50-20 108TH STREET REZONING

Environmental Assessment Statement

CEQR No. 25DCP082Q

Prepared for:
Federici Builders Corp.

Environmental Studies Corp.

January 15, 2026

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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* 50-20 108th Street Rezoning

3. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
25DCP082Q	
ULURP REFERENCE NUMBER (if applicable)	OTHER REFERENCE NUMBER(S) (if applicable)
250253ZMQ; 250254ZRQ	(*e.g.*, legislative intro, CAPA) Project ID: 2024Q0113

4a. *Lead Agency Information*			**4b. *Applicant Information***		
NAME OF LEAD AGENCY NYC Department of City Planning			NAME OF APPLICANT Anthony Federici, Federici Builders Corp.		
NAME OF LEAD AGENCY CONTACT PERSON Stephanie Shellooe, Director, EARD			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON John Strauss for Hiram A. Rothkrug, Environmental Studies Corp.		
ADDRESS 120 Broadway, 31st Floor			ADDRESS 55 Water Mill Road		
CITY New York	STATE NY	ZIP 10001	CITY Great Neck	STATE NY	ZIP 11021
TELEPHONE 212-720-3328	EMAIL sshellooe@planning.nyc.gov		TELEPHONE 718-343-0026	EMAIL jstrauss@environmentalstudiescorp.com	

5. *Project Description*

The Applicant, Anthony Federici, Federici Builders Corp., is seeking City Planning Commission (CPC) approval of a Zoning Map Amendment to rezone the Project Area identified as Block 1994, Lots 1, 3, 4, 6, 7, 9, 10, 12, 13, 15, 16, 18, 19, 22, 23, 25, 30, 33, 36, 37, 40, 41, and 42, and Block 1993, Lot 65, from the current R6B and R6B/C2-3 zoning to R7A & R7A/C2-4 zoning districts. The Applicant also seeks CPC approval of a Zoning Text Amendment to Appendix F to establish the Project Area as a Mandatory Inclusionary Housing (MIH) Area (together, the Proposed Actions).

The Proposed Actions would facilitate the development of an 8-story building and a 7-story building. The larger of the two buildings would be an 8-story, 85-foot tall mixed-use residential, commercial, and community facility building fronting Corona Avenue, 50th Avenue, 51st Avenue, and 108th Street on Block 1994, Lots 12, 13, 15, 16, 18, 19, 22, 23, 25, and 30 (Projected Development Site 1). A 7-story, 75-foot tall residential and community facility building would be located at the corner of 50th Avenue and 108th Street on Block 1993, Lot 65 (Projected Development Site 2).

Projected Development Site 1 would contain an estimated 178,712 gross square feet (gsf) and 141,217 zoning square feet (zsf) of floor area, for a floor area ratio (FAR) of 5.01, including 15,327 gsf (and zsf) of commercial floor area, 6,447 gsf (and zsf) of community facility floor area, an estimated 129,506 gsf (119,443 zsf) of residential floor area, 19,389 gsf (0 zsf) of subsurface accessory parking area, and 8,043 gsf (0 zsf) of mechanical space, bicycle parking, and utility and storage rooms. The proposed mixed-use building would have commercial and community facility uses and a recreation room on the ground floor, 44 accessory parking spaces in the cellar, and 122 dwelling units on the upper floors, of which 24 to 37 dwelling units would be permanently income-restricted per MIH. The building would rise to a maximum height of 85 feet.

Projected Development Site 2 would contain an estimated 93,575 gsf and 75,150 zsf of floor area (5.01 FAR), including 10,198 gsf (and zsf) of community facility floor area, an estimated 70,424 gsf (64,952 zsf) of residential floor area, 8,400 gsf (0 zsf) of subsurface accessory parking area, and 4,553 gsf (0 zsf) for mechanical and utility space, bicycle parking, and storage rooms. The proposed residential and community facility building would have community facility uses and

the residential lobby on the ground floor, 24 accessory parking spaces in the cellar, and 80 dwelling units on the upper floors, of which 16 to 24 dwelling units would be permanently income-restricted per MIH. The building would rise to a maximum height of 7 stories and 75 feet. A new curb cut would be provided on 108th Street to provide access to the underground parking garage.

In order to achieve a conservative analysis, this EAS analyzes a With-Action Scenario that consists of bulkier developments on Projected Development Sites 1 and 2 and the redevelopment of a third, non-Applicant-owned site.

The projected developments on the two Applicant-owned sites would have the same uses and floor areas as the proposed developments but would be taller and, in the case of Projected Development Site 1, would have more dwelling units. Both buildings would be 11 stories and 115 feet tall. The building on Projected Development Site 1 would have 151 dwelling units, including 30 to 45 income-restricted units per MIH.

The With-Action Condition analyzes Projected Development Site 3 (Block 1994, Lots 40 and 41) as an 11-story, 115 foot-tall, mixed-use building with 24,945 gsf/zsf of floor area for a total FAR of 5.01 including 3,050 gsf/zsf of commercial space, 1,979 gsf/zsf of community facility space, and 19,916 gsf/zsf of residential floor area. There would be 23 dwelling units. The number of affordable units would be 20-30% of the total residential units or 5 to 7 dwelling units. No parking would be provided or required.

In addition to the three developments in the With-Action Condition this EAS also analyzes a Potential Development Site 1 (Block 1994, Lot 6). The development, if it were to occur, would be a residential building with 12,525 gsf/zsf of floor area for a total FAR of 5.01. There would be 15 dwelling units. The number of affordable units would be 20-30% of the total residential units or 3 to 5 dwelling units. No parking would be provided or required.

Project Location

BOROUGH Queens	COMMUNITY DISTRICT(S) 4	STREET ADDRESS 50-20 and 50-40 108th Street, 106/01-05 Corona Avenue, 106-20, 22, 24, 30, 32, 34 50th Avenue, 106-14, 15, 21, 25 Corona Avenue
TAX BLOCK(S) AND LOT(S) Block 1994, Lots 1, 3, 4, 6, 7, 9, 10, 12, 13, 15, 16, 18, 19, 22, 23, 25, 30, 33, 36, 37, 40, 41, and 42, and Block 1993, Lot 65		ZIP CODE 11368

DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS Area bounded by 108th Street, 51st Avenue, Corona Avenue, and 50th Avenue

EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY R6B, R6B/C2-3	ZONING SECTIONAL MAP NUMBER 10b

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 Appendix F

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

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: Dept. of Buildings buildings permit

***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.): 76,822
Waterbody area (sq. ft) and type: 0
Roads, buildings, and other paved surfaces (sq. ft.): 76,822
Other, describe (sq. ft.): 0

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): 297,232
NUMBER OF BUILDINGS: 3
GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): Site 1: 178,712; Site 2: 93,575; Site 3: 24,945
HEIGHT OF EACH BUILDING (ft.): 115'
NUMBER OF STORIES OF EACH BUILDING: 11

Does the proposed project involve changes in zoning on one or more sites? ☒ YES ☐ NO
If "yes," specify: The total square feet owned or controlled by the applicant: 45,687
The total square feet not owned or controlled by the applicant: 31,135

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: 48,166 sq. ft. (width x length)
VOLUME OF DISTURBANCE: 481,660 cubic ft. (width x length x depth)
AREA OF PERMANENT DISTURBANCE: 48,166 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.)	219,846	18,870	19,268	N/A
Type (*e.g.,* retail, office, school)	254 multi-family dwelling units	local retail space	medical offices	N/A

Does the proposed project increase the population of residents and/or on-site workers? ☒ YES ☐ NO
If "yes," please specify: NUMBER OF ADDITIONAL RESIDENTS: 613 NUMBER OF ADDITIONAL WORKERS: 15
Provide a brief explanation of how these numbers were determined: Residents: Based on average household size of 3.42 residents per dwelling unit (2020 data) in the Corona NTA for 179 dwelling units; Workers: Based on 3 workers/1,000 gsf of local retail space (57 workers) and 4 workers/1,000 gsf medical office space (77 workers)

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: It is assumed that Projected Development Site 1 would be developed with approximately 87,044 gsf of floor area comprised of 39,393 gsf of residential floor area, 15,545 gsf of retail space, 5,670 gsf of community facility space (medical offices), and 22,500 gsf of parking floor area plus 3,936 gsf of floor area for mechanicals, storage, bicycle parking, and utilities within the 26,436 gsf cellar level. The building

would be 3-stories and 35 feet in height and would contain 46 dwelling units. The cellar level of the building would contain 76 parking spaces. The parking would be accessed via a new 12-foot wide curb cut on 50th Avenue. The building would cover the entire lot.

It is assumed that Projected Development Site 2 would be developed with approximately 44,522 gsf of floor area comprised of 21,735 gsf of residential floor area, 10,000 gsf of community facility space (medical offices), and 4,000 gsf of parking floor area plus 8,787 gsf of floor area for mechanicals, storage, bicycle parking, and utilities within the 12,787 gsf cellar level. The building would be 3-stories and 35 feet in height and would contain 26 dwelling units. The cellar level of the building would contain 13 parking spaces and would be accessed via a new 12-foot wide curb cut on 108th Street. The building would cover the entire lot.

It is assumed that Projected Development Site 3 would not be redeveloped as it is currently developed to an FAR of 1.26, which is more than the standard threshold of 50% of the maximum permitted FAR of 2.40 under the site's existing R6B/C2-3 zoning. It is therefore assumed that the site would remain in its existing condition for the no-action scenario and would continue to be improved with 3 two-story, mixed residential and commercial buildings, totaling approximately 6,212 gsf in floor area (4,210 gsf residential and 2,002 gsf commercial) and containing 3 residential dwelling units.

It is assumed that Potential Development Site 1 would not be redeveloped due to its small lot size of only 2,500 sf, the limited development potential of a total FAR of 2.40 with an existing FAR of 0.62, and the difficulty of obtaining financing for a small infill development. It is therefore assumed that the site would remain in its existing condition for the no-action scenario and would continue to be improved with a two-story, two-family residential building, totaling approximately 1,688 gsf in floor area and containing 2 residential dwelling units.

9. *Analysis Year* CEQR Technical Manual Chapter 2

ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2029

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 34

WOULD THE PROJECT BE IMPLEMENTED IN A SINGLE PHASE? ☐ YES ☒ NO | IF MULTIPLE PHASES, HOW MANY? 2

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: Construction would occur in two phases. The first phase of construction would occur on Site 2. The second phase would occur simultaneously on Projected Development Sites 1 and 3. Following a gap of between 3 and 6 months, construction would occur on Projected Development Sites 1 and 3. It is anticipated that there would be a construction duration of 15 months for Projected Development Site 2, and 22 months for Projected Development Site 1, and 13 months for Projected Development Site 3.

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

☒ RESIDENTIAL ☒ MANUFACTURING ☒ COMMERCIAL ☒ PARK/FOREST/OPEN SPACE ☒ OTHER, specify: Parking, vacant land

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 attached report		
(e) Is the project a large, publicly sponsored project?	☐	☒
o 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?	☐	☒
o If "yes," complete the Consistency Assessment Form.		
2. *SOCIOECONOMIC CONDITIONS*: CEQR Technical Manual Chapter 5		
(a) Would the proposed project:		
o Generate a net increase of 200 or more residential units?	☐	☒
o Generate a net increase of 200,000 or more square feet of commercial space?	☐	☒
o Directly displace more than 500 residents?	☐	☒
o Directly displace more than 100 employees?	☐	☒
o Affect conditions in a specific industry?	☐	☒
3. *COMMUNITY FACILITIES*: CEQR Technical Manual Chapter 6		
(a) Direct Effects		
o 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		
o **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)	☐	☒
o **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)	☒	☐
o **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)	☐	☒
o **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 attached report		
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?	☐	☒
o 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?	☐	☒
o 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?	☒	☐
o If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: See attached report	☒	☐
(j) Based on the Phase I Assessment, is a Phase II Investigation needed?	☒	☐
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): 15,610		
o 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): 35,617,590		
(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:		
o 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.*	☐	☒
o 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?	☐	☐
o 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?	☒	☐
o 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. E designations would preclude any adverse impacts/.		
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.		
19. *CONSTRUCTION*: CEQR Technical Manual Chapter 22		
(a) Would the project's construction activities involve:		
o Construction activities lasting longer than two years?	☒	☐
o Construction activities within a Central Business District or along an arterial highway or major thoroughfare?	☐	☒
o Closing, narrowing, or otherwise impeding traffic, transit, or pedestrian elements (roadways, parking spaces, bicycle routes, sidewalks, crosswalks, corners, *etc.*)?	☒	☐
o Construction of multiple buildings where there is a potential for on-site receptors on buildings completed before the final build-out?	☒	☐
o The operation of several pieces of diesel equipment in a single location at peak construction?	☒	☐
o Closure of a community facility or disruption in its services?	☐	☒
o Activities within 400 feet of a historic or cultural resource?	☐	☒
o Disturbance of a site containing or adjacent to a site containing natural resources?	☐	☒
o 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. See attached report		

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
Brian Kintish, Environmental Studies Corp	January 5, 2026

SIGNATURE Brian Kintish

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

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

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

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

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

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

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

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

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

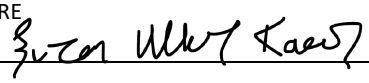
☐ **Conditional Negative Declaration:** A *Conditional Negative Declaration* (CND) may be appropriate if there is a private applicant for an Unlisted action AND when conditions imposed by the lead agency will modify the proposed project so that no significant adverse environmental impacts would result.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

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

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

TITLE	LEAD AGENCY
Deputy Director, Environmental Assessment and Review Division	City Planning Commission
NAME	DATE
Evren Ulker-Kacar, AICP	January 15, 2026

SIGNATURE



NEGATIVE DECLARATION

Statement of No Significant Effect

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

Reasons Supporting this Determination

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

Land Use, Zoning, and Public Policy

A detailed analysis of land use, zoning, and public policy is included in the EAS. The Applicant, Anthony Federici, Federici Builders Corp., is seeking a Zoning Map Amendment to rezone the Project Area, identified as Block 1994, Lots 1, 3, 4, 6, 7, 9, 10, 12, 13, 15, 16, 18, 19, 22, 23, 25, 30, 33, 36, 37, 40, 41, 42, and Block 1993, Lot 65, from the existing R6B and R6B/C2-3 zoning districts to R7A and R7A/C2-4 zoning districts along with a Zoning Map Amendment to Appendix F of the Zoning Resolution to establish the Project Area as a Mandatory Inclusionary Housing (MIH) area (together, the "Proposed Actions"). The Proposed Actions would facilitate the development of an 8-story building on the Applicant owned Block 1994, Lots 12, 13, 15, 16, 18, 19, 22, 23, 25, and 30 ("Projected Development Site 1") and a 7-story building on Block 1993, Lot 65 ("Projected Development Site 2"). Projected Development Site 1 would comprise 178,712 gross square feet (gsf), including 15,327 gsf of commercial use, 6,447 gsf of community facility use, 129,506 gsf of residential use, and approximately 19,389 gsf of subsurface accessory parking area including approximately 122 dwelling units, of which 24–37 would be affordable at an average of 40–80% AMI pursuant to MIH Option 1, 2, or 3. Projected Development Site 2 would comprise 93,575 gsf, including 10,198 gsf of community facility use, 70,424 gsf of residential use, and 8,400 gsf of subsurface accessory parking area including 80 dwelling units, of which 16–24 would be affordable at an average of 40–80% AMI pursuant to MIH Option 1, 2, or 3. Additionally, under the With-Action Condition, it is assumed that the Projected Development Site 3 (Block 1994, Lots 40 and 41) would be developed with an 11-story, 115-foot-tall, mixed-use building comprising 24,945 gsf, with 3,050 gsf of commercial use, 1,979 gsf of community facility use, and 19,916 gsf of residential use including 23 dwelling units, of which 5–7 would be affordable. In addition to the three projected developments in the With-Action Condition, the EAS also analyzes a Potential Development Site 1 on Block 1994, Lot 6. The analysis assumes a residential building with 12,525 gsf of floor area and approximately 15 dwelling units. Although the Proposed Actions would introduce a higher density of development than is permitted by current zoning in the Project Area, it would not facilitate any land uses that are incompatible with surrounding uses or zoning. The Project Area is located in a transit rich neighborhood that would support the increased density. Furthermore, the Proposed Actions would be supportive of PlaNYC, as they would encourage increased development in an area well served by public transportation, and would be supportive of Housing New York by providing a significant number of new permanently affordable housing units. Overall, the Proposed Actions would not result in significant adverse impacts to land use, zoning or public policy.

Community Facilities

A detailed analysis of community facilities is included in the EAS. The Proposed Actions would not directly alter or displace any community facilities. Because the Proposed Actions would result in 50 or more elementary or middle school students creating additional demand, its indirect effects on the existing community facilities and services have been assessed. The analysis concluded that the Proposed Actions would not create demand that would overtax services or facilities. Utilization rates for elementary schools and intermediate schools in the study area would remain below 100% under the With-Action Scenario. Therefore, no significant adverse impacts to community facilities would occur.

Open Space

A detailed analysis of open space is included in the EAS. The Proposed Actions would not directly alter or displace any publicly accessible open space resources. The quantitative assessment determined that the Proposed Actions would result in a 1.055% reduction in open space ratio (OSR) in the With-Action Scenario, where only 1% decrease in OSR is typically tolerated. The analysis also considered qualitative factors including the availability and conditions of other open space resources not included in the quantitative analysis. Given that the Project Area is located within a Walk-to-a-Park Service Area, and the Flushing Meadows Corona Park, located less than 0.25 miles from the Project Area, continue to be available to current and future residents of the Study Area; despite the decrease in open space ratio, the Proposed Actions would not result in significant adverse impacts related to open space.

Shadows

A detailed analysis of shadows is included in the EAS. The Proposed Actions would result in developments that would cast shadows on William F. Moore Park, and Corona Health Sanctuary Playground, sunlight sensitive open space resources. During much of the spring and summer, most of the park would be shadow free. During the weeks near the summer solstice when shadows would cover a larger portion of the park, no shadows would be cast before 5:05 PM. These shadows would not result in a significant reduction in the park's attractiveness to users, and they would not threaten the health of its trees. The effect of incremental shadows on the children's playground would be inconsequential lasting no more than 13 minutes, and covering only the northernmost edge of the playground, a paved area where no playground equipment is located. Overall, the Proposed Actions would not result in any significant adverse impacts related to shadows.

Disadvantaged Community Assessment

The Proposed Actions are located within a designated disadvantaged community according to the New York State Department of Environmental Conservation Disadvantaged Community Assessment Tool (DACAT) and an assessment of the Proposed Actions' potential effects on disadvantaged communities is included in the EAS.

Project Name: 50-20 108th Street Rezoning
CEQR # 25DCP082Q
SEQRA Classification: Unlisted

The Proposed Actions would not result in significant adverse impacts on the following technical areas analyzed in the EAS: land use, zoning, and public policy; community facilities; open space; shadows; historical and cultural resources; urban design and visual resources; hazardous materials; transportation; air quality; noise; neighborhood character and construction. Therefore, the Proposed Actions would not disproportionately affect any disadvantaged communities, nor would it cause or increase a disproportionate pollution burden.

Hazardous Materials, Air Quality, and Noise

An (E) designation (E-884) related to hazardous materials, air quality, and noise would be established as part of the approval of the Proposed Actions. Refer to "Determination of Significance Appendix: (E) designation" for the applicable (E) designation requirements. The hazardous materials, air quality, and noise analyses conclude that with the (E) designation in place, the proposed actions would not result in a significant adverse impact related to hazardous materials, air quality, or noise.

