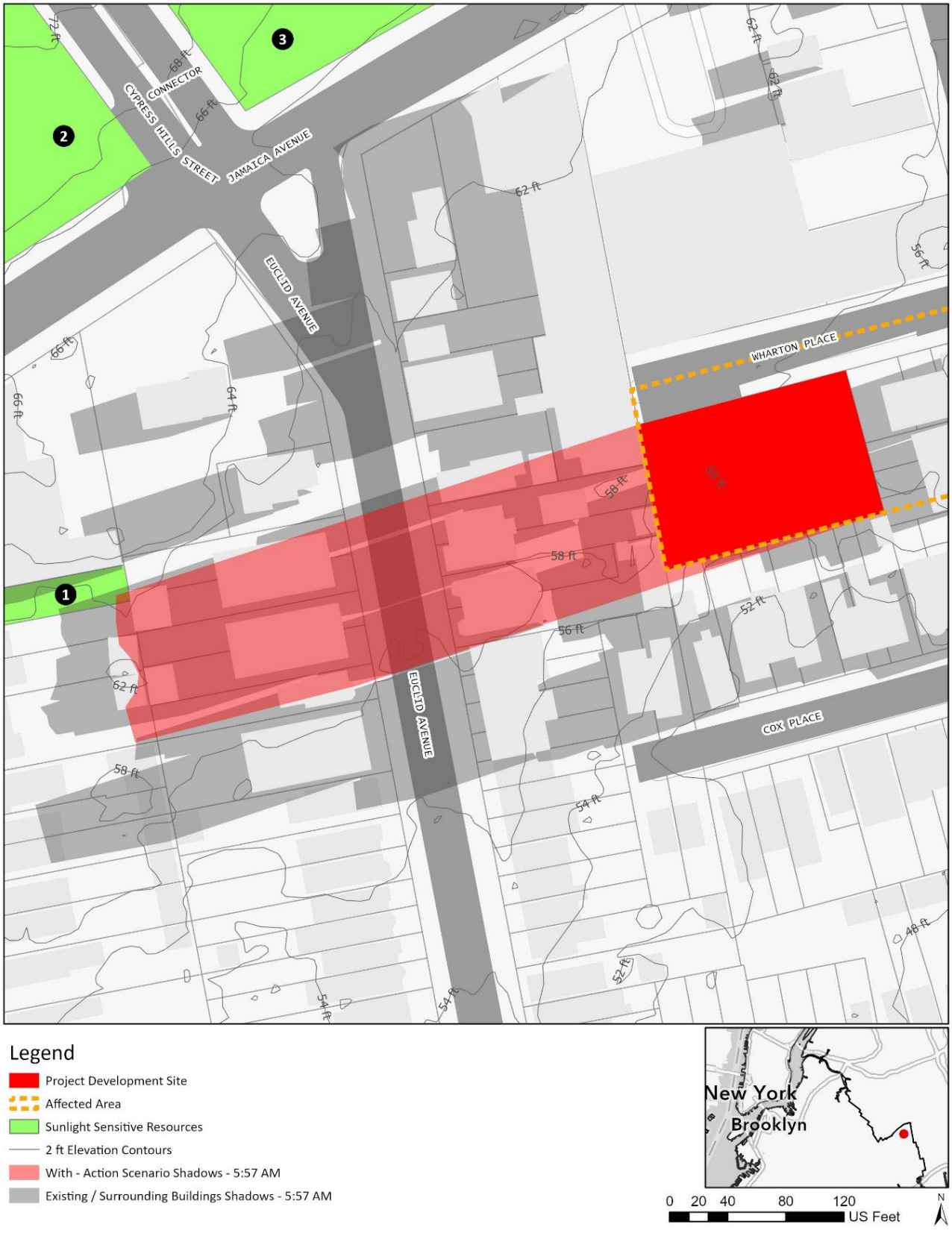


Figure 2.2-8: Detailed Shadows June 21st, 5:57 AM



2.2.3 Conclusion

The *2021 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.

Where the incremental shadows induced by a Proposed Action fall on sunlight-sensitive features or uses, the analysis assesses the loss of sunlight relative to sunlight that would be available without the project. The determination of impact under CEQR considers the extent and duration of the incremental shadows, the specific context in which the impact occurs, and the types of sunlight-sensitive features within the identified sunlight-sensitive resource(s) being analyzed, as described below.

- Open Space and Natural Resources

  For open space and natural resources, the uses and features of a resource is an indicator of its sensitivity to shadows. 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 warm-weather-dependent open space features such as pools, and sandboxes. Shadows occurring during the cold-weather months generally do not affect the growing season of outdoor vegetation. However, if an area potentially affected by shadows has evergreen trees present, it may be warranted to assess the potential for shadow impacts during all seasons as evergreen trees photosynthesize when the environment allows, including during the winter months. In addition, the detailed shadows analysis should consider the potential impact on open space features such as benches, that could be affected by a loss of winter sunlight.

  Pursuant to the *2021 CEQR Technical Manual*, plantings and vegetation such as grass lawns, planted annuals, or areas used for a relatively substantial amount of food production need six to eight hours of direct sunlight. However, some plantings and vegetation, such as established tree canopies, shrubs and perennials, can tolerate partial sun, with a reduced minimum requirement of four to six hours of direct sunlight. Direct sunlight does not need to be continuous. For example, a portion of the direct sun could be in the morning and the balance in the afternoon. However, the periods of sunlight need to be full and unobscured.

- Historic Resources

  The sensitivity to shadows for sunlight-sensitive features of a historic structure depends on its design and setting, and whether or not any of the characteristics or elements that make the resource historically significant depend on sunlight. The assessment focuses only on sunlight-sensitive features or portions of the historic resource that can be enjoyed by the public.

As stated in the *2021 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 or more 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 minimum sunlight needs (as defined above)
    - A reduction in direct sunlight exposure where the sunlight-sensitive feature of the resource is already subject to substandard sunlight
- Open Space Utilization
    - A substantial reduction in the usability of open space as a result of increased shadows.
- Historic and Cultural Resources
    - A substantial reduction in sunlight available for the enjoyment or appreciation of the sunlight-sensitive features of a historic or cultural resource.
- For Any Sunlight-Sensitive Feature of a Resource
    - A 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.

The determination of significant shadow impacts for the identified sunlight-sensitive resources evaluated as part of the Detailed Shadow Analysis is presented below.

Sunlight Sensitive Resource 1 (Chestnut Street Community Garden)

Sunlight Sensitive Resource 1, Chestnut Street Community Garden, is a 2500-square-foot Community Garden featuring raised beds, several picnic tables, and border planters. The Tier 3 shadows screening determined that shadows from the Projected Development would reach this sunlight-sensitive resource during the June 21st (Summer Solstice) month. However, based on the Detailed Shadow Analysis, which takes into consideration shadows cast by existing intervening buildings, there would be no Incremental shadows cast from the Projected Development in June on this resource. Therefore, no impact on vegetation or natural resources would occur on this resource from project-generated shadows during the June analysis period.

Sunlight Sensitive Resource 3 (Cypress Hills Cemetery)

Sunlight Sensitive Resource 3, Cypress Hills Cemetery, is a 70.01 70.01-acre cemetery. The Tier 3 shadows screening revealed that Cypress Hills Cemetery (Resource 3) would be shaded during the December 21st (Winter Solstice) period when shadows are at their longest, but coverage would be transitory and move quickly across the study area.

Based on the Detailed Shadows Analysis, taking into consideration shadows cast from existing intervening buildings, during the December 21st analysis period, there would be 30 minutes of incremental shadows cast, leaving 5 hours and 28 minutes of direct sunlight. The incremental shadows cast by the Projected Development Building would enter the park at 8:51 AM and exit at 9:21 AM, moving across the southwestern corner of the cemetery, covering a lawn area, trees, a paved walking path, and burial grounds. Given the short duration of shadows cast by the Projected Development, the incremental shadows would not result in an impact on the open space and recreational utilization of the cemetery. Further, as incremental shadows would occur for a short duration, they would not reduce the direct sunlight to this resource to fewer than 4 to 6 hours. Therefore, no impact on vegetation or natural resources would occur from incremental project-generated shadows during the December 21st analysis period. Accordingly, no further analysis is warranted.

2.3 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 *2021 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 conditions. The assessment specifically considers whether the project may result in the disturbance or destruction of those archaeological and architectural resources as a result of the Proposed Actions.

2.3.1 Architectural Resources

Per *CEQR Technical Manual* guidelines, impacts on historic resources are considered on those sites affected by the Proposed Action(s) and in the area surrounding identified development sites. The historic resources Study Area is 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 action to result in significant adverse impacts on identified historic and cultural resources. **Table 2.3-1** below provides information about possible direct, indirect and construction-related impacts on 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 2.3-1: 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 a 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 a historic landscape or a historic structure to the extent that the architectural details that distinguish that resource as significant are obscured.

To determine whether the Proposed Actions have the potential to affect nearby historic or architectural resources, the 400-foot Study Area was screened for historic and architectural resources. The LPC was contacted for their initial review of the proposed Project's potential to impact nearby historic and cultural resources, and by letter dated August 15, 2024, indicated that

the Study Area does not contain any sites or buildings of known architectural significance (*see* **Appendix A**). Therefore, significant adverse impacts on architectural resources are not expected because of the Proposed Actions, and further analysis is not warranted.

2.3.2 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 on 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 *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 Site. As noted, the LPC was contacted for their initial review of the project's potential to impact cultural or archaeological resources, and a response was received on August 15, 2024 (*see* **Appendix A**). The LPC has indicated that no cultural resource of archaeological significance is associated with the Projected Development Site. Therefore, significant adverse impacts on archaeological resources are not expected because of the Proposed Actions, and further analysis is not warranted.

2.3.3 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. Based on the above, there are no known resources of architectural significance. In addition, no archeological significance is associated with the Projected Development Site. Accordingly, no further analysis is warranted.

2.4 Urban Design and Visual Resources

According to the *2021 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.

Methodology

In accordance with the *2021 CEQR Technical Manual* guidelines, the following preliminary urban design assessment considers a 400-foot radius study area where the Proposed Actions would be most likely to influence the built environment. The purpose of the preliminary assessment is to determine whether any physical changes proposed by the project would significantly impact elements of urban design, the following information, if known, is included in a preliminary assessment:

- A concise narrative of the existing project area and conditions under the future No-Action and With-Action conditions.
- If view corridors exist within the study area, a concise narrative describing the proposed project as it relates to visual resources should be provided. The narrative should include, as appropriate, information regarding the project's proximity to the visual resource(s), orientation, height, bulk, etc.
- An area map showing the context of the study area as described in Section 311, including major uses and view corridors, vehicular and pedestrian access, open spaces, community facilities, public transit corridors, bike paths and any other elements of urban design that affect the pedestrian experience of the project study area, as applicable.
- Ground-level photographs of the site area with immediate context.
- A three-dimensional representation of the future With-Action and No-Action (if relevant) condition.
- Known developments that are underway or approved as part of some other land use action.

If the preliminary assessment determines that a change to the pedestrian experience is minimal and unlikely to disturb the vitality, walkability or the visual character of the area, then no further assessment is necessary. However, if it shows that changes to the pedestrian environment are

significant enough to require greater explanation and further study, a detailed analysis may be appropriate.

2.4.1 Preliminary Assessment

The proposed rezoning of the Affected Area from R5 to R6A would alter permitted bulk and height within the Affected Area. Therefore, further analysis is warranted. Within the Study Area, there are no existing publicly accessible view corridors, and there would be no significant adverse effects on visual resources as a result of the Proposed Actions. The differences between existing and proposed zoning, with regard to those aspects of zoning affecting urban design, are presented in the following **Table 2.4-1**.

Table 2.4-1: No-Action and With-Action Zoning

	No-Action	With-Action
Zoning	R5	R6A
Permitted Uses	Res, CF	Res, CF
Maximum FAR	Residential (Standard Lots): 1.5 FAR Residential (Qualifying Sites): 2.0 FAR CF: 2.00 FAR	Res (Standard): 3.0 FAR Res (MIH): 3.90 FAR CF: 3.00 FAR
Maximum Height	Base Height (Standard Lots): 35 feet Base Height (Qualifying Sites): 45 feet	Base Height (Standard): 65 feet Base Height (MIH): 65 feet
	Building Height (Standard Lots): 45 feet Building Height (Qualifying Sites): 55 feet	Building Height (Standard): 75 feet Building Height (MIH): 95 feet
Lot Coverage (corner lot)	Res: 80% (100% for multiple dwellings) CF: 60%	Res: 100% CF: 80%
Lot Coverage (interior lot or through lot)	Res: 60% (80% for multiple dwellings) CF: 55%	Res: 80% CF: 60%

Com. = CF = Community Facility; Res. = Residential

Existing Conditions

Affected Area

The Affected Area includes Block 4105, Lots 72, 75, 77, 178, 179, 180, 181, 81, 82, and part of Lot 182 in the Cypress Hills neighborhood of Brooklyn Community District 5. The Affected Area comprises approximately 25,229 square feet of area, 15,214 square feet of which is controlled by the Applicant. The Affected Area is located within an R5 zoning district and is bounded by

Wharton Place to the north, Euclid Avenue to the west, Etna Street to the south, and Crescent Street to the east. The Affected Area is also situated just south of Jamaica Avenue, a major commercial corridor.

Projected Development Site 1 includes Applicant-controlled Block 4105, Lots 72, 75, and 77:

- Lot 72 (17 Wharton Place): a 7,714-SF lot with frontage on Wharton Place. The lot is currently improved with a 2-story, 2,991 GSF (2,991 ZSF, 0.39 FAR) three-family (3-dwelling unit) residential walk-up building constructed in 1930. In addition, the lot is developed with a single 210 GSF detached garage with parking for one vehicle for a total built floor area on Lot 72 of 3,201 GSF.
- Lot 75 (21 Wharton Place): a 5,000-SF lot with frontage on Wharton Place. The lot is currently improved with a 2-story, 1,458 GSF (1,458 ZSF, 0.29 FAR) one and two-family (2-dwelling unit) residential building constructed in 1930. In addition, the lot is developed with a single 288 GSF detached garage with parking for one vehicle for a total built floor area on Lot 75 of 1,746 GSF.
- Lot 77 (11 Wharton Place): a 2,500-SF lot with frontage on Wharton Place. The lot is currently vacant.

Study Area

The Affected Area is located within the Cypress Hills neighborhood of Brooklyn, Community District 5. The Affected Area is bounded by Wharton Place to the north, Euclid Avenue to the west, Etna Street to the south, and Crescent Street to the east. The Affected Area is also situated just south of Jamaica Avenue, a major commercial corridor.

- Wharton Place is a 50-foot-wide, dead-end local roadway that runs east-west along the northern edge of the Affected Area. Wharton Place allows one moving lane of traffic in each direction and terminates at Crescent Street. Wharton Place provides access to residential properties along the south side of the roadway and access to commercial properties along the north side.
- Etna Street is a 70-foot-wide one-way westbound roadway that runs along the southern boundary of the Affected Area. Etna Street provides one moving lane of traffic and curbside parking on both sides of the roadway. Etna Street is a local roadway, except for the segment that falls between Crescent Street and Hemlock Street, which is classified as a major collector.
- Crescent Street is a 60-foot-wide two-way minor arterial roadway that runs north and south. Crescent Street includes one moving lane of traffic in each direction, and curbside parking along the west side of the roadway. It connects principal arterial Jamaica Avenue to the north with principal arterials Atlantic Avenue and Linden Boulevard to the south,

and serves as an important thoroughfare. An elevated BMT Jamaica Line runs over the portion of Crescent Street within the Surrounding Area, serving the J and Z trains.

- Jamaica Avenue, just north of Wharton Place, is a 70-foot-wide two-way principal arterial roadway and commercial thoroughfare that runs east and west. Jamaica Avenue includes one moving lane of traffic in each direction, and curbside parking is generally provided on both sides of the roadway. The elevated BMT Jamaica Line serving the J and Z trains runs over the portion of Jamaica Avenue east of Crescent Street.
- Euclid Avenue is a 66-foot-wide one-way southbound principal arterial roadway with one moving lane of traffic and curbside parking on both sides of the roadway. Similar to Jamaica Avenue, Euclid Avenue is an important thoroughfare but serves a more residential area compared to the commercial sections along Jamaica Avenue.

The Surrounding Area or Study Area (within 400 feet of the Affected Area) contains a varied mix of residential, open space, commercial, public facilities and institutions, manufacturing and industrial, vacant land and transportation/utility land uses.

Residential uses within the Surrounding Area predominantly consist of 2-3 story one- and two-family homes, many of which are attached or semi-detached, with brick or vinyl facades. Additionally, the Surrounding Area includes low-rise multi-family walk-up buildings ranging from 2 to 4 stories. There are a few mixed commercial and residential buildings dispersed throughout the Surrounding Area, and are 2-3 stories tall, with retail spaces at the ground level and apartments above.

Open spaces within the Affected Area include the Cypress Hills Cemetery to the north of the Affected Area along Jamaica Avenue and Chestnut Street Community Gardens to the west of the Affected Area along Chestnut Street. P.S. 7 -The Abraham Lincoln Elementary School is the only institutional use located within the Surrounding Area. The 3-story school building fronts Jamaica Avenue, and the school play area fronts Crescent Street.

Commercial uses in the Surrounding Area are concentrated along Jamaica Avenue, including local retail stores, restaurants, and small service businesses. Western Beef Supermarket is located immediately north of the Development Site, accessed from Jamaica Avenue. In addition, there are two gas stations, located on corner lots across the street from one another along the southeast and southwest corners of Euclid Avenue and Jamaica Avenue. Commercial uses within the Surrounding Area range in height from 1-2 stories tall.

Industrial and Manufacturing uses predominantly consist of contractors and construction company shops and offices, as well as small warehouses, which are interspersed throughout the area, particularly along Crescent Street. These buildings range in height from 1-2 stories tall.

Zoning in the Surrounding Area includes R5, R4, R3-2, and M1-1. The Affected Area and the area east, west and south are zoned R5. West of the R5 zoning district that covers the Affected Area

is zoned R4. An M1-1 zoning district is mapped immediately north of the Affected Area, within the area north of Wharton Place and south of Jamaica Avenue. Lastly, the area north of Jamaica Avenue, which includes the Cypress Hill Cemetery, is zone R3-2.

The Affected Area is located within the Outer Transit Zone. The area is well-served by public transit. The Cypress Hills Subway Station, an elevated station part of the BMT Jamaica Line, is located 0.2 miles north of the Affected Area on Jamaica Avenue. This station serves the J Train at all times, and the Z train during rush hours in the peak direction. There are multiple MTA bus lines within walking distance of the Affected Area. The Q56 bus line runs along Jamaica Avenue from Jamaica Center – Parsons/Archer (Jamaica, Queens) to Broadway Junction (East New York, Brooklyn). The nearest stop is located 0.1 miles north of the Affected Area at Jamaica Ave/Crescent Street. The B13 bus line runs along Crescent Street, Cypress Hills Street, and Fresh Pond Road from Jamaica Center – Parsons/Archer (Jamaica, Queens) to Broadway Junction (East New York, Brooklyn). The nearest stop is located 0.1 miles north of the Affected Area at Jamaica Ave/Crescent Street.

The sidewalks surrounding the Affected Area exhibit varying conditions as described below:

- The sidewalks surrounding the Subject Block along Wharton Place are in fair condition, with approximately 6- 11-foot-wide sidewalks along the south side of the road, and approximately 10-foot-wide sidewalks along the north side of the road. No sidewalk currently exists at the dead-end of the roadway, therefore there is no sidewalk connection between the existing north and south sidewalks. Street trees are minimal, and one street light is provided on this roadway. As discussed further below, the Applicant's proposed development would include improvements to the roadway and sidewalks along Wharton Place.

- The sidewalks surrounding the Subject Block along Etna Street are in good condition, with approximately 10- to 15-foot-wide sidewalks along both sides of the roadway, ample street trees, and street lighting.

- The sidewalks surrounding the Subject Block along Crescent Street are in good condition, with approximately 10- to 15-foot-wide sidewalks on both sides of the roadway, and ample lighting. However, street trees on Crescent Street are limited due to the elevated BMT line that runs above this segment of the roadway.

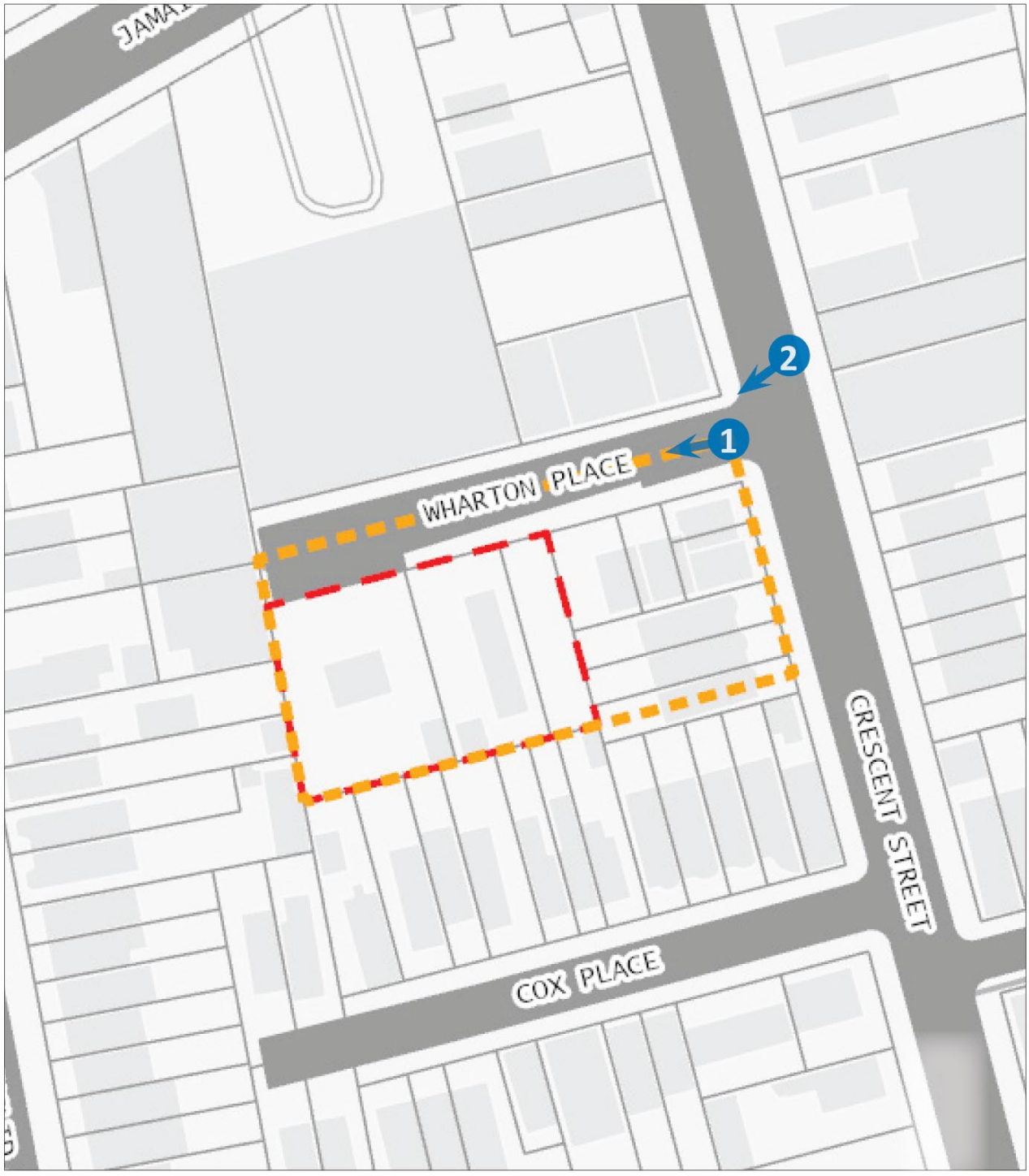
- The sidewalks surrounding the Subject Block along Jamaica Avenue are in good condition, with approximately 5- to 15-foot-wide sidewalks along the north side of the road, and approximately 10- to 15-foot-wide sidewalks along the south side of the road. Ample street lighting is provided throughout the roadway. On this segment of Jamaica Avenue, street trees are limited along the portion of the roadway where the elevated BMT line runs above. However, ample street trees are provided in areas not below the BMT line.

In addition, trees line the boundary of the Cypress Hills Cemetery, which shade and line the north side of the sidewalk along Jamaica Avenue.

- The sidewalks surrounding the Subject Block along Euclid Avenue are in good condition, with approximately 8 to 15-foot-wide sidewalks along both sides of the roadway, and ample street trees and street lighting provided.

A photo key for all images is shown below in **Figure 2.4-1**. These ground-level photographs of the site area under the existing conditions are shown in **Figure 2.4-3** to **Figure 2.4-3** below.

Figure 2.4-1: Urban Design Study Area – Photomontage Locations



Rezoning Area
Projected Development Site

Study Area Map with Photo Key

Figure 2.4-2: Urban Design Massing View 1. Existing Conditions



1 Looking west at Projected Development Site from Wharton Place

Figure 2.4-3: Urban Design Massing View 2. Existing Conditions



2 Looking southwest at Projected Development Site from Crescent Street

Future No-Action Condition

Affected Area

There are no records of building work permits submitted on the DOB website for Projected Development Site 1 or other lots within the Affected Area. Therefore, it is conservatively assumed that under future conditions absent the Proposed Actions, existing conditions would remain within the Affected Area.

Study Area

No significant changes to the area's urban character are anticipated under future No-Action Conditions. There is one active construction permit in the Surrounding Area. A new 2-story, 10,917 GSF (4,959 ZSF) industrial/manufacturing building with five enclosed parking stalls accessed by a curb cut on Crescent Street is under construction at 24 Crescent Street, Block 4105, Lot 49. In the future, without the Proposed Actions, it is expected that while tenants within surrounding Study Area buildings may change, the overall use of these buildings would remain the same. Any new development within the Study Area would be governed by the underlying as-of-right zoning regulations.

Pedestrian activity within the Study Area under Future No-Action Conditions would not experience dramatic changes compared to existing conditions. The sidewalks, street trees, and lighting would be expected to generally remain as they are in existing conditions.

The Urban Design massing views in the 2028 build year No-Action Condition are shown in **Figure 2.4-4** to **Figure 2.4-5** below.

Future With-Action Condition

Affected Area

The proposed R6A district would permit a maximum FAR of 3.0 for standard residences and community facility use. For buildings participating in the UAP program, a maximum residential FAR of 3.9 (for qualifying affordable or senior housing) is permitted, so long as any residential floor area exceeding the standard FAR is permanently income-restricted to an average of 60% AMI. The maximum base height is 65 feet, and the maximum building height is 75 feet (for standard residences). The maximum base height is 65 feet, and the maximum building height is 95 feet (for qualifying affordable or senior housing). Buildings must set back above the maximum base height to a depth of 10 feet on a wide street and 15 feet on a narrow street. The Projected Development Site fronts a narrow street; therefore, a 15' setback is required. However, such minimum setbacks may be modified as follows per ZR Section 23-433:

a) The depth of such required setback may be reduced by one foot for every foot that the street wall is located beyond the street line, but in no event shall a setback of less than seven feet in depth be provided, except as otherwise set forth in ZR Section 23-433. To allow street wall articulation, where a street wall is divided into different segments and

located at varying depths from the street line, such permitted setback reduction may be applied to each street wall portion separately.

b) The depth of such setbacks may include the depth of recesses or outer courts in the street wall of the building base, provided that the aggregate width of any such recessed portion of a street wall with a setback less than seven feet, as applicable, does not exceed 30 percent of the aggregate width of street wall at any level.

c) These setback provisions are optional for any building wall that either is located beyond 50 feet of a street line, or oriented so that lines drawn perpendicular to it, in plan, would intersect a street line at an angle of 65 degrees or less. In the case of an irregular street line, the line connecting the most extreme points of intersection shall be deemed to be the street line.

d) Dormers provided in accordance with the provisions of Section 23-413 (Permitted obstructions in certain districts) may penetrate a required setback area.

The Applicant's Proposed Development provides a 7' setback after the 65' base height per ZR 23-433(a). The Projected Development Site is located within the Outer Transit Zone. R6A zoning districts within the Outer Transit Zone require off-street parking for 25 percent of market-rate residential dwelling units. No parking is required for income-restricted housing units. Parking can be waived if fewer than 15 parking stalls are required.

Under Future With-Action Conditions, the Projected Development Site would be developed with a single 71,305 GSF (59,333 ZSF, 3.90 FAR) mixed residential and community facility building containing approximately 69,964 GSF (57,992 ZSF, 3.81 FAR) of residential uses and 1,341 GSF (1,341 ZSF, 0.09 FAR) of ground floor community facility use. There would be approximately 73 dwelling units. The building would have 9 stories and rise to 95 feet. No parking would be required or provided per ZR Section 25-222, and no new curb cuts would be proposed.

The Applicant's proposed development on Projected Development Site 1 would include improvements to the roadway and sidewalks along Wharton Place. The Proposed Development would include a 76' diameter fire apparatus turnaround, subject to FDNY review. In addition, the sidewalks in front of the Affected Area would be reconstructed, with 5' wide sidewalks in front of the Projected Development Site (15' wide in total including 10' of sidewalk extending onto the Projected Development Site), and 13.3' wide sidewalks (from current 11.3') along Wharton Place fronting Lots 178, 179 and 180. Lastly, a 5' sidewalk would be provided at the dead-end, facilitating a connection between the north and south sidewalks.

Urban Design Study Area

The Proposed Actions would only affect the Affected Area. The Proposed Actions would introduce development that is larger in scale than the existing surrounding buildings but with the same permitted uses as the existing R5 zoning. However, the density permitted by the Proposed

Actions would be appropriate for the location and consistent with the recent land use trends in the Surrounding Area.

The proposed R6A zoning district would provide opportunities for new mid-rise mixed-use building construction and help induce the development of underutilized Lots 72, 75 and 77, while also maintaining conformance of the existing residential uses present within the Affected Area. The development effectuated by the Proposed Actions would improve the pedestrian experience by renovating sidewalks, infilling vacant land on Lot 77, and providing new ground-floor community facility use along Wharton Place.

The proposed R6A zoning district would be an appropriate transition from the existing R5 zoning district mapped over the Projected Development Site and throughout the Surrounding Area. The proposed R6A zoning is consistent with recent rezoning precedents and the trend towards increased density along transit corridors. The increased density and mixed-use development facilitated by the Proposed Actions are contextually appropriate due to the Affected Area's proximity to two arterial roadways (Crescent Street and Jamaica Avenue) and the elevated BMT Jamaica Line that runs directly east of the Affected Area along Crescent Street.

The Urban Design Massing Views under the Future With-Action Condition in comparison to the Future No-Action Condition are shown below in **Figure 2.4-4** to **Figure 2.4-5**.

2.4.2 Conclusion

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 impact or significantly change the pedestrian experience, nor would it disturb the vitality, walkability, or visual character of the area. Instead, the mixed-use residential development with ground-floor community facility use would improve the pedestrian experience and increase the vitality of the area. Therefore, the Proposed Actions would not result in any significant adverse impacts on urban design, and a detailed analysis is not warranted.

Figure 2.4-4: Massing View 1. Illustrative Comparison of No-Action and With-Action Conditions

No-Action/Exising Condition



With-Action Condition



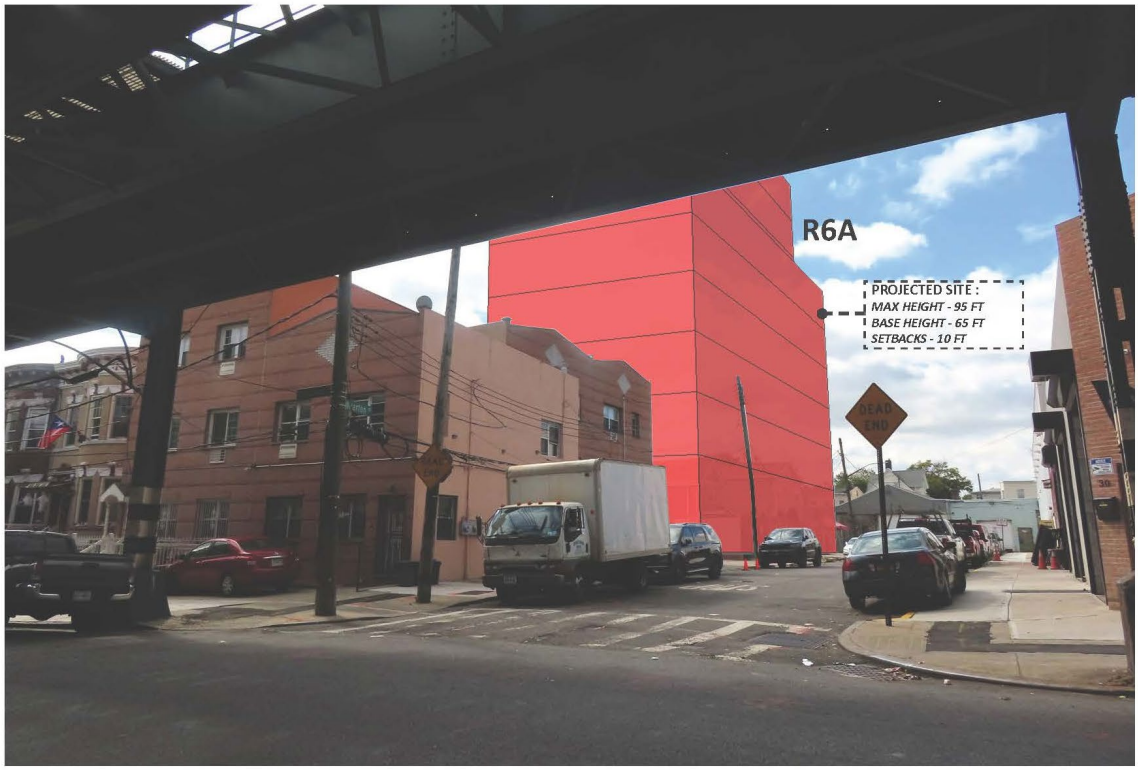
1 Looking west at Projected Development Site from Wharton Place

Figure 2.4-5: Massing View 2. Illustrative Comparison of No-Action and With-Action Conditions

No-Action/Exising Condition



With-Action Condition



2 Looking southwest at Projected Development Site from Crescent Street

2.5 Hazardous Materials

According to the *2021 CEQR Technical Manual*, the potential for significant impacts from hazardous materials can occur when: (a) hazardous material exists on a site, (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 I Environmental Site Assessment (Phase I 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 I ESA is conducted in accordance with the standards established by the current ASTM Phase I 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 potential Recognized Environmental Conditions (RECs) are 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.

ASTM Definitions:

- **Recognized Environmental Condition (REC)** - (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

- **Historical Recognized Environmental Condition (HREC)** - A past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).

- **Controlled Recognized Environmental Condition (CREC)** - A recognized environmental condition 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 Vapor Encroachment Condition (VEC)** - 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.
- **Business Environmental Risks (BER)** - 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.
- **De Minimis Conditions** - 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.

Analysis Framework

Existing Condition

Projected Development Site 1 includes Applicant-controlled Block 4105, Lots 72, 75, and 77:

- Lot 72 (17 Wharton Place): a 7,714-SF lot with frontage on Wharton Place. The lot is currently improved with a 2-story, 2,991 GSF (2,991 ZSF, 0.39 FAR) three-family (3-dwelling unit) residential walk-up building constructed in 1930. In addition, the lot is developed with a single 210 GSF detached garage with parking for one vehicle for a total built floor area on Lot 72 of 3,201 GSF.
- Lot 75 (21 Wharton Place): a 5,000-SF lot with frontage on Wharton Place. The lot is currently improved with a 2-story, 1,458 GSF (1,458 ZSF, 0.29 FAR) one and two-family (2-dwelling unit) residential building constructed in 1930. In addition, the lot is developed with a single 288 GSF detached garage with parking for one vehicle for a total built floor area on Lot 75 of 1,746 GSF.
- Lot 77 (11 Wharton Place): a 2,500-SF lot with frontage on Wharton Place. The lot is currently vacant.

Future No-Action Condition

There are no records of building work permits submitted by the Applicant. Therefore, it is conservatively assumed that under the No-Action Scenario, existing conditions would continue on Projected Development Site 1.

Future With-Action Condition

The Projected Development Site would be developed with a single 71,305 GSF (59,333 ZSF, 3.90 FAR) mixed residential and community facility building containing approximately 69,964 GSF (57,992 ZSF, 3.81 FAR) of residential uses and 1,341 GSF (1,341 ZSF, 0.09 FAR) of ground floor community facility use. There would be approximately 73 dwelling units. The building would have 9 stories and rise to 95 feet. No parking would be required or provided per ZR Section 25-222, and no new curb cuts would be proposed.

2.5.1 Phase I Environmental Site Assessment Summary

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.

GZA GeoEnvironmental Inc. has prepared an October 8, 2024 Phase I Environmental Site Assessment at the Projected Development Site (The Project Site), in conformance with the scope and limitations of ASTM Practice E 1527-21 (*See* **Appendix C**). The following conditions were observed:

- Recognized Environmental Condition (RECs): In GZA's opinion, the Phase I ESA revealed no evidence of RECs in connection with the Project Site.
- Historical Recognized Environmental Condition (HRECs): In GZA's opinion, the Phase I ESA revealed no evidence of HRECs in connection with the Project Site.
- Controlled Recognized Environmental Condition (CRECs): In GZA's opinion, the Phase I ESA revealed no evidence of CRECs in connection with the Project Site.
- De Minimis Conditions: A stain was observed in the basement of the Lot 75 building. According to the Project Site owner, the stain is from latex paint. The stain did not lead to any floor drains. In GZA's opinion the presence of this stain is considered a De Minimis Condition in connection with the Project Site.
- Business Environmental Risks: Potential Vapor Encroachment Conditions (VECs) of concern to the Project Site have been identified. Based on their distance from the Subject Property, description provided, closed regulatory status, or the anticipated hydrogeologic

gradient, it is GZA's opinion that the listed sites in the Third-Party Database Report, including nearby spills and historic gasoline service stations are potential VECs of concern to the Project Site.

Significant Data Gaps: In GZA's opinion, the Phase I ESA revealed two data gaps that may affect the ability to identify RECs, CRECs, or HRECs at the Project Site. At the time of the GZA's site reconnaissance, the shed on the south side of Lot 72 and the first floor of the Lot 75 building were inaccessible.

2.5.2 Conclusion

By letter dated X upon review of the Phase I ESA, DEP concurred with the findings of the Phase I and X.

To preclude the potential for significant adverse impact on the applicant-owned Projected Development Site 1 (Block 4105, Lots 72, 75, and 77), an (E) Designation for hazardous materials should be placed on the zoning map pursuant to Section 11-15 of the New York City Zoning Resolution. The (E) Designation will ensure that testing and mitigation will be provided 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 text of the (E) designation would be as follows:

(E) Designation (E-XXX)

Projected Development Site 1 (Block 4105, Lots 72, 75, and 77)

Task 1 - Sampling Protocol

The applicant submits to OER, for review and approval, a 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 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.

2.6 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 quality, defined as pollutant levels in the surrounding environment to which the public has access, may be affected by air pollutants produced by motor vehicles, referred to as "mobile sources"; by fixed facilities, usually referred to as "stationary sources"; or by a combination of both.

Methodology

The *2021 CEQR Technical Manual* generally recommends an assessment of potential adverse mobile source air quality impact 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). Assessment for potential adverse stationary source air quality impact is required 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.

Criteria Pollutants

As required by the Clean Air Act, the U.S. Environmental Protection Agency (EPA) has established National Ambient Air Quality Standards (NAAQS) for the most common air pollutants (six 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 an 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 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.

Significant adverse air quality impact related to criteria pollutants accounts for existing pollutant concentrations in the ambient air (background concentrations). Background concentrations from the nearest New York State Department of Environmental Conservation (NYSDEC) federally-mandated monitoring station(s) were applied in the analysis. A dispersion analysis for an industrial source was required. Criteria pollutants associated with the industrial source analysis are particulate matter with aerodynamic diameters less than or equal to 2.5 microns ("$PM_{2.5}$") and 10 microns ("PM_{10}"). **Table 2.6-1** shows the $PM_{2.5}$ and PM_{10} primary NAAQS and background concentrations, the criteria pollutant(s) that a dispersion analysis was conducted for.

Table 2.6-1: Background Concentration at the NYSDEC Nearest Monitoring Station

Pollutant	Averaging Period	National and State Standards	Background Concentration	Monitoring Station
$PM_{2.5}$	24-Hour	35 $\mu g/m^3$	18.9 $\mu g/m^3$	Queens College
	Annual	9.0 $\mu g/m^3$	7.2 $\mu g/m^3$	
PM_{10}	24-Hour	150 $\mu g/m^3$	31 $\mu g/m^3$	Queens College

Notes:
1. Background concentration: NYSDEC. 2023. "New York State Ambient Air Quality Report 2023." dec.ny.gov/sites/default/files/2024-10/2023airqualreport.pdf.
2. Queens College monitoring station (AQS ID. 36-081-0124).
3. ppm = parts per million; ppb = parts per billion; $\mu g/m^3$ = micrograms per cubic meter

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 increases in CO (applicable to mobile sources) and $PM_{2.5}$ concentrations that would result as a consequence of a proposed project. $PM_{2.5}$ stationary source *de minimis* is shown below (no mobile source detailed analysis was required):

- 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 0.3 $\mu g/m^3$ at any receptor location for stationary sources.

Noncriteria Pollutants and New York State Standards

Noncriteria pollutants include hundreds of toxic pollutants, ranging from high to low toxicities. High-toxicity contaminants include potential human carcinogens, such as 188 hazardous air pollutants (HAPs). Moderate-toxicity contaminants may consist of animal carcinogens and other substances, posing a health risk to humans. Low-toxicity contaminants generally include contaminants that are of primary concern as irritants. The NYSDEC has established guidelines for the maximum allowable concentration of noncriteria air contaminants. The maximum permissible guidelines set maximum 1-hour and annual averaging time concentrations published (February 12, 2021 publication) in the DAR-1 Annual and Short-term Guideline Concentration (AGC/SGC Table). In addition, DAR-1 also includes standards for pollutant cumulative risk assessment.

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

Analysis Framework

Future No-Action Condition

There are no records of building work permits submitted by the Applicant. Therefore, it is conservatively assumed that under the No-Action Scenario, existing conditions would continue on Projected Development Site 1.

Future With-Action Condition

The Projected Development Site would be developed with a single 71,305 GSF (59,333 ZSF, 3.90 FAR) mixed residential and community facility building containing approximately 69,964 GSF (57,992 ZSF, 3.81 FAR) of residential uses and 1,341 GSF (1,341 ZSF, 0.09 FAR) of ground floor community facility use. There would be approximately 73 dwelling units. The building would have 9 stories and rise to 95 feet. No parking would be required or provided per ZR Section 25-222, and no new curb cuts would be proposed.

2.6.1 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 the 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.

2.6.1.1 Mobile Sources Conclusion

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 far below the 170-car threshold or HDDV thresholds for potentially warranting further assessment of project-generated mobile source emissions (see EAS Short Form Part II Section 13 Transportation Question a). The project would not create a new sensitive receptor adjacent to large parking facilities. Lastly, the project would not result in the creation of a new parking facility. Accordingly, no further analysis of mobile source emissions is warranted.

2.6.2 Stationary Sources

According to the *2021 CEQR Technical Manual*, projects may result in stationary source air quality impacts when one or more of the following occurs:

- New stationary sources of pollutants are created (e.g., emission stacks for industrial plants, hospitals, and other large institutional uses).
- Certain new uses near existing (or planned future) emissions stacks are introduced that may affect the use.
- Structures near such stacks are introduced so that the structures may change the dispersion of emissions from the stacks so that surrounding uses are affected.
- Fossil fuels (fuel oil or natural gas) for heating/hot water, ventilation, and air conditioning systems are used.
- Large emission sources are created (e.g., solid waste or medical-waste incinerators, cogeneration facilities, asphalt/concrete plants, or power-generating plants, etc.).
- New sensitive uses are located near a large emission source.
- Medical, chemical, or research labs are created or result in new uses being located near them.
- Operation of manufacturing or processing facilities is created.
- New sensitive uses created within 400 feet of manufacturing or processing facilities.
- New uses created within 400 feet of a stack associated with commercial, institutional, or residential developments (and the height of the new structures would be similar to or greater than the height of the emission stack).
- Potentially significant odors are created.

- New uses near an odor-producing facility are created.
- "Non-point" sources that could result in fugitive dust are created.
- New uses near nonpoint sources are created.
- A generic or programmatic action is introduced that would change or create a stationary source or that would expose new populations to such a station.

2.6.2.1 Heating and Hot Water

Based on information provided by the Applicant, electric power would be utilized for Projected Development Site 1 HVAC systems. Accordingly, an E-Designation would be placed on the Projected Development Site.

The E-Designation (E-XXX) language, is as follows:

Block 4105, Lots 72, 75, and 77 (Projected Development Site 1): Any new residential, commercial, and/or community facility development on the above-referenced property must exclusively use electric grid power for heating, ventilating, and air conditioning (HVAC) system and hot water equipment to avoid any potential significant adverse air quality impacts.

2.6.2.2 Industrial Emissions

Preliminary Screening

The Proposed Actions would introduce sensitive land uses 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, EPA Envirofacts ICIS-AIR and the Toxics Release Inventory (TRI), and NYSDEC databases searches.

400-Foot Study Area

The Affected Area is located within an R5 zoning district. The surrounding area consists predominantly of one-and two-family residential, and multi-family residential walkup buildings. Commercial and office buildings, parking facilities, transportation and utility and industrial and manufacturing buildings are also located north, northeast and northwest of the Affected Area. In addition, public facilities and institutional uses are located northeast of the Affected Area. Lastly, Cypress Hills Cemetery is located north of Jamaica Avenue, north of the Affected Area.

The 400-foot radius surrounding the Projected Development Site was screened for potential sources of industrial emissions and is shown below in **Figure 2.6-1** and **Table 2.6-2**. The preliminary screening of the 400-foot study area included a review of NYC DEP, NYC DEC, and

USEPA[15] Air Quality Permits issued within 400 feet of the Projected Development Site, as well as a field observation, conducted on September 11th, 2024, and desktop review to affirm the uses present at each site to identify any potential manufacturing processing emission sources.

As shown in **Figure 2.6-1** and **Table 2.6-2**., and discussed below, twenty-four (24) non-residential sites were evaluated as part of the initial industrial source screening. As further discussed below, one (1) facility (a complex of buildings operated by Urban Group LTD Construction Company) was identified for further analysis.

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

Figure 2.6-1: Industrial Emissions Screening – 400-Foot Study Area

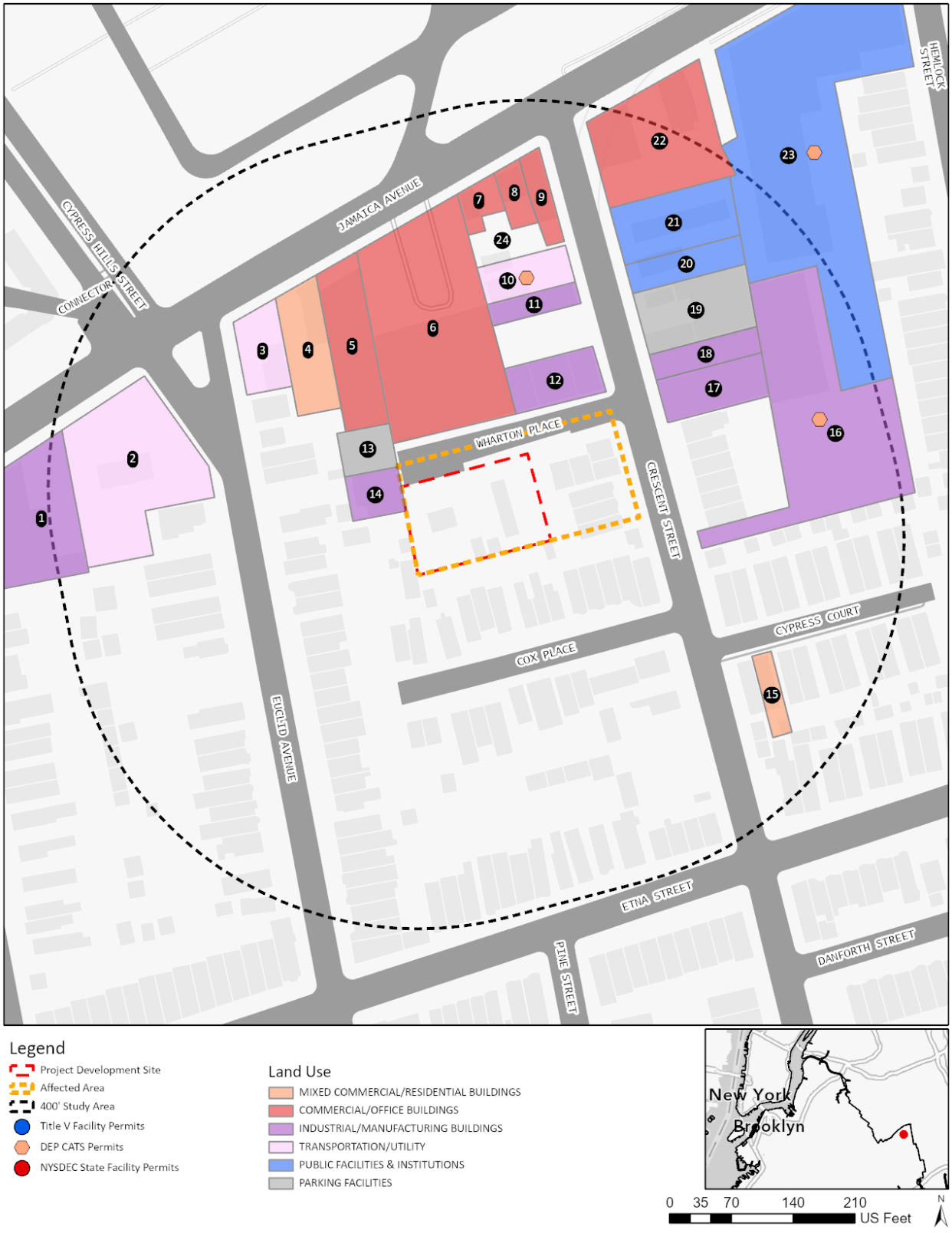


Table 2.6-2: Industrial Screening Results 400-foot Study Area – Sites Identified for Further Screening or Analysis

Site ID	Block	Lot	Address	Land Use	Owner Name	Active Industrial Permit	Expired Industrial Permit	Active Permit Facility Name/Owner Name	Expired Permit Facility Name/Owner Name	Expiration	Current Use - Field Recon	Notes
1	4104	24	754 JAMAICA AVENUE, 11208	Industrial & Manufacturing	GIVE ME DEATH LLC	N/A	N/A	N/A	N/A	N/A	Peck's Office Supplies and Furniture	No Further Analysis
2	4104	34	766 JAMAICA AVENUE, 11208	Transportation & Utility	VENICE EQUITIES INC	NA	NA	NA	N/A	N/A	BP Gas Station and Auto Service	No Further Analysis - Auto Service (No Spraying)
3	4105	30	794 JAMAICA AVENUE, 11208	Transportation & Utility	LEON'S CONNECTIONS LLC	NA	NA	NA	N/A	N/A	NASCAR Gas Station and Affordable Auto Service	No Further Analysis - Auto Service (No Spraying)
4	4105	32	800 JAMAICA AVENUE, 11208	Mixed Residential & Commercial Buildings	800 JAMAICA AVENUE	N/A	N/A	N/A	N/A	N/A	Hollander-Cypress Cemeteries Monuments	No Further Analysis - Storefront Only
5	4105	34	802 JAMAICA AVENUE, 11208	Commercial & Office Buildings	VM REALTY 10 LLC	N/A	N/A	N/A	N/A	N/A	Pacific Energy Corp	No Further Analysis
6	4105	36	814 JAMAICA AVENUE, 11208	Commercial & Office Buildings	CACTUS 814 JAMAICA LLC	N/A	N/A	N/A	N/A	N/A	Western Beef Supermarket	No Further Analysis
7	4105	41	824 JAMAICA AVENUE, 11208	Commercial & Office Buildings	URBAN REAL ESTATE HOLDINGS, LTD	N/A	N/A	N/A	N/A	N/A	Jamaica Ave UGL Corp (Construction Co.)	No Further Analysis
8	4105	43	826 JAMAICA AVENUE, 11208	Commercial & Office Buildings	URBAN REAL ESTATE HOLDINGS LTD	N/A	N/A	N/A	N/A	N/A	Abramowitz Memo Cemeteries Monuments	No Further Analysis - Storefront Only
9	4105	44	832 JAMAICA AVENUE, 11208	Commercial & Office Buildings	URBAN REAL ESTATE HOLDINGS, LTD	N/A	N/A	N/A	N/A	N/A	The Urban Group LTD construction company	Further Analysis
10	4105	47	18 CRESCENT STREET, 11208	Transportation & Utility	URBAN REAL ESTATE HOLDINGS LTD	N/A	PB000711	N/A	Urban Woodwork LTD.	7/21/2023	The Urban Group LTD construction company	Further Analysis
						N/A	PB000811	N/A	The Urban Group LTD. (Spray Booth Area)	7/22/2023		
11	4105	48	20 CRESCENT STREET, 11208	Industrial & Manufacturing	URBAN REAL ESTATE HOLDINGS, LTD	N/A	NA	N/A	N/A	N/A	The Urban Group LTD construction company	Further Analysis
12	4105	51	32 CRESCENT STREET, 11208	Industrial & Manufacturing	SURUJLALL, ISHWARDYAL	N/A	N/A	N/A	N/A	N/A	Contracter/Offices	No Further Analysis
13	4105	61	1 WHARTON PLACE, 11208	Parking Facilities	CYPRESS HILLS CEMETER	N/A	N/A	N/A	N/A	N/A	Cemeteries Monuments Storage Garage	No Further Analysis
14	4105	64	3 WHARTON PLACE, 11208	Industrial & Manufacturing	CYPRESS HILLS CEMETER	N/A	N/A	N/A	N/A	N/A	Cemeteries Monuments Storage Garage	No Further Analysis
15	4106	6	4 CYPRESS COURT, 11208	Mixed Residential & Commercial Buildings	HUANG, SUSAN	N/A	N/A	N/A	N/A	N/A	Residence (Multiple Use) - Primarily Two Family	No Further Analysis
16	4106	14	61 CRESCENT STREET, 11208	Industrial & Manufacturing	CHESTNUT ASSOCIATESLTD	N/A	NA	N/A	NA	NA	Leviathan Mechanical Corp. & Lo Sardo General Contractors, INC	No Further Analysis
17	4106	20	37 CRESCENT STREET, 11208	Industrial & Manufacturing	CHESTNUT ASSOCIATESLTD	N/A	N/A	N/A	N/A	N/A	Lo Sardo General Contractors, INC	No Further Analysis
18	4106	23	29 CRESCENT STREET, 11208	Industrial & Manufacturing	CHESTNUT ASSOCIATESLTD	N/A	N/A	N/A	N/A	N/A	Leviathan Mechanical Corp. & Lo Sardo General Contractors, INC	No Further Analysis
19	4106	24	23 CRESCENT STREET, 11208	Parking Facilities	SCARANTINO, LOUIS E	N/A	N/A	N/A	N/A	N/A	Safeway Construction INC	No Further Analysis
20	4106	27	21 CRESCENT STREET, 11208	Public Facilities & Institutions	NYC DEPARTMENT OF EDUCATION	N/A	N/A	N/A	N/A	N/A	P.S. 7 -The Abraham Lincoln School	No Further Analysis
21	4106	28	13 CRESCENT STREET, 11208	Public Facilities & Institutions	NYC DEPARTMENT OF EDUCATION	N/A	N/A	N/A	N/A	N/A	P.S. 7 -The Abraham Lincoln School	No Further Analysis
22	4106	31	838 JAMAICA AVENUE, 11208	Commercial & Office Buildings	838 JAMAICA AVENUE LLC	N/A	N/A	N/A	N/A	N/A	Madrid Plumbing & Fresh Floors Restaurant	No Further Analysis
23	4106	39	852 JAMAICA AVENUE, 11208	Public Facilities & Institutions	NYC DEPARTMENT OF EDUCATION	N/A	PA042699	N/A	NYC Dept of Education (DOE) (Caterpillar 3306 - Generator)	11/18/2002	P.S. 7 -The Abraham Lincoln School	No Further Analysis - Registration for backup generator
24	4105	46	CRESCENT STREET, 11208	Miscellaneous	URBAN REAL ESTATE HOLDINGS, LTD	N/A	N/A	N/A	N/A	N/A	The Urban Group LTD construction company	Further Analysis

Site ID corresponds to **Figure 2.6-1** above
Sites highlighted in orange indicate facilities where detailed analysis is warranted
Sites highlighted in blue indicate facilities where further screening is warranted to determine if detailed analysis is required

Site ID 7: 824 Jamaica Avenue, Block 4105, Lot 41

According to NYC's Zoning and Land Use Map (ZoLa), this property is owned by Urban Real Estate Holdings LTD and is classified as a One-Story Retail Building (Building Class K1). The site is located approximately 258' north of Projected Development Site 1. Site 7 is under the same ownership as Sites 9, 10, 11, and 24 discussed below, where Site 10 has registered industrial permits. However, Site 7 is occupied by Jamaica Ave UGL Corp Construction Co., whereas Sites 9, 10, 11 and 24 are occupied by Urban Group LTD construction company. Further, there are no active or expired permits registered to Site 7. Therefore, based on the field reconnaissance, there is no reason to suspect activities associated with unpermitted industrial activities at Site 7, and no further screening of this facility is warranted.

Site ID 8: 826 Jamaica Avenue, Block 4105, Lot 43

According to NYC's Zoning and Land Use Map (ZoLa), this property is owned by Urban Real Estate Holdings LTD and is classified as a One-Story Retail Building (Building Class K1). The site is located approximately 250' northeast of Projected Development Site 1. Site 8 is under the same ownership as Sites 9, 10, 11, and 24 discussed below, where Site 10 has registered industrial permits. However, Site 8 is occupied by Abramowitz Memo Cemeteries Monuments, whereas Sites 9, 10, 11 and 24 are occupied by Urban Group LTD construction company. Further, there are no active or expired permits registered to Site 8 and this facility is a storefront only, with no stone fabrication activities conducted on-site. Therefore, based on the field reconnaissance, there is no reason to suspect activities associated with unpermitted industrial activities at Site 8 and no further screening of this facility is warranted.

Site ID 9, 10, 11 and 24: Urban Group LTD Complex

According to the field reconnaissance, Site IDs 9, 10, 11, and 24 are all occupied by Urban Group LTD (a construction company). As discussed below, while DEP permits are only registered to one Site (Site ID 10), the NYC DEP permits were reviewed to determine if there are any industrial sources on Site 9, 10, 11 and 24. In addition, the facility (Urban Woodwork LTD) has an active NYSDEC Air Facility Registration Certificate (Registration ID: 2-6105-00242/00003) with no expiration date for "Woodworks- Furniture- Millwork and one spray booth." Accordingly, further screening of Sites 9, 10, 11 and 24 is warranted.

- *Site ID 9: 832 Jamaica Avenue, Block 4015, Lot 44*

  According to NYC's Zoning and Land Use Map (ZoLa), this property is owned by Urban Real Estate Holdings LTD and is classified as a One-Story Retail Building (Building Class K1). The site is located approximately 235 feet northeast of the Projected Development Site 1 and is occupied by Urban Group LTD construction company. There are no active or expired permits registered to this site. However, as Urban Group LTD has permits registered to Site ID 10, DEP permits were reviewed to determine if there are any industrial sources on Site 9.

- *Site ID 10: 18 Crescent Street, Block 4105, Lot 47*

  According to NYC's Zoning and Land Use Map (ZoLa), this property is owned by Urban Real Estate Holdings LTD and is classified as a Miscellaneous Garage or Gas Station (building class G9). Based on a field reconnaissance, the site is occupied by Urban Group LTD. The site is located approximately 170 feet north of Projected Development Site 1. The Site has two NYC DEP industrial processing permits. NYC DEP permits PB000711 for woodworking and PB000811 for a spray booth are registered to Urban Woodworks LTD and expired in July 2023. The Urban Woodwork LTD active NYSDEC Air Facility Registration Certificate (Registration ID: 2-6105-00242/00003) is registered with Site 10.

- *Site ID 11: 20 Crescent Street, Block 4105, Lot 48*

  According to NYC's Zoning and Land Use Map (ZoLa), this property is owned by Urban Real Estate Holdings LTD and is classified as a Factory and Industrial Building (Building Class F4). The site is located approximately 150 feet north of Projected Development Site 1 and is occupied by Urban Group LTD construction company. There are no active or expired permits registered to this site. However, as Urban Group LTD has permits registered to Site ID 10, DEP permits were reviewed to determine if there are any industrial sources on Site 11. Based on satellite imagery and NYC DEP permit PB000811, the spray booth stack is located above the roof of the building at 20 Cresent Street (Site ID 11).

- *Site ID 24: Crescent Street Block 4105, Lot 46*

  According to NYC's Zoning and Land Use Map (ZoLa), this property is owned by Urban Real Estate Holdings LTD and is classified as a Miscellaneous - Other building (building class Z9). The site is located approximately 220 feet north of the Projected Development Site 1 and is occupied by Urban Group LTD construction company. There are no active or expired permits registered to this site. However, as Urban Group LTD has permits registered to Site ID 10, DEP permits were reviewed to determine if there are any industrial sources on Site 24.

Site ID 23: 852 Jamaica Avenue, Block 4106, Lot 39

According to NYC's Zoning and Land Use Map (ZoLa), this property is owned by the NYC Department of Education (NYC DOE) and is classified as an Educational Structure - Public Elementary, Junior or Senior High (Building Class W1). The site is located approximately 320 feet northeast of Projected Development Site 1. The Site has one NYC DEP industrial registration permit. Permit PA042699 expired in November 2002 and is registered to the NYC DOE for a Caterpillar 3306 – Generator. Registration permits for backup generators do not warrant further screening.

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, and 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 screening of large or major emissions sources is warranted.

Air Toxics Analysis

As identified above, one manufacturing processing facility operates within 400 feet of Projected Development Site 1. The facility Urban Group LTD (or Urban Woodworks LTD), a woodworking facility, operates at Site ID 9, 10, 11, and 24. Air emissions associated with the woodworking facility are associated with the woodworking equipment and a spray booth. Pollutant emission rates specified in the facility's NYC DEP permits PB000711 for woodworking equipment and PB000811 for a spray booth were applied in the air toxics analysis. While the facility's NYC DEP permits situate the emission points at Site ID 10 and at least 175 feet from Projected Development Site 1, data including satellite imagery suggests that the spray booth is located at Site ID 11 near the southwest corner of the building (approximately 155 feet from Projected Development Site 1). According to NYC DEP Certificate to Operate PB000711, the woodworking equipment could be active for as much as 8 hours per day and 200 days per year, and emissions are controlled with high-efficiency bag filter(s). The spray-painting, NYC DEP Certificate to Operate PB000811, the spray-painting processing could be active for as much as 8 hours per day and 200 days per year, where particulate emissions are controlled with a fiberglass filter.

Table 2.6-3 shows the woodworking equipment's emission profile, where the operation hour per day activity rate (8 hours per day) was used to derive the average 24-hour emission. Particle size distribution based on the EPA AP-42 Appendix B-1-48 was used to derive $PM_{2.5}$ and PM_{10} emissions.

Table 2.6-3 shows the spray booth's particulate emission profile, where the operation hour per day activity rate (8 hours per day) was used to derive the average 24-hour emission. A particle size distribution of 28.6% and 46.7% for $PM_{2.5}$ and PM_{10}, respectively, specified in the EPA's AP-42 Appendix B.1 for auto body spray-painting, was used for the spray booth emissions.

The noncriteria pollutant emission profile specified in the facility's NYC DEP permit PB000811 was applied in the air dispersion analysis. The noncriteria pollutants emission rates are shown in **Table 2.6-4**.

AERMOD refined air dispersion analysis was used to predict the noncriteria pollutant Dioctyl Phthalate (CAS No. 117-81-7) concentration. The *2021 CEQR Technical Manual* Industrial Source Screen methodology was used to predict all other pollutant concentrations. The *CEQR Technical Manual* Industrial Source Screen methodology can be used to predict a pollutant concentration emitted from a single source at various distances (from 30 to 400 feet). The Industrial Source Screen analysis applied a distance less than or equal to the actual distance between the emission point(s) and the Projected Development Site 1.

Dioctyl Phthalate (CAS No. 117-81-7) annual concentration was predicted with AERMOD. AERMOD MPI version 24142 executable was used in the dispersion analysis. Lakes Environmental, Inc. adjusted the EPA AERMOD source code and recompiled the model to parallelize the processing of receptors, reducing run-time significantly. The MPI executable (used in the analysis) modified the EPA AERMOD executable model version 24142. The AERMOD model incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of surface and elevated sources and simple and complex terrain. The model was run with the regulatory default option. Five consecutive years of meteorological data (2017-2021) from NYSDEC were used in the analysis. According to the NYSDEC, due to nationwide helium shortage, a fair amount of 2022 upper air data was missing (also affecting 2023 data), and therefore, 2017-2021 meteorology data should be used. Meteorological surface data is from John F. Kennedy 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 five years. The population in New York City was specified to account for the effects of increased surface heating from an urban area on pollutant dispersion under stable atmospheric conditions. The map application in North American Datum 1983 (NAD83), built into Lakes Environmental, Inc.'s commercial application of AERMOD (AERMOD View), was used to locate features spatially. The U.S. Geological Service (USGS) National Elevation Dataset (NED) 1/3 arc-second resolution (GeoTIFF dataset), the terrain data set recommended by the EPA for use in the United States for regulatory purposes, was used to process the base elevation of buildings. The base elevation of receptors and sources was set to the base elevation of their buildings.

Receptors were placed in spaced intervals around Projected Development Site 1, from the ground floor to the roof height level. As previously mentioned, the spray booth stack was located near the southwest corner of the building (Site ID 11). Existing buildings, including currently under construction buildings, in the area were accounted for in the downwash effect on plume dispersion. The NYC Building Footprint dataset (City of New York, Office of Technology and Innovation), or NYC Department of Buildings (DOB) for currently under construction buildings, and satellite imagery were used to derive existing building dimensions for the AERMOD model.

The criteria pollutant concentrations are shown in **Table 2.6-3**. Significant adverse air quality impact associated with the Proposed Action due to existing manufacturing processing facilities

within 400 feet of the Projected Development Site 1 were evaluated with the NAAQS. As shown in **Table 2.6-3**, $PM_{2.5}$ and PM_{10} concentrations are within the NAAQS.

Table 2.6-3: Criteria Pollutant Emission Profile and Concentration

24-Hour $PM_{2.5}$									
Source	PM Total Emission (lb/hr)	Activity Rate (hr/day)	Particle Size Distribution	24-Hour Average Emission (g/s)	Concentration (µg/m3)				
					Increment (Modeled)	Increment (Modeled) Total	Background	Ambient With-Action	NAAQS
Spary Painting	0.02	8	28.6%	2.40E-04	0.46	0.47	18.9	19.4	35
Woodworking	0.001	8	14.3%	6.01E-06	0.01				
Annual $PM_{2.5}$									
Source	PM Total Emission (lb/yr)	Activity Rate (day/yr)	Particle Size Distribution	Annual Average Emission (g/s)	Concentration (µg/m3)				
					Increment (Modeled)	Increment (Modeled) Total	Background	Ambient With-Action	NAAQS
Spary Painting	32	200	28.6%	1.32E-04	0.033	0.03	7.2	7.23	9.0
Woodworking	0.16	200	29.5%	6.80E-07	0.00017				
24-Hour PM_{10}									
Source	PM Total Emission (lb/hr)	Activity Rate (hr/day)	Particle Size Distribution	24-Hour Average Emission (g/s)	Concentration (µg/m3)				
					Increment (Modeled)	Increment (Modeled) Total	Background	Ambient With-Action	NAAQS
Spary Painting	0.02	8	46.7%	3.93E-04	0.76	0.78	31	31.8	150
Woodworking	0.001	8	32.1%	1.35E-05	0.03				

Table 2.6-4 shows the noncriteria pollutant dispersion analysis results. As seen in **Table 2.6-4**, the noncriteria pollutant concentrations are within the SGC/AGC standard. In addition, the inhalation risk of carcinogen pollutants is 0.004 (less than 1), and the Hazardous Index is 0.41 (less than 1) for the non-carcinogenic pollutants.

Table 2.6-4: Noncriteria Pollutants Dispersion Analysis Result

Contaminant name	CAS No.	1-Hour			Annual		
		1-Hour Max Emission (g/s)	Concentration (µg/m3)	SGC (µg/m3)	Annual Avg Emission (g/s)	Concentration (µg/m3)	AGC (µg/m3)
Methanol ***	67-56-1	3.78E-03	19.1	33000.0	6.91E-04	0.2	4000.0
Isopropyl Alcohol	67-63-0	2.27E-02	114.4	98000.0	3.28E-03	0.8	7000.0
Acetone	67-64-1	5.68E-02	285.9	180000.0	1.04E-02	2.6	30000.0
Methyl Ethyl Ketone	78-93-3	7.44E-02	374.9	13000.0	1.36E-02	3.4	5000.0
Methyl Isobutyl Ketone ***	108-10-1	8.07E-02	406.6	31000.0	1.47E-02	3.7	3000.0
Butozyethanol, 2-	111-76-2	1.14E-02	57.2	4700.0	2.07E-03	0.5	1600.0
Dioctyl Phthalate	117-81-7	1.64E-02	82.6	---	2.99E-03	0.16	0.42
N-Butyl Acetate	123-86-4	3.41E-02	171.5	71300.0	6.22E-03	1.6	565.0
Xylenes ***	1330-20-7	2.77E-02	139.8	22000.0	5.07E-03	1.3	100.0
Notes: 1. Dioctyl Phthalate annual concentration predicted with AERMOD. *** indicates a hazardous air pollutant or potential carcinogen.							