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

TITLE	LEAD AGENCY
Deputy Director, Environmental Assessment and Review Division	Department of City Planning on behalf of the City Planning Commission 120 Broadway, 31st Fl. New York, NY 10271 | 212.720.3493
NAME Evren Ulker-Kacar, AICP	DATE 1/15/2026
SIGNATURE Evren Ulker Kacar	

TITLE	
Chair, City Planning Commission	
NAME Daniel R. Garodnick	DATE 1/21/2026
SIGNATURE	

Project Name: 50-20 108th Street Rezoning
CEQR # 25DCP082Q
SEQRA Classification: Unlisted

Determination of Significance Appendix

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

Development Site	Borough	Block and Lot
Projected Development Site 1	Queens	Block 1994, Lots 12, 13, 15, 16, 18, 19, 22, 23, 25, and 30
Projected Development Site 2	Queens	Block 1993, Lot 65
Projected Development Site 3	Queens	Block 1994, Lots 40 and 41
Potential Development Site 1	Queens	Block 1994, Lot 6

(E) Designation Requirements

To ensure that the proposed actions would not result in significant adverse impacts related to hazardous materials, air quality, and noise an (E) designation (**E-884**) would be established as part of approval of the proposed actions on **Projected Development Site 1, 2, 3, and Potential Development Site 1** as described below:

Development Site	Hazardous Materials	Air Quality	Noise
Projected Development Site 1	X	X	X
Projected Development Site 2	X	X	
Projected Development Site 3	X	X	X
Potential Development Site 1	X	X	

Hazardous Materials

The (E) designation requirements applicable to **Projected Development Site 1, 2, 3, and Potential Development Site 1** for hazardous materials would apply as follows:

Task 1-Sampling Protocol

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

Task 2-Remediation Determination and Protocol

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

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

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

Air Quality

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

Projected Development Site 1: *Any new residential, commercial, or community facility development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) system and hot water equipment, ensure that stack is located at the building's highest level and at a minimum of 125 feet above grade, that the stack is located at least 65 feet from the northern lot line of Block 1994, Lot 12 and at least 69 feet from Block 1994, Lot 6 to avoid any potential significant adverse air quality impacts.*

Projected Development Site 2: *Any new residential or community facility development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) system and hot water equipment, ensure that stack is located at the building's highest level and at a minimum of 120 feet above grade, and that the stack is located at least 50 feet from the southern lot line of Block 1993, Lot 65 to avoid any potential significant adverse air quality impacts.*

Projected Development Site 3: *Any new residential, commercial, or community facility development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) system and hot water equipment, and ensure that stack is located at the building's highest level and at a minimum of 118 feet above grade to avoid any potential significant adverse air quality impacts.*

Potential Development Site 1: *Any new residential development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) system and hot water equipment, and ensure that stack is located at the building's highest level and at a minimum of 118 feet above grade to avoid any potential significant adverse air quality impacts.*

Noise

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

Projected Development Site 1: *In order to ensure an acceptable interior noise environment, future residential/ commercial office/community facility uses must provide a closed-window condition with a minimum window wall attenuation of 28 dB(A) on all floors on the western façade facing Corona Avenue, on the southern façade facing 51st Avenue within 50 feet of Corona Avenue, and on the northern façade facing 50th Avenue within 50 feet of Corona Avenue in order to maintain an interior noise level no greater than 45 dB(A) for residential and community facility uses or no greater than 50 dB(A) for commercial office uses as illustrated in the EAS. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.*

Project Name: 50-20 108th Street Rezoning
CEQR # 25DCP082Q
SEQRA Classification: Unlisted

Projected Development Site 3: *In order to ensure an acceptable interior noise environment, future residential/ commercial office/community facility uses must provide a closed-window condition with a minimum of 28 dB(A) window/wall attenuation on all floors on the southern façade facing Corona Avenue, on the northern façade facing 50th Avenue, and on the eastern facade facing 108th Street within 25 feet of Corona Ave and within 25 feet of 50th Avenue, in order to maintain an interior noise level no greater than 45 dB(A) for residential and community facility uses or no greater than 50 dB(A) for commercial office uses as illustrated in the EAS. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.*

50-20 108th Street, Queens

Figure 1: Site Location

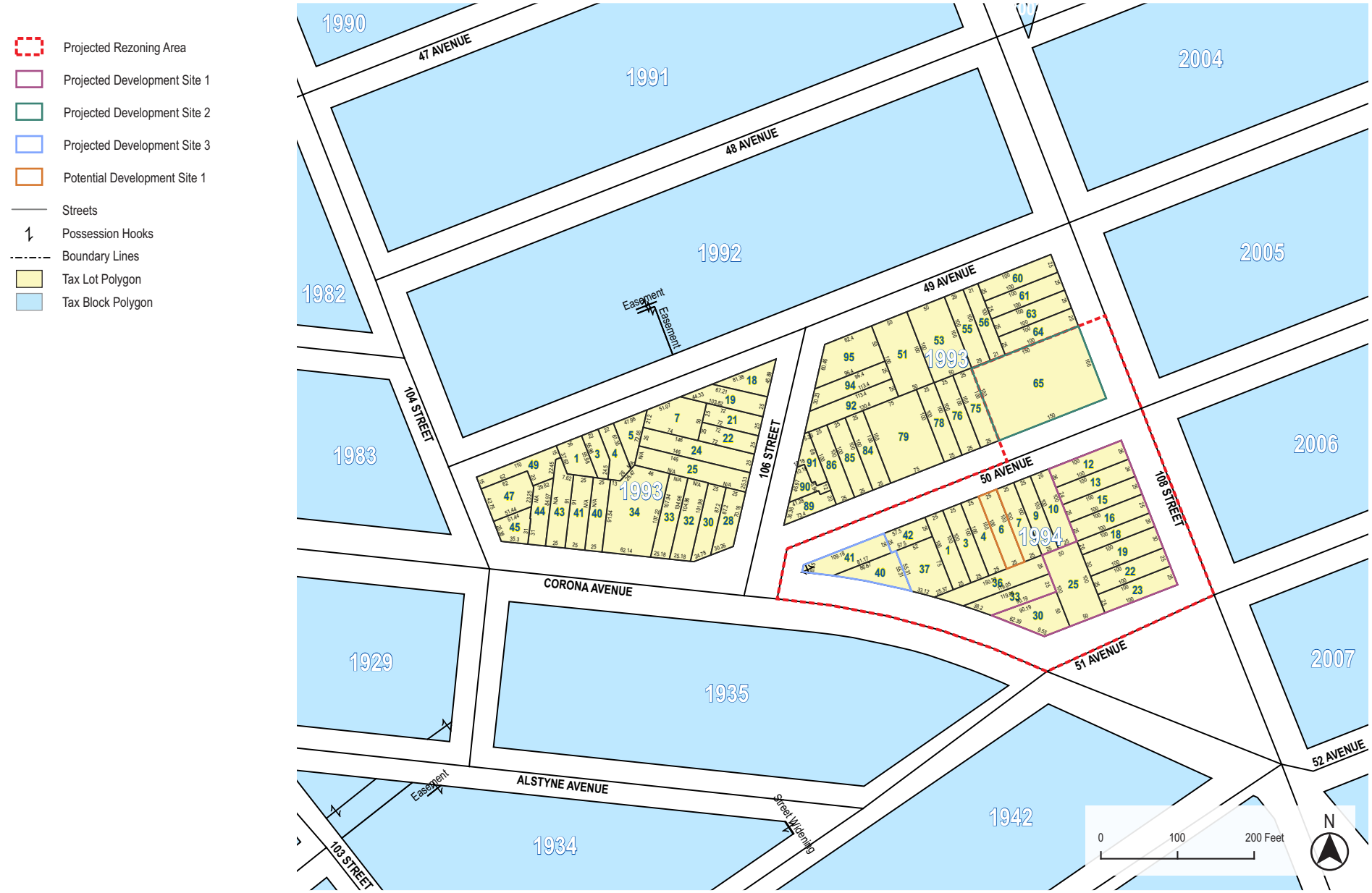


Data Source: MapPLUTO 2023v2

Urban Cartographics

50-20 108th Street, Queens

Figure 2: Tax Map

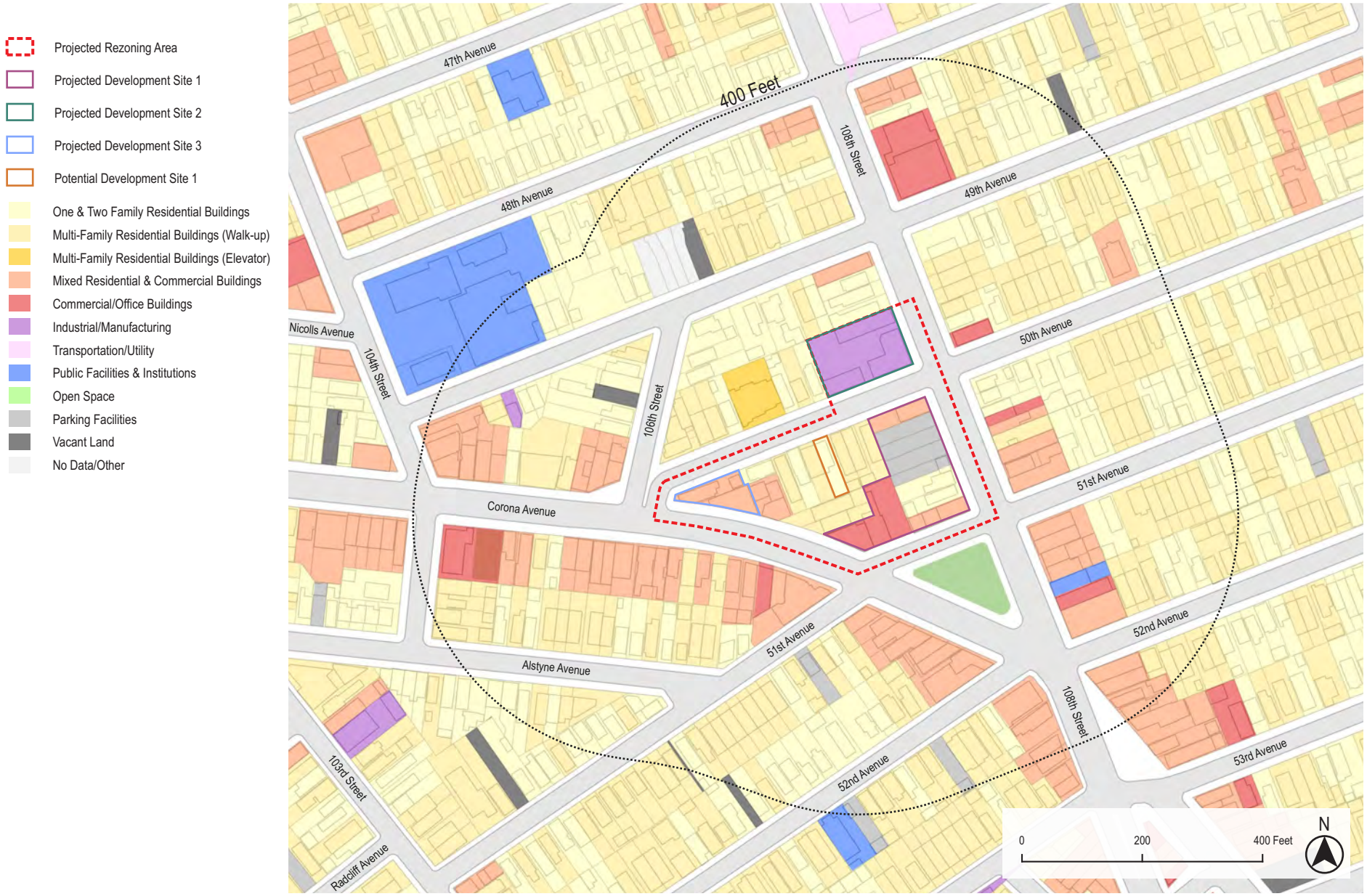


Data Source: MapPLUTO 2023v2, NYC DOF Digital Tax Map 3/1/23

Urban Cartographics

50-20 108th Street, Queens

Figure 3: Land Use Map

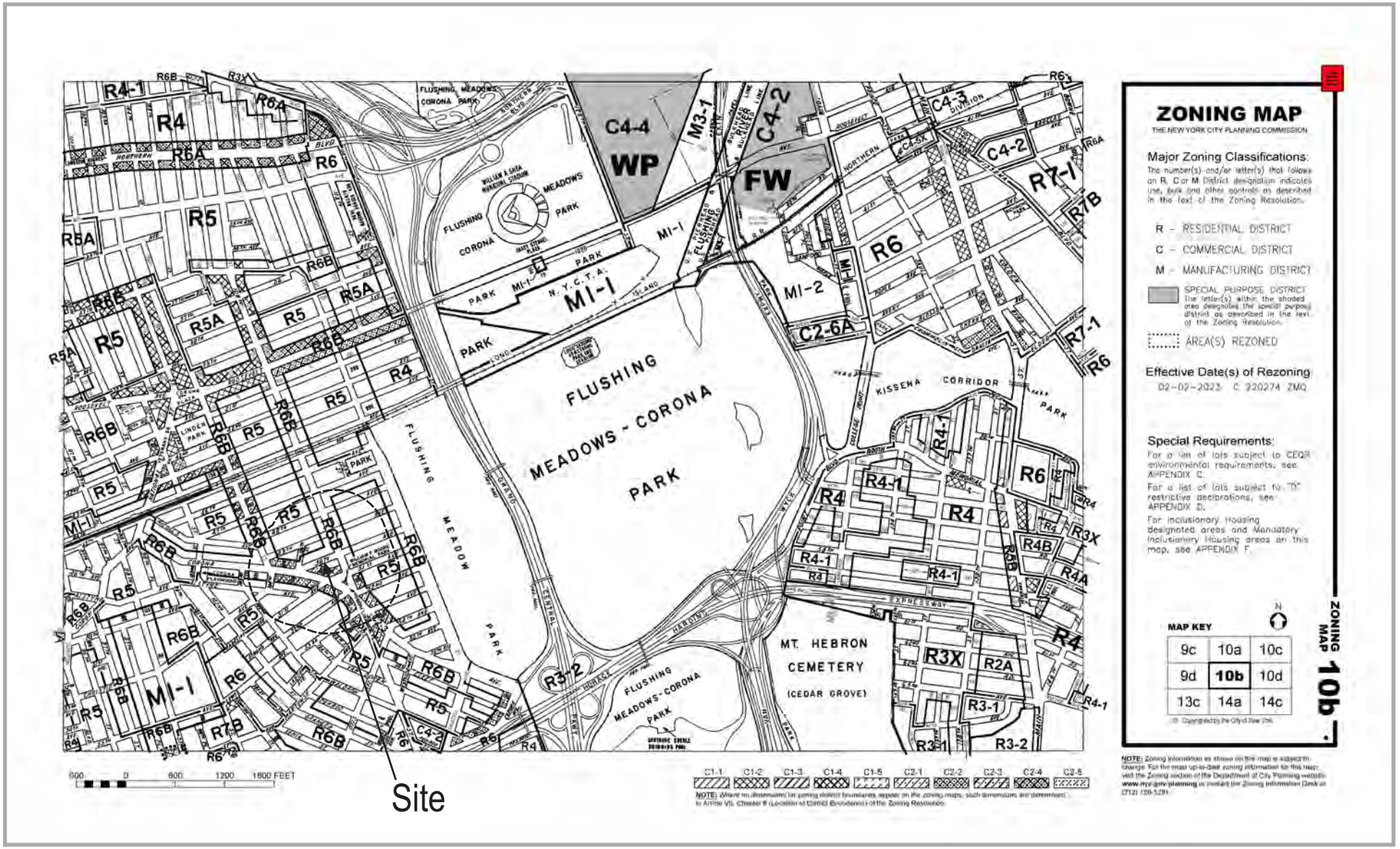


Data Source: MapPLUTO 2023v2, NYC DOF Digital Tax Map 3/1/23

Urban Cartographics

50-20 108th Street, Queens

Figure 4: Zoning Map



Urban Cartographics

50-20 108th Street, Queens

Figure 5: Aerial Map



Imagery Source: 2023 Bing, Microsoft Corporation

Urban Cartographics



1. View of Projected Development Site 1 facing north from the intersection of Corona Avenue and 51st Avenue.



2. View of Corona Avenue facing northwest from 51st Avenue (Projected Development Site 1 at right).



3. View of the intersection of Corona Avenue and 51st Avenue facing east (Projected Development Site 1 at left).





4. View of the sidewalk along the north side of 51st Avenue facing northeast from Corona Avenue (Projected Development Site 1 at left).



5. View of the intersection of Corona Avenue and 51st Avenue facing south from Projected Development Site 1.



6. View of the sidewalk along the north side of Corona Avenue facing northwest from 51st Avenue (Projected Development Site 1 at right).





7. View of Projected Development Site 1 facing north from 51st Avenue.



8. View of Projected Development Site 1 facing northwest from 51st Avenue.



9. View of Projected Development Site 1 facing northwest from 51st Avenue.





10. View of 108th Street facing northwest from 51st Avenue
(Projected Development Site 1 at left).



12. View of 51st Avenue facing southwest from 108th Street
(Projected Development Site 1 at right).



11. View of Projected Development Site 1 facing northwest from the intersection of
51st Avenue and 108th Street.





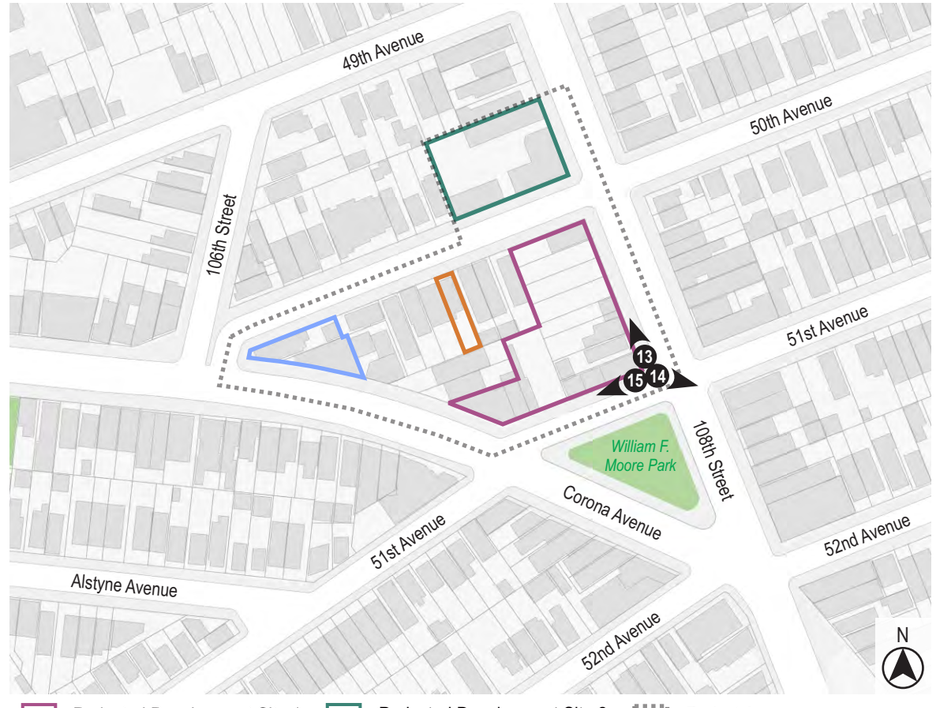
13. View of the sidewalk along the west side of 108th Street facing northwest from 51st Avenue (Projected Development Site 1 at left).



15. View of the sidewalk along the north side of 51st Avenue facing southwest from 108th Street (Projected Development Site 1 at right).



14. View of the intersection of 108th Street and 51st Avenue facing southeast from Projected Development Site 1.





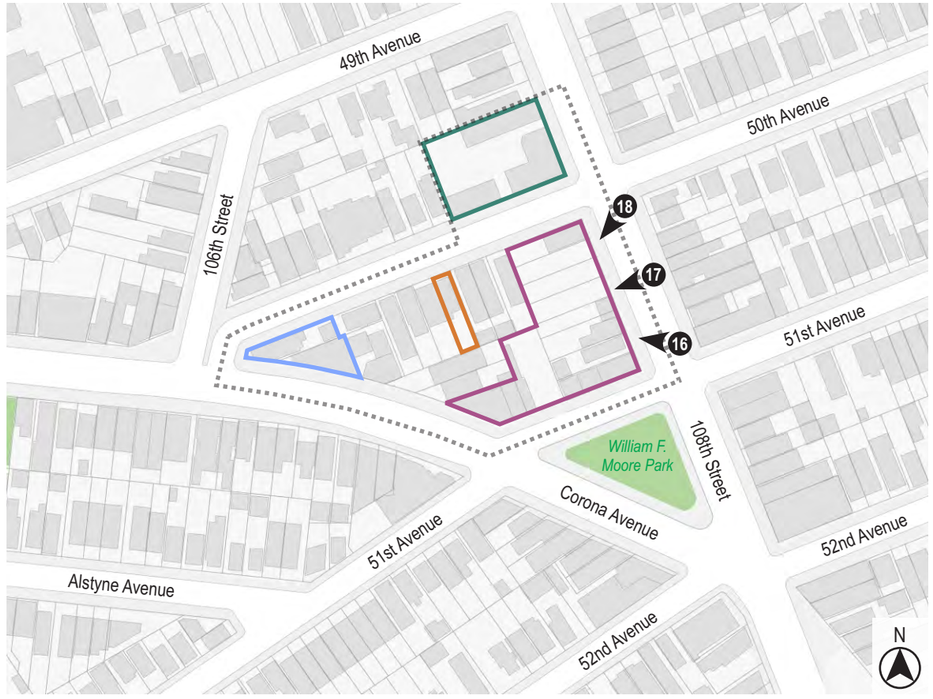
16. View of Projected Development Site 1 facing west from 108th Street.



17. View of Projected Development Site 1 facing southwest from 108th Street.



18. View of Projected Development Site 1 facing southwest from 108th Street.



Urban Cartographics



19. View of 50th Avenue facing southwest from 108th Street (Projected Development Site 1 at left and Projected Development Site 2 at right).



20. View of Projected Development Site 1 facing southwest from the intersection of 108th Street and 50th Avenue.



21. View of 108th Street facing southeast from 50th Avenue (Projected Development Site 1 at right).





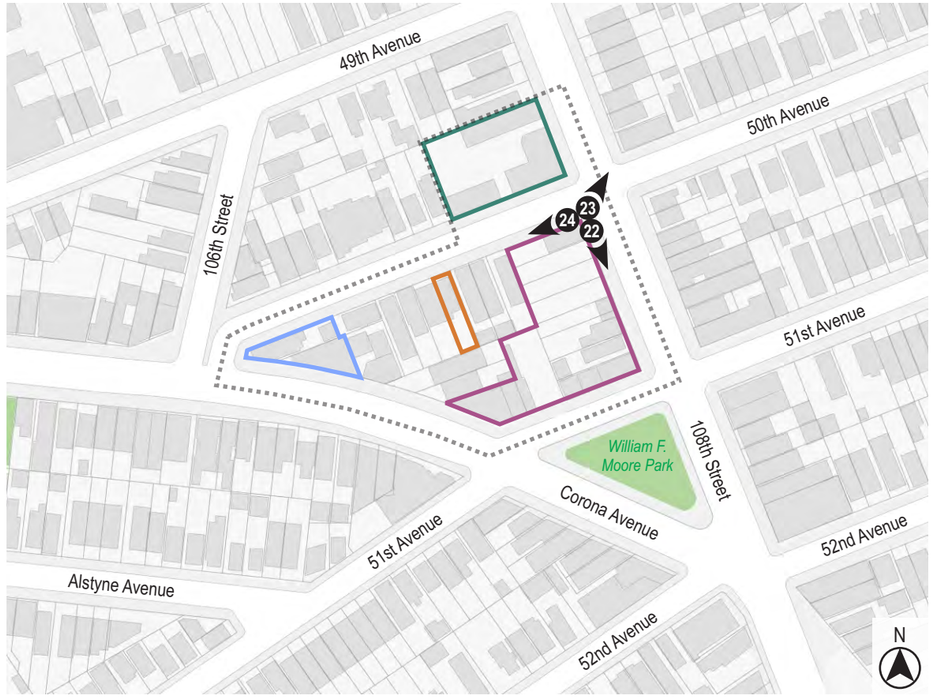
22. View of the sidewalk along the west side of 108th Street facing southeast from 50th Avenue (Projected Development Site 1 at right).



23. View of the intersection of 50th Avenue and 108th Street facing northeast from Projected Development Site 1.



24. View of the sidewalk along the south side of 50th Avenue facing southwest from 108th Street (Projected Development Site 1 at left).





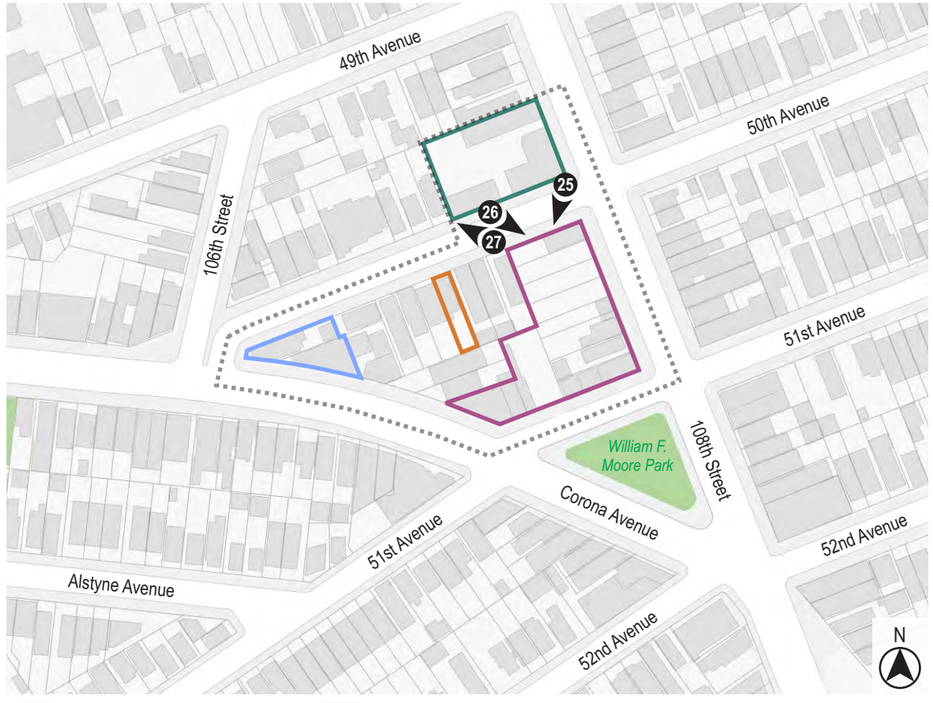
25. View of Projected Development Site 1 facing southwest from 50th Avenue.



26. View of Projected Development Site 1 facing southeast from 50th Avenue.



27. View of the north side of 50th Avenue facing northwest from Projected Development Site 1.





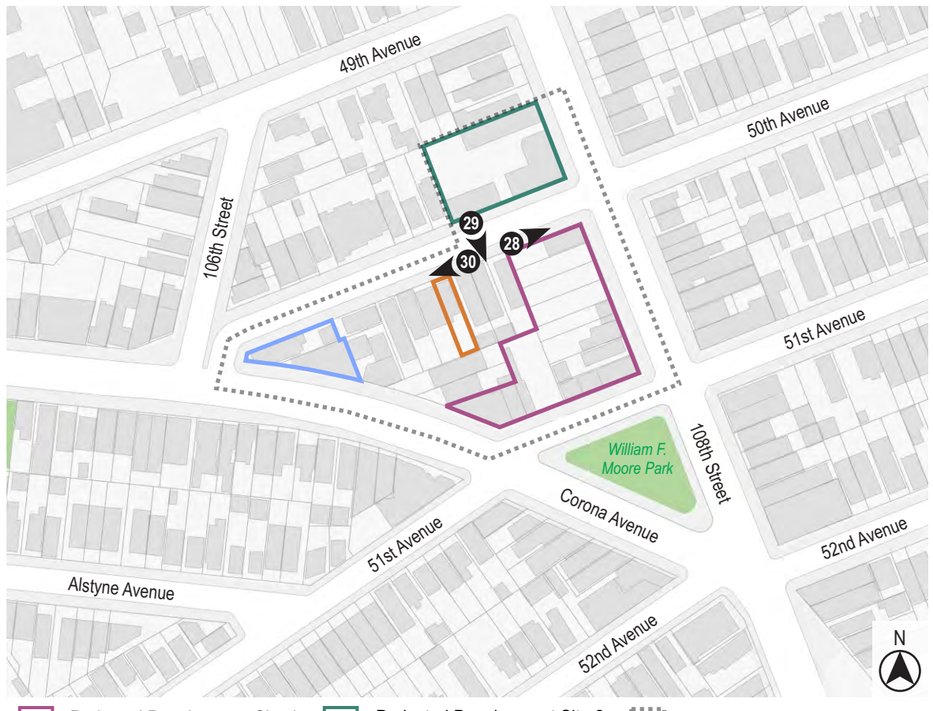
28. View of the sidewalk along the south side of 50th Avenue facing northeast (Projected Development Site 1 at right).



30. View of the sidewalk along the south side of 50th Avenue facing southwest (Potential Development Site 1 at left).



29. View of the Project Area facing southeast from 50th Avenue.





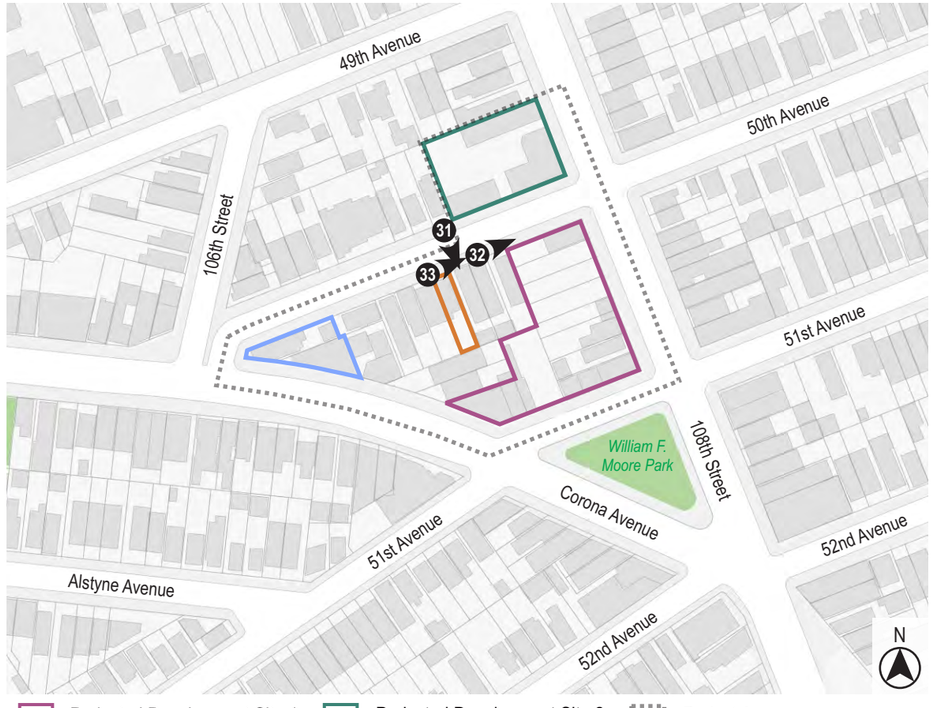
31. View of the Project Area facing southeast from 50th Avenue (Potential Development Site at right).



32. View of the sidewalk along the south side of 50th Avenue facing northeast (Project Area at right).



33. View of the sidewalk along the south side of 50th Avenue facing northeast (Project Area at right).





34. View of the north side of 50th Avenue facing northwest from the Project Area.



35. View of 50th Avenue facing northeast (Project Area at left and right).



36. View of the Project Area and Potential Development Site 1 facing southwest from 50th Avenue.





37. View of Projected Development Site 3 facing southeast from 50th Avenue.



38. View of 50th Avenue facing northeast (Projected Development Site 3 at right).



39. View of Projected Development Site 3 facing east from the intersection of 50th Avenue and Corona Avenue.





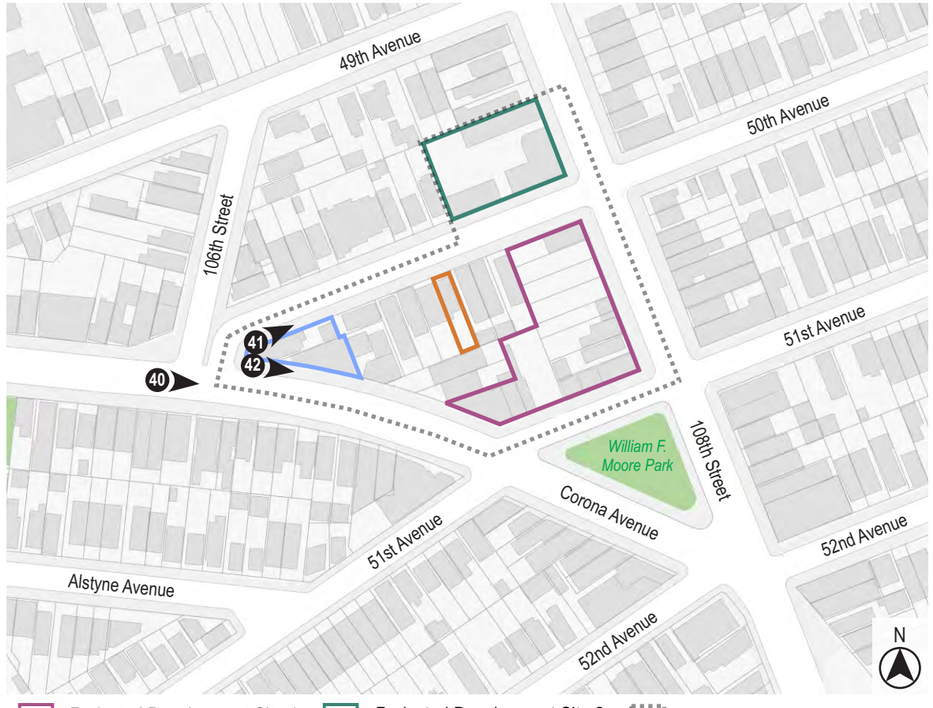
40. View of Corona Avenue facing east from 108th Street
(Projected Development Site 3 at left).



41. View of the sidewalk along the south side of 50th Avenue
facing northeast (Projected Development Site 3 at right).



42. View of the sidewalk along the north side of Corona Avenue
facing east (Projected Development Site 3 at left).





43. View of the Project Area facing northeast from Corona Avenue.



44. View of the Project Area facing northwest from Corona Avenue.



45. View of Projected Development Site 1 facing northeast from Corona Avenue.





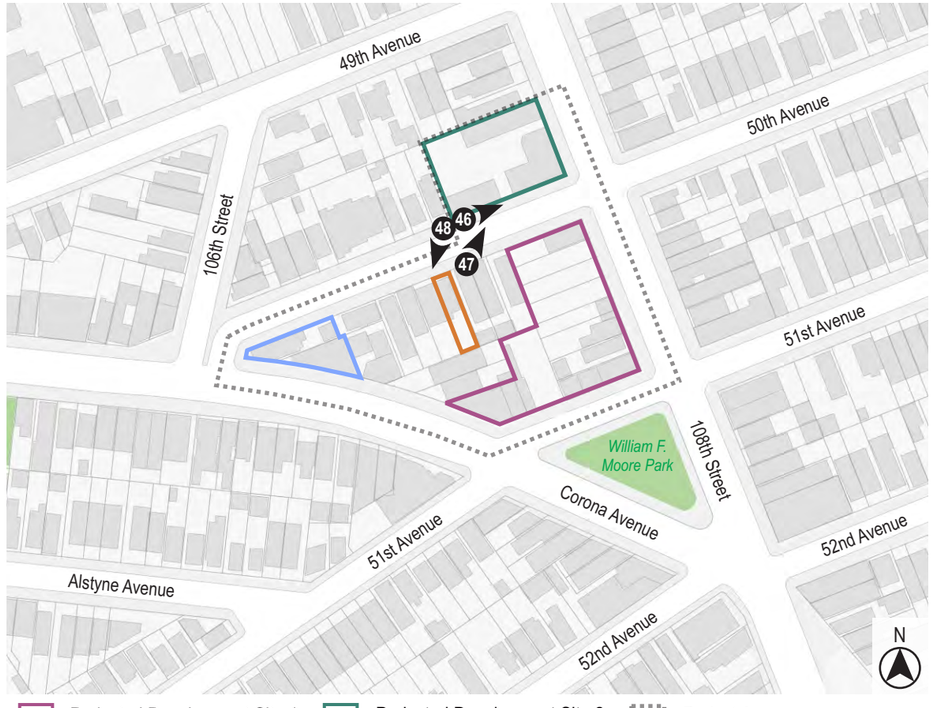
46.View of the sidewalk along the north side of 50th Avenue facing northeast (Projected Development Site 2 at left).



47. View of the Projected Development Site 2 facing northeast from 50th Avenue.



48. View of the Project Area facing southwest from 50th Avenue.





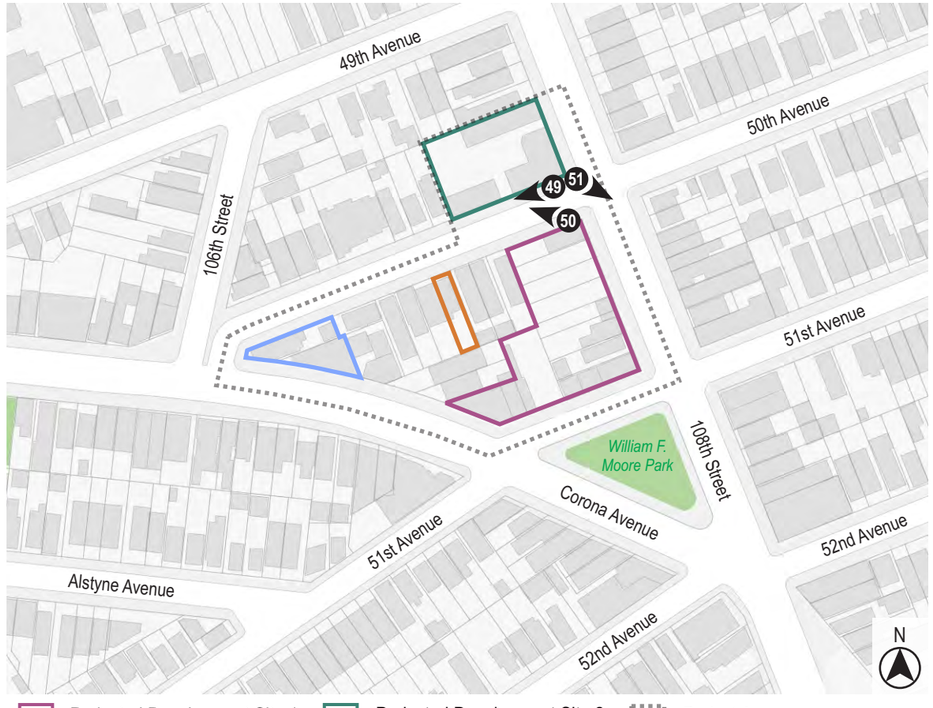
49. View of the sidewalk along the north side of 50th Avenue facing southwest from 108th Street (Projected Development Site 2 at right).



50. View of Projected Development Site 2 facing northwest from 50th Avenue.



51. View of the intersection of 50th Avenue and 108th Street facing southeast from Projected Development Site 2.





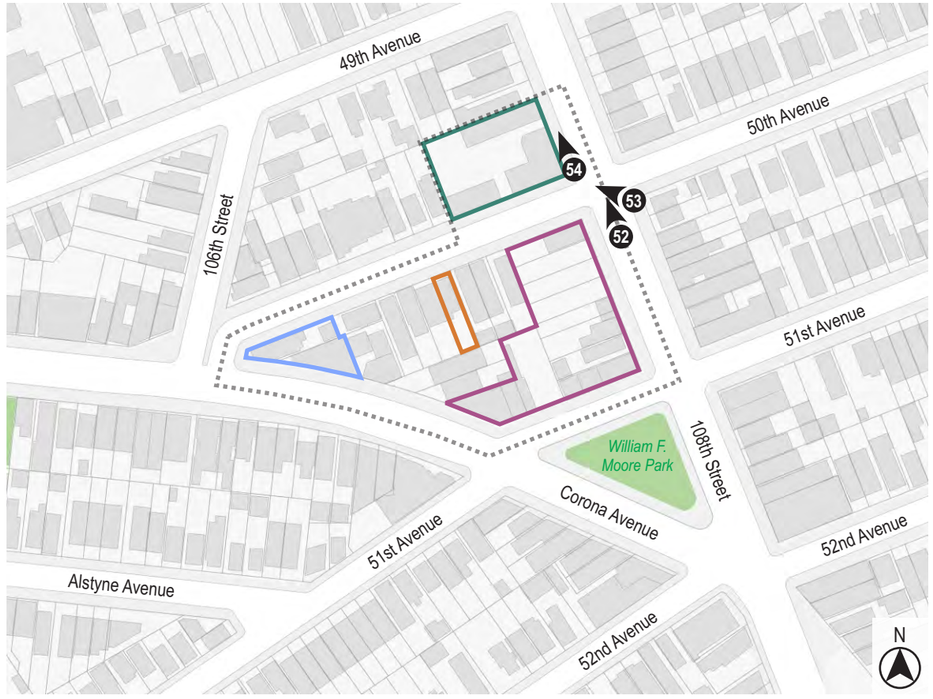
52. View of 108th Street facing northwest from 50th Avenue (Projected Development Site 2 at left).



54. View of the sidewalk along the west side of 108th Street facing northwest from 108th Street (Projected Development Site 2 at left).