Predicted contaminants (criteria and noncriteria pollutants) concentrations at the Projected Development Site 1 would not exceed the NAAQS or the SGC/AGC standard, and the noncriteria pollutant concentration is within the SGC/AGC standard and the cumulative risk assessment (cancer risk and hazard index) is within the acceptable design values. Therefore, no significant

adverse air quality impact is predicted in the future with the Proposed Actions from manufacturing processing facilities operating within 400 feet of the Projected Development Site 1.

As indicated above, no significant adverse air quality impact was predicted from existing industrial sources in the area. Therefore, no significant adverse air quality impact is predicted in the future with the Proposed Actions from manufacturing processing facilities operating within 400 feet of Projected Development Site 1. In addition, no large industrial emission sources were identified within the 1,000-foot Study Area. Lastly, an E-Designation would be placed on Projected Development Site 1 to ensure any new residential, commercial, and/or community facility development on the property would exclusively use electric grid power for heating, ventilating, and air conditioning (HVAC) system and hot water equipment to avoid any potential significant adverse air quality impacts. With these provisions in place, no significant adverse impact associated with stationary source air emissions is anticipated and no further analysis is warranted.

2.7 Noise

Introduction

This Noise Analysis was conducted to assess the potential for adverse noise impacts related to a Proposed Rezoning that would affect Block 4105, Lots 72, 75, 77, 178, 179, 180, 181, 81, 82, and part of Lot 182 (The Affected Area) in the Cypress Hills neighborhood of Brooklyn Community District 5. The Affected Area comprises approximately 25,229 square feet of area, 15,214 square feet of which is controlled by the Applicant. The Affected Area is located within an R5 zoning district and is bounded by Jamaica Avenue and Wharton Place to the north, Euclid Avenue to the west, Etna Street to the south, and Crescent Street to the east. An elevated subway line serving the J and Z trains runs over Crescent Street, east of the Affected Area.

The Proposed Rezoning would facilitate the development of Projected Development Site 1 (or the Project Site) located at 17-21 Wharton Place, Brooklyn, New York (Block 4105 / Lots 72, 75, 77). The Project Site consists of a 15,214 square foot rectangular-shaped assemblage of lots, located at the end of a dead-end on Wharton Place.

This noise analysis is limited to an assessment of ambient noise that could adversely affect building occupants of the proposed development.

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 2.7-1** notes the decibel levels of common noise sources.

Table 2.7-1: Noise Levels of Common Sources[17]

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.	

The following are typical human perceptions of dB(A) relative to changes in noise level:

- 3 dB(A) change is the threshold of change detectable by the human ear;
- 5 dB(A) change is readily noticeable; and
- 10 dB(A) increase is perceived as a doubling of the noise level.

The decrease in sound level caused by the distance from any single noise source normally follows the inverse square law. 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

[17] Source: *2021 CEQR Technical Manual*

also will vary with both terrain conditions and the presence of obstructions in the sound propagation path.

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.
- Lmax is the highest SPL measured during a given period of time. It is useful in evaluating Leqs 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.

Noise Standards and Guidelines

In 1983, the New York City Department of Environmental Protection (NYCDEP) adopted the CEQR noise exposure guidelines for exterior noise levels. As shown in **Table 2.7-2** below, 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, Table 19-3 of the *2021 CEQR Technical Manual* defines attenuation requirements for buildings based on exterior noise exposure levels. Recommended noise attenuation values for buildings are designed to maintain interior L_{10} noise levels of 45 dB(A) or below or interior Ldn noise levels of 40 dB(A) or below depending on the noise source, as shown below in **Table 2.7-3**.

Table 2.7-2: 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 2.7-3: Attenuation Values to Achieve Acceptable Interior Noise Levels

	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)

2.7.1 Initial Impact Screening

Analysis Framework

Existing Condition

Projected Development Site 1 includes Applicant-controlled Block 4105, Lots 72, 75, and 77:

- Lot 72 (17 Wharton Place): a 7,714-SF lot with frontage on Wharton Place. The lot is currently improved with a 2-story, 2,991 GSF (2,991 ZSF, 0.39 FAR) three-family (3-dwelling unit) residential walk-up building constructed in 1930. In addition, the lot is developed with a single 210 GSF detached garage with parking for one vehicle for a total built floor area on Lot 72 of 3,201 GSF.

- Lot 75 (21 Wharton Place): a 5,000-SF lot with frontage on Wharton Place. The lot is currently improved with a 2-story, 1,458 GSF (1,458 ZSF, 0.29 FAR) one and two-family (2-dwelling unit) residential building constructed in 1930. In addition, the lot is developed with a single 288 GSF detached garage with parking for one vehicle for a total built floor area on Lot 75 of 1,746 GSF.

- Lot 77 (11 Wharton Place): a 2,500-SF lot with frontage on Wharton Place. The lot is currently vacant.

Future No-Action Condition

There are no records of building work permits submitted by the Applicant. Therefore, it is conservatively assumed that under the No-Action Scenario, existing conditions would continue on Projected Development Site 1.

Future With-Action Condition

The Projected Development Site would be developed with a single 71,305 GSF (59,333 ZSF, 3.90 FAR) mixed residential and community facility building containing approximately 69,964 GSF (57,992 ZSF, 3.81 FAR) of residential uses and 1,341 GSF (1,341 ZSF, 0.09 FAR) of ground floor community facility use. There would be approximately 73 dwelling units. The building would have 9 stories and rise to 95 feet. No parking would be required or provided per ZR Section 25-222, and no new curb cuts would be proposed.

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.

No unenclosed stationary noise sources of concern were observed during field inspections. As the Projected Development Site is not subject to high ambient noise levels from any nearby stationary source, no stationary source noise impacts from surrounding uses are anticipated. Additionally, it is assumed that the building mechanical systems (i.e., HVAC systems) would be designed to meet all applicable noise regulations (i.e., Subchapter 5, §24-227 of the New York City Noise Control Code, the New York City Department of Buildings Code) and to avoid producing levels that would result in any significant increase in ambient noise levels. Therefore, the Proposed Actions would not result in any significant adverse noise impacts related to building mechanical equipment.

Mobile Sources

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 in an area where roadways currently carry no or very low traffic volumes, or where a nearby receptor would potentially be impacted by high ambient noise levels.

Vehicular and rail traffic is the predominant source of noise in the area. Therefore, the noise analysis presented in this report focuses on the operational noise effects of the Proposed Action to determine the level of building attenuation necessary to ensure that interior noise levels satisfy CEQR requirements. The Proposed Action is not expected to increase existing noise passenger car equivalents (PCEs) by greater than 100% and would therefore not result in significant adverse noise impacts associated with project-generated vehicles.

2.7.2 Noise Monitoring Results

Measurement Location and Equipment

Because the predominant noise source in the area of the proposed project is train movements and vehicular traffic, noise monitoring was conducted during peak weekday vehicular travel periods (AM, Midday, PM) on a typical midweek day for 20-minute periods, and for a 24-hour period. Noise Monitoring Location One (1) was located at the project frontage along Wharton Place for 20-minute periods and Noise Monitoring Location Two (2) was located at the project frontage along Wharton Place, elevated above the fence-line for a 24-hour period. Noise monitoring locations are shown in **Figure 2.7-1** to **Figure 2.7-3** below.

Noise monitoring was conducted using Type 1 Casella CEL-633 sound level meters with windscreens. The monitors were 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 vehicle and rail movements around the Affected Area constitute a worst-case condition for noise at the Project Site. Noise meter calibration certification and back up data are provided in **Appendix D**.

Figure 2.7-1: Noise Monitoring Locations



Figure 2.7-2: Location 1 – Noise Monitoring Location Photo (Wharton Place ground level)



Figure 2.7-3: Location 2 – Noise Monitoring Location Photo (Wharton Place elevated)



Existing Conditions

Monitoring was conducted during typical midweek conditions, on Wednesday, September 11th and Thursday, September 12th, 2024. The weather was dry, and wind speeds were moderate during all monitoring periods. **Table 2.7-4** through **Table 2.7-5** below contain the results for the measurements taken at Location 1 through Location 2.

Table 2.7-4: Noise Levels in dBA at Location 1

Wednesday, September 11, 2024			
Time	**7:42 am – 8:02 am**	**12:11 pm – 12:31 pm**	**4:32 pm – 4:52 pm**
L_{max}	96.2	87.6	84.9
L_{10}	65.0	59.5	64.5
L_{eq}	62.8	60.0	62.7
L_{50}	54.0	54.0	59.0
L_{90}	49.5	47.5	53.5
L_{min}	45.6	41.7	47.8

Table 2.7-5: Noise Levels in dBA at Location 2

Start Date & Time	LAeq	LASmin	LAS 10%	LAS 50%	LAS 90%	LASmax
9/11/2024 7:36	62.5 dB	45.8 dB	66.0 dB	55.0 dB	48.5 dB	80.9 dB
9/11/2024 8:36	59.7 dB	45.1 dB	63.0 dB	54.0 dB	49.5 dB	74.2 dB
9/11/2024 9:36	60.4 dB	43.5 dB	62.5 dB	55.5 dB	48.5 dB	80.6 dB
9/11/2024 10:36	59.5 dB	45.1 dB	62.5 dB	54.0 dB	48.0 dB	76.8 dB
9/11/2024 11:36	62.6 dB	42.4 dB	60.5 dB	51.5 dB	46.5 dB	93.1 dB
9/11/2024 12:36	58.4 dB	40.7 dB	60.5 dB	51.5 dB	45.5 dB	77.9 dB
9/11/2024 13:36	60.2 dB	46.3 dB	64.5 dB	56.5 dB	50.0 dB	75.0 dB
9/11/2024 14:36	61.8 dB	46.1 dB	63.5 dB	55.5 dB	50.5 dB	82.0 dB
9/11/2024 15:36	58.7 dB	45.9 dB	62.0 dB	55.5 dB	50.5 dB	77.4 dB
9/11/2024 16:36	62.7 dB	47.0 dB	64.5 dB	58.5 dB	53.0 dB	84.3 dB
9/11/2024 17:36	60.5 dB	47.0 dB	63.5 dB	55.5 dB	51.0 dB	81.9 dB
9/11/2024 18:36	57.9 dB	43.3 dB	62.0 dB	51.5 dB	47.0 dB	72.2 dB
9/11/2024 19:36	58.8 dB	41.7 dB	61.5 dB	50.5 dB	45.0 dB	80.3 dB
9/11/2024 20:36	57.7 dB	42.3 dB	61.5 dB	50.5 dB	45.5 dB	79.0 dB
9/11/2024 21:36	57.3 dB	40.9 dB	60.0 dB	47.5 dB	43.0 dB	80.5 dB
9/11/2024 22:36	55.8 dB	40.5 dB	59.0 dB	45.5 dB	42.0 dB	76.1 dB
9/11/2024 23:36	55.7 dB	40.9 dB	58.0 dB	45.5 dB	42.0 dB	72.3 dB
9/12/2024 0:36	53.2 dB	40.8 dB	54.5 dB	44.0 dB	41.5 dB	73.6 dB
9/12/2024 1:36	53.7 dB	40.3 dB	54.5 dB	43.0 dB	41.5 dB	73.2 dB
9/12/2024 2:36	52.3 dB	40.3 dB	53.5 dB	42.5 dB	41.0 dB	71.4 dB
9/12/2024 3:36	52.6 dB	39.8 dB	54.0 dB	43.0 dB	40.5 dB	71.0 dB
9/12/2024 4:36	53.8 dB	40.2 dB	54.5 dB	45.5 dB	41.5 dB	74.1 dB
9/12/2024 5:36	55.7 dB	41.3 dB	60.5 dB	48.5 dB	44.0 dB	70.7 dB
9/12/2024 6:36	58.3 dB	45.1 dB	61.5 dB	51.5 dB	47.5 dB	76.4 dB
LDN	62.5					

The traffic volumes (vehicle counts) and vehicle classifications collected during peak vehicular travel periods [morning (AM), noon (MD), and evening (PM)] concurrent with noise monitoring at Location 1 are shown below in **Table 2.7-6.**

Table 2.7-6: Traffic Volumes and Vehicle Classifications Noise Location 1

	7:42 am – 8:02 am	12:11 pm – 12:31 pm	4:32 pm – 4:52 pm
Car/ Taxi	1	1	0
Van/Light Truck/SUV	3	0	0
Medium Truck	0	0	0
Heavy Truck	0	0	0
Bus	0	0	0
Train	6	3	6

2.7.3 Conclusion

The *2021 CEQR Technical Manual* sets external noise exposure standards, which are classified into four categories: acceptable, marginally acceptable, marginally unacceptable, and clearly unacceptable. Table 19-3 of the *2021 CEQR Technical Manual* defines attenuation requirements for buildings based on exterior noise exposure levels. Recommended noise attenuation values for buildings are designed to maintain interior noise levels of 45 dB(A) or lower where vehicular traffic is the noise source. For a mixed residential/commercial use such as what would occur under the proposed action, 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.

The highest recorded L_{10} at Location 1 was 65.0 dB(A) during the morning period. The highest recorded L_{10} at Location 2 was 66.0 dB(A) during the 7:35 AM hour, and the LDN was 62.5 66.0 dB(A).

Based on the above, it is expected that there would be no significant adverse impacts related to noise.

2.8 Disadvantaged Community Assessment

Methodology

The Disadvantaged Community Assessment was conducted following the guidance provided by the New York State Department of Environmental Conservation (NYSDEC) and the City of New York's Environmental Justice (EJ) policies. The assessment is conducted pursuant to NYCDEC guidance for Project's requiring a CEQR EAS Short Form, and is structured as follows:

1. Identification of Disadvantaged Community Status

To determine whether the Project Site is within, or within ½ mile of a disadvantaged community, the following tools were used:

- New York State Disadvantaged Communities Assessment Tool (DACAT): This GIS-based tool identifies census tracts designated as disadvantaged communities (DAC) based on data from the Climate Justice Working Group (CJWG).
- Geospatial Analysis: The project location was mapped and measured for proximity to the nearest designated disadvantaged community, ensuring compliance with the ½-mile buffer analysis specified in the assessment requirements.

2. Assessment of Potential Impacts

If the Project Site is found to be within, or within ½ mile of a disadvantaged community, or if the Proposed Action(s) could affect a disadvantaged community, further assessment is required. If either of these conditions are met, potential direct and indirect impacts to nearby disadvantaged communities are evaluated to determine if the proposed project would create any new sources of pollution or increase pollution from existing sources in the following categories:

- Air Quality Impacts: Assessment of air emissions, including particulate matter (e.g., dust, diesel emissions, or other fossil fuel emissions), oxides of nitrogen (NOx), volatile organic compounds (VOCs), hazardous air pollutants (HAPs), or other regulated air pollutants.
- Noise Pollution: Evaluation of temporary noise during construction and long-term operational noise levels.
- Light Pollution: New lighting in contrast to existing lighting.
- Wastewater Treatment or Wastewater Discharges: Identification of any changes in wastewater discharge affecting the community.
- Stormwater and Flooding Considerations: Analysis of stormwater runoff and potential flooding impacts.

- Solid and Hazardous Waste Management: Identification of potential waste generation and handling practices.
- Odor Impacts: Assessment of potential odor emissions from construction activities, building operations, and waste management that may affect nearby communities.

3. Assessment of Magnitude of Impacts

If a potential impact is identified, the magnitude of these impacts must be evaluated. Considerations for magnitude of impact (Small vs. Moderate to Large) are described below.

Small Impact:

- Air emissions will occur at a level that does not require a state air pollution control permit.
- Solid or hazardous waste will be generated in an amount easily transported to and handled at a permitted disposal facility.
- Wastewater discharges will not occur or expand.
- There will be no traffic associated with the project or the traffic generated is limited to non-truck traffic and will not increase to a level causing level of service impacts.
- The disadvantaged community is identified by the Disadvantaged Community Assessment Tool as having comparatively lower burdens or vulnerabilities.

Moderate to Large Impact:

- Air emissions will occur at a level that requires a state air pollution control permit (i.e., Air State Facility or Title V permit);
- Solid or hazardous waste will be generated in an amount requiring substantial increase in truck traffic to transport to a permitted disposal facility;
- Solid or hazardous waste will be managed or disposed on site, requiring a state solid or hazardous waste management facility permit;
- Wastewater discharges will occur or expand, requiring a State Pollutant Discharge or safety impacts;
- The disadvantaged community is identified by the Disadvantaged Community Elimination System (SPDES) permit;
- Proposed operations would potentially result in off-site pollution impacts;
- Traffic associated with the project will increase to a level or type causing level of service or safety impacts;

- The disadvantaged community is identified by the DACAT as having comparatively higher burdens or vulnerabilities; and
- The action involves a DEC permit application that requires preparation of an 'Existing Burden Report' analyzing potential pollutant impacts to a disadvantaged community. As anticipated, the reviewing agency should evaluate the cumulative environmental burden already experienced by the community, including existing pollution sources and health indicators.

4. Evaluation of Moderate to Large Impacts

Where moderate to large impacts are predicted, these impacts should be identified and assessed considering their setting, probability of occurring, duration, irreversibility, geographic scope, and magnitude. The evaluation should consider the potential for cumulative impacts and whether impacts are expected to be short-term or long-term. Where potential impacts are identified, measures or design elements that have been included by the project sponsor to avoid or reduce impacts should be described.

2.8.1 Preliminary Assessment

The Proposed Actions would permit the construction of 71,305 GSF mixed residential and community facility building at the Project Site. The Proposed Development would include 73 dwelling units, 18 of which would be affordable at an average of 60% AMI.

The Project Site is located at 17-21 Wharton Place within the Cypress Hills neighborhood of Brooklyn Community District 5. As shown in **Figure 2.8-1** below, the Project Site is located within a disadvantaged community identified as having comparatively higher burdens and vulnerabilities (Census Tract ID 36047117602). This disadvantaged community is generally located within the area of Jamaica Avenue to the north, Crescent Street to the east, Fulton Street and Ridgewood Avenue to the south and Chestnut Street to the west. The Project Site is also approximately 0.03-mile west of a disadvantaged community identified as having comparatively lower burdens and vulnerabilities (Census Tract ID 36047118201). Accordingly, an assessment of potential impacts is provided below.

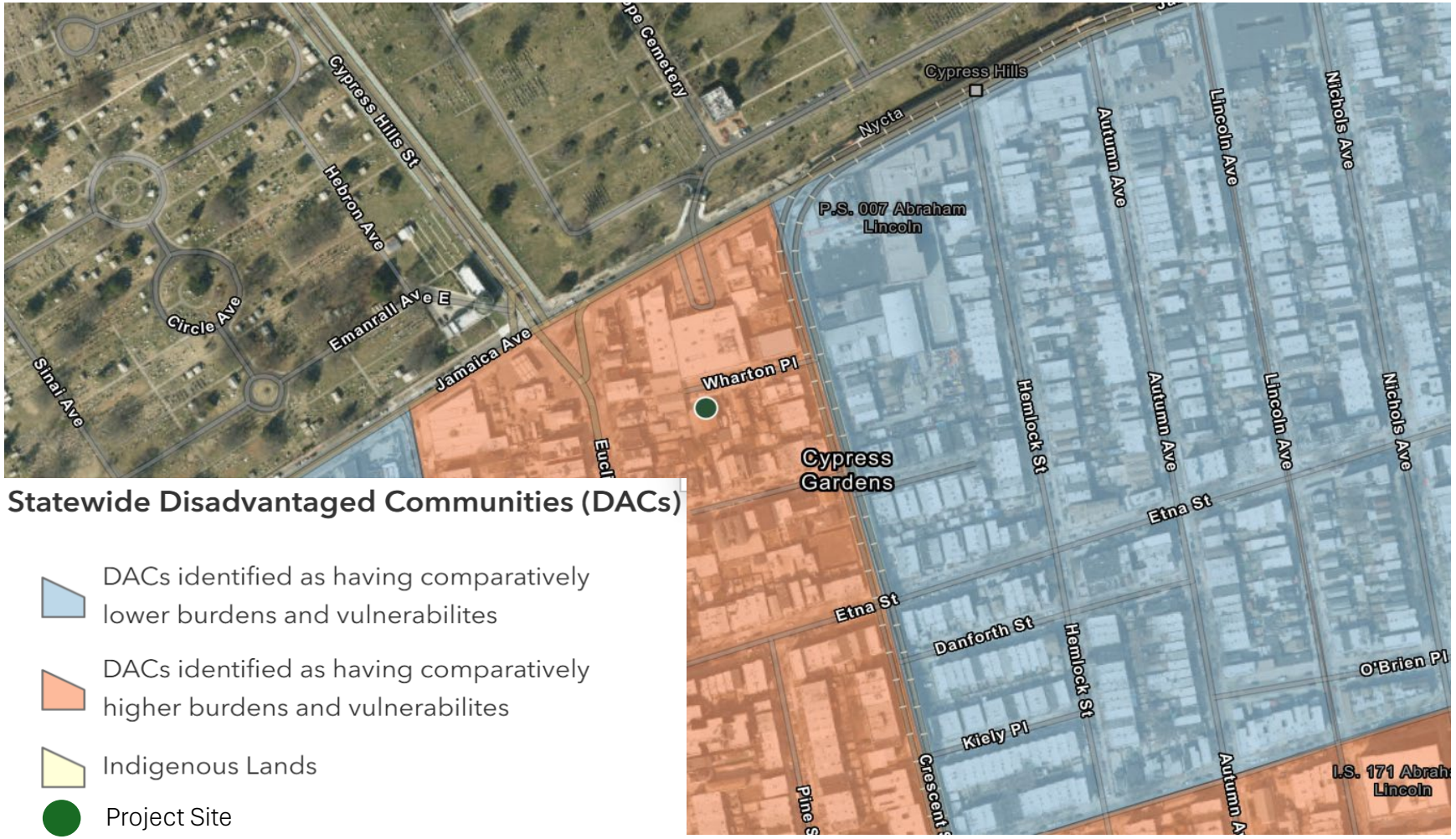
A Phase I Environmental Site Assessment was completed by GZA on October 8, 2024, which revealed two data gaps that may affect the ability to identify RECs, CRECs, or HRECs at the Project Site. As discussed in **Section 2.5**, to preclude the potential for significant adverse impact on the applicant-owned Projected Development Site 1 (Block 4105, Lots 72, 75, and 77), an (E) Designation for hazardous materials should be placed on the zoning map pursuant to Section 11-15 of the New York City Zoning Resolution. The (E) Designation will ensure that testing and mitigation will be provided as necessary before any future development and/or soil disturbance. Further hazardous materials assessments should be coordinated through OER. With these provisions in place, the Proposed Actions would not result in the potential for significant adverse impact related to Hazardous Materials.

The proposed project would not involve activities that would result in air quality impacts, noise pollution, light pollution, odor impacts, or wastewater discharge. In addition, the proposed project would not result in a significant increase in stormwater runoff or potential flooding impacts. Therefore, the proposed mixed-use development would not result in adverse impacts to any nearby disadvantaged communities and no further analysis is warranted.

2.8.2 Conclusion

The Project Site is located within and proximate to disadvantaged communities. However, as discussed above, the Proposed Actions would not contribute to environmental burdens that disproportionately affect such communities. Further, the proposed residential and community facility uses would serve the local population and facilitate the development of affordable housing in the area, while maintaining compliance with environmental regulations and best practices. Accordingly, no further assessment is warranted.

Figure 2.8-1: Disadvantaged Community Map



https://storymaps.arcgis.com/stories/7f0ffdde675e4e3788632c1b4cce6c0a

APPENDIX A

AGENCY CORRESPONDENCE

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-K
Project: 17-21 WHARTON PLACE REZONING
Date Received: 8/13/2024

Properties with no Architectural or Archaeological significance:

1) 17 WHARTON PLACE, BBL: 3041050072
2) 21 WHARTON PLACE, BBL: 3041050075
3) WHARTON PLACE, BBL: 3041050077

Gina Santucci 8/15/2024

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 37434_FSO_DNP_08152024.docx

APPENDIX B

ILLUSTRATIVE ARCHITECTURAL PLANS

17 WHARTON AVENUE
BROOKLYN, NEW YORK
BLOCK: 4105 - LOT 72, 75, 77:
NEW 7 STORY MIXED USE (RESIDENTIAL AND COMMUNITY FACILITY) BUILDING



FRANK J. QUATELA
ARCHITECT, P.C.

36-07 169th STREET
FLUSHING, NY 11358
TEL: 718.886.1600

FRANK@QUATELA-ARCHITECTS.COM
WWW.QUATELA-ARCHITECTS.COM

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DOB:

NO.	DATE	REVISION

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TITLE

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17 WHARTON PLACE
BROOKLYN
NEW YORK

SEAL:

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BLOCK	4105		LOT	72, 75 & 77	BIN 3090939
ZONING DISTRICT	R6A		MAP	17C	C.B. 305
LOT AREA	IRREGULAR '		'	=	15,213.50 SF

SCOPE OF WORK

NEW 7 STORY MIXED-USE (RESIDENTIAL AND COMMUNITY FACILITY) BUILDING

FIRE DISTRICT	YES	X	NO

MIN LOT AREA OR WIDTH FOR RESIDENCES AS PER ZR 23-12

LOT	REQUIRED	EXISTING
AREA	1,700.00 SF	15,213.50 SF
WIDTH	18.00'	148.37'

RESIDENTIAL FLOOR AREA CALCULATIONS AS PER (ZR 23-22)

LOT AREA		MAX. ALLOW FAR R6A	ALLOWED F.A.	PROPOSED
15,213.50 SF	X	3.90	59,332.65 SF	54,856.15 SF
MAXIMUM ALLOWED - PROPOSED COMMUNITY FACILITY = ACTUAL ALLOWED				
59,332.65 SF - 1,340.96 SF = 57,991.69 SF				
PROPOSED 54,856.15 SF ≤ 57,991.69 SF ALLOWED; THEREFORE OK				

REQUIRED RECREATION SPACE AS PER ZR 23-63

PROPOSED RESIDENTIAL FLOOR AREA	RATIO	REQUIRED RECREATION SPACE AREA
54,856.15 SF	3.00%	1645.68 SF
PROPOSED INDOOR RECREATION AREA 1,036.00 SF (GYM)		
PROPOSED OUTDOOR RECREATION AREA 2,785.68 SF (PUBLIC TERRACE)		
TOTAL PROPOSED RECREATION AREA 3,821.68 ≥ 1,514.96 REQUIRED; THEREFORE OK		

COMMUNITY FACILITY FLOOR AREA CALCULATIONS AS PER (ZR 24-11)

LOT AREA		MAX. ALLOW FAR R6A	ALLOWED F.A.	PROPOSED
15,213.50 SF	X	3.00	45,640.50 SF	1,340.96 SF
PROPOSED 1,340.96 SF ≤ 45,640.50 SF ALLOWED; THEREFORE OK				

RESIDENTIAL LOT COVERAGE (%) AS PER (ZR 23-362)

LOT AREA		LOT. COVERAGE FOR R6A	ALLOWED LOT COVERAGE	PROPOSED
15,213.50 SF	X	80%	12,170.80 SF	9,082.92 SF
PROPOSED 9,082.92 SF ≤ 9,888.78 SF ALLOWED; THEREFORE OK				

COMMUNITY FACILITY LOT COVERAGE (%) AS PER (ZR 24-12)

LOT AREA		LOT. COVERAGE FOR R6A	ALLOWED LOT COVERAGE	PROPOSED
15,213.50 SF	X	100%	15,213.50 SF	1,340.96 SF
PROPOSED 1,340.96 SF ≤ 15,213.50 SF ALLOWED; THEREFORE OK				

RESIDENTIAL YARD REGULATIONS

YARD	REQUIRED	PROPOSED
FRONT (ZR 23-322/ZR 23-431(b(2)))	10.00'	10.00'
SIDE (ZR 23-334)	NONE OR 5'-0" MIN.	12'-2"
REAR (ZR 23-342(a))	20.00'	30.00'

COMMUNITY FACILITY YARD REGULATIONS

YARD	REQUIRED	PROPOSED
SIDE (ZR 24-35)	NONE OR 8'-0" MIN.	12'-2"
REAR (ZR 24-36)	30.00'	30.00'

DENSITY CALCULATIONS AS PER (ZR 23-52)

FACTOR FOR R6		MAX. ALLOW F.A	ALLOWED DWELLING UNITS	PROPOSED
680.00 SF	/	54,856.15 SF	80.67	73.00
PROPOSED DWELLING 73 SF ≤ 80 ALLOWED DWELLING; THEREFORE OK				

BUILDING ENVELOPE AS PER (ZR 23-432)

	REQUIRED	PROPOSED
MINIMUM STREET WALL HEIGHT	40'-0"	65'-0"
MAXIMUM STREET WALL HEIGHT	65'-0"	
SETBACK NARROW STREET (ZR 23-433(a))	7'-0"	7'-0"
MAXIMUM BUILDING HEIGHT	95'-0"	75'-0"

PARKING REQUIREMENT AS PER (ZR 25-222) QUALITY AFFORDIBLE HOUSING

PROPOSED DWELLING UNITS	RATIO	REQUIRED PARKING
18	0%	0.00
TOTAL REQUIRED		0
TOTAL RESIDENTIAL PROPOSED 0 ≥ 0 REQUIRED		

PARKING REQUIREMENT AS PER (ZR 25-222) MARKET RATE

PROPOSED DWELLING UNITS	RATIO	REQUIRED PARKING
55	25%	13.75
TOTAL REQUIRED		14
TOTAL RESIDENTIAL PROPOSED 0 ≥ 0 REQUIRED; MAXIMUM 15 SPACES WAIVED		

STREET TREE PLANTING REQUIREMENTS AS PER ZR 26-41

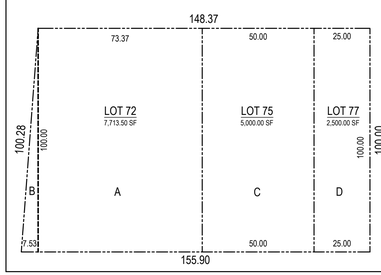
LOT FRONTAGE		ZR 26-41 DEFAULT	TREES REQUIRED	PROPOSED
148.37 '	/	25 '	5.93	6.00
PROPOSED 6 ≥ 6 REQUIRED; THEREFORE OK				

FLOOR AREA BREAKDOWN

RES. FLOOR	GROSS S.F.	NOTES	DEDUCTIONS S.F.	ZONING FL. AREA S.F.
CELLAR FL.	9,082.92	(NIC)	N/A	0.00
1ST FL	4,291.53		214.58 (5%)	4,076.95
2ND FL.	9,082.92		454.15 (5%)	8,628.77
3RD FL.	9,082.92		454.15 (5%)	8,628.77
4TH FL	9,082.92		454.15 (5%)	8,628.77
5TH FL	9,082.92		454.15 (5%)	8,628.77
6TH FL	9,082.92		454.15 (5%)	8,628.77
7TH FL	8,037.21		401.86 (5%)	7,635.35
TOTAL	66,826.26		2,887.19	54,856.15

FLOOR AREA BREAKDOWN

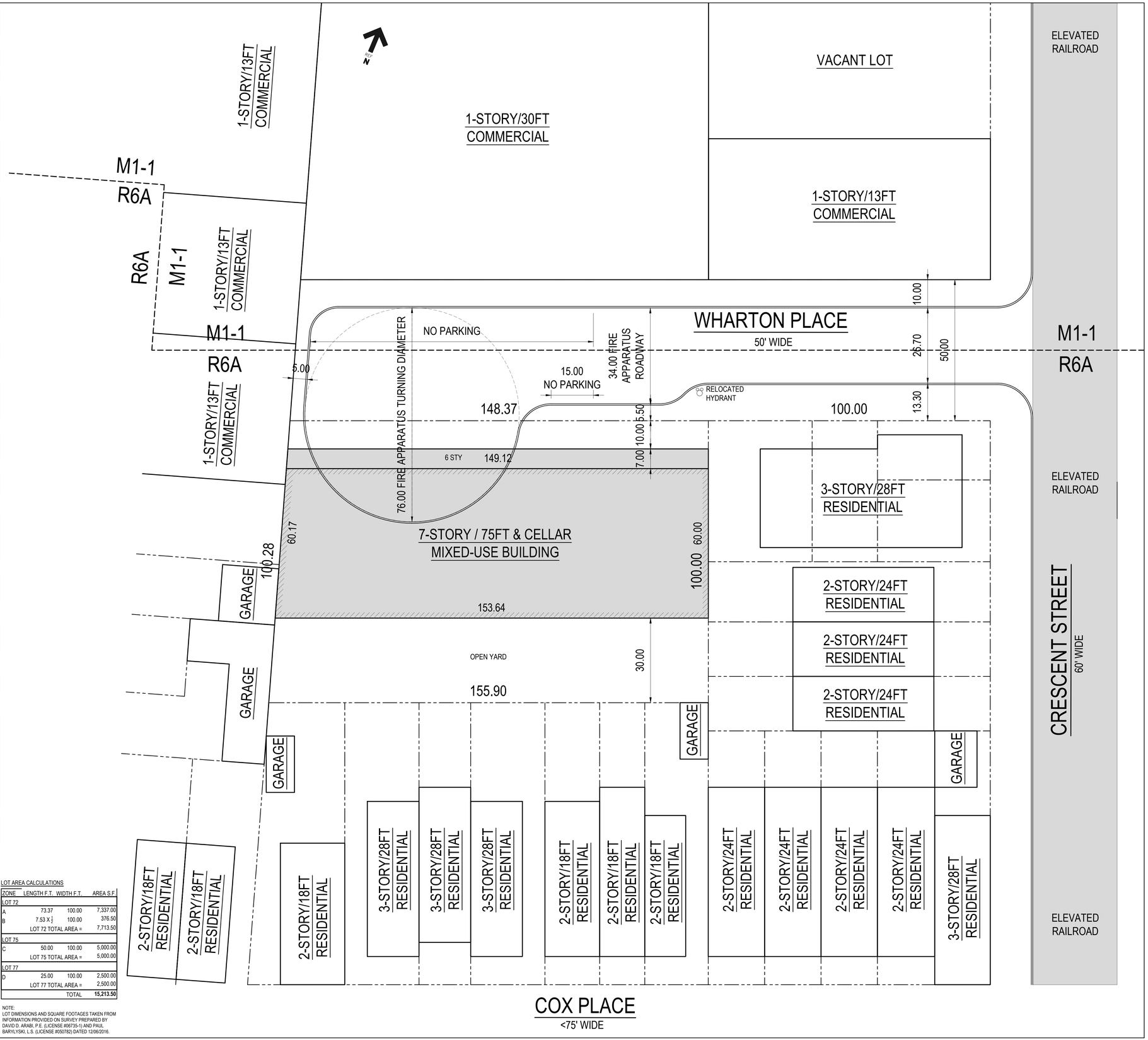
COMM FAC FLOOR	GROSS S.F.	NOTES	DEDUCTIONS S.F.	ZONING FL. AREA S.F.
1ST FL	1,340.96		0.00	1,340.96
TOTAL	1,340.96		N/A	1,340.96



LOT AREA CALCULATIONS

ZONE	LENGTH F.T.	WIDTH F.T.	AREA S.F.
LOT 72			
A	73.37	100.00	7,337.00
B	7.53 X ½	100.00	376.50
	LOT 72 TOTAL AREA =		7,713.50
LOT 75			
C	50.00	100.00	5,000.00
	LOT 75 TOTAL AREA =		5,000.00
LOT 77			
D	25.00	100.00	2,500.00
	LOT 77 TOTAL AREA =		2,500.00
		TOTAL	**15,213.50**

NOTE:
LOT DIMENSIONS AND SQUARE FOOTAGES TAKEN FROM INFORMATION PROVIDED ON SURVEY PREPARED BY DAVID D. ARABI, P.E. (LICENSE #98735-1) AND PAUL BARYLYSKI, L.S. (LICENSE #050782) DATED 12/06/2016.