53. View of Projected Development Site 2 facing northwest from the intersection of 50th Avenue and 108th Street.





55. View of the sidewalk along the west side of 108th Street facing southeast (Projected Development Site 2 at right).



57. View of 108th Street facing southeast (Projected Development Site 2 at right).



56. View of the east side of 108th Street facing northeast from Projected Development Site 2.



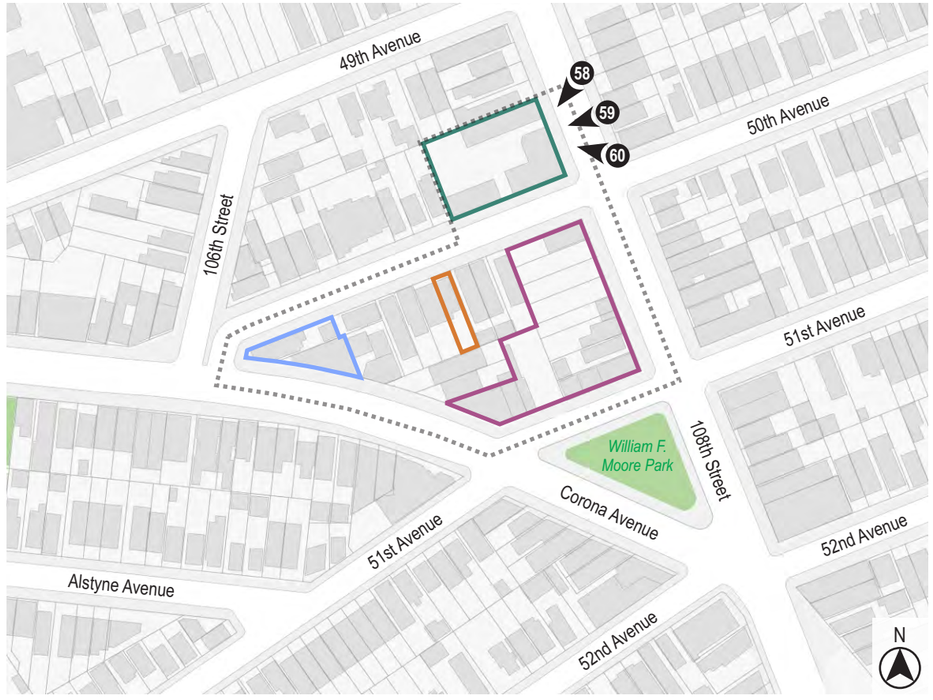
58. View of Projected Development Site 2 facing southwest from 108th Street.



59. View of Projected Development Site 2 facing southwest from 108th Street.



60. View of Projected Development Site 2 facing west from 108th Street.



50-20 108TH STREET REZONING

PROJECT DESCRIPTION

Proposed Actions

The Applicant, Anthony Federici, Federici Builders Corp., is seeking City Planning Commission (CPC) approval of a Zoning Map Amendment to rezone the Project Area identified as Block 1994, Lots 1, 3, 4, 6, 7, 9, 10, 12, 13, 15, 16, 18, 19, 22, 23, 25, 30, 33, 36, 37, 40, 41, and 42, and Block 1993, Lot 65, in the Corona neighborhood of Queens Community District 4 from the current R6B and R6B/C2-3 zoning to R7A & R7A/C2-4 zoning districts. The Applicant also seeks CPC approval of a Zoning Text Amendment to Appendix F to establish the Project Area as a Mandatory Inclusionary Housing (MIH) Area.

Project Area

The Project Area includes the Applicant controlled properties, Projected Development Sites 1 and 2 and Potential Development Site 1, the non-Applicant controlled Projected Development Site 3, and a number of properties that are not anticipated to be developed as further detailed below. The Project Area totals approximately 76,822 square feet in size, with the Applicant controlled parcels totaling approximately 45,687 square feet in area and the non-Applicant controlled parcels totaling approximately 31,135 square feet in size.

The Applicant owned Projected Development Site 1 is located on Block 1994, Lots 12, 13, 15, 16, 18, 19, 22, 23, 25, and 30. The site is approximately 28,187 square feet in size. It is improved with 18,155 gsf of floor area with 2 two-story mixed residential and commercial buildings, 2 two-story residential buildings, and 2 one- to two-story commercial buildings. It contains 14 dwelling units. It also contains approximately 25 spaces of accessory surface parking.

The Applicant owned Projected Development Site 2 is located on Block 1993, Lot 65. The site is approximately 15,000 square feet in size. It is improved with 3 one-story warehouse buildings totaling approximately 7,855 gsf in floor area.

The non-Applicant owned Projected Development Site 3 is located on Block 1994, Lots 40 and 41. The site is approximately 4,979 square feet in size. It is improved with 3 two-story, mixed residential and commercial buildings, totaling approximately 6,212 gsf in floor area and containing 3 residential dwelling units.

The Applicant owned Potential Development Site 1 is located on Block 1994, Lot 6. The site is approximately 2,500 square feet in size. It is improved with a two-story, two-family residential building, totaling approximately 1,688 gsf in floor area and containing 2 residential dwelling units.

The remaining non-Applicant owned properties within the Project Area include Block 1994, Lots 1, 3, 4, 7, 9, 10, 33, 36, 37, and 42. These lots total approximately 28,156 square feet in land area and are improved with 10 two- to four-story mixed residential buildings, and one mixed-use residential and commercial building totaling approximately 35,561 gsf in floor area.

Proposed Development

The proposed land use actions would facilitate the development of an 8-story building and a 7-story building. The larger of the two buildings would be an 8-story, 85-foot tall mixed-use residential, commercial, and community facility building fronting Corona Avenue, 50th Avenue, 51st Avenue, and 108th Street on Block 1994, Lots 12, 13, 15, 16, 18, 19, 22, 23, 25, and 30 (Projected Development Site 1). A 7-story, 75-foot tall residential and community facility building would be located at the corner of 50th Avenue and 108th Street on Block 1993, Lot 65 (Projected Development Site 2).

Projected Development Site 1 would contain an estimated 178,712 gross square feet (gsf) and 141,217 zoning square feet (zsf) of floor area, for a floor area ratio (FAR) of 5.01, including 15,327 gsf (and zsf) of commercial floor area, 6,447 gsf (and zsf) of community facility floor area, an estimated 129,506 gsf (119,443 zsf) of residential floor area, 19,389 gsf (0 zsf) of subsurface accessory parking area, and 8,043 gsf (0 zsf) of mechanical space, bicycle parking, and utility and storage rooms. The proposed mixed-use building would have commercial and community facility uses and a recreation room on the ground floor, 44 accessory parking spaces in the cellar, and 122 dwelling units on the upper floors. From 24 to 37 dwelling units would be permanently income-restricted per MIH. The building would rise to a maximum height of 85 feet on the portion of the building at the corner of 108th Street and 51st Avenue with 4- and 5-story portions to the north and west. A new curb cut would be provided on 50th Avenue to provide access to the underground parking garage.

Projected Development Site 2 would contain an estimated 93,575 gsf and 75,150 zsf of floor area (5.01 FAR), including 10,198 gsf (and zsf) of community facility floor area, an estimated 70,424 gsf (64,952 zsf) of residential floor area, 8,400 gsf (0 zsf) of subsurface accessory parking area, and 4,553 gsf (0 zsf) for mechanical and utility space, bicycle parking, and storage rooms. The proposed residential and community facility building would have community facility uses and the residential lobby on the ground floor, 24 accessory parking spaces in the cellar, and 80 dwelling units on the upper floors. 16 to 24 dwelling units would be permanently income-restricted per MIH. The building would rise to a maximum height of 7 stories and 75 feet. A new curb cut would be provided on 108th Street to provide access to the underground parking garage.

Purpose and Need of the Proposed Actions

The proposed Rezoning Area is transit-oriented (despite its location outside of the Transit Zone) and has frontage on two wide streets, Corona Avenue and 108th Street, that can support the additional density permitted by the proposed R7A zoning district. The proposed C2-4 overlay would result in a reduction of required parking for non-residential uses within the Rezoning Area. The proposed development sites are underutilized and the Proposed Actions would

facilitate their redevelopment with new housing, including permanently income-restricted units under MIH, and local retail and community facility uses. In addition, there is a critical need for housing in Community District 4 where 54 percent of residents rent-burdened. Community District 4 has the sixth highest rent-burdened population in New York City (higher than Queens overall at 46.8 percent and NYC overall at 44.5 percent). However, there are no IHDAs or MIH Areas in the immediate area with the exception of the MIH Area established in connection with the 110-40 Saultell Ave. Rezoning (C 200103 ZMQ; effective November 19, 2020).

Analysis Framework

The Future without the Proposed Actions

Projected Development Sites 1 and 2 are both underbuilt relative to the existing zoning, with FARs of 0.64 and 0.52 respectively. Because those FARs are approximately one-third and one-quarter of the currently permitted 2.00 FAR, it is assumed that both sites would be redeveloped whether or not the Proposed Actions are approved.

Absent the Proposed Actions, it is assumed that Projected Development Site 1 would be developed with approximately 87,044 gsf of floor area comprised of 39,393 gsf of residential floor area, 15,545 gsf of retail space, 5,670 gsf of community facility space (medical offices), and 22,500 gsf of parking floor area plus 3,936 gsf of floor area for mechanicals, storage, bicycle parking, and utilities within the 26,436 gsf cellar level. The building would be 3-stories and 35 feet in height and would contain 46 dwelling units. The cellar level of the building would contain 76 parking spaces. The parking would be accessed via a new 12-foot wide curb cut on 50th Avenue. The building would cover the entire lot.

It is assumed that Projected Development Site 2 would be developed with approximately 44,522 gsf of floor area comprised of 21,735 gsf of residential floor area, 10,000 gsf of community facility space (medical offices), and 4,000 gsf of parking floor area plus 8,787 gsf of floor area for mechanicals, storage, bicycle parking, and utilities within the 12,787 gsf cellar level. The building would be 3-stories and 35 feet in height and would contain 26 dwelling units. The cellar level of the building would contain 13 parking spaces and would be accessed via a new 12-foot wide curb cut on 108th Street. The building would cover the entire lot.

It is assumed that Projected Development Site 3 would not be redeveloped as it is currently developed to an FAR of 1.26 with an unbuilt FAR of about 37% of the maximum permitted FAR of 2.0 under the site's existing R6B/C2-3 zoning, much lower than the standard 50% threshold. It is therefore assumed that the site would remain in its existing condition for the No-Action Scenario and would continue to be improved with 3 two-story, mixed residential and commercial buildings, totaling approximately 6,212 gsf in floor area (4,210 gsf residential and 2,002 gsf commercial) and containing 3 residential dwelling units.

It is assumed that Potential Development Site 1 would not be redeveloped due to its small lot size of only 2,500 sf, the limited development potential of a total FAR of 2.0 with an existing FAR of 0.62, and the difficulty of obtaining financing for a small infill development. It is therefore assumed that the site would remain in its existing condition for the No-Action Scenario and

would continue to be improved with a two-story, two-family residential building, totaling approximately 1,688 gsf in floor area and containing 2 residential dwelling units.

It is assumed that no other Project Area properties would be redeveloped.

The Future with the Proposed Actions

In order to present a conservative analysis, a reasonable worst-case development scenario (RWCDS) that differs from the proposed development has been identified. In the future with the Proposed Actions, the Applicant's developments would achieve the maximum permitted building height of 115 feet, and one non-Applicant-owned site would also be redeveloped.

The With-Action Scenario analyzes the Applicant owned Projected Development 1 as an 11-story, 115-foot-tall, mixed-use building with 178,712 gsf and 141,217 zsf of floor area, for an FAR of 5.01, including 15,327 gsf (and zsf) of commercial floor area, 6,447 gsf (and zsf) of community facility floor area, an estimated 129,506 gsf (119,443 zsf) of residential floor area, 19,389 gsf (0 zsf) of subsurface accessory parking area, and 8,043 gsf (0 zsf) of mechanical space, bicycle parking, and utility and storage rooms. The proposed mixed-use building would have commercial and community facility uses and a recreation room on the ground floor, 44 accessory parking spaces in the cellar, and 151 dwelling units on the upper floors. From 30 to 45 dwelling units (20 percent to 30 percent of the total) would be permanently income-restricted per MIH, depending on whether Option 1, 2, or 3 is used. The building would rise to a maximum height of 105 feet on the portion of the building at the corner of 108th Street and 51st Avenue with 4- and 5-story portions to the north and west. A new curb cut would be provided on 50th Avenue to provide access to the underground parking garage.

The With-Action Scenario analyzes the Applicant owned Projected Development 2 as an 11-story, 115 foot-tall, mixed-use building with 93,575 gsf and 75,150 zsf of floor area (5.01 FAR), including 10,198 gsf (and zsf) of community facility floor area, an estimated 70,424 gsf (64,952 zsf) of residential floor area, 8,400 gsf (0 zsf) of subsurface accessory parking area, and 4,553 gsf (0 zsf) for mechanical and utility space, bicycle parking, and storage rooms. The proposed residential and community facility building would have community facility uses and the residential lobby on the ground floor, 24 accessory parking spaces in the cellar, and 80 dwelling units on the upper floors, of which 16 to 24 would be permanently income-restricted per MIH. A new curb cut would be provided on 108th Street to provide access to the underground parking garage.

The With-Action Scenario analyzes Projected Development Site 3 (Block 1994, Lots 40 and 41) as an 11-story, 115 foot-tall, mixed-use building with 24,945 gsf/zsf of floor area for a total FAR of 5.01 including 3,050 gsf/zsf of commercial space, 1,979 gsf/zsf of community facility space, and 19,916 gsf/zsf of residential floor area plus cellar space for mechanicals, bicycle parking, and utility and storage rooms. There would be 23 dwelling units. The number of affordable units would be 25-30% of the total residential units or 6 to 7 dwelling units. No parking would be provided or required.

It is assumed that Potential Development Site 1 (Block 1994, Lot 6) would not be redeveloped by the 2029 analysis year but that it might be redeveloped at some point in the future. If and when the site is redeveloped, the development would consist of an 11-story, 115 foot-tall, residential building with 12,525 gsf/zsf of floor area for a total FAR of 5.01. There would be 15 dwelling units. The number of affordable units would be 25-30% of the total residential units or 4 to 5 dwelling units. No parking would be provided or required.

It is assumed that no other Project Area properties would be redeveloped.

Build Year

It is assumed that the Proposed Actions would be approved by the end of 2025. The Proposed Developments on the three Projected Development Sites are expected to be constructed in two phases and would be completed within approximately three to four years by the year 2029.

Construction would occur in two phases. The first phase of construction would occur on Site 2. Following a gap of between 3 and 6 months, construction would occur on Projected Development Sites 1 and 3.

It is anticipated that, based on the building sizes, there would be a construction duration of 15 months for Projected Development Site 2 and 22 and 13 months for both Projected Development Sites 1 and 3 respectively.

ENVIRONMENTAL ASSESSMENT STATEMENT

INTRODUCTION

Based on the analysis and the screenings contained in the Environmental Assessment Statement Short Form, the analysis areas that require further explanation include land use, zoning, and public policy, community facilities (schools), open space, shadows, historic and cultural resources, urban design, hazardous materials, transportation, air quality, noise, neighborhood character, and construction as further detailed below. The subject heading numbers below correlate with the relevant chapters of the *CEQR Technical Manual.*

4. LAND USE, ZONING AND PUBLIC POLICY

Introduction

Under the *City Environmental Quality Review (CEQR) Technical Manual* guidelines, a land use analysis evaluates the use and development trends in the area that may be affected by a proposed action and determines whether the proposed action is compatible with those conditions or may affect them. Similarly, the analysis considers the proposed action's compliance with, and effect on, the area's zoning and other applicable public policies.

The Applicant, Anthony Federici, Federici Builders Corp., is seeking City Planning Commission (CPC) approval of a Zoning Map Amendment to rezone the Project Area identified as Block 1994, Lots 1, 3, 4, 6, 7, 9, 10, 12, 13, 15, 16, 18, 19, 22, 23, 25, 30, 33, 36, 37, 40, 41, and 42, and Block 1993, Lot 65, from the current R6B and R6B/C2-3 zoning to R7A & R7A/C2-4 zoning districts. The Applicant also seeks CPC approval of a Zoning Text Amendment to Appendix F to establish the Project Area as a Mandatory Inclusionary Housing (MIH) Area.

The proposed land use actions would facilitate the development of a 7-story building and a 6-story building. The larger of the two buildings (Projected Development Site 1) would be a 7-story, 75-foot tall mixed-use residential, commercial, and community facility building fronting Corona Avenue, 50th Avenue, 51st Avenue, and 108th Street on Block 1994, Lots 12, 13, 15, 16, 18, 19, 22, 23, 25, and 30. A six-story, 65-foot tall residential and community facility building (Projected Development Site 2) would be located at the corner of 50th Avenue and 108th Street on Block 1993, Lot 65.

Projected Development Site 1 would contain approximately 166,367 gsf and 128,956 zsf of floor area (4.58 FAR), including 15,327 gsf of commercial floor area, 6,447 gsf of community facility floor area, 117,161 gsf of residential floor area, 19,389 gsf of subsurface accessory parking area, and 8,043 gsf of mechanical space, bicycle parking, and utility and storage rooms. The proposed mixed-use building would have commercial and community facility uses and a recreation room on the ground floor, 44 accessory parking spaces in the cellar, and 110 dwelling units on the upper floors. Approximately 33 dwelling units would be permanently income-restricted per MIH. The building would rise to a maximum height of 75 feet on the portion of the building at the corner of 108th Street and 51st Avenue with 4- and 5-story portions to the north and west. A

new curb cut would be provided on 50th Avenue to provide access to the underground parking garage.

Projected Development Site 2 would contain approximately 84,809 gsf and 69,000 zsf of floor area (4.60 FAR), including 10,199 gsf of community facility floor area, 61,657 gsf of residential floor area, 8,400 gsf of subsurface accessory parking area, and 4,553 gsf for mechanical and utility space, bicycle parking, and storage rooms. The proposed residential and community facility building would have community facility uses and the residential lobby on the ground floor, 24 accessory parking spaces in the cellar, and 60 dwelling units on the upper floors. 18 dwelling units would be permanently income-restricted per MIH. The building would rise to a maximum height of 6-stories and 65 feet. A new curb cut would be provided on 108th Street to provide access to the underground parking garage.

According to the *CEQR Technical Manual*, the appropriate study area for land use, zoning and public policy is related to the type and size of the project, as well as the location and context of the area that could be affected by the project. To assess the potential for project related impacts, the land use study area has been defined as the area located within a 400-foot radius of the proposed Project Area. The 400-foot radius study areas includes an area generally bounded by 48th Avenue on the north, an area between 52nd and 53rd Avenue to the south, an area between 108th and 111th Streets on the east, and 104th Street on the west. Multiple sources have been used to prepare a comprehensive analysis of land use, zoning, and public policy characteristics of the area, including field surveys, studies of the neighborhood, census data, and land use and zoning maps.

LAND USE

Existing Conditions

Project Area

The Project Area includes the Applicant controlled properties, Projected Development Sites 1 and 2 and Potential Development Site 1, the non-Applicant controlled Projected Development Site 3, and a number of properties that are not anticipated to be developed as further detailed below. The Project Area totals approximately 76,822 square feet in size, with the Applicant controlled parcels totaling approximately 45,687 square feet in area and the non-Applicant controlled parcels totaling approximately 31,135 square feet in size.

The Applicant owned Projected Development Site 1 is located on Block 1994, Lots 12, 13, 15, 16, 18, 19, 22, 23, 25, and 30. The site is approximately 28,187 square feet in size. It is improved with 18,155 gsf of floor area with 2 two-story mixed residential and commercial buildings, 2 two-story residential buildings, and 2 one- to two-story commercial buildings. It contains 14 dwelling units. It also contains approximately 25 spaces of accessory surface parking.

The Applicant owned Projected Development Site 2 is located on Block 1993, Lot 65. The site is approximately 15,000 square feet in size. It is improved with 3 one-story warehouse buildings totaling approximately 7,855 gsf in floor area.

The non-Applicant owned Projected Development Site 3 is located on Block 1994, Lots 40 and 41. The site is approximately 4,979 square feet in size. It is improved with 3 two-story, mixed residential and commercial buildings, totaling approximately 6,212 gsf in floor area and containing 3 residential dwelling units.

The Applicant owned Potential Development Site 1 is located on Block 1994, Lot 6. The site is approximately 2,500 square feet in size. It is improved with a two-story, two-family residential building, totaling approximately 1,688 gsf in floor area and containing 2 residential dwelling units.

The remaining non-Applicant owned properties within the Project Area include Block 1994, Lots 1, 3, 4, 7, 9, 10, 33, 36, 37, and 42. These lots total approximately 28,156 square feet in land area and are improved with 10 two- to four-story mixed residential buildings, and one mixed-use residential and commercial building totaling approximately 35,561 gsf in floor area.

400-Foot Radius Project Study Area

The proposed Project Area is located in the Corona neighborhood of Queens within Community District 4. The area within a 400-foot radius of the Project Area is characterized by a mix of one- and two-family and small multi-family residences; mixed residential and commercial buildings; community facility uses including churches; commercial office and retail uses; parking lots and vacant land; and a small triangularly shaped open space. The prevailing built form in the area generally ranges from one- to three-stories.