FRANK J. QUATELA
ARCHITECT, P.C.

36-07 169th STREET
FLUSHING, NY 11358
TEL: 718.886.1600

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ZONING & PLOT PLAN

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17 WHARTON PLACE
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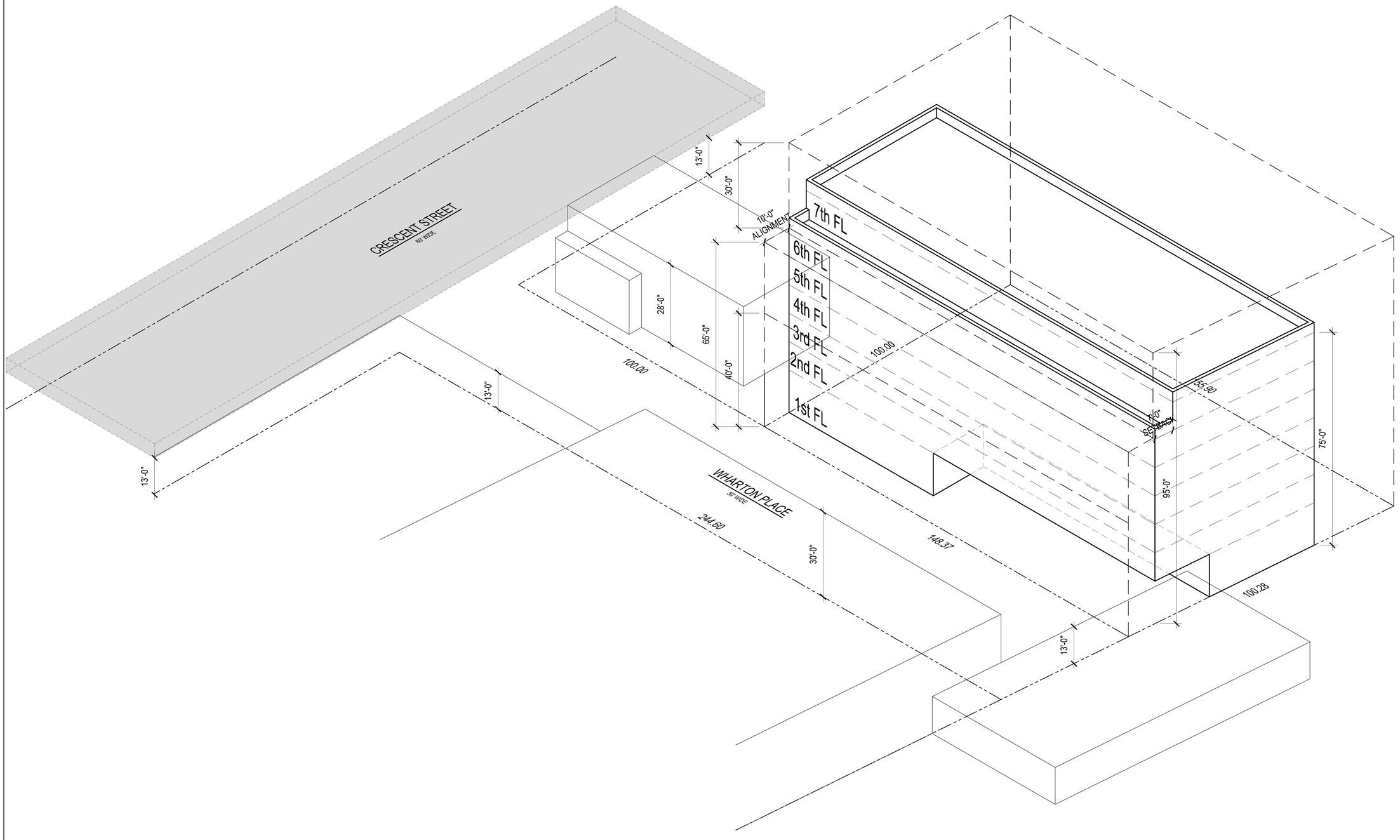

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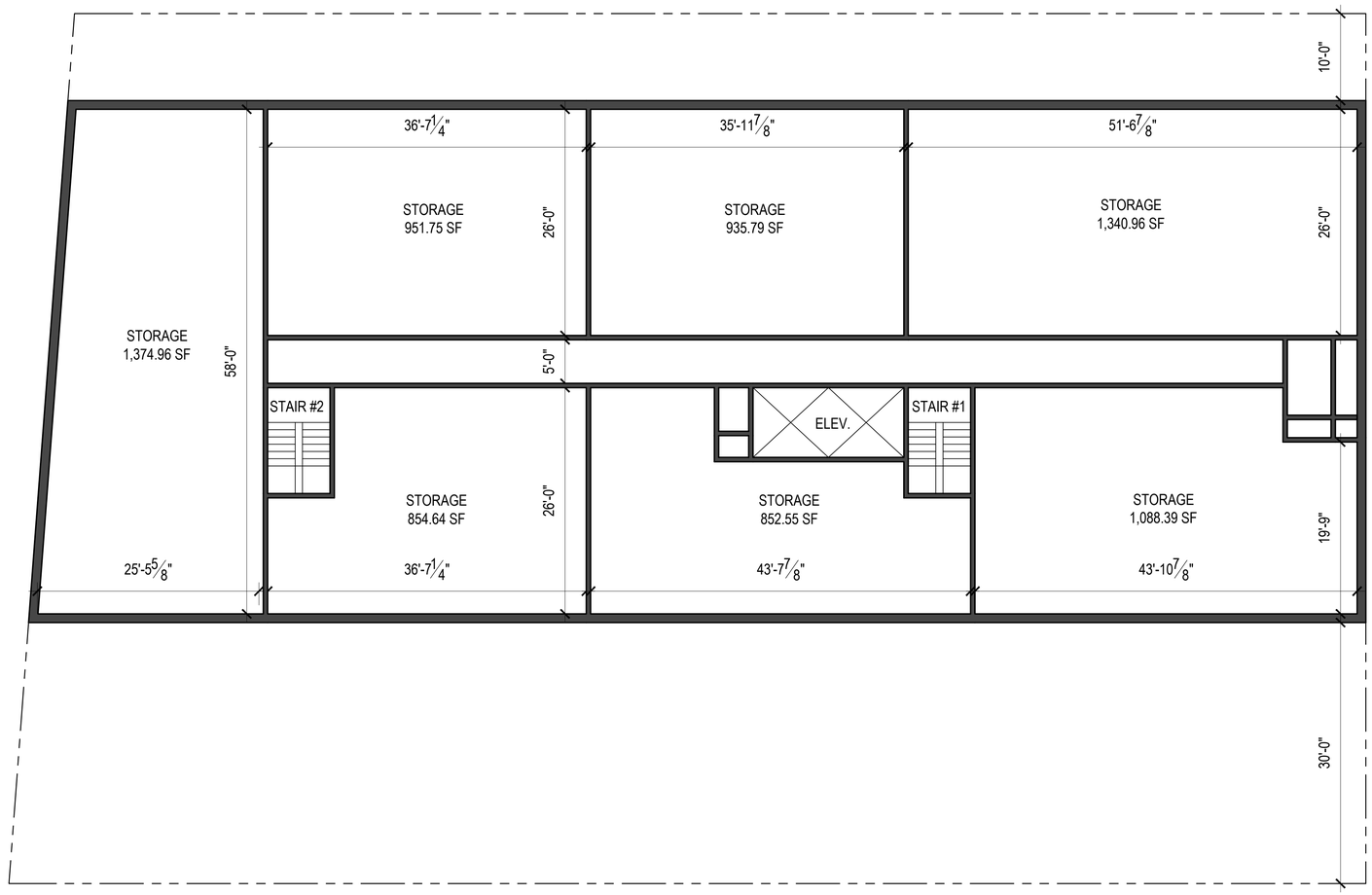

SCHEMATIC CELLAR FLOOR PLAN

SCALE: 1/8" = 1'-0"

FRANK J. QUATELA
ARCHITECT, P.C.

36-07 169th STREET
FLUSHING, NY 11358
TEL: 718.886.1600

FRANK@QUATELA-ARCHITECTS.COM
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FLOOR PLAN - CELLAR

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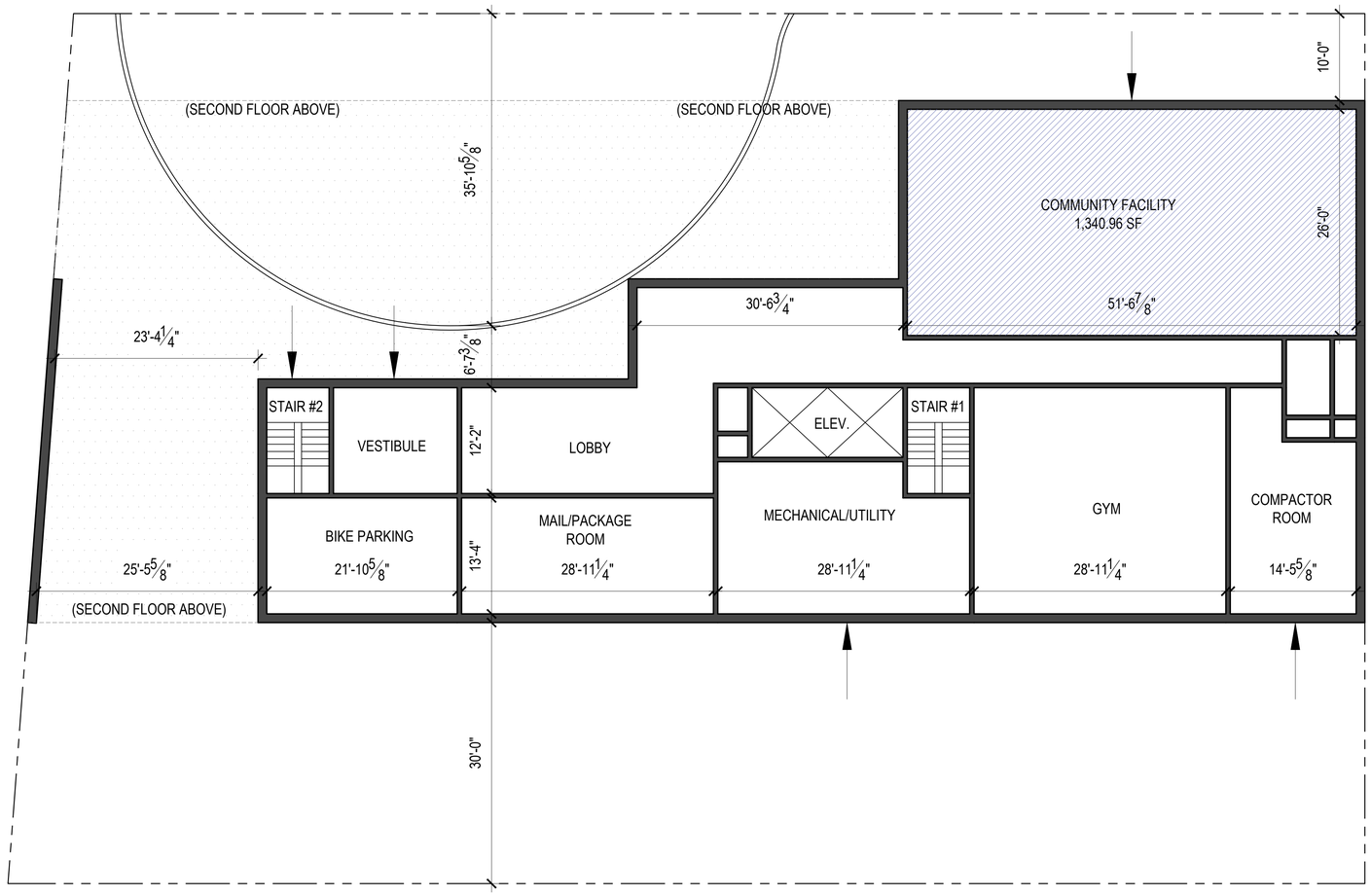

SCHEMATIC FIRST FLOOR PLAN

SCALE: 1/8" = 1'-0"

FRANK J. QUATELA
ARCHITECT, P.C.

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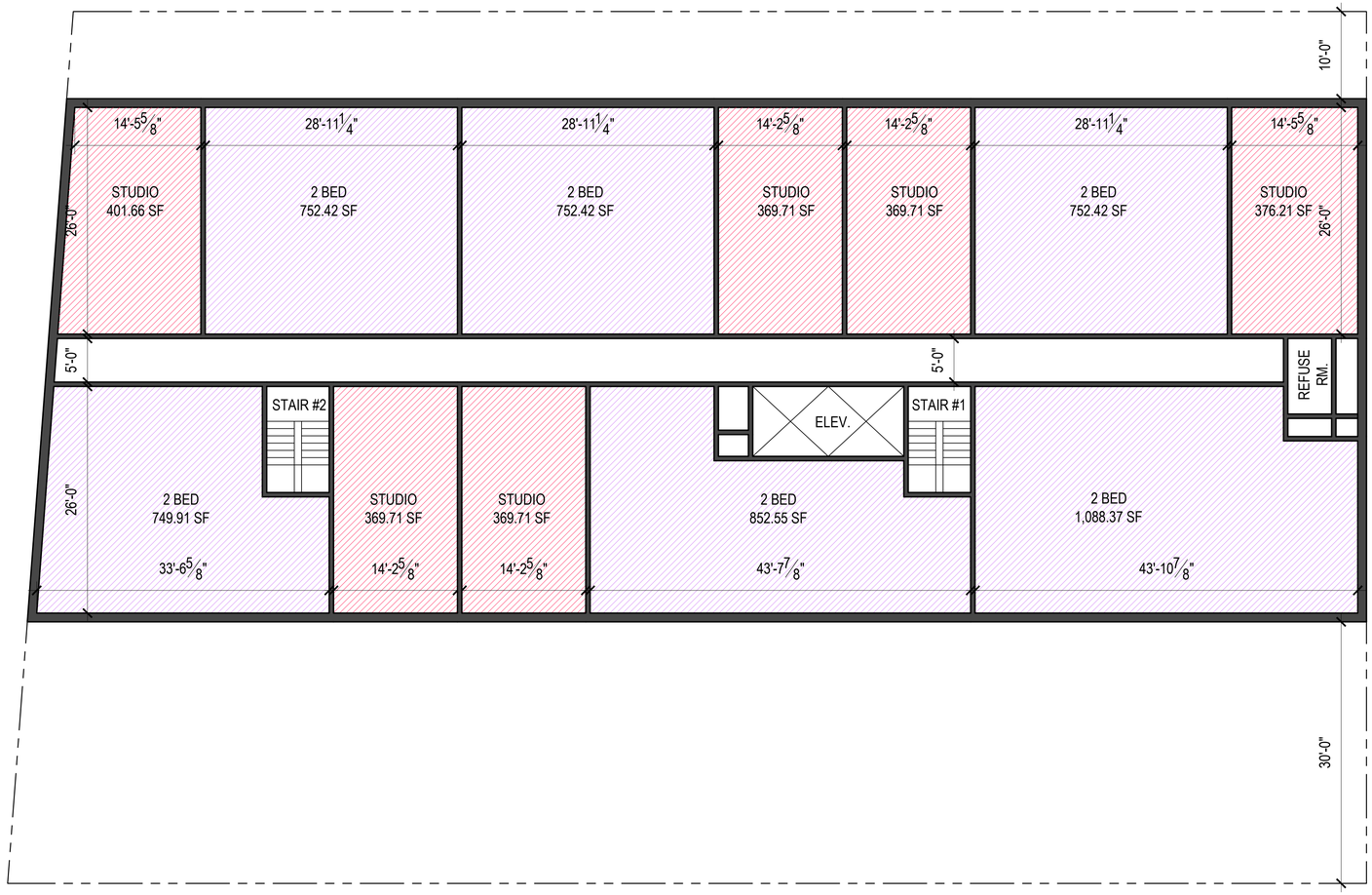

SCHEMATIC SECOND FLOOR PLAN

SCALE: 1/8" = 1'-0"

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ARCHITECT, P.C.

36-07 169th STREET
FLUSHING, NY 11358
TEL: 718.886.1600

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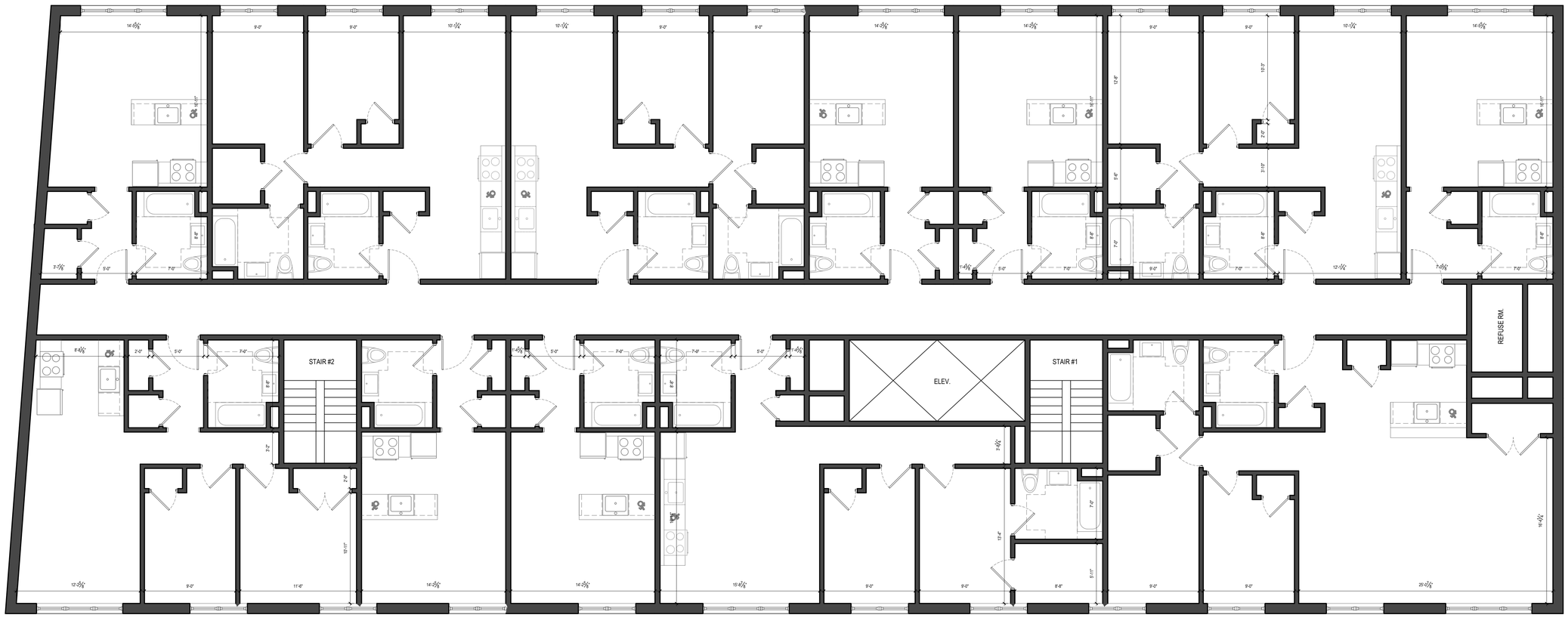

SCHEMATIC SECOND FLOOR PLAN
SCALE: 3/16" = 1'-0"

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ARCHITECT, P.C.

36-07 169th STREET
FLUSHING, NY 11358
TEL: 718.886.1600

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WWW.QUATELA-ARCHITECTS.COM

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SECOND FLOOR PLAN

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NEW YORK

SEAL:

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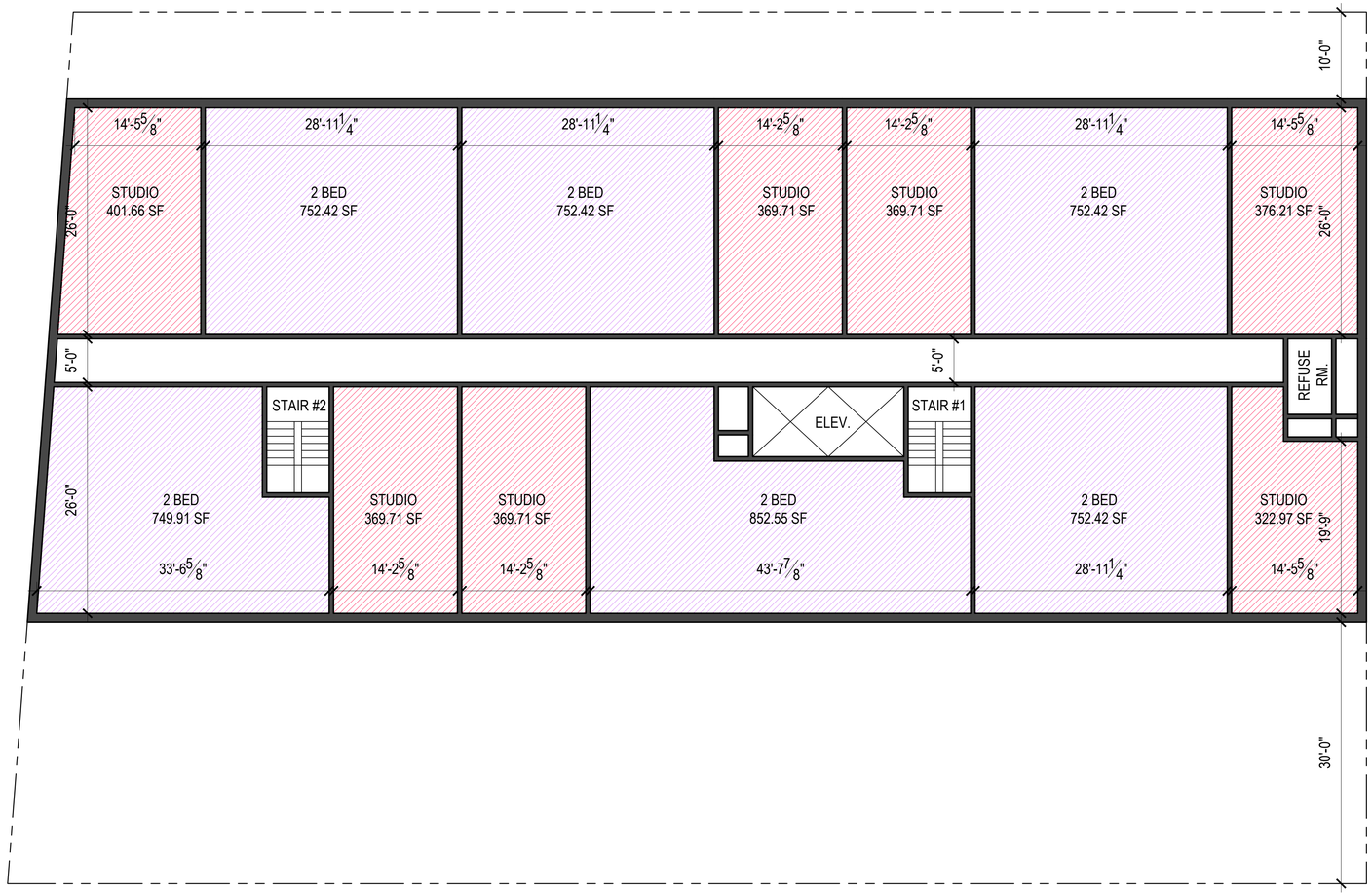

SCHEMATIC THIRD - SIXTH FLOOR PLAN

SCALE: 1/8" = 1'-0"

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ARCHITECT, P.C.

36-07 169th STREET
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DOB:

NO.	DATE	REVISION

DRAWING TITLE:

FLOOR PLAN
THIRD THRU SIXTH

PREMISES:

17 WHARTON PLACE
BROOKLYN
NEW YORK

SEAL:

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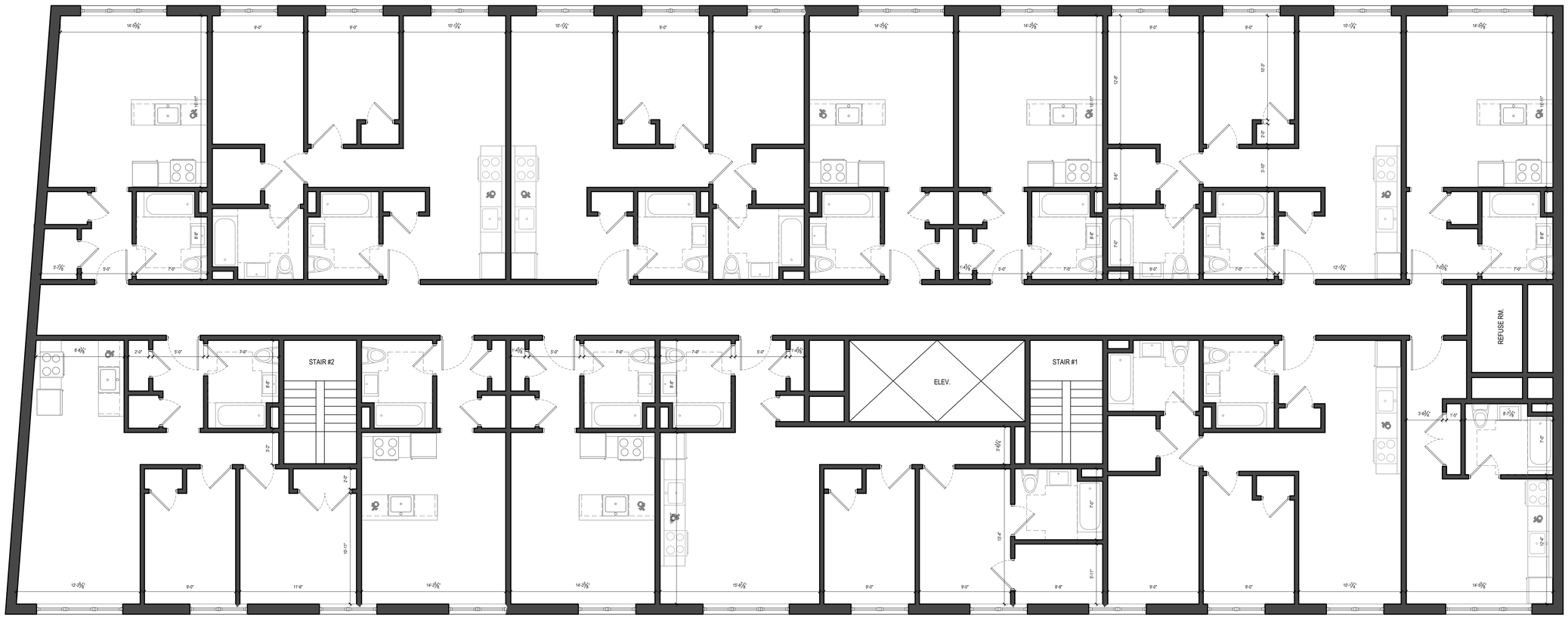

SCHEMATIC THIRD-SIXTH FLOOR PLAN
SCALE: 3/16" = 1'-0"

FRANK J. QUATELA
ARCHITECT, P.C.

36-07 169th STREET
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DOB:

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FLOOR PLAN
THIRD THRU SIXTH

PREMISES:

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BROOKLYN
NEW YORK

DRAWN:	BDH
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SCALE:	3/16" = 1'-0"
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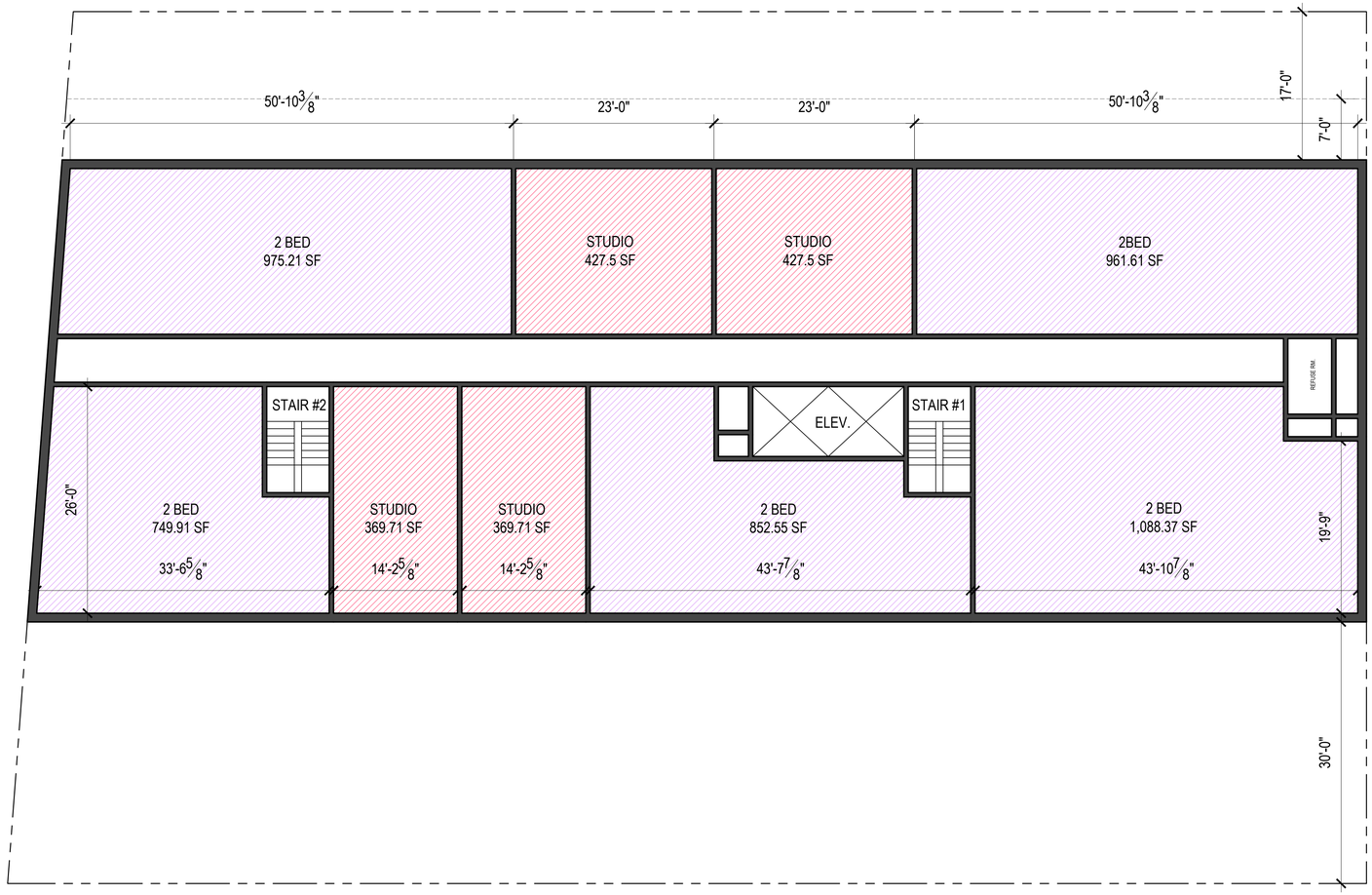

SCHEMATIC SEVENTH FLOOR PLAN

SCALE: 1/8" = 1'-0"

FRANK J. QUATELA
ARCHITECT, P.C.

36-07 169th STREET
FLUSHING, NY 11358
TEL: 718.886.1600

FRANK@QUATELA-ARCHITECTS.COM
WWW.QUATELA-ARCHITECTS.COM

THE ARCHITECT SHALL NOT HAVE CONTROL OR CHARGE OF AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, DEVIATIONS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTIONS WITH THE WORK, FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR SUBCONTRACTORS OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. ALWAYS USE DIMENSIONS AS SHOWN. DRAWINGS ARE NOT TO BE SCALED. FRANK J. QUATELA ARCHITECT, P.C. AND ITS PRINCIPAL/EMPLOYEES WERE NOT RETAINED FOR ANY CONSTRUCTION SUPERVISION.