No-Action Scenario

Project Area

It is assumed that Projected Development Site 1, owned by the Applicant, would be developed with approximately 87,044 gsf of floor area (56,374 zsf) comprised of 39,393 gsf of residential floor area, 15,545 gsf of retail space, 5,670 gsf of community facility space (medical offices), and 22,500 gsf of parking floor area plus 3,936 gsf of floor area for mechanicals, storage, bicycle parking, and utilities within the 26,436 gsf cellar level. The building would be 3-stories and 35 feet in height and would contain 46 dwelling units. The cellar level of the building would contain 76 parking spaces, of which 23 would be for the residential occupants of the building, 39 for the commercial tenants, and 14 for the community facility space in the building. The parking would be accessed via a new 12-foot wide curb cut on 50th Avenue. The development would have a total FAR of 2.0 and the building would cover the entire lot.

It is assumed that Projected Development Site 2, owned by the Applicant, would be developed with approximately 44,522 gsf of floor area (30,000 zsf) comprised of 21,735 gsf of residential floor area, 10,000 gsf of community facility space (medical offices), and 4,000 gsf of parking floor area plus 8,787 gsf of floor area for mechanicals, storage, bicycle parking, and utilities within the 12,787 gsf cellar level. The building would be 3-stories and 35 feet in height and would contain 26 dwelling units. The cellar level of the building would contain 13 parking spaces for the residential occupants of the building, and would be accessed via a new 12-foot wide curb cut on

108th Street. The development would have a total FAR of 2.0 and the building would cover the entire lot.

It is assumed that Projected Development Site 3, which is non-Applicant owned, would not be redeveloped as it is currently developed to an FAR of 1.26 with an unbuilt FAR of about 37% of the maximum permitted FAR of 2.0 under the site's existing R6B/C2-3 zoning, much lower than the standard 50% threshold. It is therefore assumed that the site would remain in its existing condition for the No-Action Scenario and would continue to be improved with 3 two-story, mixed residential and commercial buildings, totaling approximately 6,212 gsf in floor area (4,210 gsf residential and 2,002 gsf commercial) and containing 3 residential dwelling units.

It is assumed that Potential Development Site 1, which is Applicant owned, would not be redeveloped due to its small lot size of only 2,500 sf, the limited development potential of a total FAR of 2.0 with an existing FAR of 0.62, and the difficulty of obtaining financing for a small infill development. It is therefore assumed that the site would remain in its existing condition for the No-Action Scenario and would continue to be improved with a two-story, two-family residential building, totaling approximately 1,688 gsf in floor area and containing 2 residential dwelling units.

In the future without the Proposed Actions, Projected Development Sites 1, 2, and 3 would contain a total of approximately 137,778 gsf (92,586 zsf) of floor area comprised of 65,338 gsf of residential floor area, 17,547 gsf of retail floor area, and 15,670 gsf of community facility space (medical offices). The No-Action Scenario would include 75 dwelling units and 89 accessory parking spaces (36 residential, 39 commercial, and 14 community facility).

It is assumed that the remaining non-Applicant owned properties within the Project Area including Block 1994, Lots 1, 3, 4, 7, 9, 10, 33, 36, 37, and 42 would not be redeveloped under the No-Action Scenario as further discussed below. Therefore, the existing development on these parcels comprised of 33,873 gsf of floor area including 31,773 gsf of residential floor area and 2,100 gsf of commercial retail space would remain.

Lot 1 has been excluded per the guidance provided in Chapter 2 of the *CEQR Technical Manual* because it is a residential building with 6 dwelling units constructed in 1931. This building is likely to be rent-stabilized and difficult to legally demolish due to tenant relocation requirements.

Lots 3, 4, 7, 9, 10, and 33 have been excluded per the guidance provided in Chapter 2 of the *CEQR Technical Manual* because they are small lots of only 2,500 square feet (lot 33 is 2,616 sf) developed in excess of 50% of the maximum permitted FAR under existing zoning. In addition, these lots do not adjoin any other parcels in common ownership.

Lots 36 and 37 have been excluded per the guidance provided in Chapter 2 of the *CEQR Technical Manual* because they are relatively small lots of 3,368 square feet that are developed in excess of 50% of the maximum permitted FAR under existing zoning. In addition, the lots do not adjoin any other parcels in common ownership.

Lot 42 has been excluded per the guidance provided in Chapter 2 of the *CEQR Technical Manual* because it is a very small lot of only 1,435 square feet. In addition, the lot does not adjoin any other parcels in common ownership.

400-Foot Radius Project Study Area

The following new development projects have been identified for the 400-foot radius project study area based on a review of the NYC Active Construction website (maintained by the New York City Department of Buildings).

- 104-22 Corona Avenue (B 1935, L 6) – 4-story 6,363 sf enlargement to an existing building to include 6 dwelling units.
- 104-49 49th Avenue (B 1992, L 67) – new 3-story 3,276 sf residential building with 3 dwelling units.
- 104-47 49th Avenue (B 1992, L 69) - new 3-story 3,600 sf residential building with 3 dwelling units.
- 106-03 49th Avenue (B 1992, L 64) - new 3-story 2,912 sf residential building with 1 dwelling unit.
- 106-05 49th Avenue (B 1992, L 63) - new 3-story 3,600 sf residential building with 3 dwelling units.

No other development plans are known to exist for the undeveloped parcels or other uses within the project study area as identified above by the project build year of 2029. Although the few small vacant parcels and parcels used for at-grade parking could be redeveloped, existing land uses within the immediate study area are expected to remain largely unchanged by the project build year.

With-Action Scenario

Project Area

Projected Development Sites 1 and 2 are owned by the Applicant while Projected Development Site 3 is non-Applicant owned. Lots 40 and 41, which comprise Projected Development Site 3, have shared ownership and would have a combined lot size of nearly 5,000 square feet if merged, and are therefore included as a projected development site. All three sites are developed to significantly less than 50% of the maximum FAR of 5.01 that would be permitted under the proposed rezoning to R7A/C2-4. Projected Development Site 1 (28,187 sf lot with 18,155 building square footage), Projected Development Site 2 (15,000 sf lot with 7,855 building square footage), and Projected Development Site 3 (4,979 sf lot with 6,212 building square footage) are currently developed to FARs of 0.64, 0.52, and 1.25, respectively. Much of the existing development is outdated as most buildings were built before 1930, and four of the 13 lots within the Projected Development Sites are primarily or totally used for at-grade parking only.

Block 1994, Lot 6 is considered to be a Potential Development Site as it is owned by the Applicant. However, the Applicant does not have any plans to redevelop Lot 6 given the

difficulty of obtaining financing for a small infill development and limited upside compared to the other Applicant-owned sites within the rezoning area.

The With-Action Scenario for Projected Development Sites 1, 2, and 3 and Potential Development Site 1 has been developed based on the provisions of the proposed R7A/C2-4 zoning, which permits a maximum FAR of 5.01 and a maximum building height of 11 stories and 115 feet. The developments proposed for Projected Development Sites 1 and 2 would achieve the 5.01 maximum permitted FAR, and the With-Action Scenario therefore assumes the projected uses and square footages, but the proposed developments are shorter than would be permitted. Although it would be inefficient and uneconomical to increase the heights of the buildings on Projected Development Sites 1, 2, and 3 and Potential Development Site 1 to the maximum permitted 11 stories and 115 feet (resulting in very small floor plates) when the maximum permitted floor area could be accommodated at much lower heights, the taller heights have been assumed to provide a more conservative analysis relative to shadows and urban design.

The With-Action Scenario analyzes the Applicant owned Projected Development 1 as an 11-story, 115-foot-tall, mixed-use building with 178,712 gsf and 141,217 zsf of floor area, for an FAR of 5.01, including 15,327 gsf (and zsf) of commercial floor area, 6,447 gsf (and zsf) of community facility floor area, an estimated 129,506 gsf (119,443 zsf) of residential floor area, 19,389 gsf (0 zsf) of subsurface accessory parking area, and 8,043 gsf (0 zsf) of mechanical space, bicycle parking, and utility and storage rooms. The proposed mixed-use building would have commercial and community facility uses and a recreation room on the ground floor, 44 accessory parking spaces in the cellar, and 151 dwelling units on the upper floors. From 30 to 45 dwelling units (20 percent to 30 percent of the total) would be permanently income-restricted per MIH, depending on whether Option 1, 2, or 3 is used. The building would rise to a maximum height of 105 feet on the portion of the building at the corner of 108th Street and 51st Avenue with 4- and 5-story portions to the north and west. A new curb cut would be provided on 50th Avenue to provide access to the underground parking garage.

The With-Action Scenario analyzes the Applicant owned Projected Development 2 as an 11-story, 115 foot-tall, mixed-use building with 93,575 gsf and 75,150 zsf of floor area (5.01 FAR), including 10,198 gsf (and zsf) of community facility floor area, an estimated 70,424 gsf (64,952 zsf) of residential floor area, 8,400 gsf (0 zsf) of subsurface accessory parking area, and 4,553 gsf (0 zsf) for mechanical and utility space, bicycle parking, and storage rooms. The proposed residential and community facility building would have community facility uses and the residential lobby on the ground floor, 24 accessory parking spaces in the cellar, and 80 dwelling units on the upper floors, of which 16 to 24 would be permanently income-restricted per MIH. A new curb cut would be provided on 108th Street to provide access to the underground parking garage.

The With-Action Scenario analyzes Projected Development Site 3 as an 11-story, 115 foot-tall, mixed-use building with 24,945 gsf/zsf of floor area for a total FAR of 5.01 including 3,050 gsf/zsf of commercial space, 1,979 gsf/zsf of community facility space, and 19,916 gsf/zsf of

residential floor area plus cellar space for mechanicals, bicycle parking, and utility and storage rooms. There would be 23 dwelling units. The number of affordable units would be 20-30% of the total residential units or 5 to 7 dwelling units. No parking would be provided or required.

The With-Action Scenario analyzes Potential Development Site 1 as an 11-story, 115 foot-tall, residential building with 12,525 gsf/zsf of floor area for a total FAR of 5.01. There would be 15 dwelling units. The number of affordable units would be 20-30% of the total residential units or 3 to 5 dwelling units. No parking would be provided or required.

It is assumed that the remainder of the Project Area including Block 1994, Lots 1, 3, 4, 7, 9, 10, 33, 36, 37, and 42 would not be redeveloped.

400-Foot Radius Project Study Area

The Proposed Actions would not result in any changes in land use within the 400-foot radius project study area.

Conclusion

The proposed Rezoning Area is transit-oriented (despite its location in the Outer Transit Zone) and has frontage on two wide streets, Corona Avenue and 108th Street, that can support the additional density permitted by the proposed R7A zoning district. The proposed C2-4 overlay would result in a reduction of required parking for non-residential uses within the Rezoning Area. The proposed development sites are underutilized, and the Proposed Actions would facilitate their redevelopment with new housing, including permanently income-restricted units under MIH, and local retail and community facility uses. In addition, there is a critical need for housing in Community District 4 where 54 percent of residents rent-burdened. Community District 4 has the sixth highest rent-burdened population in New York City (higher than Queens overall at 46.8 percent and NYC overall at 44.5 percent). However, there are no IHDAs or MIH Areas in the immediate area with the exception of the MIH Area established in connection with the 110-40 Saultell Ave. Rezoning (C 200103 ZMQ; effective November 19, 2020).

While the Proposed Actions would introduce increased density to the Project Area, the Proposed Actions would also provide substantial new affordable housing. The Proposed Actions would allow for the replacement of underutilized and vacant lots with affordable housing, retail space, and medical office space. The replacement of the existing at-grade parking would not be considered to be a significant land use impact.

The Proposed Actions could alter existing development patterns in the surrounding project study areas in the future, especially of underutilized lots, parking lots, and vacant parcels, by encouraging the development of new residential, community facility, and mixed uses. However, this would be in compliance with City policies to encourage the development of new housing, especially affordable and supportive housing, throughout the city.

Based on the above analyses, it has been determined that no potentially significant adverse impacts related to land use would occur as a result of the Proposed Actions. Therefore, no further analysis is required.

ZONING

Existing Conditions

Project Area

The Project Area is located within R6B and R6B/C2-3 zoning districts that were established in the 1989 DCP-initiated Elmhurst/Corona Rezoning (C 880920 ZMQ; effective September 14, 1989). The Project Area was previously zoned R6 and R6/C2-2 with the enactment of the 1961 Zoning Resolution.

The character of R6 districts can range from neighborhoods with a diverse mix of building types and heights to large-scale "tower in the park" developments. The height factor regulations introduced in 1961 produced small multi-family buildings on small zoning lots and, on larger lots, tall buildings that are set back from the street. The current regulations produce high lot coverage buildings within height limits that often reflect the scale of older, pre-1961 apartment buildings in the neighborhood.

R6B districts are often traditional row- house districts, which preserve the scale and harmonious streetscape of neighborhoods of four-story attached buildings developed during the 19th century. Many of these houses are set back from the street with stoops and small front yards. The district regulations also accommodate apartment buildings at a similar four- to five-story scale. The maximum permitted FAR is 2.00 for standard residences and 2.40 for qualifying affordable housing or qualifying senior housing. The base height of a new building before setback must be between 30 and 45 feet; the maximum height is 55 feet for standard residences and 65 feet for qualifying affordable or senior housing. Curb cuts are prohibited on zoning lot frontages less than 40 feet. The street wall of a new building, on any lot up to 50 feet wide, must be as deep as one adjacent street wall but no deeper than the other. Buildings must have interior amenities for the residents pursuant to the Quality Housing Program. Off-street parking is required for 25% to 50% of standard dwelling units, 0% to 25% of qualifying affordable units, and 0% to 10% of qualifying senior units, depending on the part of the city in which the development is located. It is not allowed in front of a building.

Small retail and service shops in C1 and C2 districts serve the immediate needs of surrounding residential communities. Some C1 and C2 districts are mapped as overlays, usually within low- and medium-density residential neighborhoods. In these districts, residential bulk is governed by the residence district within which the overlay is mapped, whereas all other commercial districts that permit residential use are assigned a specific residential district equivalent. In all mixed buildings, commercial uses must be located below any residential use. The maximum commercial FAR for a C2-3 overlay in an R6 or R6B zone is 2.0. Parking requirements vary by use within the C2-3 zone with one parking space required for each 400 square feet of general retail commercial floor area.

400-Foot Radius Project Study Area

The zoning districts mapped throughout the surrounding area include the R5 and R6B/C2-3 districts. No other zoning districts are located within 400 feet of the Project Area. The R6B and C2-3 districts are discussed above.

The R5 zoning district allows all housing types including detached, semi-detached, attached and multi-family residences (UG II) as well as community facility uses (UG III). The maximum FAR for all housing types is 1.50 for development on a standard lot and 2.00 for development on a qualifying residential site, with a community facility FAR of 2.00, and the maximum street wall and total building heights are 35 and 45 feet, respectively, for standard lots and 45 and 55 feet for qualifying residential sites. Detached houses must have two side yards that total at least 13 feet, each with a minimum width of five feet. Semi-detached houses need one eight-foot wide side yard. Apartment houses need two side yards, each at least eight feet wide. Off-street parking is required for 35% to 50% of standard dwelling units, 0% to 25% of qualifying affordable units, and 0% to 10% of qualifying senior units, depending on the part of the city in which the development is located.

No-Action Scenario

Project Area

In the No-Action Scenario, the Project Area would maintain its current zoning as described above.

400-Foot Radius Project Study Area

Based on a review of the Department of City Planning's website for Queens Community District 4, no rezoning applications are presently proposed for the 400-foot radius project study area.

With-Action Scenario

Project Area

The Applicant, Anthony Federici, Federici Builders Corp., is seeking CPC approval of a Zoning Map Amendment to rezone the Project Area from the current R6B and R6B/C2-3 zoning to R7A & R7A/C2-4 zoning districts. The Applicant also seeks CPC approval of a Zoning Text Amendment to Appendix F to establish the Project Area as an Inclusionary Housing Designated Area and a Mandatory Inclusionary Housing (MIH) Area.

The R7A zoning district is contextual zoning district that requires development to be in accordance with Quality Housing standards. The contextual Quality Housing regulations typically produce high lot coverage, seven- to nine-story apartment buildings, blending with existing buildings in many established neighborhoods.

The FAR in R7A districts is 4.0 for standard residences and 5.01 for qualifying affordable or senior housing. Above a base height of 40 to 75 feet, or 85 feet for qualifying affordable or senior housing, the building must set back to a depth of 10 feet on a wide street and 15 feet on a narrow street before rising to a maximum height of 88 feet, or 115 feet for qualifying affordable or senior housing. In order to preserve the traditional streetscape, the street wall of a new building can be

no closer to the street line, than any adjacent street wall, but need not be farther than 10 feet. Buildings must have interior amenities for the residents pursuant to the Quality Housing Program.

Off-street parking is generally required for 50 percent of a building's dwelling units, but requirements are lower for income-restricted housing units (IRHU) and are further modified in certain areas, such as within the Transit Zone and the Manhattan Core, or for lots 10,000 square feet or less. Off-street parking is required for 15% to 50% of standard dwelling units, 0% to 12% of qualifying affordable units, and 0% to 10% of qualifying senior units, depending on the part of the city in which the development is located.

The C2-4 overlay zoning permits a wide range of local retail service establishments which is intended to serve a wide neighborhood. When mapped in R7 zoning districts, the C2-4 maximum commercial FAR is 2.0 and zoning regulations limit commercial uses to one or two floors. The C2-4 district requires one parking space required for each 1,000 square feet of general retail and ambulatory diagnostic floor area.

A zoning text amendment is proposed to modify ZR §23-933, Appendix F to designate the newly mapped R7A and R7A/C2-4 districts as Mandatory Inclusionary Housing (MIH) designated areas. There is a critical need for housing in Community District 4 where 54 percent of residents are rent-burdened. Community District 4 has the sixth highest rent-burdened population in New York City (higher than Queens overall at 46.8 percent and NYC overall at 44.5 percent). Under the MIH provisions applicable to the project, (20%, 25% or 30%) of the dwelling units in the projected developments on Projected Development Sites 1, 2, and 3 would be reserved as low- to moderate-income units under MIH, at an average of 40%, 60% or 80% of Area Median Income (AMI). The required percentage of units and permitted income ranges depend on which of the following options is used:

- Option 1: 25 percent of the residential floor area shall be provided as housing affordable to households at an average of 60 percent of AMI, with no unit targeted at a level exceeding 130 percent of AMI.
- Option 2: 30 percent of the residential floor area shall be provided as housing affordable to households at an average of 80 percent of AMI, with no unit targeted at a level exceeding 130 percent of AMI.

- Option 3: 20 percent of the residential floor area shall be provided as housing affordable to households at an average of 40 percent of AMI, with no unit targeted at a level exceeding 130 percent of AMI.

400-Foot Radius Project Study Area

The Proposed Actions would not result in any changes to the zoning of the 400-foot radius project study area.

Conclusion

The requested zoning actions would only apply to the Project Area and would not affect lots beyond this area. The development of the proposed project would introduce a higher density of development than is permitted by current zoning in the Project Area and the surrounding 400-foot project study area. However, the proposed Rezoning Area is transit-oriented (located in the Outer Transit Zone) and has frontage on two wide streets, Corona Avenue and 108th Street, that can support the additional density permitted by the proposed R7A zoning district. The proposed C2-4 overlay would result in a reduction of required parking for non-residential uses within the Rezoning Area. The proposed development sites are underutilized, and the Proposed Actions would facilitate their redevelopment with new housing, including permanently income-restricted units. Based on the above analysis, it has been determined that no potentially significant adverse impacts related to zoning would occur as a result of the Proposed Actions. Therefore, no further analysis is required.

PUBLIC POLICY

Existing Conditions

According to the *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. Public policies applicable to the Project Area and 400-foot radius project study area are discussed below.

Project Area

Public policies applicable to the Project Area include One New York: The Plan for a Strong and Just City (OneNYC), Housing New York: A Five-Borough, Five-Year Plan (Housing New York), and the City's Food Retail Expansion to Support Health (FRESH) program.

400-Foot Radius Project Study Area

The portion of the 400-foot radius project study area east of 108th Street is located within the City's Coastal zone boundary and this area is therefore subject to the provisions of the City's Waterfront Revitalization Program (WRP). The policies noted above for the Project Area are also applicable to the 400-foot radius project study area.

OneNYC

In April 2015, Mayor Bill de Blasio released OneNYC, a comprehensive plan for a sustainable and resilient city for all New Yorkers that speaks to the profound social, economic, and environmental challenges faced. OneNYC is the update to the sustainability plan for the City started under the Bloomberg administration, previously known as PlaNYC 2030: A Greener, Greater New York. Growth, sustainability, and resiliency remain at the core of OneNYC, but with the poverty rate remaining high and income inequality continuing to grow, the de Blasio administration added equity as a guiding principle throughout the plan. In addition to the focuses of population growth; aging infrastructure; and global climate change, OneNYC brings new attention to ensuring the voices of all New Yorkers are heard and to cooperating and coordinating with regional counterparts. Since the 2011 and 2013 updates of PlanNYC, the City

has made considerable progress towards reaching original goals and completing initiatives. OneNYC includes updates on the progress towards the 2011 sustainability initiatives and 2013 resiliency initiatives and also sets additional goals and outlines new initiatives under the organization of four visions: growth, equity, resiliency, and sustainability.

Housing New York

Housing New York is the City's comprehensive housing development policy, which includes a primary goal of building or preserving 200,000 units of high-quality affordable housing over the next decade (since updated to 300,000 units). Housing New York was developed in conjunction with the New York City Department of Housing and Preservation (HPD) to create housing opportunities for New Yorkers with a range of incomes, while fostering vibrant and diverse neighborhoods. Framed by the policy goals and objectives in Housing New York, the City Council adopted an amendment to the ZR to establish the MIH program on March 22, 2016. This program requires that a percentage of new housing be permanently affordable when an increase in residential floor area is requested (i.e., an upzoning). The primary components of Housing New York include: (i) Mandatory affordable housing: production of affordable housing would be a condition of residential development when developers build in a designated MIH area, whether rezoned as part of a City neighborhood plan or a private rezoning application; and (ii) Affordable housing would be permanent: there would be no expiration to the affordability requirement of apartments generated through MIH, making them a long-term, stable reservoir of affordable housing. MIH includes a number of possible options (officially designated by the City Council), as follows:

- Option 1: 25 percent of the residential floor area shall be provided as housing affordable to households at an average of 60 percent of the Income Index (AMI), with no unit targeted at a level exceeding 130 percent of AMI.
- Option 2: 30 percent of the residential floor area shall be provided as housing affordable to households at an average of 80 percent of the Income Index (AMI), with no unit targeted at a level exceeding 130 percent of AMI.
- Option 3: 20 percent of the residential floor area shall be provided as housing affordable to households at an average of 40 percent of the Income Index (AMI), with no unit targeted at a level exceeding 130 percent of AMI.

FRESH Program

The Food Retail Expansion to Support Health (FRESH) applies to the Project Area and the surrounding project study area. The City has established the FRESH program in response to the issues raised in neighborhoods that are underserved by grocery stores. FRESH provides discretionary tax incentives in this area to promote the establishment and retention of neighborhood grocery stores in underserved communities throughout the five boroughs. The FRESH program is open to grocery store operators renovating existing retail space or developers seeking to construct or renovate retail space that will be leased by a full-line grocery store operator. Stores that benefit from the FRESH program must provide a minimum of 6,000 square

feet of retail space for a general line of food and nonfood grocery products intended for home preparation, consumption and utilization.

Waterfront Revitalization Program

Waterfront approval would be required for any new development within the portion of the 400-foot radius project study area that is located within the City's Coastal Zone Boundary Area. New development would need to be assessed for its consistency with the City's Waterfront Revitalization Program.

No other public policies would apply to the Proposed Actions as the Project Area and the surrounding 400-foot radius study area are not located within the boundaries of any 197-a Community Development Plans and also are not within a critical environmental area, a significant coastal fish and wildlife habitat, a wildlife refuge, or a special natural waterfront area. No Historic Districts or individually designated historic resources are located within the Project Area or the surrounding 400-foot radius study area.

No-Action Scenario

Project Area

The Project Area would remain subject to the provisions of OneNYC, Housing New York, and the FRESH Program. No other public policy initiatives would pertain to the Project Area by the project build year of 2029. In addition, no changes are anticipated to any public policy documents relating to the Project Area by the project build year.

400-Foot Radius Project Study Area

In the future without the Action, the portion of the 400-foot radius project study area east of 108th Street would remain within the boundaries of the City's Coastal Zone, and would therefore be subject to the provisions of the WRP. These areas would also remain subject to the provisions of OneNYC, Housing New York, and the FRESH Program. No other public policy initiatives would pertain to the 400-foot study area around the Area by the project build year of 2029. In addition, no changes are anticipated to any public policy documents relating to the surrounding study area by the project build year.

With-Action Scenario

Project Area

OneNYC

The Proposed Actions are consistent with the City's sustainability goals, including those outlined in OneNYC. Notably, the Proposed Actions would support OneNYC's land use goals of creating new housing for a range of incomes, including permanently affordable housing; redeveloping underutilized parcels with new active uses; and providing new development in areas served by public transit. The Proposed Actions would not result in significant adverse impacts related to business displacement as the existing warehouses and small retail businesses in the Project Area are not considered unique or significant in the area. Overall, the Proposed Actions would be supportive of the applicable goals and objectives of OneNYC.

- The Proposed Actions would be consistent with PlaNYC's land use goals. The Proposed Actions would encourage increased development in an area well served by public transportation. The Proposed Actions would facilitate new affordable housing.

- The Proposed Actions would support PlaNYC's transportation goals by facilitating transit-oriented development in an area served by multiple public transportation options.

- The Proposed Actions would meet PlaNYC's air quality goals by promoting the use of mass transit through encouraging development in close proximity to existing transit stops.

- The Proposed Development facilitated by the Proposed Actions would have to comply with all applicable regulations regarding the implementation of low-flow, water efficient fixtures, as per the New York City Plumbing Code, Local Law 33 of 2007 and the United Stated Environmental Protection Agency's (EPA's) WaterSense Program. In addition, any development facilitated by the Proposed Actions would comply with the City's laws and regulations. Therefore, the Proposed Actions are consistent with PlaNYC's water quality goals.

- Development facilitated by the Proposed Actions would be required to meet the more stringent green building practices established in the 2010 update to the New York City Building Code as part of the Greener, Greater Buildings Law. The updated Building Code requires energy audits and benchmarking for larger buildings, among other requirements. The 2011 Enterprise Green Communities Criteria constitute the only comprehensive green building framework designed for affordable housing and provide proven, cost-effective standards for creating healthy and energy- efficient homes.

- The Proposed Actions would not result in any significant adverse impacts to natural resources as such resources are not present in the Project Area or in the immediate surroundings.

- The Proposed Actions would not result in any significant adverse impacts to the City' solid waste system. The Proposed Development in the Project Area would be subject to mandatory recycling requirements. As such, the Proposed Actions would be consistent with PlaNYC's solid waste management goals.

- The Proposed Actions would not alter or conflict with the policies of the Industrial Action Plan. The Proposed Actions would not alter zoning within an IBZ.

- The Proposed Actions would not result in new development within an LPC designated and/or S/NR-listed historic districts.

Housing New York

As discussed above, the Proposed Actions would support the policies and goals of Housing New York by providing a significant number of new permanently affordable housing units.

FRESH Program

The FRESH program would not be relevant to the Proposed Actions as a grocery store is not currently located in the Project Area and is not proposed.

400-Foot Radius Project Study Area

The proposed development would not have any impact on the Coastal Zone, OneNYC, Housing New York, or the FRESH Program within a 400-foot radius of the Project Area. In the future with the Action, new development proposed on other parcels within the 400-foot radius project study area would be subject to the provisions of these public policies.

Conclusion

No impacts to public policies would occur as a result of the Proposed Actions. The Proposed Actions would be a contextually appropriate development within the study area and support existing public policies applicable to the area, including the OneNYC and Housing New York. The Proposed Actions would facilitate the development of needed affordable and supportive housing in the Corona neighborhood of Queens.

Based on the above analyses, it has been determined that no potentially significant adverse impacts related to public would occur as a result of the Proposed Actions. Therefore, no further analysis is required.

6. COMMUNITY FACILITIES

Introduction

The community facilities and services considered under CEQR are public schools, public or publicly subsidized day care centers, public libraries, hospitals and other health care facilities, and police and fire protection services. Under the guidelines set forth in the *CEQR Technical Manual,* a detailed analysis is required only if a proposed action would displace or otherwise directly affect an existing community facility or if it would place significant new demands on facilities or services. Most of the demand for community facility services is generated by the introduction of new residents in an area.

Threshold Analysis

Direct Effects

The Proposed Actions would not physically displace or affect any existing community facilities and would therefore have no direct impact on any community facilities or services. Therefore, further assessment of direct impacts is not warranted.

Indirect Effects

The *CEQR Technical Manual* provides a set of thresholds to use in determining whether detailed studies of potentially significant adverse indirect impacts related to community facilities and services are warranted. The With-Action Scenario would introduce 254 dwelling units, an increment of 182 units more than in the No-Action Scenario.

The Proposed Actions include a text amendment mapping the project area as a MIH area. For CEQR purposes it is assumed that 20 percent of the units (51 units) would be reserved as affordable to households with incomes not exceeding 80 percent of the AMI.

Libraries

According to the *CEQR Technical Manual*, a more than 5% increase in the ratio of residential units to library branches would warrant a detailed analysis. The minimum of residential units required in the Borough of the Queens to trigger a detailed analysis is 663 dwelling units. The With-Action Scenario would produce 182 incremental dwelling units. As this number is below the threshold provided in the *CEQR Technical Manual,* no further analysis is required.

Police/ Fire and Health Care Facilities

According to the *CEQR Technical Manual*, a detailed analysis for police/fire services and health care services is only required if the With-Action Scenario would introduce a "sizeable new neighborhood, e.g. Hunter's Point South." The With-Action Scenario would introduce 254 dwelling units, an increment of 182 units more than in the No-Action Scenario, in an already

built-up area and would not therefore create a "sizeable new neighborhood." As such, no further analysis is required.

Early Childhood Programs

For the purposes of the childcare analysis, under the criteria in the *CEQR Technical Manual* (Table 6-1), the development of 51 dwelling units at or below 80% of AMI would not exceed the minimum number of 139 dwelling units in the Borough of Queens for conducting a detailed analysis of impacts to publicly funded childcare. As such, no further analysis is required.

Public Schools

The *CEQR Technical Manual* states that, in general, if a project would introduce more than 50 school-age children (elementary and intermediate grades), significant impacts on public schools may occur and further analysis of schools may be appropriate. The Project Area is located within Community School District (CSD) 24, Subdistrict 1 as illustrated in **Figure 6-1: Public Schools within CSD 24 Subdistrict 1**.

Based on *CEQR Technical Manual* criteria (Table 6-1), the development of 179 more dwelling units than in the No-Action Scenario would result in the introduction of an estimated 45 elementary school aged children, 16 middle school aged children, and 22 high school aged children. This information is summarized in **Table 6-1: School Seat Multipliers**. The minimum number of total elementary and intermediate school aged children to warrant a detailed analysis is 50 children. The minimum number of high school aged children to warrant a detailed analysis is 150 children. As such, the Proposed Actions have the potential to introduce the minimum number of children necessary to warrant a detailed analysis of impacts to public elementary and middle schools CSD School District 24.

Table 6-1: School Seat Multipliers

	Units	CSD 24 Multipliers	Total Students	Threshold
Elementary	182	0.30	55	50
Intermediate		0.11	20	
High School		0.15	27	150

50-20 108th Street, Queens

Figure 1: Public Elementary and Intermediate Schools Within CSD 24, Sub-district 1

- Proposed Rezoning Area
- # Elementary Schools (see Table 6-1)
- # Intermediate Schools (see Table 6-1)
- # High Schools (see Table 6-1)



Urban Cartographics

Detailed Analysis

Existing Conditions

Primary Study Area (Sub-district Analysis)

The Project Area is located in CSD 24, Subdistrict 1. This district is considered to be the primary study area for the analysis of elementary and intermediate schools. **Figure 6-1, Public Elementary and Intermediate Schools Within CSD 24 Subdistrict 1**, illustrates the locations of these schools.

Table 6-2A provides a listing of the elementary schools within the CSD and Table 6-2B provides a listing of the intermediate schools within the CSD. The table identifies the schools by school name, address, and grades served, and includes the latest available enrollment and school capacity numbers. Elementary school capacity numbers are less than actual building capacities as they assume a class size reduction for kindergarten through the third grades of 20 children per class, 28 children for grades 4-8; and 30 children for grades 9-12 ("target capacity").

Table 6-2A and Table 6-2B indicate that the elementary and intermediate schools within the Subdistrict are, as a whole, at or near capacity. Select schools however are over-utilized. The elementary schools within Subdistrict 1 have a total enrollment of 12,405 students relative to a target capacity of 12,882 seats, resulting in a surplus of 477 seats and a utilization rate of 96.3%. The intermediate schools within Subdistrict 1 have a total enrollment of 3,338 students relative to a target capacity of 3,468 seats, resulting in a surplus of 130 seats and a utilization rate of 96.3%.

Table 6-2A: Elementary Schools within CSD 24 Subdistrict 1

Map ID	School Name	Address	Enrollment	Target Capacity	Available Seats	Utilization
1	P.S. 007 - Q	80-55 CORNISH AVENUE	812	936	124	87%
2	P.S. 012 - Q	42-00 72 STREET	845	796	-49	106%
3	P.S. 013 - Q	55-01 94 STREET	931	1202	271	77%
4	P.S. 014 - Q	107-01 OTIS AVENUE	1032	984	-48	105%
5	P.S. 016 - Q	41-15 104 STREET	1014	1079	65	94%
6	P.S. 019 - Q	40-10 99 STREET	1605	1767	162	91%
22	P.S. 028-Q	109-10 47 AVENUE	277	336	59	82%
8	P.S. 089 - Q	85-28 BRITTON AVENUE	1121	1140	19	98%
9	P.S. 110 - Q	43-18 97 PLACE	849	921	72	92%
10	P.S. 143 - Q	34-55 112 STREET	1472	1511	39	97%
23	51 Avenue Academy	76-05 51 AVENUE	387	423	36	91%
11	Elm Tree School	50-51 98 STREET	832	730	-102	114%
15	Pioneer Academy	40-20 100 STREET	725	610	-115	119%
17	Helen M. Marshall School	110-08 NORTHERN BOULEVARD	503	447	-56	113%
TOTALS			**12,405**	**12,882**	**477**	**96.3%**

1) Source: 2023-2024 Blue Book (Dept. of Education, NYC)

Table 6-2B: Intermediate Schools within CSD 24 Subdistrict 1

Map ID	School Name	Address	Enrollment	Target Capacity	Available Seats	Utilization
7	I.S. 061 Leonardo Da Vinci	98-50 50 AVENUE	2,200	2,169	-31	101%
24	I.S. 419-Q	111-12 ASTORIA BOULEVARD	399	526	127	76%
16	Corona Arts & Sciences Academy	98-11 44 AVENUE	739	773	34	96%
TOTALS			**3,338**	**3,468**	**+130**	**96.3%**

1) Source: 2023-2024 Blue Book (Dept. of Education, NYC)

No-Action Scenario

This section presents an analysis of public-school enrollments (excluding Pre-Kindergarten enrollments) and capacities for the Project Analysis year of 2029 without the Proposed Actions. The analysis includes the primary study area of CSD 24, Sub-district 1.

The basis for the projected enrollment in the sub-district schools is NYC Department of Education (DOE) 2024 – 2033 Enrollment Projections. The projected 2029-2030 school year enrollment in CSD 24 schools would be 15,775 elementary school level students and 8,772 middle school students. The projected enrollment in Sub-district 1 was calculated by multiplying these totals by the percentages of CSD 24 students enrolled in Sub-district 1 schools in 2025 (52.20% at the PS level and 29.05% at the MS level). The calculation results in 8,235 elementary school students and 2,548 middle school students.

These projections were supplemented by the anticipated students added by new residential developments. The NYC School Construction Authority (SCA) maintains two separate lists, Projected New Housing Starts as Used in Enrollment Projections at the PS Level and at the MS Level. The most recent (November 2024) Projected Housing Starts for PS Level Analysis and Projected Housing Starts for MS Level Analysis both include 2,125 housing units for CSD 24, Sub-district 1. Using the CSD 24 multipliers of 0.30 public elementary school students and 0.11 public middle school students per household, this translates into 638 additional elementary

school students and 234 additional middle school students. The combined DOE enrollment projections and SCA housing unit projections yield 2029-2030 enrollments of 8,873 elementary school students and 2,782 middle school students in CSD 24, Sub-district 1.

The projections were also supplemented by the projected redevelopment within the Project Area in the No-Action Scenario. Projected Development Sites 1 and 2 would be redeveloped with 72 housing units, a net increase of 58 units. That would generate another 17 elementary school students and 6 middle school students, bringing projected enrollment to 8,890 elementary school students and 2,788 middle school students.

The 2022 Dept. of Education Five-Year Capital Plan indicates that no new capacity projects would be complete in District 24 Subdistrict 1 before the 2029 analysis year. School capacity would remain unchanged.

As shown in Table 6-3, elementary school seat utilization would be 69.0%, and middle school seat utilization would be 80.4%. The sub-district would have 3,992 available elementary school seats and 680 available middle school seats.

Table 6-3: 2029 No-Action Projected Enrollment[1]

Study Area District 24 - Subdistrict 1	**Projected 2029-2030 Enrollment**	**Students Introduced by No Action Residential Development[1]**	**Total No Action Enrollment**	**Projected Capacity**	**Available Seats**	**Utilization**
Elementary	8,235	655	8,890	12,882	3,992	69.0%
Intermediate	2,548	240	2,788	3,468	680	80.4%

1. These numbers include students introduced by both the 2,125 units from the SCA New Housing Starts and the 58 units added by redevelopment within the Project Area.

With-Action Scenario

As stated above, the Proposed Actions would generate 55 elementary school students and 20 intermediate school students by the 2029 build year. The Proposed Actions would not result in the addition of any new schools or additional capacity. Table 6-4 presents the anticipated student enrollments that would be generated by the Proposed Actions and the effect of these enrollments on the available capacity and utilization rates of the schools within Sub-district 1.

The projected increase of 55 elementary and 20 middle school students resulting from the Proposed Actions in 2029 would have a minimal impact upon the utilization rates of the schools in the CSD sub-district. With the addition of these new enrollments, and new seat capacity the elementary schools and intermediate schools in the CSD would remain below 100%. The utilization rate for elementary schools would be 69.4% while for intermediate schools it would

be 81.0%. The sub-district would have 3,937 available elementary school seats and 660 available middle school seats.

Table 6-4: 2029 With-Action Scenario School Enrollment

School Level	Projected Enrollment Without Project	Students Generated by Project	Projected Enrollment with Project	Projected Capacity	Available Seats	Utilization (%) with Project
Primary Schools	8,890	55	8,945	12,882	3,937	69.4%
Intermediate Schools	2,789	20	2,809	3,468	660	81.0%

According to the *CEQR Technical Manual*, a significant impact on schools may occur if the following two conditions are met: if the project results in a collective utilization rate of the elementary or intermediate schools in the Sub-district study area that is greater than 100% under the With-Action Scenario, and if the Proposed Actions result in an increase of 100 or more new students. As the elementary and middle schools in CSD 24 Sub-district 1 would remain below 100% of capacity, a significant adverse school impact would not occur.

Conclusion

The Proposed Actions would not physically displace or alter a community facility or cause a change that could affect the service delivery of a community facility. In addition, the development would not create a demand that would overtax services or facilities. Development under the Proposed Actions would not adversely affect hospitals and other health care facilities, public libraries, publicly subsidized child-care centers, and police and fire protection services. Utilization rates for elementary schools and intermediate schools in CSD 24 Sub-district 1 would remain below 100% under the With-Action Scenario for the 2029 analysis year. Therefore, no significant adverse impacts to community facility uses would occur in the future with the approval of the Proposed Actions and further analysis is not warranted.

7. OPEN SPACE

Introduction

This chapter assesses the potential impacts of the proposed project on open space resources. Open space is defined by the 2021 *City Environmental Quality Review (CEQR) Technical Manual* as publicly accessible, publicly, or privately-owned land that operates or is available for leisure, play, or sport, or serves to protect or enhance the natural environment. The *CEQR Technical Manual* guidelines indicate that an open space analysis should be conducted if an action would result in a direct effect, such as the physical loss or alteration of public open space, or an indirect effect, such as when a substantial new population could place added demand on an area's open spaces. The Proposed Actions would introduce new residential population to the project area that would create new demands for open space. Therefore, an open space assessment was conducted to determine if the Proposed Actions would significantly affect open space.

Methodology

Direct Effects

Per the *CEQR Technical Manual*, direct effects may occur when the proposed project would encroach on, or cause a loss of, open space. Direct effects may also occur if the facilities within an open space would be so changed that the open space no longer serves the same user population. Limitation of public access and changes in the type and amount of public open space may also be considered direct effects. Other direct effects include the imposition of noise, air pollutant emissions, odors, or shadows on public open space that may alter its usability. The Proposed Actions would not remove or alter any existing publicly accessible open spaces. In addition, study area open spaces would not experience project-related significant adverse shadows, air quality, or operational noise impacts, as discussed in this EAS.

Indirect Effects

Per the *CEQR Technical Manual*, indirect effects may occur when the population generated by the proposed project overtaxes the capacity of existing open spaces so that their service to the future population of the affected area would be substantially or noticeably diminished. For the majority of projects, an assessment is conducted if the proposed project would generate more than 200 residents or 500 employees. The Proposed Actions would introduce 254 units, an incremental increase of 182 compared with the No-Action Scenario, adding an estimated 613 residents to the Project Area. The Proposed Actions would introduce 134 workers (associated with the residential development). As the Proposed Actions are not expected to result in the introduction of more than 500 workers to the Project Area but are expected to result in the introduction of more than 200 residents to the Project Area, a preliminary analysis is needed.