DOB:

NO.	DATE	REVISION

DRAWING TITLE:

SEVENTH FLOOR PLAN

PREMISES:

17 WHARTON PLACE
BROOKLYN
NEW YORK

SEAL:

DRAWN:	BDH
CHECKED:	FJQ
JOB NO.:	
SCALE:	1/8" = 1'-0"
DATE:	07-24-2024

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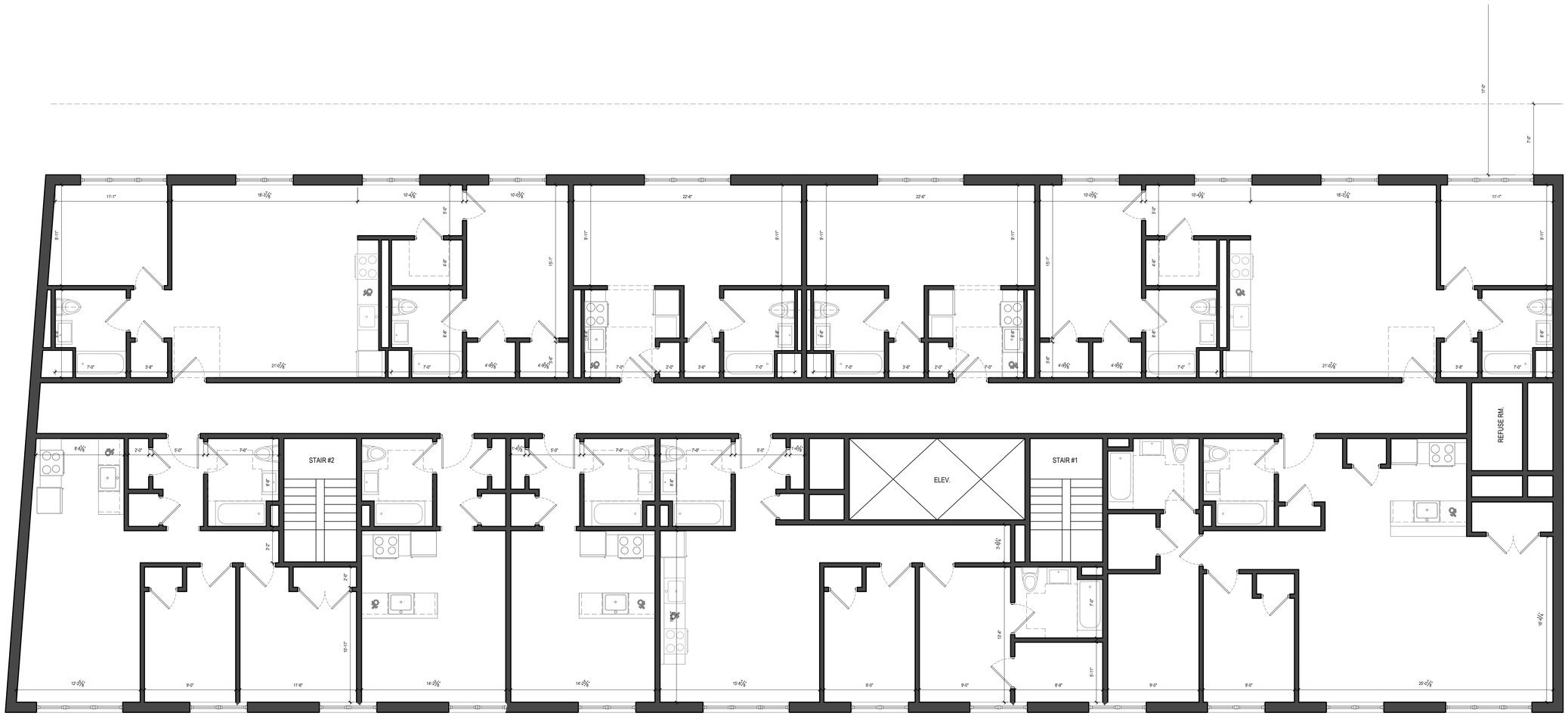

SCHEMATIC SEVENTH FLOOR PLAN
SCALE: 3/16" = 1'-0"

FRANK J. QUATELA
ARCHITECT, P.C.

36-07 169th STREET
FLUSHING, NY 11358
TEL: 718.886.1600

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WWW.QUATELA-ARCHITECTS.COM

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DOB:

NO.	DATE	REVISION

DRAWING TITLE:

SEVENTH FLOOR PLAN

PREMISES:

17 WHARTON PLACE
BROOKLYN
NEW YORK

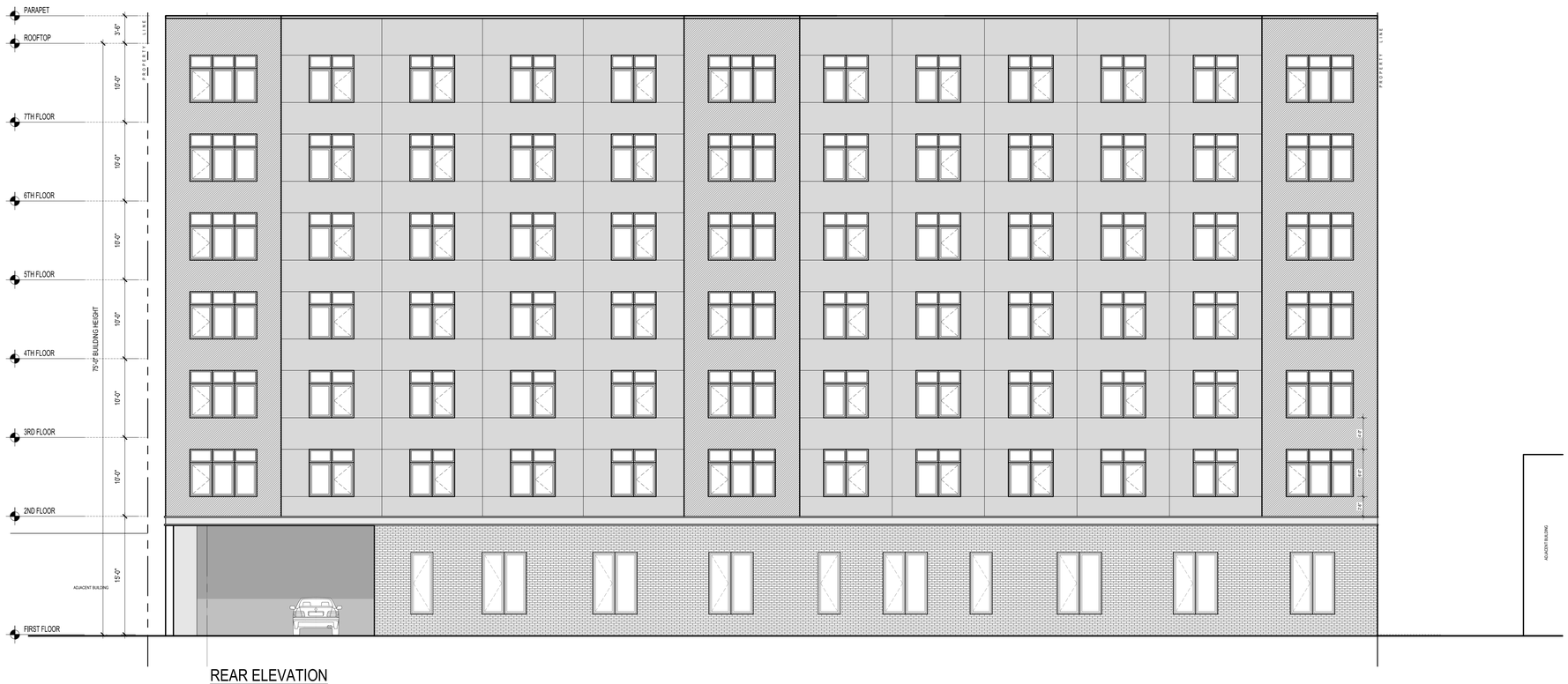
SEAL:

DRAWN:	BDH
CHECKED:	FJQ
JOB NO.:	
SCALE:	3/16" = 1'-0"
DATE:	07-24-2024
DRAWING:	11 of 12

A-011.00



FRONT ELEVATION
SCALE: 1/8" = 1'-0"



REAR ELEVATION
SCALE: 1/8" = 1'-0"

FRANK J. QUATELA
ARCHITECT, P.C.

36-07 169th STREET
FLUSHING, NY 11358
TEL: 718.886.1600

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DOB:

NO.	DATE	REVISION

DRAWING TITLE:

ELEVATIONS

PREMISES:

17 WHARTON PLACE
BROOKLYN
NEW YORK

SEAL:

DRAWN:	BDH
CHECKED:	FJQ
JOB NO.:	
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APPENDIX C

PHASE I ESA



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ECOLOGICAL
WATER
CONSTRUCTION MANAGEMENT

Fairfield, NJ
55 Lane Road
Suite 407
Fairfield, NJ 07004

Manhattan, NY
104 West 29th Street
10th Floor
New York, NY 10001

PHASE I ENVIRONMENTAL SITE ASSESSMENT
17-21 Wharton Place
Brooklyn, New York 11208

October 8, 2024
File No. 12.0077896.00



PREPARED FOR:
CCM Capital Group Corp.
214-08 41st Avenue
Bayside, New York 11361

GZA GeoEnvironmental, Inc.
55 Lane Road, Suite 407 | Fairfield, NJ 07004
973-774-3300

www.gza.com

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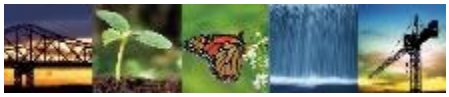

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55 Lane Road
Suite 407
Fairfield, NJ 07004

Manhattan, NY
104 West 29th Street
10th Floor
New York, NY 10001

October 8, 2024
File No. 12.0077896.00

CCM Capital Group Corp.
214-08 41st Avenue
Bayside, New York 11361

Attn: Robert Gassmann

Re: Phase I Environmental Site Assessment
17-21 Wharton Place
Brooklyn, NY 11208

Dear Mr. Gassmann,

Pursuant to our professional services contract dated June 24, 2024, GZA GeoEnvironmental, Inc. is pleased to submit the 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 Robert Jackson at (973) 738-0782.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

Christian DiGennaro
Scientist II

Robert Jackson
Associate Principal

Attachment: Phase I ESA Report

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EXECUTIVE SUMMARY

CCM Capital Group Corp. (also referred to herein as "Client" or "User") retained GZA GeoEnvironmental, Inc. (GZA) to conduct a Phase I Environmental Site Assessment (ESA) of the Subject Property located at 17-21 Wharton Place, Brooklyn, New York (Subject Property). GZA performed this Phase I ESA in connection with the Client's proposed rezoning and new development on 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 Phase I ESA Limitations 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 a rectangular-shaped property composed of three lots (Block 4105, Lots 72, 75, and 77). Lot 72 is improved with one two-story residential multi-family walkup building with a detached garage. Lot 75 is improved with one two-story one and two-family residential building. Lot 77 consists of an asphalt-paved parking area. Historically, the Subject Property has been residential use. 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**

- A stain was observed in the basement of the Lot 75 building. According to the Subject Property owner, the stain is from latex paint. The stain did not lead to any floor drains. In GZA's opinion the presence of this stain is considered a De Minimis Condition in connection with the Subject Property.

Significant Data Gaps

- In GZA's opinion, this Phase I ESA revealed two significant data gaps that may affect the ability to identify RECs, CRECs, or HRECs at the Subject Property. At the time of the GZA's site reconnaissance, the shed on the south side of Lot 72 and the first floor of the Lot 75 building were inaccessible.

Business Environmental Risks (BERs)

- Potential Vapor Encroachment Conditions (VECs) of concern to the Subject Property have been identified. Based on their distance from the Subject Property, description provided, closed regulatory status, or the anticipated hydrogeologic gradient, it is GZA's opinion that the listed sites in the Third-Party Database Report, including nearby spills and historic gasoline service stations are potential VECs of concern to the Subject Property. Additional information about each of the potential VECs of concern can be found in **Section 7.2.**

- According to the Sanborn Fire Insurance Maps provided by EDR, there was a thermometer factory on the adjoining property to the southwest of the Subject Property from 1908 to 2007. The current use of the property was not confirmed.

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 GZA GeoEnvironmental, Inc. (GZA) for CCM Capital Group Corp. (also referred to herein as "Client") at the Subject Property identified 17-21 Wharton Place, Brooklyn, New York (Subject Property). GZA prepared this Phase I ESA Report in conformance with the limitations presented in **Section 14.0** and with the Phase I ESA Limitations 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 the rezoning and new development on the Subject Property.

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 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 located at 17-21 Wharton Place in the Cypress Hills neighborhood of Brooklyn, New York. The Subject Property is identified as Block 4105, Lots 72, 75, and 77 on the Brooklyn Tax Map. The Subject Property is approximately 15,214 square feet in size and is located along the southern side of Wharton Place. The Subject Property is in an R-5 zoning district surrounded by mostly residential and some commercial uses. The proposed zoning map amendment would rezone the Subject Property, as well as Lots 178, 179, 180, 181, 81, 82, and part of 182, from an R-5 residential district to an R6A/C2-4 zoning district to facilitate new development on the Subject Property. A map showing the location of the Subject Property is provided as **Figure 1**.

2.2 DESCRIPTION OF SUBJECT PROPERTY AND BUILDINGS

Lot 72 of the Subject Property is an approximately 7,714 square-foot lot and is currently improved with a two-story, approximately 2,990 square-foot building near the center of the lot and a 210-square-foot garage in the southeastern corner. The east side of Lot 72 is improved with an asphalt-paved driveway. An office space for Compound Maintenance Management is in the basement of the building. Lot 75 of the Subject Property is an approximately 5,000 square-foot lot and is currently improved with a two-story, approximately 1,458 square-foot building on the east side of the lot and an approximately 288 square-foot garage on the south side of the lot. Lot 77 is an approximate 2,500 square-foot lot improved with an asphalt-paved lot. According to the Key Site Manager, the residential buildings were constructed in the early 1900s and have not changed use since the buildings were constructed. Each Subject Property building contains a basement; Lot 72 basement contains an office space for Compound Maintenance Management. The Lot 75 basement was used for the storage of building materials. Lot 77 is an asphalt-paved lot used for the storage of two vehicles and a roll off box for non-hazardous solid waste disposal. A map showing the Subject Property orientation and boundary is provided as **Figure 2**.

2.3 CURRENT SUBJECT PROPERTY USE

At the time of GZA's site reconnaissance, the Subject Property was improved with a two-story, residential use building with an office space in the basement and a two-story residential building. The buildings were occupied with tenants at the time of inspection. The area between each of the Subject Property buildings was paved and used for parking. Three garages storing building materials and equipment were on the south side of each lot. Lot 77 is an asphalt-paved lot used for the storage of two vehicles and a roll off bin for non-hazardous solid waste disposal. Each Subject Property building contains a basement.

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	Wharton Place	Street – Wharton Place
West	3 Wharton Place	Unnamed Garage – possible industrial/manufacturing use
West	27-29 Euclid Avenue	Residential use
East	9 Wharton Place	Residential use
East	51-54 Crescent Street	Residential use
South	14-30 Cox Place	Residential use

2.5 VICINITY PROPERTIES

As part of this Phase I ESA, GZA performed a site reconnaissance of the immediate Subject Property vicinity. The Subject Property vicinity is mixed use with primarily residential and some commercial/manufacturing uses.

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 provided by Environmental Data Resources, Inc. (*EDR), Historical Topo Map 2019*, the Subject Property is situated at an approximate elevation of 57 feet above mean sea level. The nearest water body is the Ridgewood Reservoir which is located approximately 0.50 miles west of the Subject Property.

3.2 GEOLOGIC, HYDROGEOLOGIC, AND HYDROLOGIC CONDITIONS

Based on Third-Party Database Reports and the web soil survey maps published by the USDA Natural Resources Conservation Service, overburden at the Subject Property consists of UFA (Urban land-Flatbush). Based on the United States Geological Service (USGS) online GIS database, bedrock near the Subject Property is categorized as a stratified sequence of the Cenozoic era, Quaternary system, and Pleistocene Series (Code: Qp).

Based on local topography and surface water flow patterns, the inferred direction of groundwater flow is generally southeast. We subsequently refer to upgradient and downgradient properties in this Phase I ESA Report based on the inferred southeast 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 (such as subway tunnels).

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 since at least 1924. The Subject Property is developed with two buildings, one mixed residential/commercial use on Lot 72 and one residential use building on Lot 75. A shared parking area is located between Lot 72 and 75 and on Lot 77. The surrounding area is highly developed with mostly residential and commercial/manufacturing use properties.

The Subject Property is in a residential district of Cypress Hills, Brooklyn and is bounded to the north by the Wharton Place, to the east by residences and a garage, and to the south and west by residences. Historically, the area in the vicinity of the Subject Property consisted of primarily industrial/manufacturing and residential properties.

4.2 AERIAL PHOTOGRAPH REVIEW

GZA consulted historical aerial photographs provided by EDR from 1924 to 2019. The table below contains GZA's description of the Subject Property and vicinity properties as shown in the aerial photographs.

Year	Description of Subject Property	Description of Vicinity
1924	The Subject Property developed with multiple structures/buildings on the Subject Property.	The surrounding area in all directions is developed. A cemetery with dirt paths cover the north, northeast, and northwest portions of the aerial photograph. The cemetery is approximately 600' north of the Subject Property. Athletic fields are approximately 2,500 feet northeast of the Subject Property. There is an area of undeveloped land on the adjacent block to the east of the Subject Property. There is an elevated railway approximately 100 feet to the west of the Subject Property.
1951,1 954	There are suspected changes to the structures/buildings within the Subject	Residences have been constructed on the previously undeveloped land east of the Subject Property. A large building has been constructed to the northeast of the

Year	Description of Subject Property	Description of Vicinity
	Property, as the photograph is difficult to decipher.	Subject Property, west of the baseball field. The cemetery paths to the north are not as defined as in the previous aerial photograph. Vegetation was cleared on the adjacent lot to the north. A roadway has been constructed in the northwestern portion of the aerial photograph.
1962	Definitive buildings/structures are shown on the east and west side of the Subject Property. There is a small building/structure on the southeastern portion of the Subject Property.	The baseball field to the northeast of the Subject Property has been replaced with row houses. The cemetery paths to the north of the Subject Property are nearly nonexistent. Buildings were demolished on the northeastern corner of the adjacent block to the west of the Subject Property.
1966, 1976	The Subject Property is unchanged.	A building has been constructed on the northeastern corner of the adjacent block to the west.
1980, 1985, 1995	A structure is shown in northwestern corner of the Subject Property. The previously described buildings remain on the Subject Property.	An increase in vegetation is shown to the north, northeast, and northwest of the Subject Property.
2006, 2011	The structure in the northwestern corner of the Subject Property is no longer shown.	The surrounding area is largely unchanged.
2015	The building on the east side of the Subject Property appears to have increased in size. Additional smaller structures are shown on the east side of the Subject Property.	The surrounding area is largely unchanged.
2019	The building on the west side of the Subject Property appears to have increased in size.	The surrounding area is largely unchanged.

4.3 FIRE INSURANCE MAPS

GZA consulted historical Sanborn Fire Insurance Maps provided by EDR from 1887 to 2007. The table below contains GZA's description of the Subject Property and vicinity properties as shown in the historical fire insurance maps. The properties to the north and south are not displayed on the Sanborn maps.

Year	Description of Subject Property	Description of Vicinity
1887	The Subject Property is shown as six different lots. There are two dwellings, one suspected stable, and a few unlabeled structures on the Subject Property. Jardine Place (Wharton Place) adjoins the Subject Property to the north.	The surrounding areas to the north, south, east, and west are developed with several dwellings. Leighton & Turner's Granite Works and K.L. Johnson's Marble Works are to the west/northwest of the Subject Property. A stone cutter, florist, and Walsh's Steam Granite Works are on the adjacent block to the north of the Subject Property. A marble works and stone cutter are to the northeast of the Subject property. Large areas of undeveloped land are shown to the northwest, east, and south.
1908	Only two dwellings and a wood house remain on the Subject Property. There is a dwelling on each side of the Subject Property. The wood house is along the northern Subject Property boundary.	Development increases in the surrounding area. A thermometer factory is shown on the adjoining property to the west of the Subject Property. The granite works and marble works to the west/northwest are showed as

Year	Description of Subject Property	Description of Vicinity
	The adjoining street to the north of the Subject Property is named "Washington Place".	Adler's Monumental Stone Works. The stone cutter on the adjacent block to the north is no longer shown. Walsh's Steam Granite Works is now J. Halls Sons Monumental Stone Works. Beck's hotel and a carriage shed are on the adjacent block to the north of the Subject Property. The stone cutter and marble works to the northeast are no longer present. Benisch Bros Monumental Works and The Terminal Hotel are to the northeast of the Subject Property. The previously undeveloped area to the south of the Subject Property now has many dwellings.
1928	The dwelling on the east side of the Subject Property appears to extend further north.	Development further increases in the surrounding area. A large garage with a gas tank is to the north of the Subject Property. There is also a garage with a gas tank to the west of the Subject Property. The Terminal Hotel is no longer present. The previously undeveloped area to the northwest now has a chapel and Cypress Hills Cemetery. An elevated railroad station is to the northeast of the Subject Property.
1951	The southside of the dwelling on the east side of the Subject Property appears to have extended to the west. The wood house is no longer on the north side of the Subject Property. There is a structure labeled "Automobile" on the east side of the Subject Property, which likely is a garage. The adjoining property to the north of the Subject Property is now named Wharton Place.	Development increases in the surrounding area. The hotel to the north is no longer present. There is a swimming pool, roller skating rink, and tennis courts to the northeast. There is a repair shop on the adjacent lot to the northwest.
1965	The Subject Property is unchanged.	The former garage to the north is now labeled "Oil Burner Service". The garage to the west of the Subject Property is now labeled "Machine Shop". The gas tank is no longer present in the former garage. Several parking areas are shown on the adjacent block to the east. The roller-skating rink to the northeast is now manufacturing use. Addler's Monument Stone Works and several other buildings have been demolished for a parking area to the west of the Subject Property. There is a filling station in the northwest corner of the same block as the Subject Property. The tennis courts to the east have been replaced by lockers. A pump house, office, and public restrooms have been constructed near the swimming pool to the northeast.
1968, 1977, 1979, 1980, 1982, 1987, 1989, 1991, 1992, 1993	The Subject Property is unchanged.	A filling station has been constructed on the northeastern corner of the adjacent block to the west of the Subject Property. A parking area to the east has been replaced with a building labeled "Storage".
1994, 1995	The Subject Property is unchanged.	The former machine shop to the west is now a garage.
2001, 2002, 2003	The Subject Property is unchanged.	A large commercial building has been constructed to the north of the Subject Property. A public school has been

Year	Description of Subject Property	Description of Vicinity
		constructed around the former swimming pool to the northeast of the Subject Property.
2004, 2005, 2006, 2007	The Subject Property is unchanged.	The garage to the west of the Subject Property is now manufacturing use. A few buildings to the east of the Subject Property have been replaced with "2 Contracting Cos."

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 4105/Lots 72, 75, 77, and is 0.349 acres in size. The current owner is listed as 3649 Realty Corp.

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.

4.6 HISTORICAL USGS TOPOGRAPHIC MAPS

GZA reviewed historical USGS topographic maps provided by EDR from 1897 to 2019. 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	15-Minute 15-Minute	There is an unidentified structure on the west side of the Subject Property. The Subject Property is shown at an approximate elevation of 50-60 feet above sea level.	The surrounding area is moderately developed. The Brooklyn Reservoir is approximately 0.5 miles to the northwest of the Subject Property. Cypress Hills Cemetery and Forest Park are to the north and northeast, respectively. There are several small, unnamed bodies of water to the west and north of the Subject Property. Wetlands are shown approximately 2.0 miles away from the Subject Property to the southeast. Long Island Railroad is approximately 2.0 miles to the north of the Subject Property.
1947	7.5-Minute	Site-specific features are no longer shown on the Subject Property.	Development increased in the surrounding area. The Brooklyn Reservoir to the northwest is now named "Ridgewood Reservoir". Aqueduct pump station is approximately 0.6 miles to the southwest of the Subject Property. There is a freight yard to the northwest of the Subject Property. The wetlands area to the southeast has decreased in size. An elevated railway is located to the northeast of the Subject Property. An

Year	Scale	Description of Subject Property	Description of Vicinity
			increase in vegetation is shown around and past Forest Park to the northeast.
1955/1957, 1966/1967, 1979, 1994/1995	7.5-Minute	The Subject Property is unchanged.	A possible railyard is to the southeast of the Subject Property. A small wetlands area and several small, unlabeled structures are also to the southeast.
2013, 2016, 2019	7.5-Minute	The Subject Property is unchanged.	Three different Meadow Lakes and Kissena Lake are to the north and northeast of the Subject Property.

4.7 CITY DIRECTORIES

GZA reviewed a city directory abstract including listings from 1928 to 2024 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 provides a listing of the adjoining properties as presented in the city directory abstract.

Year(s)	Listings for 17 Wharton Place (Subject Property)
1965, 1970	Strohbach Angelika
1973, 1976	Rueda Edwin
1985	Rueda Alex, Rueda Edwin
2005	H Carpio E

Year(s)	Listings for 21 Wharton Place (Subject Property)
1940, 1945	Smith Henry
1960, 1965, 1970, 1973	Pra Carl
2005	Maharaj

The adjoining properties were not identified on the City Directories.

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 (Block 4105, Lots 72, 75, and 77) and the adjoining properties. No evidence of hazardous materials or petroleum usages were identified 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) and the New York City Department of Environmental Protection (NYCDEP) through a Freedom of Information Law (FOIL) request on August 26, 2024.

A response from the NYDEP was received on August 27, 2024. NYDEP produced no records responsive to the FOIL request. A response was received from the NYSDEC on September 3, 2024. NYSDEC produced no records responsive to the FOIL request.

5.0 PREVIOUS INVESTIGATIONS

GZA is not aware of any previous investigations or environmental concerns at the Subject Property. GZA was not provided with any documents regarding previous site investigations conducted at the Subject Property from the Client.

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 September 11, 2024. Owner, Robert Gassmann, was identified as the Key Site Manager and assisted the site walkthrough. GZA documented its observations and photo-documented the pertinent features and/or areas of environmental concern if applicable, which are referenced in this Phase I ESA Report. Selected photographs are included in **Appendix B**, and **Figure 2** – **Subject Property Boundary Map** depicts the Site boundary, and pertinent features. Limitations to GZA's site reconnaissance, if any, are noted in **Section 1.4**.

The following table discusses features of potential environmental concern identified at the Subject Property.

Feature	Description
Aboveground storage tank (AST) systems	Not observed.
Underground storage tank (UST) systems	Not observed.
Chemical or petroleum storage or handling areas	Lot 72: The kitchen of the first floor of the building and bathrooms in basement and first floor contain typical cleaning chemicals, soaps, and disinfectants. In the equipment/storage room in the basement, there are several cans of paint, buckets of rebinder, drywall, and floor finishing products. The garage in the southeastern corner of the lot contains a few bags of rock salt, buckets of primer, a half-empty gas can, and bags of concrete mix. Lot 75: The first floor of the building was inaccessible at the time of the inspection. Chemicals in the basement include a few gallons of glass/window cleaner and paint. The garage in the southwestern corner of the lot contains disinfectants, bleach, paints, and gas-powered equipment. Lot 77: The garage on the south side of the lot contains a half-empty gas can and generator.
Chemical waste or petroleum waste storage or handling areas	Not observed.
Dumpsters	Lot 77: One dumper/roll off bin is stored for the disposal of non-hazardous solid waste.
Floor drains, trenches, sumps, and associated piping	Lot 72: Three floor drains are in the basement of the building. Two drains are near the entrance into the basement and one drain is in the boiler

Feature	Description
	room. There are two ejector pumps in the basement that are for sanitary waste. Lot 75: Two floor drains are in the basement of the building. One drain is near the basement entrance and the other drain is in the boiler room. There is one ejector pump in the basement that is used for sanitary waste.
Oil/water separators	Not observed.
Storm water drains, grates and associated piping	Lot 72/75: There are two grit chambers on the Subject Property. One grit chamber is on the south side of Lot 72. The second grit chamber is near the boundary line separating Lot 72 and 75 in the parking area between the two Subject Property buildings. The grit chambers collect rain water and any sediment in the water, so they don't fill up the dry wells with dirt and sediment. There are also associated stormwater drains/grates for the dry wells.
Drainage swales, culverts, impoundments, and surface water bodies	Not observed.
Septic systems, leach fields, seepage pits, and dry wells	According to the Subject Property owner, there are seven to eight dry wells between the two residences on Lot 72 and Lot 75. There are five dry wells on Lot 72 and two to three dry wells on Lot 75. According to the owner of the Subject Property, the dry wells are for rainwater.
Open pipe discharges	Not observed.
Landfills and solid waste dumping	Not observed.
Historical fill or other fill material	Not observed.
Staining or stressed vegetation	Lot 75: A stain was observed on the basement floor. According to the Subject Property owner, the stain is from latex paint.
Strong, pungent, or noxious odors	Not observed.
Electrical transformers or capacitors	Not observed.
Hydraulic equipment, including lifts, elevators, and compactors	Not observed.
Active or inactive production wells	Not observed.
Monitoring wells, former boreholes, or other evidence of environmental investigations	Not observed.

In GZA's opinion, none of the identified features are RECs for the Subject Property.

The following entities provide utilities to the Subject Property:

Service	Provider
Electricity	Con Edison Co of New York (Con Edison)
Natural Gas	National Grid
Drinking Water	City of New York
Sanitary Sewer Services	City of New York sewer system

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 August 7, 2024. 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 D**). The Subject Property was identified on the following databases searched by EDR: NYC LAND USE

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	1
SEMS ARCHIVE	*½ mile*	0	0
RCRA CORRACTS	*1 mile*	0	0
RCRA-SQG	*¼ mile*	0	0
RCRA-LQG	*¼ mile*	0	1
RCRA-VSQG	*¼ mile*	0	0
Federal IC/EC Registries	*½ mile*	0	0
ERNS	*Site only*	0	0
State Equivalent NPL	*1 mile*	0	0
NY LTANKS	*½ mile*	0	25
NY UST	*¼ mile*	0	8
NY AST	*¼ mile*	0	8
State IC/EC Registries	*Site only*	0	2
Voluntary Cleanup Program Sites	*½ mile*	0	1
NY Brownfields	*½ mile*	0	7
NY SPILLS	*¼ mile*	0	9
FINDS	*Site only*	0	0
ECHO	*Site only*	0	0
NY MANIFEST	*¼ mile*	0	18
NY NYC LAND USE	*Site only*	2	2
EDR Hist Auto	*¼ mile*	0	3
EDR Hist Cleaner	*¼ mile*	0	0

* 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

Name	N/A
Address	17 Wharton Place
Distance/Direction from Subject Property	Subject Property
Database(s)	NYC LAND USE
Comments	• NYC LAND USE – New York City Land Use Information: The owner of the Subject Property address 17 Wharton Place is listed as "COMPOUND EQUITIES, INC.". The building class is listed as C0: walk up apartments – three families. The land use category is multi-family walk up buildings. The listed lot area is 7,700 square feet and the total building floor area is 3,200 square feet.

Name	N/A
Address	21 Wharton Place
Distance/Direction from Subject Property	Subject Property
Database(s)	NYC LAND USE
Comments	• NYC LAND USE – New York City Land Use Information: The owner of the Subject Property address 21 Wharton Place is listed as "21 CRESCENT REALTY CORP..". The building class is listed as B2: two family dwellings – frame. The land use category is one- & two-family buildings. The listed lot area is 5,000 square feet and the total building floor area is 1,746 square feet.

Name	Senior Care
Address	562 Wharton Avenue
Distance/Direction from Subject Property	0.007 miles north of the Subject Property (upgradient)
Database(s)	NY SPILLS
Comments	• NY SPILLS – Spills Information Database: The record is associated with spill number 0908729. On November 3, 2009, the nozzle of a fill pipe broke off during a deliver and approximately 30.0 gallons of petroleum spilled to the sidewalk. The spill was cleaned by Royal Environmental and the spill case closed that same day. • Based on the inferred direction of groundwater flow in this area, the site is downgradient with respect to the Subject Property. Considering the site operations and proximity from the Subject Property, this site is a potential vapor encroachment concern to the Subject Property.

Name	N/A
Address	802 Jamaica Avenue
Distance/Direction from Subject Property	0.031 miles north/northwest of the Subject Property (upgradient)
Database(s)	NYC LAND USE, NY SPILLS

Comments	• NYC LAND USE – New York City Land Use Information: The owner of the Subject Property address 802 Jamaica Avenue is listed as "VM REALTY 10 LLC". The building class is listed as K2: Store buildings (taxpayers included) – multi-story retail buildings. The land use category is commercial & office buildings. • NY SPILLS – Spills Information Database: Two spill records are associated with the referenced site above. The first record (spill number 9516023) occurred on March 14, 1996. The faulty line of a truck resulted in the leak of one gallon of #2 fuel oil. The spill was closed on August 14, 1996. The second spill record (spill number 9612971) occurred on February 2, 1971. The faulty connection on a truck resulted in the spill of 50 gallons of #2 fuel oil. Soil is listed as an affected resource because of the spill. The spill closed on April 29, 2004. • Based on the inferred direction of groundwater flow in this area, the site is downgradient with respect to the Subject Property. Considering the site operations and proximity from the Subject Property, this site is a potential vapor encroachment concern to the Subject Property.

Name	Multiple names
Address	1 Euclid Avenue
Distance/Direction from Subject Property	0.051 miles northwest of the Subject Property (upgradient)
Database(s)	EDR HIST AUTO, UST FINDER, UST, AST
Comments	• EDR HIST AUTO – EDR Exclusive Historical Auto Stations: Euclid Service Station is listed as a gasoline service station in the EDR Hist Auto database from 1969 to 1970. Cypress Hills Car Service is listed as a gasoline service station in the EDR Hist Auto database from 1971 to 1974. Isaac Service Station is listed as a gasoline service station in the EDR Hist Auto database from 1975 to 1983. Leons Service Station is listed as a gasoline service station in the EDR Hist Auto database in 1994. Petro USA Corp. is listed as a gasoline service station in the EDR Hist Auto database from 1994 to 1998. Petro USA Corp. is listed as a gasoline service station in the EDR Hist Auto database from 1994 to 1998. Leons Service Station is listed as a gasoline service station in the EDR Hist Auto database from 1995 to 2009. Petroleum Sales and Service is listed as a gasoline service station in the EDR Hist Auto database in 1998. Safety Gas Inc. is listed as an automotive repair shop in the EDR Hist Auto database from 2000 to 2013. Advance Auto Service and Repair is listed as a gasoline service station in the EDR Hist Auto database from 2008 to 2014. • UST FINDER – UST Finder Database: One open, 4,000-gallon UST is listed under Leon's Connections LLC. (Facility ID NY24681). One closed, 150-gallon UST is listed under Mario's Auto Repair II Corp. (Facility ID NY418114). No spill records are associated with these two tanks according to the Third-Party Database Report. • AST – Petroleum Bulk Storage Database: The record includes eight, 550-gallon gasoline tanks that were closed/removed on May 15, 1999.

	• UST – Petroleum Bulk Storage Database: The record includes two, in-service 4,000-gallon gasoline tanks. There is also one, 150-gallon waste oil tank that was removed/closed on August 7, 2012. • Based on the inferred direction of groundwater flow in this area, the site is upgradient with respect to the Subject Property. Considering the site operations and proximity from the Subject Property, this site is a potential vapor encroachment concern to the Subject Property.

Name	Multiple names
Address	782-784 Jamaica Avenue
Distance/Direction from Subject Property	0.062 miles northwest of the Subject Property (upgradient)
Database(s)	LTANKS, NY SPILLS, MANIFEST, UST FINDER, USR FINDER RELEASE, UST, AST, EDR HIST AUTO (2 records)
Comments	• LTANKS – Spills Information Database: The spill record (2400171) is associated with the 15 USTs onsite for the former site use as a gasoline service station. The DEC remarks include multiple subsurface investigations onsite and delineation of the petroleum-contamination onsite. A spill closure date is not reported. The complete description of the work completed can be found in the Third-Party Database Report (**Appendix D**). • UST – Petroleum Bulk Storage Database: The UST record at 784 Jamaica Avenue includes 12, 550-gallon gasoline tanks that were removed and two active 10,000-gallon gasoline tanks. • AST – Petroleum Bulk Storage Database: The AST record includes one active 240-gallon tank used for waste oil. • EDR HIST AUTO (782 Jamaica Avenue) – EDR Exclusive Historical Auto Stations: J & L Service Station is listed as a gasoline service station in the EDR Hist Auto database from 1969 to 1970. • EDR HIST AUTO (784 Jamaica Avenue) – EDR Exclusive Historical Auto Stations: Telko Auto Service is listed as a gasoline service station in the EDR Hist Auto database from 1969 to 1970. Isaacs Thomas is listed as a gasoline service station in the EDR Hist Auto database from 1971 to 1974. Ben Feiflowicz Service is listed as a gasoline service station in the EDR Hist Auto database from 1982 to 1993. Euclid Service Station is listed as an automotive repair shop in the EDR Hist Auto database from 1985 to 1997. Magic Touch Inc. is listed as a gasoline service station in the EDR Hist Auto database from 1991 to 2014. Northland Marketing is listed as a gasoline service station in the EDR Hist Auto database from 1993 to 1996. • Based on the inferred direction of groundwater flow in this area, the site is downgradient with respect to the Subject Property. Considering the site operations and proximity from the Subject Property, this site is a potential vapor encroachment concern to the Subject Property.