Study Area

Per the *CEQR Technical Manual*, the first step in any open space analysis is to define and map a study area. Once the study area is defined, the next step is to determine which analysis is required through calculating the percentage change in the open space ratio between the No-action Scenario and the future With-Action Scenario.

Open space study areas are defined to allow analysis of both the nearby open spaces and the population using those open spaces. They are generally defined by a reasonable walking distance that users would travel to reach local open space and recreation areas—typically 0.5 mile for residential users and 0.25 mile from commercial projects with a worker population.

The Proposed Actions would introduce more than 200 residents to the Project Area. Per the *CEQR Technical Manual*, it is necessary to examine the change in residential population in the study area relative to total, active, and passive publicly accessible open space in the area and to determine whether the increase in population would significantly impact the adequacy of open space resources in the study area. An assessment of the adequacy of open space for the nonresidential (worker) population is not needed.

As recommended in the *CEQR Technical Manual*, the open space study area comprises all census tracts that have at least 50 percent of their area located within a ½-mile of the Project Area, as shown in **Figure 7-1: Open Space Facilities and Census Tracts**.

Analysis Framework

Indirect Effects Analysis

The indirect effects of a proposed action on open spaces may occur when the action adds enough population to substantially or noticeably reduce the capacity of the open space to serve the population. This can occur when the population generated by the proposed action exceeds the capacity of existing public open spaces.

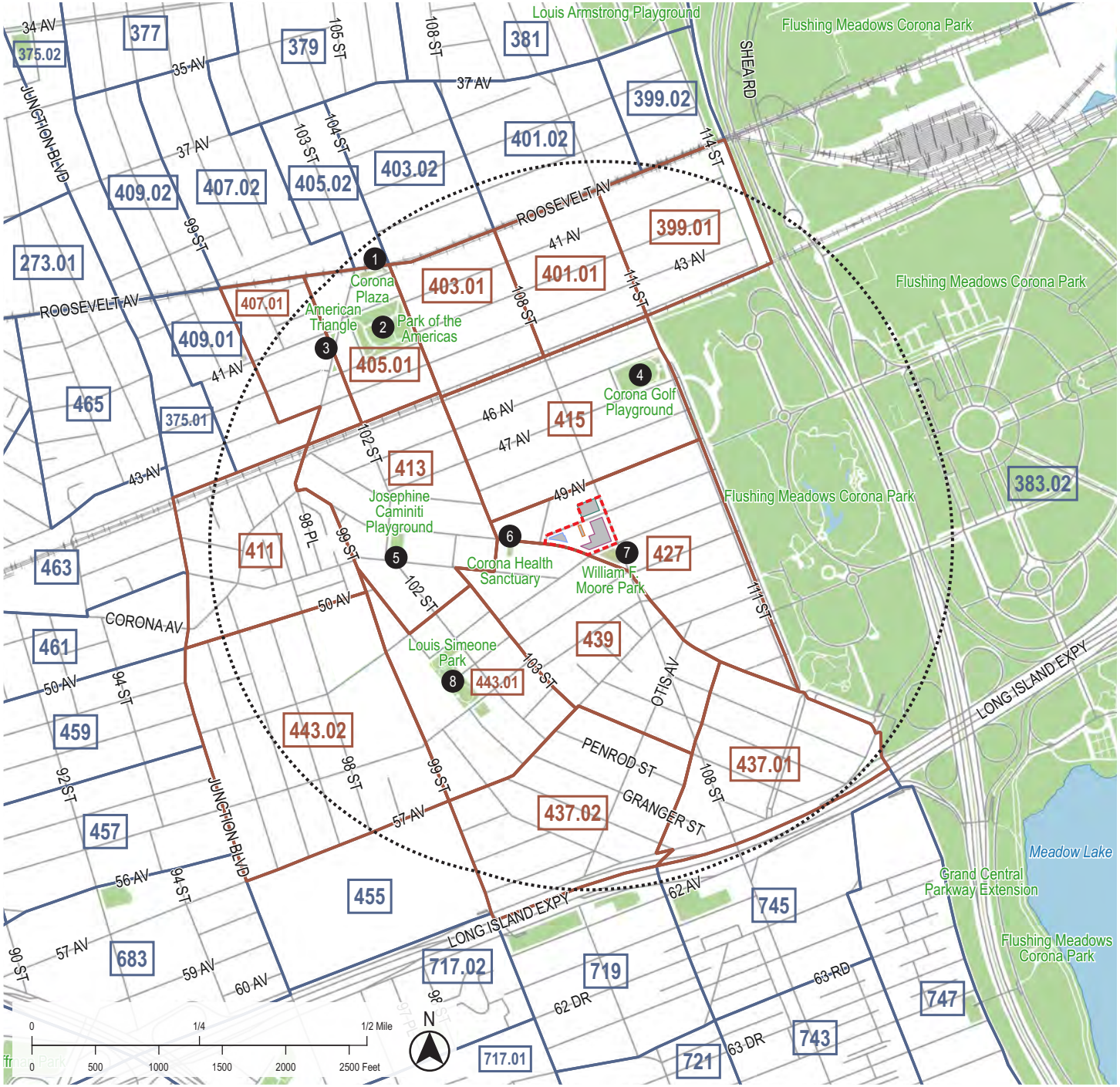
In evaluating the impact of a project on open space, it is important to consider its location in relation to the Walk to a Park Service Area (WPSA). The WPSA is a part of the OneNYC 2050 plan, which aims to have 85% of New York City residents living within walking distance of a park by 2030. According to the plan, an area is considered to be within the WPSA if it is within a half-mile walking distance of a park. Areas that are not within the WPSA are known as "walk gap" areas, meaning they are not within walking distance of a park. The Project Area, as shown in **Figure 7-2: WPSA**, is located within the WPSA and is within walking distance of a park.

To assess the adequacy of open space in the study area, both quantitative and qualitative methods can be used. The quantitative approach calculates the ratio of open space acreage to the population in the study area and compares it to guidelines. The qualitative assessment considers factors such as the proximity to additional resources beyond the study area, the availability of private recreational facilities, and the demographic characteristics of the area's population. This analysis is provided below.

50-20 108th Street, Queens

Figure 1: Open Space Facilities and Census Tracts

- Proposed Rezoning Area
- Projected Development Site 1
- Projected Development Site 2
- Projected Development Site 3
- Potential Development Site 1
- 1/2-Mile Study Area
- Census Tract Boundaries
- 123 — 50% or More of Census Tract Within Study Area
- 123 — Less Than 50% of Census Tract Within Study Area
- 1 — Open Space Resources (see Table 7-1)



Urban Cartographics

50-20 108th Street, Queens

Figure 7-2: Walk to Park Service Areas

- Proposed Rezoning Area
- Projected Development Site 1
- Projected Development Site 2
- Projected Development Site 3
- Potential Development Site 1
- 1/2-Mile Study Area
- Walk to Park Service Area



Urban Cartographics

Impact Assessment

The impact of a project on an area's open spaces is evaluated using both quantitative and qualitative factors. This evaluation considers the project's location, the quality and quantity of open space in the area after the project is completed, and any new open space provided by the project. The impact of the project is also based on how it will affect the ratio of open space in the area, as well as other qualitative factors. According to the *CEQR Technical Manual*, a project that significantly reduces the ratio of open space (as defined in **Table 7-1**) may be considered to have a significant impact. The acceptable amount of change in the open space ratio is determined based on the open space ratio in the area and whether the area is within a WPSA (as defined in the *CEQR Technical Manual*). In a WPSA, a larger percentage change may be allowed. As discussed above, the Project Area is within a WPSA.

Table 7-1: Percent Change in Open Space Ratio

Open Space Ratio	Percent Change
2.01 to 2.50 or Greater	5%
1.51 to 2.0	4%
1.01 to 1.5	3%
0.51 to 1.0	2%
0.50 or Less	1%

Source: Table 7-1 in Chapter 7, "Open Space" of the 2021 CEQR Technical Manual.

Preliminary Assessment

Existing Condition

Study Area Population

As recommended in the *CEQR Technical Manual*, the open space study area comprises all census tracts that have at least 50 percent of their area located within a ½-mile of the Project Area. These tracts and their populations are visualized in **Table 7-2: Existing Population**. The total population of the Study Area is 57,192.

Table 7-2: Existing Population

Census Tract	Population
399.01	2,875
401.01	2,847
403.01	2,768
405.01	1,183
407.01	3,162
411	4,532
413	4,752
415	4,365
427	4,998
437.01	3,683
437.02	6,998

439	4,931
443.01	4,725
443.02	5,373
Study Area Total	57,192

[1] Source: Population FactFinder, DCP; 2020 Census (Includes DoB completions since 2020)

The Study Area population was estimated using data from the 2020 U. S. Census data for the census tracts located fully or at least 50 percent within the one-half mile study area. As discussed above, the population of the study area contained a total of 57,192 residents within the relevant census tracts.

Table 7-3: Study Area Age Characteristics summarizes the age distribution of the study area population and compares it to Queens and New York City as a whole. As shown, compared to Queens, the study area has a greater distribution of children and teenagers through age 19; a smaller share of people aged 20 to 64 years; and a smaller share of seniors. Compared to New York City as a whole, the study area has a greater distribution of children and teenagers through age 19; a smaller share of people aged 20 to 64 years; and a smaller share of seniors.

Table 7-3: Study Area Population Age Characteristics

SELECTED AGE CATEGORIES	Study Area Number	Study Area Percentage	Queens Percentage	New York City Percentage
Ages 4 and younger	3,263	5.7%	5.1%	5.4%
Ages 5 to 9 years	3,987	7.0%	5.2%	5.4%
Ages 10 to 14 years	4,280	7.5%	5.4%	5.6%
15 to 19 years	4,034	7.0%	5.6%	5.7%
20 to 64 years	35,496	62.2%	63.1%	62.9%
65 years and over	6,132	10.8%	15.7%	15.0%
Total	57,192	100%	100%	100%
	Source: 2020 Census Data			

Within a given area, the age distribution of a population affects the way open spaces are used and the need for various types of recreational facilities. Typically, children 4 years old or younger use traditional playgrounds that have play equipment for toddlers and preschool children. Children ages 5 through 9 typically use traditional playgrounds, as well as grassy and hard-surfaced open spaces, which are important for such activities as ball playing, running, and skipping rope. Children aged 10 through 14 use playground equipment, court spaces, little league fields, and ball fields. Teenagers' and young adults' needs tend toward court game facilities such as basketball and field sports. Adults between the ages of 18 and 44 continue to use court game facilities and fields for sports, along with more individualized recreation such as rollerblading, biking, and jogging that require bike paths, promenades, and vehicle-free roadways. Adults also gather with families for picnicking, ad hoc active sports such as Frisbee, and recreational activities in which all ages can participate. Senior citizens engage in active recreation such as handball, tennis, gardening, and swimming, as well as recreational activities that require passive facilities.

The age distribution in the Study Area suggests that there is a greater need for Active Open Space resources compared to both Queens and the city as a whole. This is due to the fact that there is a larger proportion of children and young adults (populations that tend to use Active Open Space) and a smaller proportion of seniors (who tend to use Passive Open Space).

Inventory of Open Space

According to the *CEQR Technical Manual*, open space can be either public or private and can be used for either active or passive recreation. Public open space is defined as facilities that are open to the public at designated hours on a regular basis and are evaluated for impacts under CEQR guidance. Private open space is not regularly accessible to the general public and is therefore only considered qualitatively. The number, availability, and condition of publicly accessible open space in the study area was determined using field surveys and secondary sources.

Open space is classified as active, or passive based on the activities that are allowed in the space. Active open space is used for active play such as sports or exercise and may include playground equipment, playing fields, courts, swimming pools, skating rinks, golf courses, and multi-purpose play areas. Passive open space is used for sitting, strolling, and relaxation and may include benches, walkways, and picnicking areas.

All publicly accessible open spaces in the defined study area were inventoried and identified by their location, size, owner, type, utilization, equipment, hours, and condition. This information was obtained from the New York City Department of Parks and Recreation's website.

As visualized in **Figure 7-1**, there are a total of eight open space resources within the census tracts that are more than 50% contained in the ½ mile radius around the Project Area. **Table 7-4: Inventory of Open Space Resources**, lists the details of the active and passive open spaces in the study area, including their condition and utilization. As the table shows, the Study Area has 7.34 total acres of open space, 3.09 acres of active open space, and 4.25 acres of passive open space.

Table 7-4: Inventory of Open Space Resources

Map Key	Open Space Resource Name	Total Acres	Active Acres	Passive Acres	Condition	Usage	Features
1	Corona Plaza	0.04	0.00	0.04	Good	Low	Landscaping
2	Park of the Americas	3.08	1.39	1.69	Good	Low	Basketball courts, turf fields, children's playground, fitness area
3	American Triangle	0.01	0.00	0.01	Good	Low	Benches
4	Corona Golf Playground	1.72	1.12	0.60	Good	High	Basketball and handball courts, children's playground, benches and game tables
5	Josephine Caminiti Playground	0.41	0.25	0.16	Good	Medium	Children's playground, roller skating track, indoor playroom
6	Corona Health Sanctuary	0.10	0.09	0.01	Good	Medium	Children's playground, benches
7	William F. Moore Park	0.20	0.06	0.14	Good	Medium	Bocce courts, benches
8	Louis Simeone Park	1.78	0.18	1.60	Fair	Medium	Tot lot, children's playground, fitness areas, walking path
Total		7.34	3.09	4.25			

Quantitative Assessment

The quantitative assessment of open space is based on ratios of usable open space acreage to the study area populations (the "open space ratios"). In New York City, local open space ratios vary widely. The city's planning goal is a total of 2.5 acres of open space per 1,000 residents. This includes 0.50 acres of passive space and 2.0 acres of active open space per 1,000 residents.

Table 7-5: Existing Open Space Ratios, summarizes the total, active and passive open space ratios within the study area: 0.128, 0.054, and 0.074, respectively. These ratios are well below the city's benchmarks. Based solely on a quantitative assessment, the study area appears to be deficient in open space resources to serve the area's residential population.

Table 7-5: Existing Open Space Ratios

	Acres	Population	Open Space Ratio	Benchmark Ratio
Total open space	7.34	57,192	0.128	2.5
Active open space	3.09	57,192	0.054	2.0
Passive open space	4.25	57,192	0.074	0.5

Qualitative Assessment

A qualitative assessment of open space considers the presence of public open space that is excluded from the quantitative analysis, the condition and utilization of open space within the study area, and the presence of open and recreational facilities that do not meet the criteria of open space resources established in the *CEQR Technical Manual*.

The preceding quantitative assessment reveals that the open space resources within the open space study area do not meet the City's guidelines for the provision of publicly accessible open space. There are several factors that may partially offset this deficiency in open space resources.

A large open space resource, Flushing Meadows Corona Park, is outside the study area boundaries despite being located one block away from the Project Site. Flushing Meadows Corona Park is a "flagship park" covering 894.06 acres. The park contains both active and passive open space resources, as well as several cultural institutions such as the New York Hall of Science and the Queens Zoo. As shown in **Figure 7-1**, a large swath of the park (more than 30 acres) is within a half-mile of the site; but because the park is a separate census tract and most of it is outside the half-mile radius, none of the open space contained in this park is counted in the quantitative assessment.

It should also be noted that, as shown in **Figure 7-2: WPSA**, the entire study area located within a WPSA and is within walking distance of a park.

For these reasons, study area residents have more access to open space resources than the very low open space ratios would indicate.

No-Action Scenario

Within the Project Area, Projected Development Sites 1 and 2 would be redeveloped with 72 housing units, a net increase of 58 units. Another 16 units will be developed within the study area. Based on an average household size of 3.42 persons in the Corona Neighborhood Tabulation Area (NTA) as of the 2020 Census, these 74 housing units would add an estimated 253 residents. The total population of the Study Area would be 57,455.

There will be no changes to the open space resources in the study area in the 2029 No-Action Scenario. As a result, the open space in the half-mile study area will remain at 7.34 acres, including 4.25 acres of passive open space and 3.09 acres of active open space.

Table 7-6 shows the open space ratios for the half-mile study area under the No-Action Scenario, based on the anticipated population increase. As shown in the table, the total, passive, and active open space ratios would remain unchanged at 0.128, 0.074, and 0.054, respectively.

Table 7-6: No-Action Open Space Ratios

	Acres	Population	Open Space Ratio	Benchmark Ratio
Total open space	7.34	57,455	0.128	2.5
Active open space	3.09	57,455	0.054	2.0
Passive open space	4.25	57,455	0.074	0.5

With-Action Scenario

Study Area Population

If the Proposed Actions are approved, development is anticipated to occur on Projected Development Sites 1, 2, and 3. The Proposed Actions would result in the creation of 254 dwelling units, a net increase of 182 over the No-Action Scenario. This would introduce an estimated 622 new residents, increasing the study area's population would to 58,077 under the With-Action Scenario.

Inventory of Open Space

The Proposed Actions would not result in any changes to the inventory of open space resources in the study area. As a result, the open space in the half-mile study area will remain at 7.34 acres, including 4.25 acres of passive open space and 3.09 acres of active open space.

Quantitative Assessment

Table 7-7: Future With-Action Open Space Ratios, presents the total, active and passive open space ratios within the study area under the With-Action Scenario: 0.126, 0.53, and 0.73, respectively.

Table 7-7: Future With-Action Open Space Ratios

Table 7-7: Future With-Action Open Space Ratios

	Acres	Population	Open Space Ratio	Benchmark Ratio
Total open space	7.34	58,077	0.126	2.5
Active open space	3.09	58,077	0.053	2.0
Passive open space	4.25	58,077	0.073	0.5

Compared with the No-Action Scenario, the open space ratios would decline by 0.001, or by 1.055%, in the With-Action Scenario. This is shown in **Table 7-8: Changes in Open Space Ratios**.[1]

Table 7-8: Changes in Open Space Ratios

	Future No-Action	Future With-Action	Change	Percent Change
Total Open Space Ratio	0.128	0.126	-0.001	-1.055%
Active Open Space Ratio	0.054	0.053	-0.001	-1.055%
Passive Open Space Ratio	0.057	0.056	-0.001	-1.055%

As shown in **Table 7-9**, the *CEQR Technical Manual* specifies that in areas where the existing open space ratio is less than 0.50, a decrease in the open space ratio between the No-Action and With-Action Scenarios of just one percent is generally considered to be a substantial change, which could potentially result in a significant adverse impact, depending on qualitative factors. The study area's total open space ratio is less than 0.50, and the ratio would decline by just over one percent.

Table 7-9 Detailed Assessment – Percentage Change Guidance to Determine Possible Open Space Impact

Total Open Space Ratio Range	Active Open Space Ratio Range	Passive Open Space Ratio Range	Percentage Change in Open Space Ratio Signifying a Possible Adverse Open Space Impact
2.01 to 2.50* Or greater	1.61 to 2.0* Or greater	0.41 to 0.50* Or greater	5%
1.51 to 2.00	1.21 to 1.60	0.31 to 0.40	4%
1.01 to 1.50	0.81 to 1.20	0.21 to 0.30	3%
0.51 to 1.00	0.41 to 0.80	0.11 to 0.20	2%
0.50 or Less	0.01 to 0.40	0.01 to 0.10	1%

[1]When rounded to three digits, the overall OSR appears to drop by 0.002, from 0.128 to 0.126; when the ratios are not rounded, the actual decline is closer to 0.001.

Qualitative Assessment

As discussed under Existing Conditions above, a large open space resource, Flushing Meadows Corona Park, is outside the study area boundaries despite being located one block away from the Project Site. Flushing Meadows Corona Park is a "flagship park" covering 894.06 acres. The park contains both active and passive open space resources, as well as several cultural institutions such as the New York Hall of Science and the Queens Zoo. As shown in **Figure 7-1**, a large swath of the park (more than 30 acres) is within a half-mile of the site; but because the park is a separate census tract and most of it is outside the half-mile radius, none of the open space contained in this park is counted in the quantitative assessment.

The proximity of the regional park substantially reduces the effect that the Proposed Actions would have on study area residents' access to open space resources. The Proposed Actions would not have a significant adverse impact related to open space.

Conclusion

The Proposed Actions would not remove or alter any existing publicly accessible open spaces. In addition, study area open spaces would not experience project-related significant adverse shadows, air quality, or operational noise impacts, as discussed in this EAS.

If the Proposed Actions are approved, new development in the Project Area would introduce new residents to the Study Area.