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.

7.3 EVALUATION OF UNMAPPED PROPERTIES

GZA also reviewed the list of five "orphan" sites, which are properties with insufficient address information to allow the mapping software to plot a location. Based on the description provided in the database summary and based on their distance and direction from the Subject Property, the listed properties are unlikely to impact the Subject Property.

8.0 INTERVIEWS

Owner, Robert Gassmann, was identified as the Key Site Manager and was interviewed as part of this Phase I ESA. The information that the interviewee provided is discussed 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**. Responses provided within the User Questionnaire do not indicate additional conditions of concern.

GZA was provided with site plans dated July 24, 2024, for the new 6-story mixed residential and community facility building. The site plans include a zoning and plot plan, floor plans for the cellar, first floor, and the second to sixth floor. According to the site plans, the cellar will be used for storage. The first floor will be used for the community facility, mail room, bike parking, and multiple studio rooms. The second to sixth floor will be residential use. The complete site plans are provided in **Appendix E**.

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

Potential Vapor Encroachment Conditions (VECs) of concern have been identified. 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 hydrogeologic gradient, it is GZA's opinion that the remaining listed sites including nearby spills and historic gasoline service stations are potential VECs of concern to the Subject Property.

10.2 SUSPECT ASBESTOS-CONTAINING MATERIAL

GZA did not sample any suspect asbestos-containing material (ACM) during this investigation. Only a limited visual survey, within accessible areas, for the presence of suspect ACM within the Subject Property building was performed. The intent of the visual survey was to identify exposed, suspected 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 did not identify visual evidence of asbestos containing material.

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 in the surrounding area 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 lead paint with containing lead levels greater than or equal to 1.0 milligram per square centimeter or more than 0.5% by weight. GZA did not complete a lead paint survey at the time of site reconnaissance.

10.4 MOLD

GZA performed a visual inspection for the presence of mold at the Subject Property. GZA did not observe evidence of mold and did not perform a mold survey.

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, Brooklyn, New York falls within Zone 3, which is typically not a concern for additional testing.

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 Subject Property building if remedial measures are being considered.

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 17-21 Wharton Place, Brooklyn, New York. 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

A stain was observed in the basement of the Lot 75 building. According to the Subject Property owner, the stain is from latex paint. The stain did not lead to any floor drains. In GZA's opinion the presence of this stain is considered a De Minimis Condition in connection with the Subject Property.

11.5 SIGNIFICANT DATA GAPS

In GZA's opinion, this Phase I ESA revealed two data gaps that may affect the ability to identify RECs, CRECs, or HRECs at the Subject Property. At the time of the GZA's site reconnaissance, the shed on the south side of Lot 72 and the first floor of the Lot 75 building were inaccessible.

11.6 BUSINESS ENVIRONMENTAL RISKS

Potential Vapor Encroachment Conditions (VECs) of concern to the Subject Property have been identified. Based on their distance from the Subject Property, description provided, closed regulatory status, or the anticipated hydrogeologic gradient, it is GZA's opinion that the listed sites in the Third-Party Database Report, including nearby spills and historic gasoline service stations are potential VECs of concern to the Subject Property. Additional information about each of the potential VECs of concern can be found in **Section 7.2.**

According to the Sanborn Fire Insurance Maps provided by EDR, there was a thermometer factory on the adjoining property to the southwest of the Subject Property from 1908 to 2007. The current use of the property was not confirmed.

12.0 REFERENCES

EDR, Aerial Photo Decade Package, Shelton, CT, dated August 7, 2024.

EDR, City Directory Image Report, Shelton, CT, dated August 8, 2024.

EDR, Historical Topo Map Report, Shelton, CT, dated August 7, 2024.

EDR, The EDR Radius Map Report with Geocheck™, dated August 7, 2024.

EDR, Sanborn® Map Report, Shelton, CT, dated August 7, 2024.

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

United States Geological Service (USGS) online GIS database, Mineral Resources Online Spatial Data: Geologic maps (usgs.gov)

Depth to Groundwater in the New York Metropolitan Area https://www.arcgis.com/apps/mapviewer/index.html?webmap=36952527b5ef46f388180a27aaf159bc

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 F**.

14.0 LIMITATIONS

GZA prepared this Phase I ESA Report on the Subject Property on behalf of, and for the exclusive use of, CCM Capital Group Corp. 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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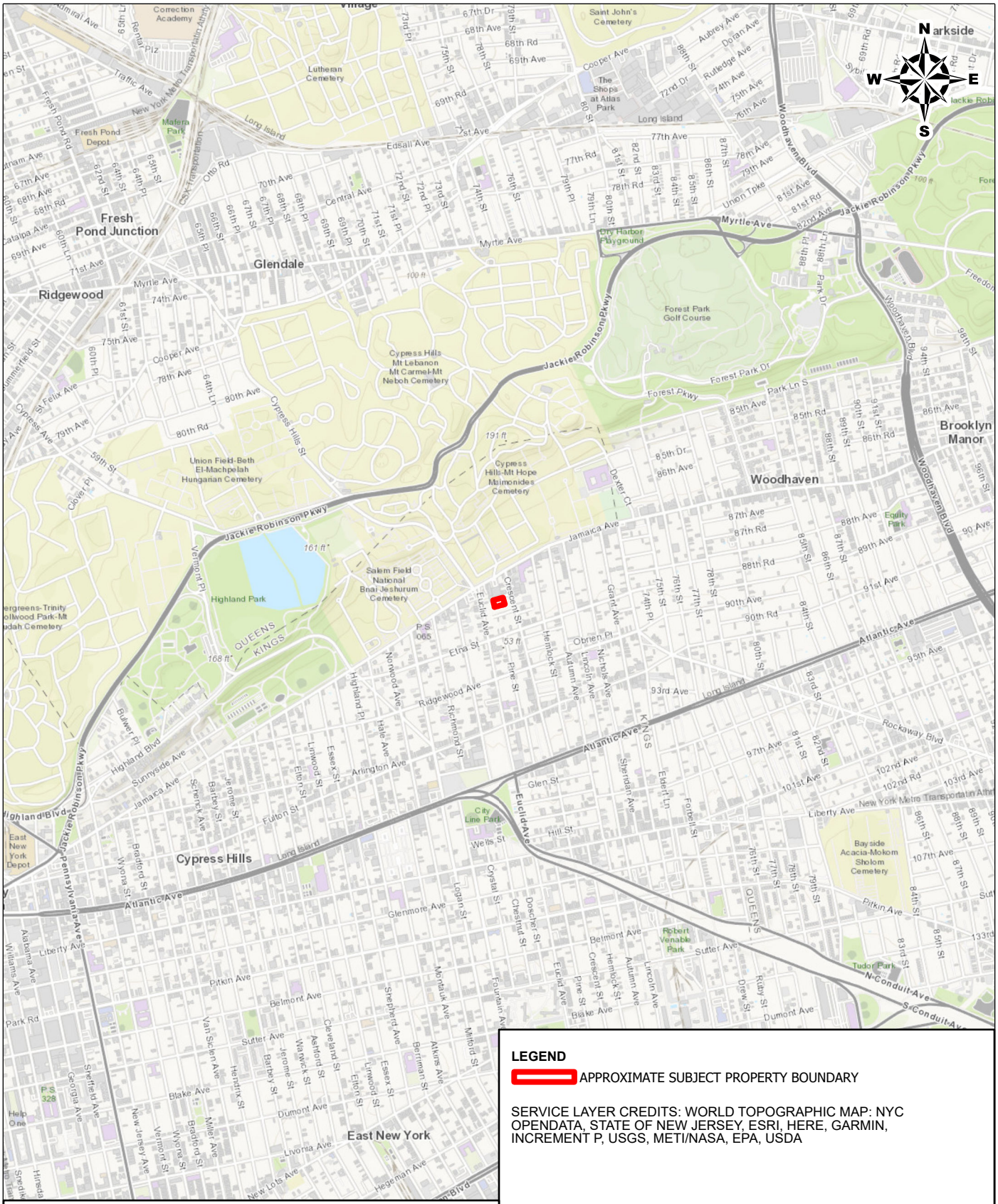
Built on trust.

Figures



LEGEND

APPROXIMATE SUBJECT PROPERTY BOUNDARY

SERVICE LAYER CREDITS: WORLD TOPOGRAPHIC MAP: NYC OPENDATA, STATE OF NEW JERSEY, ESRI, HERE, GARMIN, INCREMENT P, USGS, METI/NASA, EPA, USDA

0 1,000 2,000 4,000

SCALE IN FEET

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17-21 WHARTON PLACE
17-21 WHARTON PLACE
BROOKLYN, NEW YORK 11208 (BLOCK 4105, LOTS 72, 75, 77)

PHASE I REPORT
SUBJECT PROPERTY LOCATION MAP

PREPARED BY:
GZA GeoEnvironmental, Inc.
www.gza.com

PREPARED FOR:
CCM CAPITAL GROUP CORP.

PROJ MGR: AK	REVIEWED BY: KW	CHECKED BY: JH	FIGURE
DESIGNED BY: MB	DRAWN BY: MB	SCALE: 1:24,000	1
DATE: 08/09/2024	PROJECT NO: 12.0077896.00	REVISION NO:	

© 2024 - GZA GeoEnvironmental, Inc.
J:\77851 to 77900\77896, 17-21 Wharton Place - CEQR\Technical\GIS\Siteboundry\PhaseIfigures.aprx, August 09, 2024 - 9:01 AM, Miranda.Bandeli



LEGEND

APPROXIMATE SUBJECT PROPERTY BOUNDARY

NYC PARCELS

SERVICE LAYER CREDITS: BING MAPS HYBRID: © 2024 MICROSOFT CORPORATION © 2024 MAXAR ©CNES (2024) DISTRIBUTION AIRBUS DS © 2024 TOMTOM

0 25 50 100

SCALE IN FEET

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17-21 WHARTON PLACE
17-21 WHARTON PLACE
BROOKLYN, NEW YORK 11208 (BLOCK 4105, LOTS 72, 75, 77)

PHASE I REPORT
SUBJECT PROPERTY BOUNDARY MAP

PREPARED BY: GZA GeoEnvironmental, Inc. www.gza.com		PREPARED FOR: CCM CAPITAL GROUP CORP.	
PROJ MGR: AK	REVIEWED BY: KW	CHECKED BY: JH	FIGURE 2
DESIGNED BY: MB	DRAWN BY: MB	SCALE: 1:600	
DATE: 08/09/2024	PROJECT NO: 12.0077896.00	REVISION NO:	

© 2024 - GZA GeoEnvironmental, Inc.
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Appendix A - Phase I ESA Limitations

USE OF REPORT

1. GZA GeoEnvironmental, Inc. (GZA) prepared this report on behalf of, and for the exclusive use of CCM Capital Group Corp. for the stated purpose(s) and location(s) identified in the Report. Use of this report, in whole or in part, at other locations, or for other purposes, may lead to inappropriate conclusions; and we do not accept any responsibility for the consequences of such use(s). Further, reliance by any party not identified in the agreement, for any use, without our prior written permission, shall be at that party's sole risk, and without any liability to GZA.

STANDARD OF CARE

2. Our findings and conclusions are based on the work conducted as part of the Scope of Services set forth in the Report and reflect our professional judgment. These findings and conclusions must be considered not as scientific or engineering certainties, but rather as our professional opinions concerning the limited data gathered during the course of our work. Conditions other than described in this report may be found at the subject location(s).

3. Our services were performed using the 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. No warranty, expressed or implied, is made.

UNCERTAINTY NOT ELIMINATED

4. No environmental site assessment can eliminate the uncertainty of the possible presence of Recognized Environmental Conditions (RECs). This report was prepared to help reduce, not to eliminate, such uncertainties. Consistent with American Society for Testing and Materials (ASTM) Guidance (ASTM 1527-21), our opinions were developed in light of the constraints imposed by time and budget.

LIMITS TO OBSERVATIONS

5. As indicated in the Report, we made observations for evidence of RECs at the Site and for conditions at adjoining properties that could result in RECs at the Site. Observations were made of the Site and of structures on the Site as indicated within the report. Where access to portions of the Site or to structures on the Site was unavailable or limited, GZA renders no opinion as to the presence of hazardous substances, hazardous wastes, or petroleum products, or to the presence of indirect evidence relating to these materials, in that portion of the Site or structure. In addition, GZA renders no opinion as to the presence of hazardous substances, hazardous wastes, or petroleum products, or to the presence of indirect evidence relating to these materials, where direct observation of the interior walls, floor, or ceiling of a structure on the Site was obstructed by objects or coverings on or over these surfaces. Our opinions are necessarily based on these limited observations. Additionally, some activities or events of potential interest, at the Site or on adjoining properties, may have been transient and not observable at the time of our visit.

RELIANCE ON INFORMATION FROM OTHERS

6. 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. Inconsistencies in this information which we have noted, if any, are discussed in the Report.

ADDITIONAL INFORMATION

7. Additional opinions or information regarding RECs may be developed by the lender, seller, buyer, or other parties. Such additional opinions or information may not fully support the opinions provided in this report. In the event such additional

opinions or information is developed, we recommend that we be retained, in a timely manner, to review this material. This will provide us the opportunity to evaluate and modify, as necessary, the opinions provided in the Report.

COMPLIANCE WITH REGULATIONS AND CODES

8. Our services were performed to render an opinion on the presence of RECs. Unless specifically addressed within the Report, we rendered no opinion on the compliance of Site conditions or activities with local, state, or Federal codes or regulations.

SHELF LIFE

9. The opinions expressed in this Report are based on conditions observed during the course of our work on this Site; these conditions may change over time. ASTM Guidance (see ASTM 1527-21) states that observations and opinions are only valid for 180 days. After 180 days, an update of portions of the Report may be necessary.

Appendix B - Photographic Log

Photographic Log

Client Name: CCM Capital Group Corp.	Subject Property Location: 17-21 Wharton Place, Brookyn, NY	Project No. 12.0077896.00

Photo No.	Date:
1	9/11/24

Direction Photo Taken:
Southeast

Description:
Building façade of the residential use building on Lot 75.



Photo No.	Date:
2	9/11/24

Direction Photo Taken:
South

Description:
Parking area between the Lot 72 and Lot 75 building.



Photographic Log

Client Name: CCM Capital Group Corp.	Subject Property Location: 17-21 Wharton Place, Brookyn, NY	Project No. 12.0077896.00

Photo No.	Date:
3	9/11/24

Direction Photo Taken:
Southwest

Description:
Building façade of the residential/commercial use building on Lot 72.



Photo No.	Date:
4	9/11/24

Direction Photo Taken:
North

Description:
Lot 77 on the Subject Property. The lot stores two cars and a roll off box for non-hazardous solid waste disposal.



Photographic Log

Client Name: CCM Capital Group Corp.	**Subject Property Location:** 17-21 Wharton Place, Brookyn, NY	**Project No.** 12.0077896.00

Photo No.	**Date:**
5	9/11/24

Subject Property Area:
Lot 72

Description:
One of several drains that lead to dry wells on the Subject Property.



Photo No.	**Date:**
6	9/11/24

Subject Property Area:
Lot 72

Description:
One of two grit chambers on the Subject Property.



Photographic Log

Client Name: CCM Capital Group Corp.	Subject Property Location: 17-21 Wharton Place, Brookyn, NY	Project No. 12.0077896.00

Photo No.	Date:
7	9/11/24

Subject Property Area:
Lot 72

Description:
Floor drain at the bottom of the basement entrance.



Photo No.	Date:
8	9/11/24

Subject Property Area:
Lot 72

Description:
Compound Maintenance Management office space below the multi-family residence.



Photographic Log

Client Name: CCM Capital Group Corp.	**Subject Property Location:** 17-21 Wharton Place, Brooklyn, NY	**Project No.** 12.0077896.00

Photo No.	**Date:**
9	9/11/24

Subject Property Area:
Lot 72

Description:
Floor drain the basement.



Photo No.	**Date:**
10	9/11/24

Subject Property Area:
Lot 72

Description:
Boiler room and floor drain.



Photographic Log

Client Name: CCM Capital Group Corp.	**Subject Property Location:** 17-21 Wharton Place, Brooklyn, NY	**Project No.** 12.0077896.00

Photo No.	**Date:**
11	9/11/24

Subject Property Area:
Lot 72

Description:
Equipment storage area on the west side of the basement. Containers included several cans of paint, buckets of rebinder, drywall, and floor finishing products.

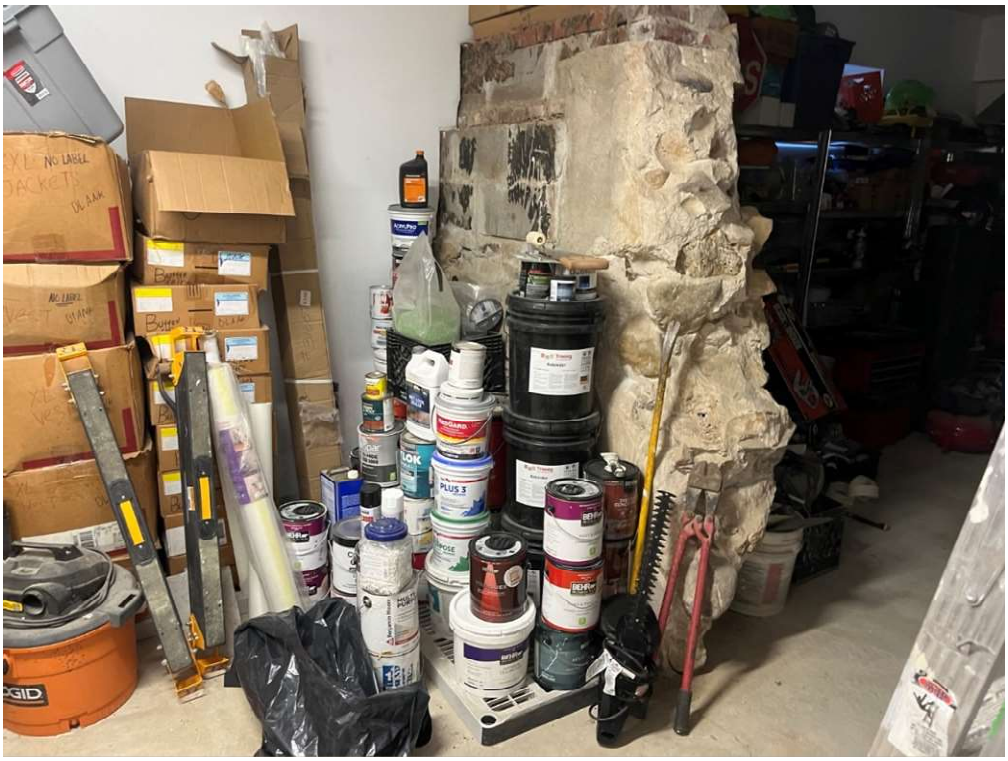


Photo No.	**Date:**
12	9/11/24

Subject Property Area:
Lot 72

Description:
Ejector pumps in the Lot 72 basement for sanitary waste.



Photographic Log

Client Name: CCM Capital Group Corp.	Subject Property Location: 17-21 Wharton Place, Brooklyn, NY	Project No. 12.0077896.00

Photo No.	Date:
13	9/11/24

Subject Property Area:
Lot 75

Description:
Floor drain at the bottom of the basement entrance.



Photo No.	Date:
14	9/11/24

Subject Property Area:
Lot 75

Description:
Latex paint stain on the basement floor.



Photographic Log

Client Name: CCM Capital Group Corp.	Subject Property Location: 17-21 Wharton Place, Brooklyn, NY	Project No. 12.0077896.00

Photo No.	Date:
15	9/11/24

Subject Property Area:
Lot 75

Description:
Boiler room in the basement.



Photo No.	Date:
16	9/11/24

Subject Property Area:
Lot 75

Description:
Ejector pump and floor drain in the boiler room.



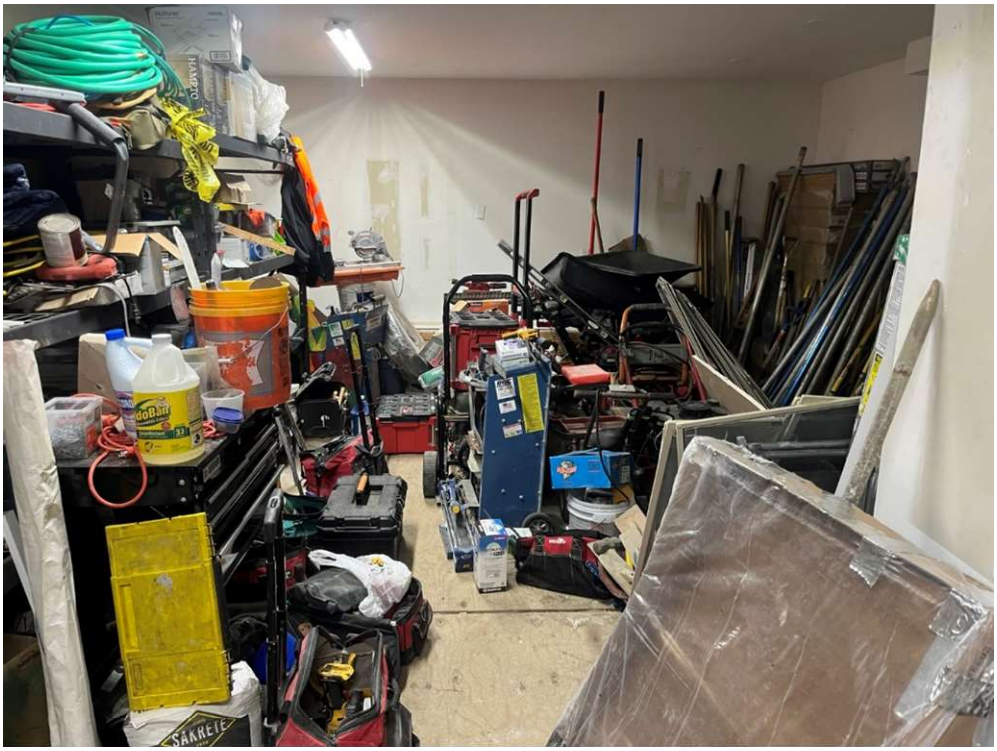
Photographic Log

Client Name: CCM Capital Group Corp.	Subject Property Location: 17-21 Wharton Place, Brooklyn, NY	Project No. 12.0077896.00

Photo No. 17	Date: 9/11/24
Subject Property Area: Lot 72	
Description: Garage on the southeastern portion of the lot. Containers included a few bags of rock salt, buckets of primer, a half-empty gas can, and bags of concrete mix.	



Photo No. 18	Date: 9/11/24
Subject Property Area : Lot 75	
Description: Garage on the southwestern portion of the lot.	



Photographic Log

Client Name: CCM Capital Group Corp.	Subject Property Location: 17-21 Wharton Place, Brooklyn, NY	Project No. 12.0077896.00

Photo No.	Date:
19	9/11/24

Subject Property Area:
Lot 77

Description:
Garage on the southside of the building.



Photo No.	Date:
20	9/11/24

Direction Photo Taken:
North

Description:
Second grit chamber in the parking area between the two Subject Property buildings.



APPENDIX D

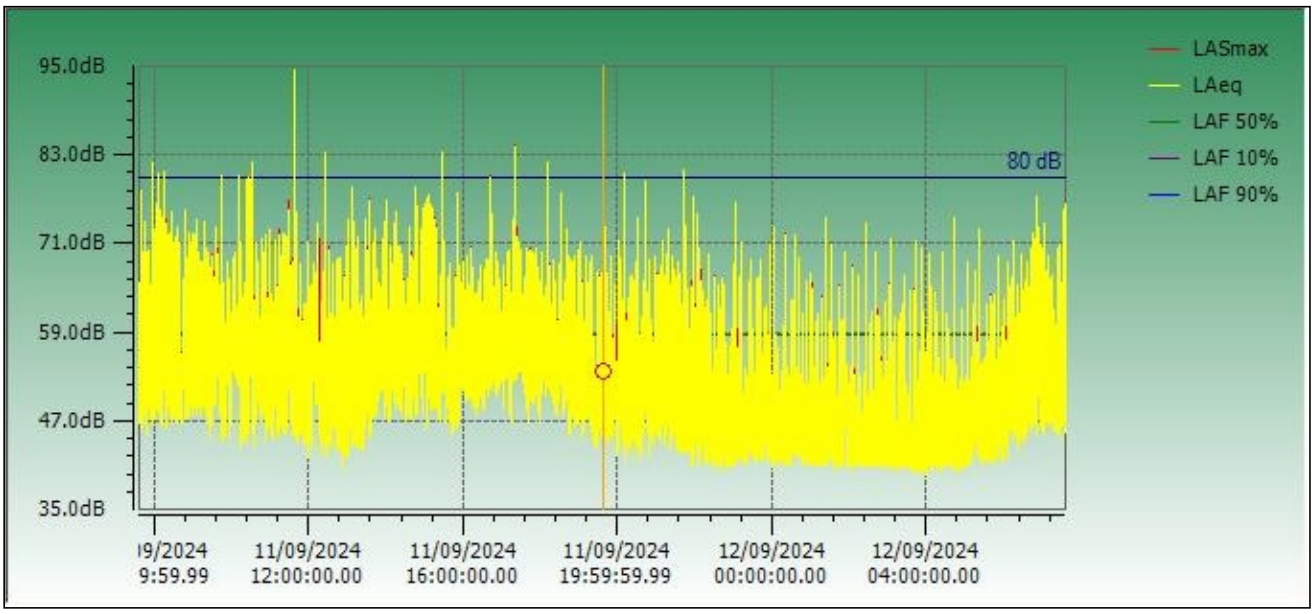
NOISE BACKUP

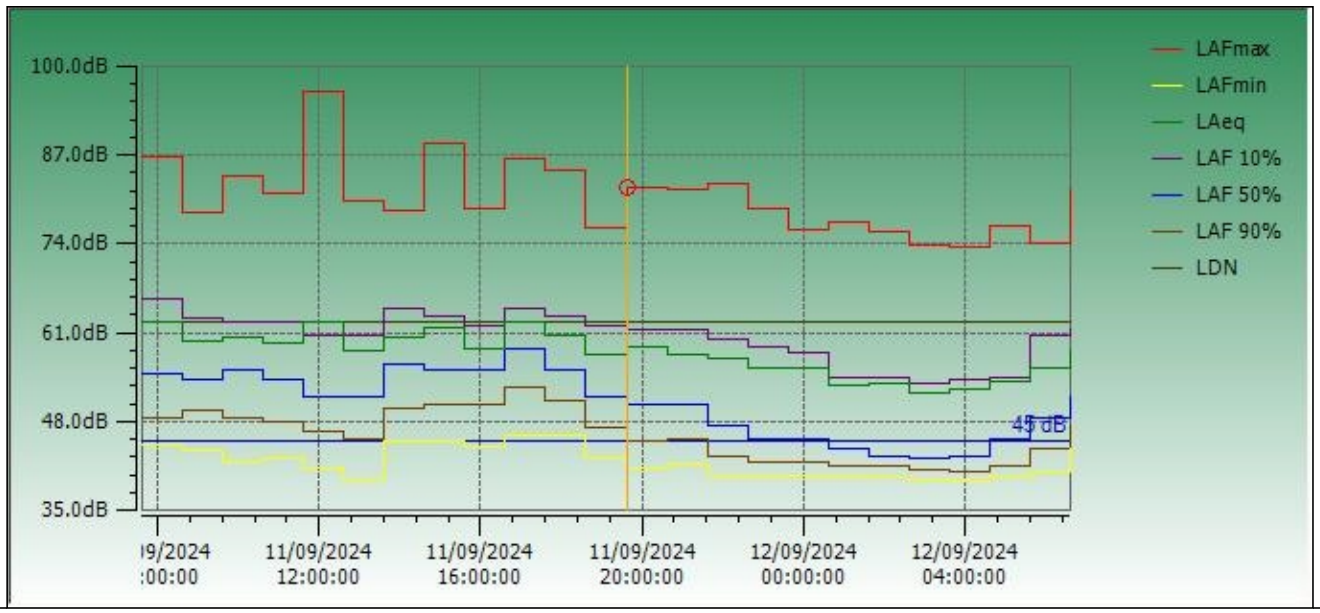
Instrument Model	**CEL-633C**		
Serial Number	1438642	LASmin	45.6 dB
Start Date & Time	9/11/2024 7:42:38 AM	LAeq	62.8 dB
End Date & Time	9/11/2024 8:02:40 AM	LAS 10%	65 dB
Duration	00:20:02 HH:MM:SS	LAS 50%	54 dB
Pause Duration	00:00:00 HH:MM:SS	LAS 90%	49.5 dB
Calibration (Before) Date	9/11/2024 7:41:34 AM	LDN	0
Calibration (After) Date	9/11/2024 8:03:22 AM	Result	Cumulative
LASmax	96.2 dB		

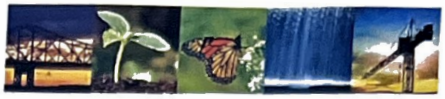
Instrument Model	**CEL-633C**		
Serial Number	1438642	LASmin	41.7 dB
Start Date & Time	9/11/2024 12:11:36 PM	LAeq	60 dB
End Date & Time	9/11/2024 12:31:37 PM	LAS 10%	59.5 dB
Duration	00:20:01 HH:MM:SS	LAS 50%	54 dB
Pause Duration	00:00:00 HH:MM:SS	LAS 90%	47.5 dB
Calibration (Before) Date	9/11/2024 12:09:42 PM	LDN	0
Calibration (After) Date	9/11/2024 12:33:17 PM	Result	Cumulative
LASmax	87.6 dB		

Instrument Model	CEL-633C		
Serial Number	1438642	LASmin	47.8 dB
Start Date & Time	9/11/2024 4:32:44 PM	LAeq	62.7 dB
End Date & Time	9/11/2024 4:52:46 PM	LAS 10%	64.5 dB
Duration	00:20:02 HH:MM:SS	LAS 50%	59 dB
Pause Duration	00:00:00 HH:MM:SS	LAS 90%	53.5 dB
Calibration (Before) Date	9/11/2024 4:30:47 PM	LDN	0
Calibration (After) Date	9/11/2024 4:53:30 PM	Result	Cumulative
LASmax	84.9 dB		

Instrument Model	**CEL-633C**
Serial Number	2670911
Start Date & Time	9/11/2024 7:36:48 AM
End Date & Time	9/12/2024 7:36:48 AM
Duration	24:00:00 HH:MM:SS
Pause Duration	00:00:00 HH:MM:SS
Calibration (Before) Date	9/11/2024 7:24:48 AM
Calibration (After) Date	9/12/2024 8:37:34 AM
LASmax	96.3 dB
LASmin	39.2 dB
LAeq	58.9 dB
LAS 10%	N/A
LAS 50%	N/A
LAS 90%	N/A
LDN	62.5
Result	Period







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PLANNING
GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION MANAGEMENT

Fairfield, NJ
55 Lane Road
Suite 407
Fairfield, NJ 07004

Manhattan, NY
104 West 29th Street
10th Floor
New York, NY 10001

Noise Assignment Field Sheet

Name of Project: 17-21 Wharton Place 12.0077896.0

Project Address: 17-21 Wharton Place Brooklyn, New York

Date(s) of Field Work: 9/10/24

Personnel: Day 1 - Christian DiGennaro Day 2 – Shlok Raval

Project Specific Scope of Work:

1 x 20-minute reading AM, Midday, PM

1 x 24-hour reading – put in front yard on a ladder

Site Contact – Junior – Phase # pending, someone will meet you there

I. Start of Noise Monitoring Day

Departure Time: 5:15 Arrival Time: 6:50

Weather Conditions (temp, wind speed, precipitation): 70°F, sunny, 6 mph winds

Meter Type: CASELLA Meter Serial #: 1438642 Meter Location: 1

Meter Type: CASELLA Meter Serial #: 2670911 Meter Location: 2

Meter Type: _____ Meter Serial #: _____ Meter Location: _____

*If more locations are needed for a project use a second Field Sheet

Calibrator Serial #: 1530748 Meters used on: 1438642

Calibrator Serial #: 3574248 Meters used on: 2670911

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.

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II. Morning Session 7:30 AM – 9:00 AM

Before Measurement:

Meter Serial #: 2670911 Time: 7:25 (9/11) Calibration Passed at 114 dB? (Y) / N

Meter Serial #: 1438642 Time: 7:41 Calibration Passed at 114 dB? (Y) / N

Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

After Measurement:

Meter Serial #: 1438642 Time: 8:03 Calibration Passed at 114 dB? (Y) / N

Meter Serial #: 2670911 Time: _____ (9/12) Calibration Passed at 114 dB? (Y) / N

Meter Serial #: _____ Time: _____ 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	7:42	8:42
2	7:36 (9/11)	7:36 (9/12)

*If more locations are needed for a project use a second Field Sheet

Location #	Car	SUV	Medium Truck	Heavy Truck	Bus	Train
1	1	3	0	0	0	6

*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): Work at the buildings northeast of Location 1; not too loud. Honks at the intersection at 7:49, 7:56, and 8:02. Gate opens near the meter at 8:00. Sawing at the gray building northeast at 8:02.

Please place noise meters in their respective cases between sessions to avoid damage.

III. Midday 12:00 PM – 1:30 PM

Before Measurement:

Meter Serial #: 1438642 Time: 12:09 Calibration Passed at 114 dB? (Y) / N

Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

After Measurement:

Meter Serial #: 1438642 Time: 12:33 Calibration Passed at 114 dB? (Y) / N

Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

Meter Serial #: _____ Time: _____ 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	12:11	12:31

*If more locations are needed for a project use a second Field Sheet

Location #	Car	SUV	Medium Truck	Heavy Truck	Bus	Train
1	1	0	0	0	0	3

*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): Cutting/sawing northeast of the location from 12:14 – 12:20. Siren chirp at 12:16, car starts near meter at 12:18, and loud car on crescent street at 12:26.

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 #: 1438642 Time: 16:30 Calibration Passed at 114 dB? Y / N

Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

After Measurement:

Meter Serial #: 1438642 Time: ~~16:30~~ 16:53 Calibration Passed at 114 dB? Y / N

Meter Serial #: _____ Time: _____ Calibration Passed at 114 dB? Y / N

Meter Serial #: _____ Time: _____ 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	16:32	16:52

*If more locations are needed for a project use a second Field Sheet

Location #	Car	SUV	Medium Truck	Heavy Truck	Bus	Train
1	9	0	0	0	0	6

*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): Kid dribbling basketball near the meter at 16:32. Work continues in the brick and gray building northeast of Location 1. Ambulance on Crescent Street at 16:43.

Please place noise meters in their respective cases between sessions to avoid damage.

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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.

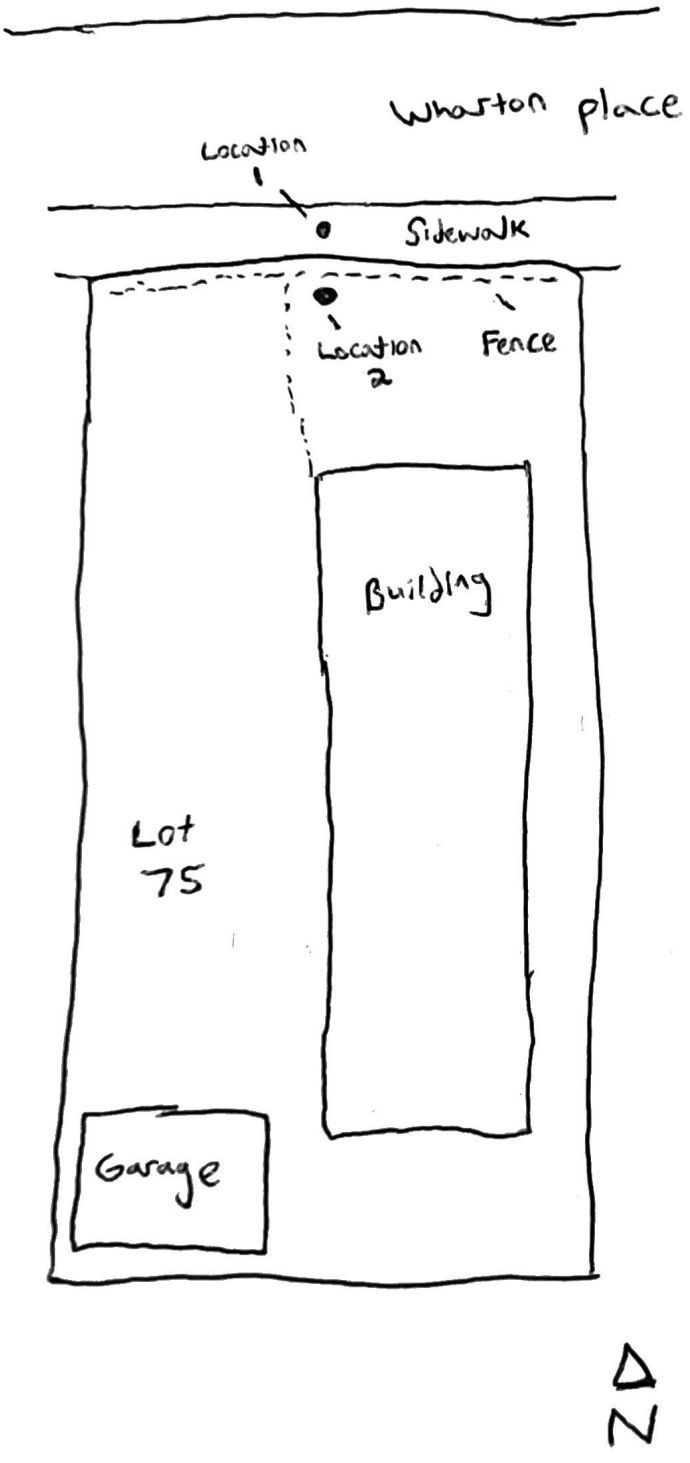
Anything of note/concern for the day: _____

_____

_____

Departure Time: 5:15 Arrival Time: 7:20

Total Time to Be Billed: 15


Wharton place
Location 1
Sidewalk
Location 2
Fence
Building
Lot 75
Garage
N

Scantek, Inc.
CALIBRATION LABORATORY

ISO 17025: 2017, ANSI/NCSL Z540:1994 Part 1
ACCREDITED by NVLAP (an ILAC MRA signatory)

NVLAP®
CALIBRATION
NVLAP Lab Code: 200625-0

Calibration Certificate No.51762

Instrument: **Acoustical Calibrator**
Model: **120_1**
Manufacturer: **CEL**
Serial number: **1530748**
Class (IEC 60942): **1**
Barometer type:
Barometer s/n:
Customer: **GZA**
Tel/Fax: **973-774-3300**

Date Calibrated: **8/13/2024** *Cal Due:* **8/13/2025**

Status:	Received	Sent
In tolerance:	X	X
Out of tolerance:		
See comments:		

Contains non-accredited tests: __Yes _X_ No

Address: **55 Lane Road Suite 407**
Fairfield, NJ 07004

Tested in accordance with the following procedures and standards:
Calibration of Acoustical Calibrators, Scantek Inc., Rev. 10/1/2010

Instrumentation used for calibration: Nor-1504 Norsonic Test System:

Instrument - Manufacturer	Description	S/N	Cal. Date	Traceability evidence Cal. Lab / Accreditation	Cal. Due
483B-Norsonic	SME Cal Unit	31052	Nov 10, 2023	Scantek, Inc./ NVLAP	Nov 10, 2024
DS-360-SRS	Function Generator	88077	Dec 21, 2022	ACR Env./ A2LA	Dec 21, 2024
34401A-Agilent Technologies	Digital Voltmeter	MY47011118	May 1, 2024	ACR Env. / A2LA	May 1, 2025
PTU300-Vaisala	EnvironmentalMonitor	P5011262	Sept 20, 2023	ACR Env./ A2LA	Sept 20, 2024
140-Norsonic	Real Time Analyzer	1406423	Nov 10, 2023	Scantek / NVLAP	Nov 10, 2024
PC Program 1018 Norsonic	Calibration software	v.6.1T	Validated Nov 2014	Scantek, Inc.	-
4134-Brüel&Kjær	Microphone	173368	Jan 3, 2024	Scantek, Inc. / NVLAP	Jan 3, 2025
1203-Norsonic	Preamplifier	14059	March 7, 2024	Scantek, Inc./ NVLAP	March 7, 2025

Instrumentation and test results are traceable to SI (International System of Units) through standards maintained by NIST (USA) and NPL (UK)

Calibrated by:	Bailey Partoza	**Authorized signatory:**	Lydon Dawkins
Signature		Signature	Lydon Dawkins
Date	8/13/24	Date	8/19/2024

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This Calibration Certificate or Test Reports shall not be used to claim product certification, approval or endorsement by NVLAP, NIST, or any agency of the federal government.
Document stored as: Y:\Calibration Lab\Cal 2024\CEL120-1_1530748_M2.doc

Results summary: Device was tested and complies with following clauses of mentioned specifications:

CLAUSES[1] FROM STANDARDS REFERENCED IN PROCEDURES:	MET[2]	NOT MET	COMMENTS
Manufacturer specifications			
Manufacturer specifications: Sound pressure level	X		
Manufacturer specifications: Frequency	X		
Manufacturer specifications: Total harmonic distortion	X		
Current standards			
ANSI S1.40:2006 B.3 / IEC 60942: 2003 B.2 - Preliminary inspection	X		
ANSI S1.40:2006 B.4.4 / IEC 60942: 2003 B.3.4 - Sound pressure level	X		
ANSI S1.40:2006 A.5.4 / IEC 60942: 2003 A.4.4 - Sound pressure level stability	-	-	
ANSI S1.40:2006 B.4.5 / IEC 60942: 2003 B.3.5 - Frequency	X		
ANSI S1.40:2006 B.4.6 / IEC 60942: 2003 B.3.6 - Total harmonic distortion	X		

1 The results of this calibration apply only to the instrument type with serial number identified in this report.

2 The tests marked with (*) are not covered by the current NVLAP accreditation.

Main measured parameters [3]:

Measured[4]/Acceptable[5] Tone frequency (Hz):	Measured[4]/Acceptable[5] Total Harmonic Distortion (%):	Measured [4]/Acceptable Level[5] (dB):
1000.00 ± 1.0/1000.0 ± 10.0	0.19 ± 0.10/ < 3	94.19 ± 0.12/94.0 ± 0.4
999.99 ± 1.0/1000.0 ± 10.0	0.20 ± 0.10/ < 3	114.19 ± 0.12/114.0 ± 0.4

3 The stated level is valid at reference conditions.

4 The above expanded uncertainties for frequency and distortion are calculated with a coverage factor k=2; for level k=2.00

5 Acceptable parameters values are from the current standards

Environmental conditions:

Temperature (°C)	Barometric pressure (kPa)	Relative Humidity (%)
21.3 ± 1.0	100.44 ± 0.000	51.6 ± 2.0

Tests made with following attachments to instrument:

Calibrator ½" Adaptor Type:
Other:

Adjustments: Unit was not adjusted.
Comments: The instrument was tested and met all specifications found in the referenced procedures.

Note: The instrument was tested for the parameters listed in the table above, using the test methods described in the listed standards. All tests were performed around the reference conditions. The test results were compared with the manufacturer's or with the standard's specifications, whichever are larger. The measurement results are reported as Pass / Fail simple acceptance; measured values are in the tolerance interval.

Measured Data: in Acoustical Calibrator Test Report # 51762 of two pages.

Place of Calibration: Scantek, Inc.
6430 Dobbin Road, Suite C
Columbia, MD 21045 USA

Ph/Fax: 410-290-7726/ -9167
callab@scantekinc.com

Calibration Certificates or Test Reports shall not be reproduced, except in full, without written approval of the laboratory.
This Calibration Certificate or Test Reports shall not be used to claim product certification, approval or endorsement by NVLAP, NIST, or any agency of the federal government.

Test Report No.:51762

Manufacturer:	**CEL**
Type:	**120_1**
Serial no:	**1530748**

Customer:	**GZA**
Department:	
Address:	**55 Lane Road Suite 407 Fairfield, NJ 07004**
Order No:	
Contact Person:	**Gene Bove**
Phone No.:	**973-774-3300**
eMail:	**gene.bove@gza.com**

Measurement Results:

	Level: (dB)	P. Stab : (dB)	Frequency: (Hz)	F. Stab : (%)	Distortion: (% TD)
1:	94.18	0.02	1000.00	0.01	0.19
2:	94.18	0.03	1000.00	0.01	0.19
3:	94.21	0.02	1000.01	0.01	0.19
Result (Average):	**94.19**	**0.02**	**1000.00**	**0.01**	**0.19**
Expanded Uncertainty:	0.12	0.02	1.00	0.01	0.10
Degree of Freedom:	>100	>100	>100	>100	>100
Coverage Factor:	2.00	2.00	2.00	2.00	2.00

The stated levels are relative to 20µPa.

The following correction factors have been applied during the measurement:
Pressure:0.004 dB/kPa Temperature: None Relative humidity: None
Reference microphone: 4134-173368. Volume correction: 0.012 dB
Records:Y:\Calibration Lab\Cal 2024\CEL120-1_1530748_M1.nmf

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k = 2, which for a normal distribution corresponds to coverage probability of approximately 95%. The standard uncertainty of measurement has been determined in accordance with EA publication EA-4/02.

Environmental conditions:

Pressure:	Temperature:	Relative humidity:
100.440 ± 0.020 kPa	21.3 ± 1.0 °C	51.6 ± 2.0 %RH

Date of calibration: 8/13/2024
Date of issue: 8/13/2024

Supervisor : Lydon Dawkins
Measurements performed by:

Bailey Partoza
Software version: 6.1T

Scantek, Inc.
6430 Dobbin Rd., Suite C, Columbia, MD 21045
Ph: 410-290-7726 eMail: callab@scantekinc.com

Test Report No.:51762

Manufacturer:	**CEL**
Type:	**120_1**
Serial no:	**1530748**

Customer:	**GZA**
Department:	
Address:	**55 Lane Road Suite 407 Fairfield, NJ 07004**
Order No:	
Contact Person:	**Gene Bove**
Phone No.:	**973-774-3300**
eMail:	**gene.bove@gza.com**

Measurement Results:

	Level: (dB)	P. Stab : (dB)	Frequency: (Hz)	F. Stab : (%)	Distortion: (% TD)
1:	114.19	0.02	999.99	0.00	0.20
2:	114.18	0.01	999.99	0.00	0.20
3:	114.19	0.02	999.99	0.00	0.20
Result (Average):	**114.19**	**0.02**	**999.99**	**0.00**	**0.20**
Expanded Uncertainty:	0.12	0.02	1.00	0.01	0.10
Degree of Freedom:	>100	>100	>100	>100	>100
Coverage Factor:	2.00	2.00	2.00	2.00	2.00

The stated levels are relative to 20µPa.

The following correction factors have been applied during the measurement:
Pressure:0.004 dB/kPa Temperature: None Relative humidity: None
Reference microphone: 4134-173368. Volume correction: 0.012 dB
Records:Y:\Calibration Lab\Cal 2024\CEL120-1_1530748_M2.nmf

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k = 2, which for a normal distribution corresponds to coverage probability of approximately 95%. The standard uncertainty of measurement has been determined in accordance with EA publication EA-4/02.

Environmental conditions:

Pressure:	Temperature:	Relative humidity:
100.440 ± 0.020 kPa	21.3 ± 1.0 °C	51.6 ± 2.0 %RH

Date of calibration: 8/13/2024
Date of issue: 8/13/2024

Supervisor : Lydon Dawkins
Measurements performed by:

Bailey Partoza
Software version: 6.1T

Scantek, Inc.
6430 Dobbin Rd., Suite C, Columbia, MD 21045
Ph: 410-290-7726 eMail: callab@scantekinc.com

Scantek, Inc.
CALIBRATION LABORATORY

ISO 17025: 2017, ANSI/NCSL Z540:1994 Part 1
ACCREDITED by NVLAP (an ILAC MRA signatory)

NVLAP®
CALIBRATION
NVLAP Lab Code: 200625-0

Calibration Certificate No.51761

Instrument: **Acoustical Calibrator**
Model: **120_1**
Manufacturer: **CEL**
Serial number: **3574248**
Class (IEC 60942): **1**
Barometer type:
Barometer s/n:
Customer: **GZA**
Tel/Fax: **973-774-3300**

Date Calibrated: **8/13/2024** *Cal Due:* **8/13/2025**

Status:	Received	Sent
In tolerance:	X	X
Out of tolerance:		
See comments:		

Contains non-accredited tests: ___Yes _X_ No

Address: **55 Lane Road Suite 407**
Fairfield, NJ 07004

Tested in accordance with the following procedures and standards:
Calibration of Acoustical Calibrators, Scantek Inc., Rev. 10/1/2010

Instrumentation used for calibration: Nor-1504 Norsonic Test System:

Instrument - Manufacturer	Description	S/N	Cal. Date	Traceability evidence Cal. Lab / Accreditation	Cal. Due
483B-Norsonic	SME Cal Unit	31052	Nov 10, 2023	Scantek, Inc./ NVLAP	Nov 10, 2024
DS-360-SRS	Function Generator	88077	Dec 21, 2022	ACR Env./ A2LA	Dec 21, 2024
34401A-Agilent Technologies	Digital Voltmeter	MY47011118	May 1, 2024	ACR Env. / A2LA	May 1, 2025
PTU300-Vaisala	EnvironmentalMonitor	P5011262	Sept 20, 2023	ACR Env./ A2LA	Sept 20, 2024
140-Norsonic	Real Time Analyzer	1406423	Nov 10, 2023	Scantek / NVLAP	Nov 10, 2024
PC Program 1018 Norsonic	Calibration software	v.6.1T	Validated Nov 2014	Scantek, Inc.	-
4134-Brüel&Kjær	Microphone	173368	Jan 3, 2024	Scantek, Inc. / NVLAP	Jan 3, 2025
1203-Norsonic	Preamplifier	14059	March 7, 2024	Scantek, Inc./ NVLAP	March 7, 2025

Instrumentation and test results are traceable to SI (International System of Units) through standards maintained by NIST (USA) and NPL (UK)

Calibrated by:	Bailey Partoza	**Authorized signatory:**	Lydon Dawkins
Signature		Signature	Lydon Dawkins
Date	8/13/24	Date	8/19/2024

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Document stored as: Y:\Calibration Lab\Cal 2024\CEL120-1_3574248_M2.doc

Results summary: Device was tested and complies with following clauses of mentioned specifications:

CLAUSES[1] FROM STANDARDS REFERENCED IN PROCEDURES:	MET[2]	NOT MET	COMMENTS
Manufacturer specifications			
Manufacturer specifications: Sound pressure level	X		
Manufacturer specifications: Frequency	X		
Manufacturer specifications: Total harmonic distortion	X		
Current standards			
ANSI S1.40:2006 B.3 / IEC 60942: 2003 B.2 - Preliminary inspection	X		
ANSI S1.40:2006 B.4.4 / IEC 60942: 2003 B.3.4 - Sound pressure level	X		
ANSI S1.40:2006 A.5.4 / IEC 60942: 2003 A.4.4 - Sound pressure level stability	-	-	
ANSI S1.40:2006 B.4.5 / IEC 60942: 2003 B.3.5 - Frequency	X		
ANSI S1.40:2006 B.4.6 / IEC 60942: 2003 B.3.6 - Total harmonic distortion	X		

1 The results of this calibration apply only to the instrument type with serial number identified in this report.

2 The tests marked with (*) are not covered by the current NVLAP accreditation.

Main measured parameters [3]:

Measured[4]/Acceptable[5] Tone frequency (Hz):	Measured[4]/Acceptable[5] Total Harmonic Distortion (%):	Measured [4]/Acceptable Level[5] (dB):
1000.02 ± 1.0/1000.0 ± 10.0	0.22 ± 0.10/ < 3	94.21 ± 0.12/94.0 ± 0.4
1000.00 ± 1.0/1000.0 ± 10.0	0.22 ± 0.10/ < 3	114.24 ± 0.12/114.0 ± 0.4

3 The stated level is valid at reference conditions.

4 The above expanded uncertainties for frequency and distortion are calculated with a coverage factor k=2; for level k=2.00

5 Acceptable parameters values are from the current standards

Environmental conditions:

Temperature (°C)	Barometric pressure (kPa)	Relative Humidity (%)
22.5 ± 1.0	100.54 ± 0.000	58.6 ± 2.0

Tests made with following attachments to instrument:

Calibrator ½" Adaptor Type:
Other:

Adjustments: Unit was not adjusted.
Comments: The instrument was tested and met all specifications found in the referenced procedures.

Note: The instrument was tested for the parameters listed in the table above, using the test methods described in the listed standards. All tests were performed around the reference conditions. The test results were compared with the manufacturer's or with the standard's specifications, whichever are larger. The measurement results are reported as Pass / Fail simple acceptance; measured values are in the tolerance interval.

Measured Data: in Acoustical Calibrator Test Report # 51761 of two pages.

Place of Calibration: Scantek, Inc.
6430 Dobbin Road, Suite C
Columbia, MD 21045 USA

Ph/Fax: 410-290-7726/ -9167
callab@scantekinc.com

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This Calibration Certificate or Test Reports shall not be used to claim product certification, approval or endorsement by NVLAP, NIST, or any agency of the federal government.

Test Report No.:51761

Manufacturer:	**CEL**
Type:	**120_1**
Serial no:	**3574248**

Customer:	**GZA**
Department:	
Address:	**55 Lane Road Suite 407 Fairfield, NJ 07004**
Order No:	
Contact Person:	**Gene Bove**
Phone No.:	**973-774-3300**
eMail:	**gene.bove@gza.com**

Measurement Results:

	Level: (dB)	P. Stab : (dB)	Frequency: (Hz)	F. Stab : (%)	Distortion: (% TD)
1:	94.20	0.04	1000.02	0.01	0.22
2:	94.21	0.05	1000.03	0.01	0.22
3:	94.22	0.03	1000.02	0.01	0.22
Result (Average):	**94.21**	**0.04**	**1000.02**	**0.01**	**0.22**
Expanded Uncertainty:	0.12	0.02	1.00	0.01	0.10
Degree of Freedom:	>100	32	>100	57	>100
Coverage Factor:	2.00	2.13	2.00	2.05	2.00

The stated levels are relative to 20µPa.

The following correction factors have been applied during the measurement:
Pressure:0.004 dB/kPa Temperature: None Relative humidity: None
Reference microphone: 4134-173368. Volume correction: 0.012 dB
Records:Y:\Calibration Lab\Cal 2024\CEL120-1_3574248_M1.nmf

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k = 2, which for a normal distribution corresponds to coverage probability of approximately 95%. The standard uncertainty of measurement has been determined in accordance with EA publication EA-4/02.

Environmental conditions:

Pressure:	Temperature:	Relative humidity:
100.540 ± 0.020 kPa	22.5 ± 1.0 °C	58.6 ± 2.0 %RH

Date of calibration: 8/13/2024
Date of issue: 8/13/2024

Supervisor : Lydon Dawkins
Measurements performed by:

Bailey Partoza
Software version: 6.1T

Scantek, Inc.
6430 Dobbin Rd., Suite C, Columbia, MD 21045
Ph: 410-290-7726 eMail: callab@scantekinc.com

Test Report No.:51761

Manufacturer:	**CEL**
Type:	**120_1**
Serial no:	**3574248**

Customer:	**GZA**
Department:	
Address:	**55 Lane Road Suite 407 Fairfield, NJ 07004**
Order No:	
Contact Person:	**Gene Bove**
Phone No.:	**973-774-3300**
eMail:	**gene.bove@gza.com**

Measurement Results:

	Level: (dB)	P. Stab : (dB)	Frequency: (Hz)	F. Stab : (%)	Distortion: (% TD)
1:	114.24	0.01	999.99	0.00	0.22
2:	114.23	0.02	1000.00	0.00	0.22
3:	114.24	0.02	1000.00	0.00	0.22
Result (Average):	**114.24**	**0.02**	**1000.00**	**0.00**	**0.22**
Expanded Uncertainty:	0.12	0.02	1.00	0.01	0.10
Degree of Freedom:	>100	>100	>100	>100	>100
Coverage Factor:	2.00	2.00	2.00	2.00	2.00

The stated levels are relative to 20µPa.

The following correction factors have been applied during the measurement:
Pressure:0.004 dB/kPa Temperature: None Relative humidity: None
Reference microphone: 4134-173368. Volume correction: 0.012 dB
Records:Y:\Calibration Lab\Cal 2024\CEL120-1_3574248_M2.nmf

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k = 2, which for a normal distribution corresponds to coverage probability of approximately 95%. The standard uncertainty of measurement has been determined in accordance with EA publication EA-4/02.

Environmental conditions:

Pressure:	Temperature:	Relative humidity:
100.540 ± 0.020 kPa	22.5 ± 1.0 °C	58.6 ± 2.0 %RH

Date of calibration: 8/13/2024
Date of issue: 8/13/2024

Supervisor : Lydon Dawkins
Measurements performed by:

Bailey Partoza
Software version: 6.1T

Scantek, Inc.
6430 Dobbin Rd., Suite C, Columbia, MD 21045
Ph: 410-290-7726 eMail: callab@scantekinc.com

Certificate of Conformity and Calibration



Instrument Model:-	**CEL-633C**		
Serial Number	2670911		
Firmware revision	V006-05		
Microphone Type:-	**CEL-251**	**Preamplifier Type:-**	**CEL-495**
Serial Number	6275	**Serial Number**	**004208**
Instrument Class/Type:-	1		

Applicable standards:-

IEC 61672: 2013 / 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:-	22.4 °C 45 %RH 990 mBar	**Test Engineer:-** **Date of Issue:-**	Chimoua Vue July 24, 2024

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:-

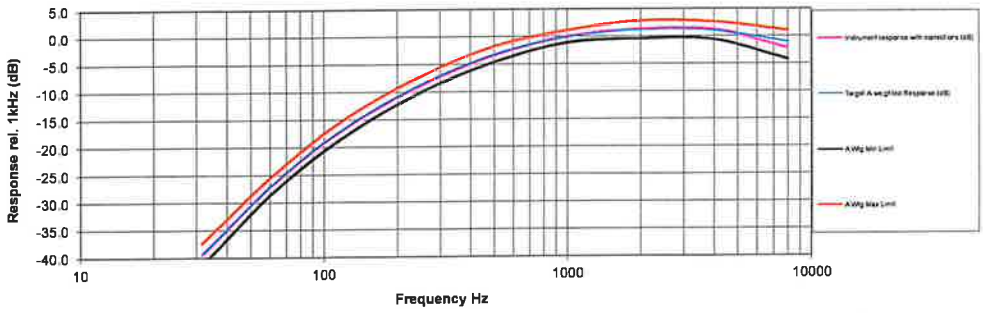
Self Generated Noise Test	**All Tests Pass**
Electrical Signal Test Of Frequency Weightings	**All Tests Pass**
Frequency & Time Weightings At 1 kHz	**All Tests Pass**
Level Linearity On The Reference Level Range	**All Tests Pass**
Toneburst Response Test	**All Tests Pass**
C-peak Sound Levels	**All Tests 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.

Overall Electro-Acoustic Frequency response - 'A' Weighted.



Casella UK
Regent House, Wolseley Road,
Kempston, Bedford
MK42 7JY
United Kingdom

Tel: +44 (0) 1234 844100
E-mail. Info@casellasolutions.com

Casella C/o TSI Incorporated
500 Cardigan Road
Shoreview
MN 55126
USA

Tel: +1 651-490-2860
E-mail: Answers@tsi.com

Casella India
TSI Instruments India Pvt Ltd.
Office no 1203, 12th floor,
Eros corporate park, IMT,
Manesar, Sector2, Gurugram,
Haryana 122050, India

Tel. +91 124 4465171
E-mail:rajeshjoshi@casellasolutions.com

Tested to CEL-63X test sheet TP444 revision 06-00

500 Cardigan Road
Shoreview, MN 55126-3996
USA
EIN 41-0843524

Service Report
For Request 300615320

Date Received: 24 Jul 2024

Date Completed: 25 Jul 2024

Sold-To Customer: 516382
Victoria Curran
GZA GeoEnvironmental Inc
55 Lane Rd
Fairfield NJ 07004
USA

Ship-To Customer: 516382
Victoria Curran
GZA GeoEnvironmental Inc
55 Lane Rd
Fairfield NJ 07004
USA

Customer PO: 36707
Service Performed: CAL-63X Cal of CEL-63X Series sound level meter
Model Serviced: CEL-632A2 LOGGING SLM TYPE 2
Serial Number: 2670911

CUSTOMER RETURN REASON:
RMA# 30386 Calibrate

CUSTOMER RETURN REASON CONFIRMED: YES

FINDINGS:
No findings observed.

RESOLUTION:
The following action items were taken to ensure proper operation:
The unit was cleaned, calibrated and a complete operational checkout was performed.

TSI QUALITY COMMITMENT

TSI VISION
Creating a better world by helping protect people, products and the environment, and by optimizing research and industrial processes.

TSI MISSION
TSI provides trusted measurement, application guidance, and data analytics solutions that enable our customers to make informed decisions.

OUR QUALITY POLICY
The employees of TSI are committed to meet and, where possible, exceed our customer's requirements for application guidance, precision measurement solutions and data management through the continual improvement of our products and processes.

Thank you for the opportunity to service your instrument.

Scantek, Inc.
CALIBRATION LABORATORY

ISO 17025: 2017, ANSI/NCSL Z540:1994 Part 1
ACCREDITED by NVLAP (an ILAC MRA signatory)

NVLAP®
CALIBRATION
NVLAP Lab Code: 200625-0

Calibration Certificate No.51757

Instrument: **Sound Level Meter**
Model: **63X**
Manufacturer: **CEL**
Serial number: **1438642**
Tested with: **Microphone 251 s/n 06693**
Preamplifier 495 s/n 005669
Type (class): **1**
Customer: **GZA**
Tel/Fax: **973-774-3300**

Date Calibrated: **8/14/2024** *Cal Due:* **8/14/2025**

Status:	**Received**	**Sent**
In tolerance:	X	X
Out of tolerance:		
See comments:		

Contains non-accredited tests: __Yes _X_ No
Calibration service: __ Basic _X_ Standard
Address: **55 Lane Road Suite 407**
Fairfield, NJ 07004

Tested in accordance with the following procedures and standards:
Calibration of Sound Level Meters, Scantek Inc., Rev. 6/26/2015
SLM & Dosimeters – Acoustical Tests, Scantek Inc., Rev. 7/6/2011

Instrumentation used for calibration: Nor-1504 Norsonic Test System:

Instrument - Manufacturer	Description	S/N	Cal. Date	Traceability evidence Cal. Lab / Accreditation	Cal. Due
483B-Norsonic	SME Cal Unit	31052	Nov 10, 2023	Scantek, Inc./ NVLAP	Nov 10, 2024
DS-360-SRS	Function Generator	88077	Dec 21, 2022	ACR Env./ A2LA	Dec 21, 2024
34401A-Agilent Technologies	Digital Voltmeter	MY47011118	May 1, 2024	ACR Env. / A2LA	May 1, 2025
PTU300-Vaisala	EnvironmentalMonitor	P5011262	Sept 20, 2023	ACR Env./ A2LA	Sept 20, 2024
PC Program 1019 Norsonic	Calibration software	v.6.1T	Validated Nov 2014	Scantek, Inc.	-
1251-Norsonic	Calibrator	30878	Oct 6, 2023	Scantek, Inc./ NVLAP	Oct 6, 2024

Instrumentation and test results are traceable to SI (International System of Units) through standards maintained by NIST (USA) and NPL (UK).

Environmental conditions:

Temperature (°C)	Barometric pressure (kPa)	Relative Humidity (%)
23.1	100.58	45.1

Calibrated by:	Bailey Partoza	**Authorized signatory:**	Lydon Dawkins
Signature		Signature	Lydon Dawkins
Date	8/14/24	Date	8/19/2024

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Document stored Y:\Calibration Lab\SLM 2024\CEL63X-251_1438642_M1.doc

Results summary: Device complies with following clauses of mentioned specifications:

CLAUSES [1] FROM IEC/ANSI STANDARDS REFERENCED IN PROCEDURES:	RESULT[2,3]	EXPANDED UNCERTAINTY (coverage factor 2) [dB]
INDICATION AT THE CALIBRATION CHECK FREQUENCY - IEC61672-3 ED.2 CLAUSE 10	Passed	0.15
SELF-GENERATED NOISE - IEC 61672-3 ED.2 CLAUSE 11	*Passed	0.30
FREQUENCY WEIGHTINGS: A NETWORK - IEC 61672-3 ED.2.0 CLAUSE 13	Passed	0.20
FREQUENCY WEIGHTINGS: C NETWORK - IEC 61672-3 ED.2.0 CLAUSE 13	Passed	0.20
FREQUENCY WEIGHTINGS: Z NETWORK - IEC 61672-3 ED.2.0 CLAUSE 13	Passed	0.20
FREQUENCY AND TIME WEIGHTINGS AT 1 KHZ IEC 61672-3 ED.2.0 CLAUSE 14	Passed	0.20
LEVEL LINEARITY ON THE REFERENCE LEVEL RANGE - IEC 61672-3 ED.2 CLAUSE 16	Passed	0.25
TONEBURST RESPONSE - IEC 61672-3 ED.2.0 CLAUSE 18	Passed	0.30
PEAK C SOUND LEVEL - IEC 61672-3 ED.2.0 CLAUSE 19	Passed	0.35
OVERLOAD INDICATION - IEC 61672-3 ED.2.0 CLAUSE 20	Passed	0.25
HIGH LEVEL STABILITY TEST - IEC 61672-3 ED.2.0 CLAUSE 21	Passed	0.10
LONG TERM STABILITY TEST - IEC 61672-3 ED.2.0 CLAUSE 15	Passed	0.10
FILTER TEST 1/1OCTAVE: RELATIVE ATTENUATION - IEC 61260, CLAUSE 4.4 & #5.3	Passed	0.25
FILTER TEST 1/3OCTAVE: RELATIVE ATTENUATION - IEC 61260, CLAUSE 4.4 & #5.3	Passed	0.25
COMBINED ELECTRICAL AND ACOUSTICAL TEST - IEC 61672-3 ED.2.0 CLAUSE 13	Passed	See test report

1 The results of this calibration apply only to the Instrument type with serial number identified in this report.

2 Parameters are certified at actual environmental conditions.

3 The tests marked with (*) are not covered by the current NVLAP accreditation.

Comments: The sound level meter submitted for testing has successfully completed the class 1 periodic tests of IEC 61672-3, for the environmental conditions under which the tests were performed. As public evidence was available, from an independent testing organization responsible for approving the results of pattern evaluation tests performed in accordance with IEC 61672-2, to demonstrate that the model of sound level meter fully conforms to the requirements in the IEC 61672-2, the sound level meter submitted for testing conforms to the class 1 requirements of IEC 61672-1.

Note: The instrument was tested for the parameters listed in the table above, using the test methods described in the listed standards. All tests were performed around the reference conditions. The test results were compared with the manufacturer's or with the standard's specifications, whichever are larger. The measurement results are reported as Pass / Fail simple acceptance; measured values are in the tolerance interval.

Tests made with the following attachments to the instrument:

Microphone: CEL 251 s/n 06693 for acoustical test
Preamplifier: CEL 495 s/n 005669 for all tests
Other: line adaptor ADP005 (18pF) for electrical tests
Accompanying acoustical calibrator: CEL 120_1 s/n 2045304
Windscreen: none

Measured Data: in Test Report # 51757 of 9 +1 pages.

Place of Calibration: Scantek, Inc.
6430 Dobbin Road, Suite C
Columbia, MD 21045 USA

Ph/Fax: 410-290-7726/ -9167
callab@scantekinc.com

Calibration Certificates or Test Reports shall not be reproduced, except in full, without written approval of the laboratory.
This Calibration Certificate or Test Reports shall not be used to claim product certification, approval or endorsement by NVLAP, NIST, or any agency of the federal government.

Summary of Test Report No.:51757

CEL Type: 63X Serial no: 1438642

Customer:	**GZA**
Address:	**55 Lane Road Suite 407 Fairfield, NJ 07004**
Contact Person:	**Gene Bove**
Phone No.:	**973-774-3300**
eMail:	**gene.bove@gza.com**

Instrument software version:	006-05			
Microphone:	CEL	Type: 251	Serial no: 06693	Sens:-25.47dB
Preamplifier	CEL	Type: 495	Serial no: 005669	
Calibrator:	CEL	Type: 120_1	Serial no: 2045304	Level:114.10dB

Measurement Results:

Indication at the calibration check frequency - IEC61672-3 Ed.2 Clause 10	Passed
Self-generated noise - IEC 61672-3 Ed.2 Clause 11	Passed
Frequency weightings: A Network - IEC 61672-3 Ed.2.0 Clause 13	Passed
Frequency weightings: C Network - IEC 61672-3 Ed.2.0 Clause 13	Passed
Frequency weightings: Z Network - IEC 61672-3 Ed.2.0 Clause 13	Passed
Frequency and time weightings at 1 kHz IEC 61672-3 Ed.2.0 Clause 14	Passed
Level linearity on the reference level range - IEC 61672-3 Ed.2 Clause 16	Passed
Toneburst response - IEC 61672-3 Ed.2.0 Clause 18	Passed
Peak C sound level - IEC 61672-3 Ed.2.0 Clause 19	Passed
Overload indication - IEC 61672-3 Ed.2.0 Clause 20	Passed
High level stability test - IEC 61672-3 Ed.2.0 Clause 21	Passed
Long term stability test - IEC 61672-3 Ed.2.0 Clause 15	Passed
Filter Test 1/1octave: Relative attenuation - IEC 61260, Clause 4.4 & #5.3	Passed
Filter Test 1/3octave: Relative attenuation - IEC 61260, Clause 4.4 & #5.3	Passed
Combined electrical and acoustical test - IEC 61672-3 Ed.2.0 Clause 13	Passed

Environmental conditions:

Pressure:	Temperature:	Relative humidity:
100.58	23.1	45.1

Date of calibration: 8/14/2024
Date of issue: 8/14/2024
Supervisor: Lydon Dawkins
Measurements performed by:

Bailey Partoza

Software version: 6.1 T

Scantek, Inc.
6430 Dobbin Rd., Suite C, Columbia, MD 21045
Ph: 410-290-7726 eMail: callab@scantekinc.com

Test Report No.:51757

Manufacturer:	CEL
Instrument type:	63X
Serial no:	1438642
Customer:	GZA
Department:	
Order No:	
Contact Person:	Gene Bove
Address:	55 Lane Road Suite 407 Fairfield, NJ 07004

Environmental conditions:

Pressure:	100.58
Temperature:	23.1
Relative humidity:	45.1

Supervisor	Lydon Dawkins
Engineer	Bailey Partoza
Date:	8/14/2024

Measurement Results:

Indication at the calibration check frequency - IEC61672-3 Ed.2 Clause 10

```
Reference Calibrator: WSC4 - NOR1251-30878
Reference calibrator level: 113.95
Before calibration:
  Environmental corrections: 0.00
  Other corrections: -0.08
  Notional level: 113.87
Reference calibrator level before calibration: 113.8
After calibration:
  Environmental corrections: 0.00
  Other corrections: -0.08
  Notional level: 113.87
Reference calibrator level after calibration: 114.0
Associated Calibrator: CEL - 120_1 - 2045304
Associated calibrator level: 114.10
Initial level check:
  Environmental corrections: 0.00
  Other corrections: -0.08
  Notional level: 114.02
Indicated level before calibration: 113.9
Final level statement:
  Environmental corrections after calibration: 0.00
  Other corrections: -0.08
  Notional level: 114.02
Indicated level after calibration: 114.0
This value shall be used for adjusting the sound level meter in the future.
Test Passed
```

Self-generated noise - IEC 61672-3 Ed.2 Clause 11

Network	Level (dB)	Max (dB)	Uncert. (dB)	Result	Comment
A	12.5	17.5	0.3	P	Equivalent capacity
C	15.0	21.0	0.3	P	Equivalent capacity
Z	20.9	26.5	0.3	P	Equivalent capacity

Test Passed

Frequency weightings: A Network - IEC 61672-3 Ed.2.0 Clause 13

Freq (Hz)	Ref. (dB)	Meas. (dB)	Tol. (dB)	Tol. (dB)	Uncert. (dB)	Dev. (dB)	Result
63.1	95.0	94.9	1.0	-1.0	0.2	-0.1	P
125.9	95.0	94.9	1.0	-1.0	0.2	-0.1	P
251.2	95.0	94.9	1.0	-1.0	0.2	-0.1	P
501.2	95.0	94.9	1.0	-1.0	0.2	-0.1	P
1000.0	95.0	94.9	0.7	-0.7	0.2	-0.1	P
1995.3	95.0	94.9	1.0	-1.0	0.2	-0.1	P

Frequency weightings: A Network - IEC 61672-3 Ed.2.0 Clause 13

Freq (Hz)	Ref. (dB)	Meas. (dB)	Tol. (dB)	Tol. (dB)	Uncert. (dB)	Dev. (dB)	Result
3981.1	95.0	94.8	1.0	-1.0	0.2	-0.2	P
7943.3	95.0	94.6	1.5	-2.5	0.2	-0.4	P
15848.9	95.0	92.1	2.5	-16.0	0.2	-2.9	P

Test Passed

Frequency weightings: C Network - IEC 61672-3 Ed.2.0 Clause 13

Freq (Hz)	Ref. Level (dB)	Meas. Value (dB)	Tol. (dB)	Tol. (dB)	Uncert. (dB)	Dev. (dB)	Result
63.1	95.0	94.9	1.0	-1.0	0.2	-0.1	P
125.9	95.0	94.9	1.0	-1.0	0.2	-0.1	P
251.2	95.0	94.9	1.0	-1.0	0.2	-0.1	P
501.2	95.0	95.0	1.0	-1.0	0.2	0.0	P
1000.0	95.0	94.9	0.7	-0.7	0.2	-0.1	P
1995.3	95.0	94.9	1.0	-1.0	0.2	-0.1	P
3981.1	95.0	94.8	1.0	-1.0	0.2	-0.2	P
7943.3	95.0	94.6	1.5	-2.5	0.2	-0.4	P
15848.9	95.0	92.1	2.5	-16.0	0.2	-2.9	P

Test Passed

Frequency weightings: Z Network - IEC 61672-3 Ed.2.0 Clause 13

Freq (Hz)	Ref. Level (dB)	Meas. Value (dB)	Tol. (dB)	Tol. (dB)	Uncert. (dB)	Dev. (dB)	Result
63.1	95.0	94.9	1.0	-1.0	0.2	-0.1	P
125.9	95.0	94.9	1.0	-1.0	0.2	-0.1	P
251.2	95.0	94.9	1.0	-1.0	0.2	-0.1	P
501.2	95.0	94.9	1.0	-1.0	0.2	-0.1	P
1000.0	95.0	94.9	0.7	-0.7	0.2	-0.1	P
1995.3	95.0	94.9	1.0	-1.0	0.2	-0.1	P
3981.1	95.0	94.8	1.0	-1.0	0.2	-0.2	P
7943.3	95.0	94.9	1.5	-2.5	0.2	-0.1	P
15848.9	95.0	94.6	2.5	-16.0	0.2	-0.4	P

Test Passed

Frequency and time weightings at 1 kHz IEC 61672-3 Ed.2.0 Clause 14

Weightings Time	Netw	Ref. (dB)	Measured (dB)	Tol. (dB)	Tol. (dB)	Uncert. (dB)	Dev. (dB)	Result
Fast	A	114.0	114.0	0.1	-0.1	0.2	0.0	P
Fast	C	114.0	114.0	0.1	-0.1	0.2	0.0	P
Fast	Z	114.0	114.0	0.1	-0.1	0.2	0.0	P
Slow	A	114.0	114.0	0.1	-0.1	0.2	0.0	P
Leq	A	114.0	114.0	0.1	-0.1	0.2	0.0	P
SEL	A	124.0	124.0	0.1	-0.1	0.2	0.0	P

Test Passed

Frequency and time weightings at 1 kHz IEC 61672-3 Ed.2.0 Clause 14

Weightings Time	Netw	Ref. (dB)	Measured (dB)	Tol. (dB)	Tol. (dB)	Uncert. (dB)	Dev. (dB)	Result

Level linearity on the reference level range - IEC 61672-3 Ed.2 Clause 16

Ref. (dB)	Measured (dB)	Tol. (dB)	Tol. (dB)	Uncert. (dB)	Dev. (dB)	Result
Full scale setting: 140dB						
The following measurements are SPL measurements						
Measured at 31.5 Hz						
94.0	94.0	0.8	-0.8	0.25	0.0	P
96.6	96.6	0.8	-0.8	0.25	0.0	P
97.6	97.6	0.8	-0.8	0.25	0.0	P
98.6	98.6	0.8	-0.8	0.25	0.0	P
99.6	99.6	0.8	-0.8	0.25	0.0	P
100.6	100.6	0.8	-0.8	0.25	0.0	P
94.0	94.0	0.8	-0.8	0.25	0.0	P
89.0	89.0	0.8	-0.8	0.25	0.0	P
84.0	84.0	0.8	-0.8	0.25	0.0	P
79.0	79.0	0.8	-0.8	0.25	0.0	P
74.0	74.0	0.8	-0.8	0.25	0.0	P
69.0	69.0	0.8	-0.8	0.25	0.0	P
64.0	64.0	0.8	-0.8	0.25	0.0	P
59.0	59.1	0.8	-0.8	0.25	0.1	P
54.0	54.3	0.8	-0.8	0.25	0.3	P
49.0	49.7	0.8	-0.8	0.25	0.7	P
44.0	44.0	0.8	-0.8	0.25	0.0	P
43.0	43.0	0.8	-0.8	0.25	0.0	P
42.0	42.0	0.8	-0.8	0.25	0.0	P
41.0	41.0	0.8	-0.8	0.25	0.0	P
40.0	40.0	0.8	-0.8	0.25	0.0	P
Measured at 1 kHz						
114.0	114.0	0.8	-0.8	0.25	0.0	P
119.0	119.0	0.8	-0.8	0.25	0.0	P
124.0	124.0	0.8	-0.8	0.25	0.0	P
129.0	129.0	0.8	-0.8	0.25	0.0	P
134.0	134.0	0.8	-0.8	0.25	0.0	P
136.0	136.0	0.8	-0.8	0.25	0.0	P
137.0	137.0	0.8	-0.8	0.25	0.0	P
114.0	114.0	0.8	-0.8	0.25	0.0	P
109.0	109.0	0.8	-0.8	0.25	0.0	P
104.0	104.0	0.8	-0.8	0.25	0.0	P
99.0	99.0	0.8	-0.8	0.25	0.0	P
94.0	94.0	0.8	-0.8	0.25	0.0	P
89.0	88.9	0.8	-0.8	0.25	-0.1	P
84.0	84.0	0.8	-0.8	0.25	0.0	P
79.0	78.9	0.8	-0.8	0.25	-0.1	P
74.0	74.0	0.8	-0.8	0.25	0.0	P
69.0	68.9	0.8	-0.8	0.25	-0.1	P
64.0	63.9	0.8	-0.8	0.25	-0.1	P
59.0	58.9	0.8	-0.8	0.25	-0.1	P
54.0	53.9	0.8	-0.8	0.25	-0.1	P
49.0	48.9	0.8	-0.8	0.25	-0.1	P
44.0	43.9	0.8	-0.8	0.25	-0.1	P
43.0	42.9	0.8	-0.8	0.25	-0.1	P
42.0	41.9	0.8	-0.8	0.25	-0.1	P

Level linearity on the reference level range - IEC 61672-3 Ed.2 Clause 16

Ref. (dB)	Measured (dB)	Tol. (dB)	Tol. (dB)	Uncert. (dB)	Dev. (dB)	Result
41.0	41.0	0.8	-0.8	0.25	0.0	P
40.0	40.0	0.8	-0.8	0.25	0.0	P
Measured at 8 kHz						
114.0	114.0	0.8	-0.8	0.25	0.0	P
119.0	119.0	0.8	-0.8	0.25	0.0	P
124.0	123.9	0.8	-0.8	0.25	-0.1	P
129.0	129.0	0.8	-0.8	0.25	0.0	P
134.9	134.9	0.8	-0.8	0.25	0.0	P
135.9	135.9	0.8	-0.8	0.25	0.0	P
114.0	114.0	0.8	-0.8	0.25	0.0	P
109.0	108.9	0.8	-0.8	0.25	-0.1	P
104.0	103.9	0.8	-0.8	0.25	-0.1	P
99.0	98.9	0.8	-0.8	0.25	-0.1	P
94.0	93.9	0.8	-0.8	0.25	-0.1	P
89.0	88.9	0.8	-0.8	0.25	-0.1	P
84.0	83.9	0.8	-0.8	0.25	-0.1	P
79.0	78.9	0.8	-0.8	0.25	-0.1	P
74.0	73.9	0.8	-0.8	0.25	-0.1	P
69.0	68.9	0.8	-0.8	0.25	-0.1	P
64.0	63.9	0.8	-0.8	0.25	-0.1	P
59.0	58.9	0.8	-0.8	0.25	-0.1	P
54.0	53.9	0.8	-0.8	0.25	-0.1	P
49.0	48.9	0.8	-0.8	0.25	-0.1	P
44.0	43.9	0.8	-0.8	0.25	-0.1	P
43.0	43.0	0.8	-0.8	0.25	0.0	P
42.0	42.0	0.8	-0.8	0.25	0.0	P
41.0	41.0	0.8	-0.8	0.25	0.0	P
40.0	39.9	0.8	-0.8	0.25	-0.1	P

Test Passed

Toneburst response - IEC 61672-3 Ed.2.0 Clause 18

Burst type	Ref. (dB)	Measured (dB)	Tol. (dB)	Tol. (dB)	Uncert. (dB)	Dev. (dB)	Result
Fast 200 mSec	137.0	137.0	0.5	-0.5	0.3	0.0	P
Fast 2.0 mSec	120.0	119.9	1.0	-1.5	0.3	-0.1	P
Fast 0.25 mSec	111.0	110.8	1.0	-3.0	0.3	-0.2	P
Slow 200 mSec	130.6	130.6	0.5	-0.5	0.3	0.0	P
Slow 2.0 mSec	111.0	111.0	1.0	-3.0	0.3	0.0	P
SEL 200 mSec	131.0	131.0	0.5	-0.5	0.3	0.0	P
SEL 2.0 mSec	111.0	111.0	1.0	-1.5	0.3	0.0	P
SEL 0.25 mSec	102.0	101.9	1.0	-3.0	0.3	-0.1	P

Test Passed

Peak C sound level - IEC 61672-3 Ed.2.0 Clause 19

Pulse Type	Pulse Freq. (Hz)	Ref. RMS (dB)	Ref. Peak (dB)	Measured Value (dB)	Tol. (+/-dB)	Uncert. (dB)	Dev. (dB)	Result
1 cycle	8k	129.0	132.4	132.1	2.0	0.35	-0.3	P
Pos 1/2 cycle	500	132.0	134.4	134.5	1.0	0.35	0.1	P
Neg 1/2 cycle	500	132.0	134.4	134.5	1.0	0.35	0.1	P

Test Passed

Overload indication - IEC 61672-3 Ed.2.0 Clause 20

	Measured (dB)	Tol. (+/-dB)	Uncert. (dB)	Result
Level difference of positive and negative pulses:	0.1	1.5	0.25	P
Positive 1/2 cycle 4 kHz. Overload occurred at:	141.3			
Negative 1/2 cycle 4 kHz. Overload occurred at:	141.4			

Test Passed

High level stability test - IEC 61672-3 Ed.2.0 Clause 21

Test signal: Sine wave at 1 kHz

Initial level (dB)	Final level (dB)	Diff. (dB)	Tol. value (dB)	Uncert. (dB)	Result
139.0	139.0	0.0	0.1	0.10	P

Test Passed

Long term stability test - IEC 61672-3 Ed.2.0 Clause 15

Test signal: Sine wave at 1 kHz

Time inteval (mm:SS)	StartLevel (dB)	StopLevel (dB)	Difference (dB)	Tolerence (dB)	Result
25:26	114.0	114.0	0.0	0.1	P

Test Passed

Filter Test 1/1octave: Relative attenuation - IEC 61260, Clause 4.4 & #5.3

Test 1/1 octave filter X= 3 fexact=8000.000Hz class 0

Nominal f[Hz]	Measured L[dB]	LoLim [dB]	HiLim [dB]	Result [P/F]
500.000	58.6	0.0	63.0	P
1000.00	75.2	0.0	76.0	P
2000.00	94.4	0.0	95.5	P
4000.00	117.8	0.0	120.0	P
5656.85	134.3	133.5	135.7	P
6168.84	137.0	136.9	138.2	P

Filter Test 1/1octave: Relative attenuation - IEC 61260, Clause 4.4 & #5.3

6727.17	137.8	137.6	138.2	P
7336.03	137.9	137.8	138.2	P
8000.00	137.9	137.9	138.2	P
8724.06	137.9	137.8	138.2	P
9513.66	137.8	137.6	138.2	P
10374.7	137.1	136.9	138.2	P
11313.7	134.1	133.5	135.7	P
16000.0	113.5	0.0	120.0	P
32000.0	52.0	0.0	95.5	P
64000.0	33.1	0.0	76.0	P
128000	32.2	0.0	63.0	P

Test 1/1 octave filter X= 4 fexact=16000.000Hz class 0

Nominal f[Hz]	Measured L[dB]	LoLim [dB]	HiLim [dB]	Result [P/F]
1000.00	57.4	0.0	63.0	P
2000.00	63.4	0.0	76.0	P
4000.00	84.6	0.0	95.5	P
8000.00	114.3	0.0	120.0	P
11313.7	133.9	133.5	135.7	P
12337.7	137.0	136.9	138.2	P
13454.3	137.8	137.6	138.2	P
14672.1	137.9	137.8	138.2	P
16000.0	137.9	137.9	138.2	P
17448.1	137.8	137.8	138.2	P
19027.3	137.8	137.6	138.2	P
20749.4	137.7	136.9	138.2	P
22627.4	134.1	133.5	135.7	P
32000.0	55.5	0.0	120.0	P
64000.0	39.0	0.0	95.5	P
128000	40.7	0.0	76.0	P
200000	43.9	0.0	63.0	P

Test Passed

Filter Test 1/3octave: Relative attenuation - IEC 61260, Clause 4.4 & #5.3

Test 1/3 octave filter X= 12 fexact=16000.000Hz class 0

Nominal f[Hz]	Measured L[dB]	LoLim [dB]	HiLim [dB]	Result [P/F]
2944.02	58.3	0.0	63.0	P
5212.50	65.6	0.0	76.0	P
8479.30	79.8	0.0	95.5	P
12349.0	110.2	0.0	120.0	P
14254.4	134.1	133.5	135.7	P
14709.1	137.3	136.9	138.2	P
15152.4	137.8	137.6	138.2	P
15583.0	137.8	137.8	138.2	P
16000.0	137.9	137.9	138.2	P
16428.1	137.8	137.8	138.2	P
16895.0	137.8	137.6	138.2	P
17404.2	137.4	136.9	138.2	P
17959.4	133.8	133.5	135.7	P
20730.4	102.9	0.0	120.0	P
30191.2	49.6	0.0	95.5	P
49112.7	40.5	0.0	76.0	P
86955.9	40.4	0.0	63.0	P

Test 1/3 octave filter X= 13 fexact=20158.737Hz class 0

Filter Test 1/3octave: Relative attenuation - IEC 61260, Clause 4.4 & #5.3

Nominal f[Hz]	Measured L[dB]	LoLim [dB]	HiLim [dB]	Result [P/F]
3709.24	60.0	0.0	63.0	P
6567.33	66.7	0.0	76.0	P
10683.2	82.8	0.0	95.5	P
15558.8	111.9	0.0	120.0	P
17959.4	134.0	133.5	135.7	P
18532.3	137.2	136.9	138.2	P
19090.8	137.8	137.6	138.2	P
19633.4	137.8	137.8	138.2	P
20158.7	137.9	137.9	138.2	P
20698.2	137.8	137.8	138.2	P
21286.4	137.8	137.6	138.2	P
21927.9	137.5	136.9	138.2	P
22627.4	133.6	133.5	135.7	P
26118.7	97.1	0.0	120.0	P
38038.5	63.0	0.0	95.5	P
61878.2	35.6	0.0	76.0	P
109558	47.0	0.0	63.0	P

Test Passed

Combined electrical and acoustical test - IEC 61672-3 Ed.2.0 Clause 13

A-Weighted results: Free field

Frequency	SLM Val (dB)	SLM U (dB)	Microphone Val (dB)	Microphone U (dB)	Case Refl. Val (dB)	Case Refl. U (dB)	Wind Screen Val (dB)	Wind Screen U (dB)	Uncert (dB)	Tol (dB)	Result (dB)	
63 Hz	-0.1	0.2	0.0	0.1					0.2	+-1.0	-0.1	P
125 Hz	-0.1	0.2	0.0	0.1					0.2	+-1.0	-0.1	P
250 Hz	-0.1	0.2	0.0	0.1					0.2	+-1.0	-0.1	P
500 Hz	-0.1	0.2	0.0	0.1					0.2	+-1.0	-0.1	P
1 kHz	-0.1	0.2	0.2	0.1					0.2	+-0.7	0.1	P
2 kHz	-0.1	0.2	0.2	0.2					0.3	+-1.0	0.1	P
4 kHz	-0.2	0.2	-0.1	0.2					0.3	+-1.0	-0.3	P
8 kHz	-0.4	0.2	0.0	0.4					0.5	+1.5/-2.5	-0.4	P
16 kHz	-2.9	0.2	-1.0	0.7					0.7	+2.5/-16.0	-3.9	P

C-Weighted results: Free field

Frequency	SLM Val (dB)	SLM U (dB)	Microphone Val (dB)	Microphone U (dB)	Case Refl. Val (dB)	Case Refl. U (dB)	Wind Screen Val (dB)	Wind Screen U (dB)	Uncert (dB)	Tol (dB)	Result (dB)	
63 Hz	-0.1	0.2	0.0	0.1					0.2	+-1.0	-0.1	P
125 Hz	-0.1	0.2	0.0	0.1					0.2	+-1.0	-0.1	P
250 Hz	-0.1	0.2	0.0	0.1					0.2	+-1.0	-0.1	P
500 Hz	0.0	0.2	0.0	0.1					0.2	+-1.0	0.0	P
1 kHz	-0.1	0.2	0.2	0.1					0.2	+-0.7	0.1	P
2 kHz	-0.1	0.2	0.2	0.2					0.3	+-1.0	0.1	P
4 kHz	-0.2	0.2	-0.1	0.2					0.3	+-1.0	-0.3	P
8 kHz	-0.4	0.2	0.0	0.4					0.5	+1.5/-2.5	-0.4	P
16 kHz	-2.9	0.2	-1.0	0.7					0.7	+2.5/-16.0	-3.9	P

Z-Weighted results: Free field

Frequency	SLM Val (dB)	SLM U (dB)	Microphone Val (dB)	Microphone U (dB)	Case Refl. Val (dB)	Case Refl. U (dB)	Wind Screen Val (dB)	Wind Screen U (dB)	Uncert (dB)	Tol (dB)	Result (dB)	
63 Hz	-0.1	0.2	0.0	0.1					0.2	+-1.0	-0.1	P
125 Hz	-0.1	0.2	0.0	0.1					0.2	+-1.0	-0.1	P
250 Hz	-0.1	0.2	0.0	0.1					0.2	+-1.0	-0.1	P

Combined electrical and acoustical test - IEC 61672-3 Ed.2.0 Clause 13

500 Hz	-0.1	0.2	0.0	0.1	0.2	+-1.0	-0.1	P
1 kHz	-0.1	0.2	0.2	0.1	0.2	+-0.7	0.1	P
2 kHz	-0.1	0.2	0.2	0.2	0.3	+-1.0	0.1	P
4 kHz	-0.2	0.2	-0.1	0.2	0.3	+-1.0	-0.3	P
8 kHz	-0.1	0.2	0.0	0.4	0.5	+1.5/-2.5	-0.1	P
16 kHz	-0.4	0.2	-1.0	0.7	0.7	+2.5/-16.0	-1.4	P

The actual frequency response of CEL / 251 06693 has been used for the calculations.
Test Passed
The overall frequency response of the sound level meter and microphone response has shown to conform with the requirements in IEC 61672-3 for a class 1 sound level meter.



Scantek, Inc.
CALIBRATION LABORATORY

ISO 17025: 2017, ANSI/NCSL Z540:1994 Part 1
ACCREDITED by NVLAP (an ILAC MRA signatory)

NVLAP®
CALIBRATION
NVLAP Lab Code: 200625-0

Calibration Certificate No.51758

Instrument: **Microphone**
Model: **251**
Manufacturer: **CEL**
Serial number: **06693**
Composed of:

Customer: **GZA**
Tel/Fax: **973-774-3300**

Date Calibrated: **8/13/2024** *Cal Due:* **8/13/2025**

Status:	**Received**	**Sent**
In tolerance:	**X**	**X**
Out of tolerance:		
See comments:		

Contains non-accredited tests: **__Yes _X_ No**

Address: **55 Lane Road Suite 407**
Fairfield, NJ 07004

Tested in accordance with the following procedures and standards:
Calibration of Measurement Microphones, Scantek, Inc., Rev. 2/25/2015

Instrumentation used for calibration: N-1504 Norsonic Test System:

Instrument - Manufacturer	Description	S/N	Cal. Date	Traceability evidence Cal. Lab / Accreditation	Cal. Due
483B-Norsonic	SME Cal Unit	31052	Nov 10, 2023	Scantek, Inc./ NVLAP	Nov 10, 2024
DS-360-SRS	Function Generator	88077	Dec 21, 2022	ACR Env./ A2LA	Dec 21, 2024
34401A-Agilent Technologies	Digital Voltmeter	MY47011118	May 1, 2024	ACR Env. / A2LA	May 1, 2025
PTU300-Vaisala	EnvironmentalMonitor	P5011262	Sept 20, 2023	ACR Env./ A2LA	Sept 20, 2024
PC Program 1017 Norsonic	Calibration software	v.6.1T	Validated Nov 2014	Scantek, Inc.	-
1253-Norsonic	Calibrator	28326	Oct 6, 2023	Scantek, Inc./ NVLAP	Oct 6, 2024
1203-Norsonic	Preamplifier	14059	March 7, 2024	Scantek, Inc./ NVLAP	March 7, 2025
4180-Brüel&Kjær	Microphone	2246115	Dec 11, 2023	DPLA / DANAK	Dec 11, 2025

Instrumentation and test results are traceable to SI - BIPM through standards maintained by NPL (UK) and NIST (USA)

Calibrated by:	Bailey Partoza	**Authorized signatory:**	Lydon Dawkins
Signature		Signature	Lydon Dawkins
Date	8/13/24	Date	8/19/2024

Calibration Certificates or Test Reports shall not be reproduced, except in full, without written approval of the laboratory.
This Calibration Certificate or Test Reports shall not be used to claim product certification, approval or endorsement by NVLAP, NIST, or any agency of the federal government.
Document stored as: Y:\Calibration Lab\Mic 2024\CEL251_06693_M1.doc

Results summary: Device was tested and complies with following clauses of mentioned specifications:

CLAUSES / METHODS[1] FROM PROCEDURES		MET[2,3]	NOT MET	NOT TESTED	MEASUREMENT EXPANDED UNCERTAINTY (coverage factor 2)
Open circuit sensitivity (insert voltage method, 250 Hz)		X			See below
Frequency response	Actuator response	X			63 – 200Hz: 0.3 dB 200 – 8000 Hz: 0.2 dB 8 – 10 kHz: 0.5 dB 10 – 20 kHz: 0.7 dB 20 – 50 kHz: 0.9 dB 50 – 100 kHz: 1.2 dB
	FF/Diffuse field responses	X			63 – 200Hz: 0.3 dB 200 – 4000 Hz: 0.2 dB 4 – 10 kHz: 0.6 dB 10 – 20 kHz: 0.9 dB 20 – 50 kHz: 2.2 dB 50 – 100 kHz: 4.4 dB
	Scantek, Inc. acoustical method			X	31.5 – 125 Hz: 0.16 dB 250, 1000 Hz: 0.12 dB 2 – 8 kHz: 0.8 dB 12.5 – 16 kHz: 2.4 dB

[1] The results of this calibration apply only to the instrument type with serial number identified in this report.

[2] Results are normalized to the reference conditions.

[3] The tests marked with (*) are not covered by the current NVLAP accreditation.

Note: The free field/diffuse field characteristics were calculated based on the measured actuator response and adjustment coefficients as provided by the manufacturer. The measurement results are reported as Pass / Fail simple acceptance; measured values are in the tolerance interval.

Comments: The instrument was tested and met all specifications found in the referenced procedures.

Environmental conditions:

Temperature (°C)	Barometric pressure (kPa)	Relative Humidity (%)
23.3 ± 1.0	100.41 ± 0.020	50.2 ± 2.0

Main measured parameters:

Tone frequency (Hz)	Measured[4] /Nominal Open circuit sensitivity (dB re 1V/Pa)	Sensitivity (mV/Pa)
250	-25.47 ± 0.12/ -26.0	53.28

[4] The reported expanded uncertainty is calculated with a coverage factor k=2.00

Tests made with following attachments to instrument and auxiliary devices:

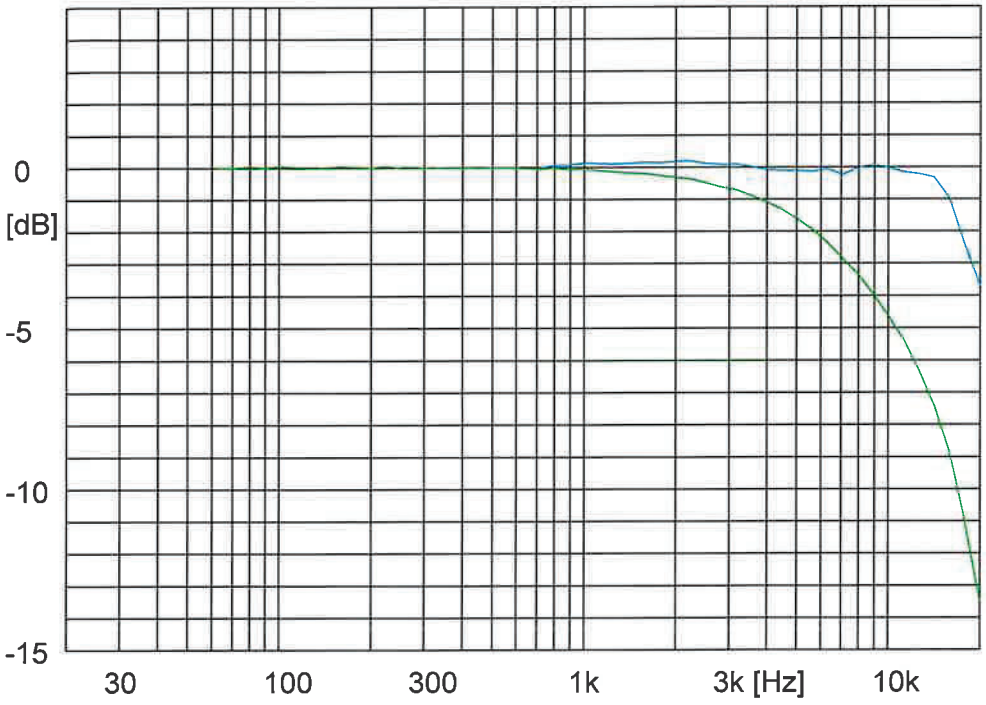
Protection grid mounted for sensitivity measurements
Actuator type: Nor265CC-grid type

Measured Data: Found on Microphone Test Report # 51758 of one page.

Place of Calibration: Scantek, Inc.
6430 Dobbin Road, Suite C
Columbia, MD 21045 USA
Ph/Fax: 410-290-7726/ -9167
callab@scantekinc.com

Calibration Certificates or Test Reports shall not be reproduced, except in full, without written approval of the laboratory.
This Calibration Certificate or Test Reports shall not be used to claim product certification, approval or endorsement by NVLAP, NIST, or any agency of the federal government.

Microphone Test Report No.:51758



CEL
Type: 251

Serial no: 06693

Sensitivity: 53.28 mV/Pa
-25.47 ±0.12 dB re. 1 V/Pa

Date: 8/13/2024

Signature:

Measurement conditions:

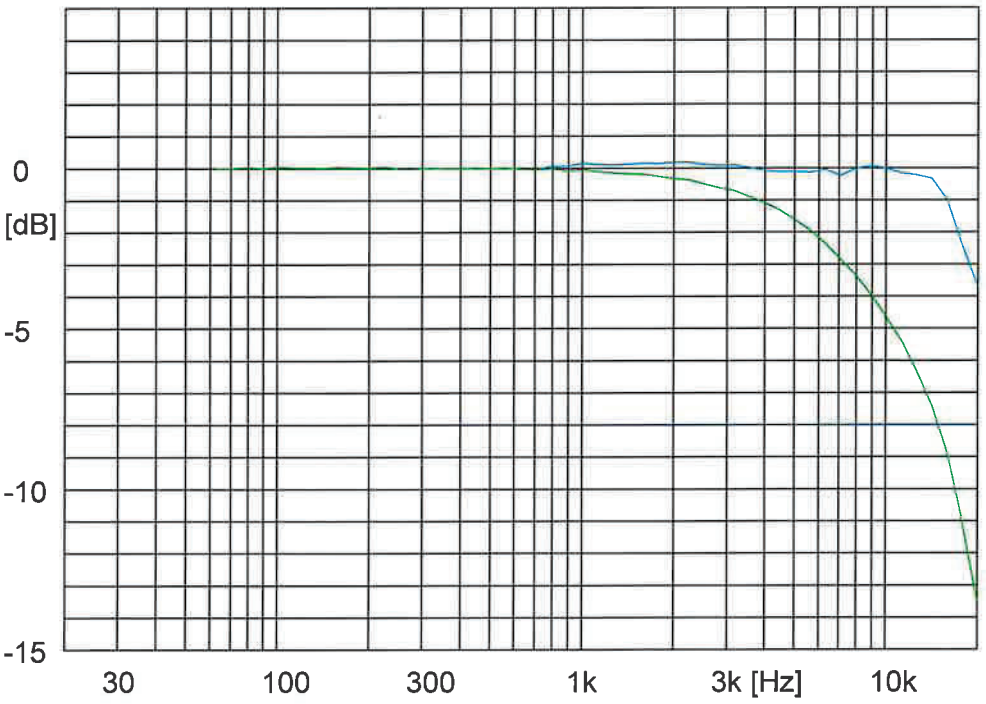
Polarisation voltage:	0.0 V
Pressure:	100.41 ±0.02 kPa
Temperature:	23.3 ±1.0 °C
Relative humidity:	50.2 ±2.0 %RH

Results are normalized to the reference conditions.

Free field response
Pressure response

Scantek, Inc.
6430 Dobbin Rd., Suite C, Columbia, MD 21045
Ph: 410-290-7726 eMail: callab@scantekinc.com

Microphone Test Report No.:51758



CEL
Type: 251

Serial no: 06693

Sensitivity: 53.28 mV/Pa
-25.47 ±0.12 dB re. 1 V/Pa

Date: 8/13/2024

Signature:

Measurement conditions:

Polarisation voltage:	0.0 V
Pressure:	100.41 ±0.02 kPa
Temperature:	23.3 ±1.0 °C
Relative humidity:	50.2 ±2.0 %RH

Results are normalized to the reference conditions.

Free field response
Pressure response

Scantek, Inc.
6430 Dobbin Rd., Suite C, Columbia, MD 21045
Ph: 410-290-7726 eMail: callab@scantekinc.com

Comment:
(Y:\Calibration Lab\Mic 2024\CEL251_06693_M1.nmf)