The Open Space Ratio in the With-Action Scenario would be 0.126, which represents a 1.055% decrease compared with the No-Action Scenario. Generally, only a 1% decrease in the OSR is tolerated. The quantitative assessment therefore does not rule out the potential for an adverse open space impact. The active and passive OSRs would also decrease by 1.055% compared with the No-Action Scenario. The Study Area currently has a total open space ratio which is below the city's target of 2.5 acres of open space per 1,000 residents, and both the active and passive OSRs are below the city's target of 2.0 and 0.5 acres of open space per 1,000 residents respectively.

The Project Area, as well as the entire Open Space Study Area, is located within a Walk-to-a-Park Service Area. Further, the open space ratios presented in the quantitative assessment do not reflect the active and passive open space resources contained within Flushing Meadows Corona Park. This large "flagship" park, located less than 0.25 miles from the Project Area, greatly increases open space available to current and future residents of the Study Area. For the reasons above, despite a decrease in overall, active and passive open space ratios between the No-Action and With-Action Scenarios, the Proposed Actions would not result in significant adverse open space impacts and additional assessment is not warranted.

8. SHADOWS

Introduction

Under CEQR, a shadow is defined as the circumstance in which a building or other built structure blocks the sun from the land. An adverse shadow impact is considered to occur when the shadow from a proposed project falls upon a publicly accessible open space, a historic landscape, or other historic resource if the features that make the resource significant depend on sunlight, or if the shadow falls on an important natural feature and adversely affects its uses or threatens the survival of important vegetation. An adverse impact would occur only if the shadow would fall on a location that would otherwise be in sunlight; the assessment therefore distinguishes between existing shadows and new shadows resulting from a proposed project. Finally, the determination of whether the impact of new shadows on an open space or a natural or historic resource would be significant is dependent on their extent and duration. In general, shadows on City streets and sidewalks or on other buildings are not considered significant under CEQR. In addition, shadows occurring within an hour and a half of sunrise or sunset generally are not considered significant under CEQR.

According to the 2021 *CEQR Technical Manual*, a shadows assessment is not required unless the project would include a structure or an addition to a structure at least 50 feet in height or if it would contain shorter structures that might cast substantial new shadows on an adjacent park, historic resource, or an important natural resource. A shadows analysis is required for this project since the buildings on Projected Development Sites 1, 2, and 3 would be 115 feet (11 stories) tall.

Tier 1 Screening Assessment

Shadow lengths vary with both the time of day—being longest in the early morning and late afternoon and shortest at noon—and the time of year, with the longest shadows at the winter solstice and the shortest at the summer solstice. According to the 2021 *CEQR Technical Manual*, the longest shadow cast by a building is 4.3 times the building's height. The three projected developments would be 11 stories tall, with roof heights of 115 feet and with rooftop bulkheads rising to a maximum height of 140 feet. The longest shadow cast by the projected developments would therefore be 602 feet in length.

As shown in **Figure 8-1**, two open space resources are located within 602 feet of Projected Development Site 1, 2, or 3: (1) William F. Moore Park, a triangular seating area with benches and trees bounded by 108th Street, 51st Avenue, and Corona Avenue, directly across 51st Avenue from Projected Development Site 1; and (2) Corona Health Sanctuary Playground, under NYC Parks' jurisdiction. A Tier 2 screening assessment was therefore performed.

Tier 2 Screening Assessment

The Tier 2 screening assessment determines whether the sunlight-sensitive resources are within the arc in which shadows can be cast. That arc excludes the triangular area to the south of the action-induced developments that extends from +108 degrees to -108 degrees from true north.

As **Figure 8-2** shows, both sunlight-sensitive resources are located within the arc in which action-induced development would cast shadows. A Tier 3 screening assessment is required.

Tier 3 Screening Assessment

The Tier 3 screening assessment is used to determine if shadows resulting from the proposed project can reach a sunlight-sensitive resource. The screening assessment uses three-dimensional computer modeling software with the capacity to accurately calculate shadow patterns.

A Tier 3 screening assessment was performed for the four representative days of the year set forth in the *CEQR Technical Manual*: December 21, the winter solstice and shortest day of the year; March 21/September 21, the equinoxes; May 6, the midpoint between the summer solstice and the equinox (and equivalent to August 6); and June 21, the summer solstice and the longest day of the year. The *CEQR Technical Manual* defines the temporal limits of a shadow analysis period to fall from an hour and a half after sunrise to an hour and a half before sunset. In accordance with the *CEQR Technical Manual*, surrounding buildings are not included in the Tier 3 shadow assessment model.

As shown in **Figures 8-3 through 8-6**, shadows from the developments would reach the northern edges of William F. Moore Park and Corona Health Sanctuary Playground on the May 6/ August 6 analysis day and would reach more extensive portions of the park and the playground on the June 21 analysis day. No shadows would reach either resource on the March 21/September 21 or December 21 analysis days.

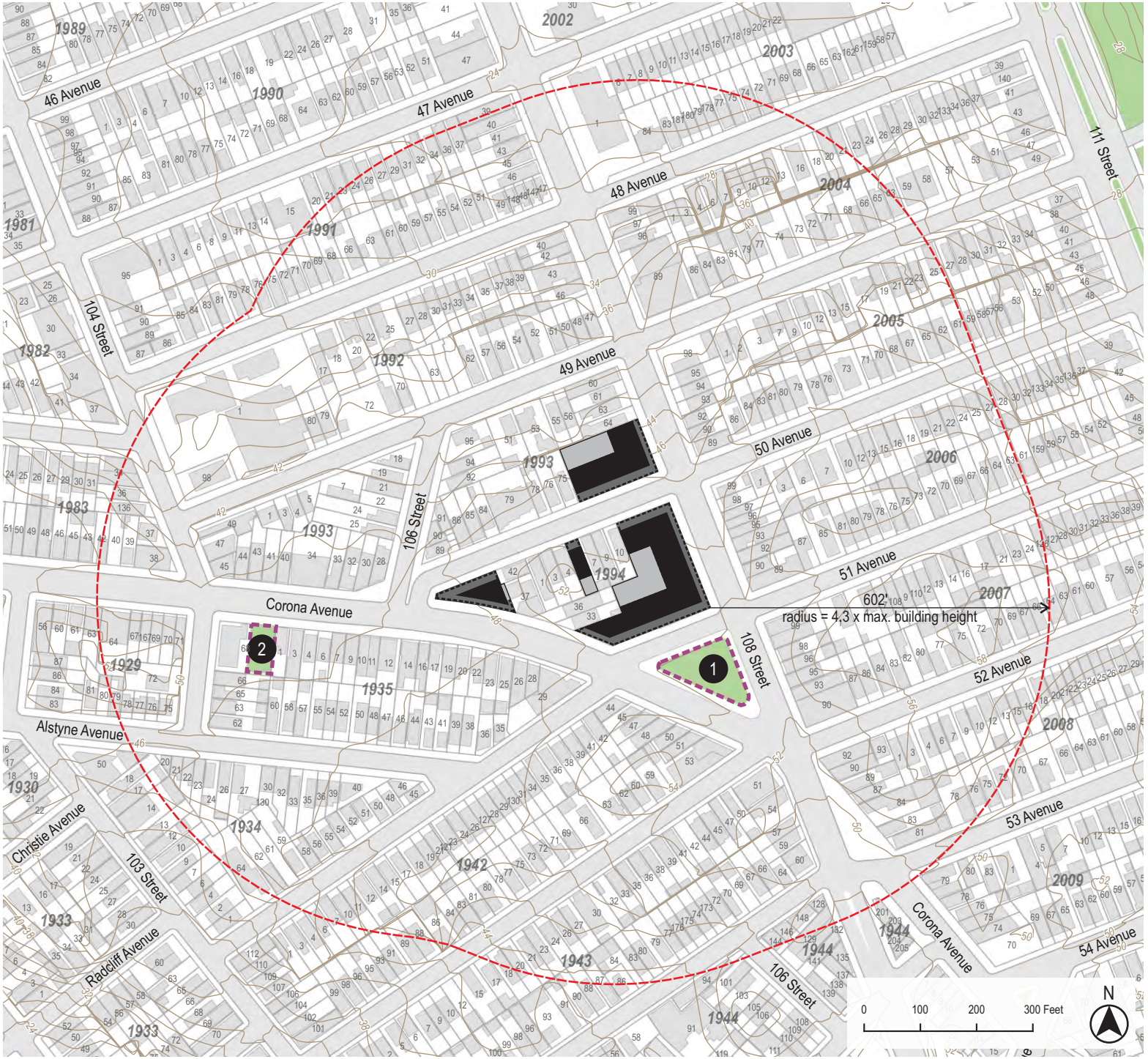
Detailed Assessment

Detailed shadow diagrams are shown in **Figures 8-7 and 8-8**. They distinguish between existing and incremental new shadows, highlighting the incremental new shadows in orange, and they show the times at which the shadows from the new developments would enter and depart from sunlight-sensitive features during the four analysis days. **Table 8-1** shows the times during which the shadows from the projected developments would fall on William F. Moore Park and the duration of those shadows. **Table 8-2** shows the times during which the shadows from the projected developments would fall on Corona Health Sanctuary Playground and the duration of those shadows.

50-20 108th Street, Queens

Figure 1: Tier 1 Screening Assessment

- Project Site
- Projected Building Footprint
- Roof Above 8th Floor (85')
- Roof Above Bulkheads (140')
- Longest Shadow Study Area Boundary
- # Sunlight-Sensitive Open Space Resource
- Potentially Affected Open Space Resource



Urban Cartographics

50-20 108th Street, Queens

Figure 2: Tier 2 Screening Assessment

- Project Site
- Projected Building Footprint
- Roof Above 8th Floor (85')
- Roof Above Bulkheads (140')
- Longest Shadow Study Area Boundary
- # Sunlight-Sensitive Open Space Resource
- Potentially Affected Open Space Resource
- Area That Cannot Be Shaded by the Proposed Building



Urban Cartographics

50-20 108th Street, Queens

Figure 3: Tier 3 Screening Assessment for the December 21 Analysis Day

- Project Site
- Projected Building Footprint
- Roof Above 8th Floor (85')
- Roof Above Bulkheads (140')
- 8:51am — Shadow Cast/Analysis Time
- # — Sunlight-Sensitive Open Space Resource
- Potentially Affected Open Space Resource



Urban Cartographics

50-20 108th Street, Queens

Figure 4: Tier 3 Screening Assessment for the March 21 Analysis Day

- Project Site
- Projected Building Footprint
- Roof Above 8th Floor (85')
- Roof Above Bulkheads (140')
- 8:51am Shadow Cast/Analysis Time
- # Sunlight-Sensitive Open Space Resource
- Potentially Affected Open Space Resource

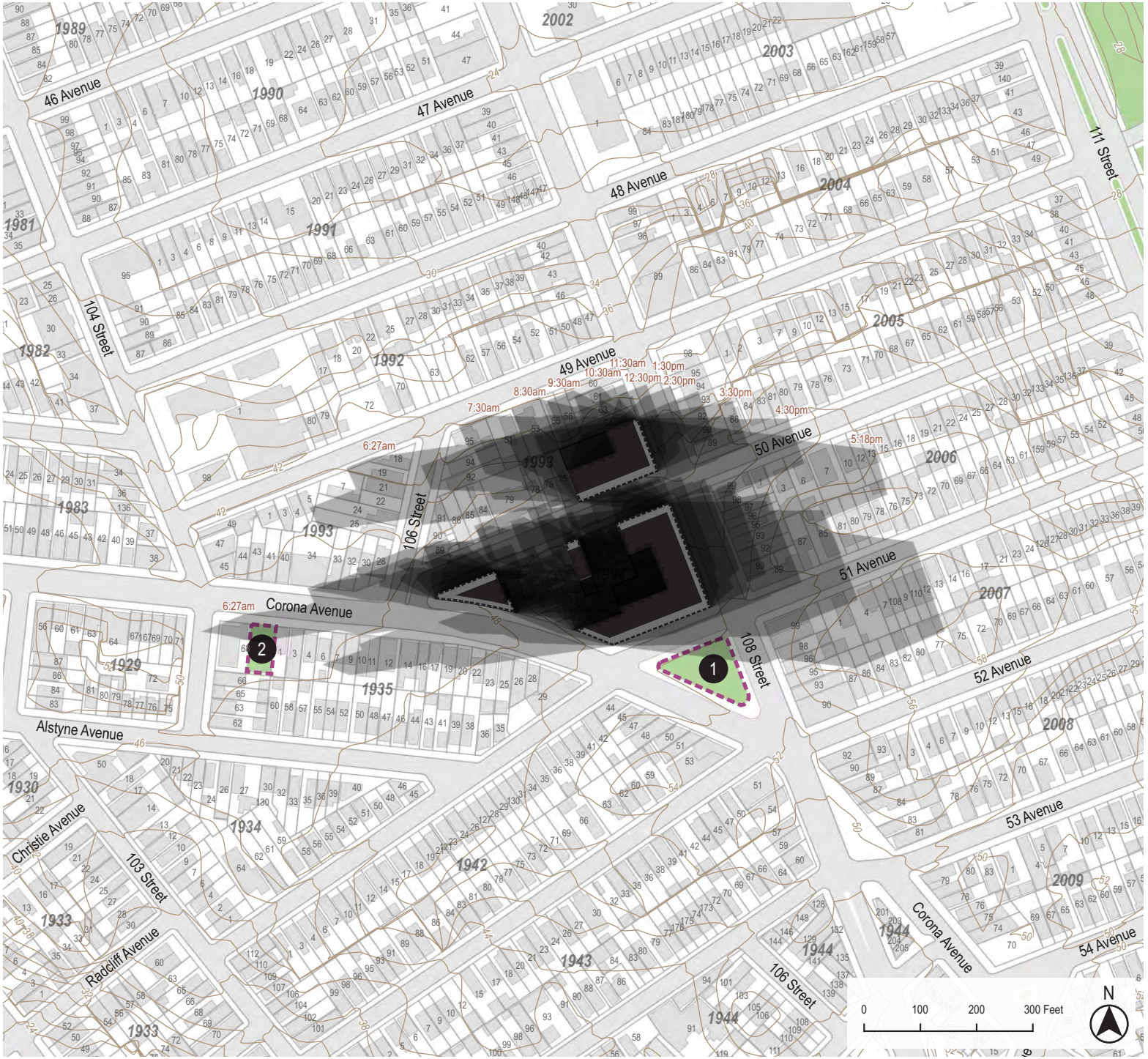


Urban Cartographics

50-20 108th Street, Queens

Figure 5: Tier 3 Screening Assessment for the May 6 Analysis Day

- Project Site
- Projected Building Footprint
- Roof Above 8th Floor (85')
- Roof Above Bulkheads (140')
- 8:51am Shadow Cast/Analysis Time
- # Sunlight-Sensitive Open Space Resource
- Potentially Affected Open Space Resource

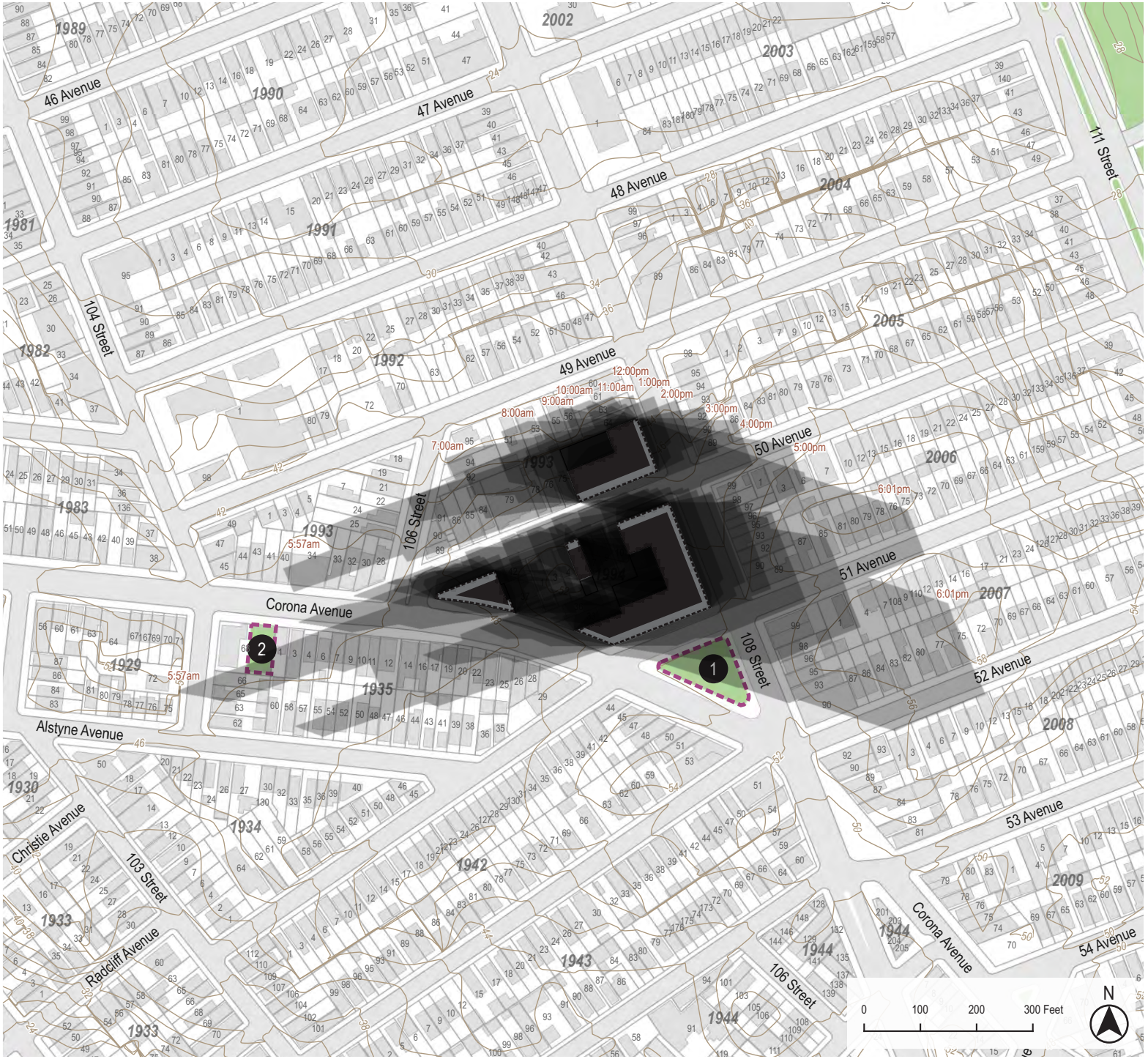


Urban Cartographics

50-20 108th Street, Queens

Figure 6: Tier 3 Screening Assessment for the June 21 Analysis Day

- Project Site
- Projected Building Footprint
- Roof Above 8th Floor (85')
- Roof Above Bulkheads (140')
- 8:51am — Shadow Cast/Analysis Time
- # — Sunlight-Sensitive Open Space Resource
- Potentially Affected Open Space Resource



Urban Cartographics

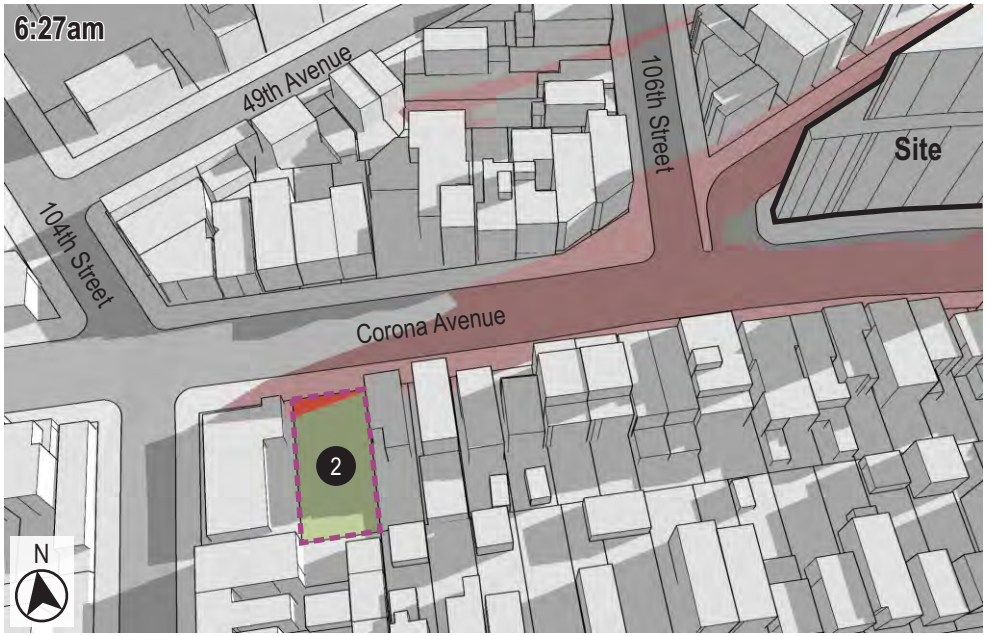
50-20 108th Street, Queens

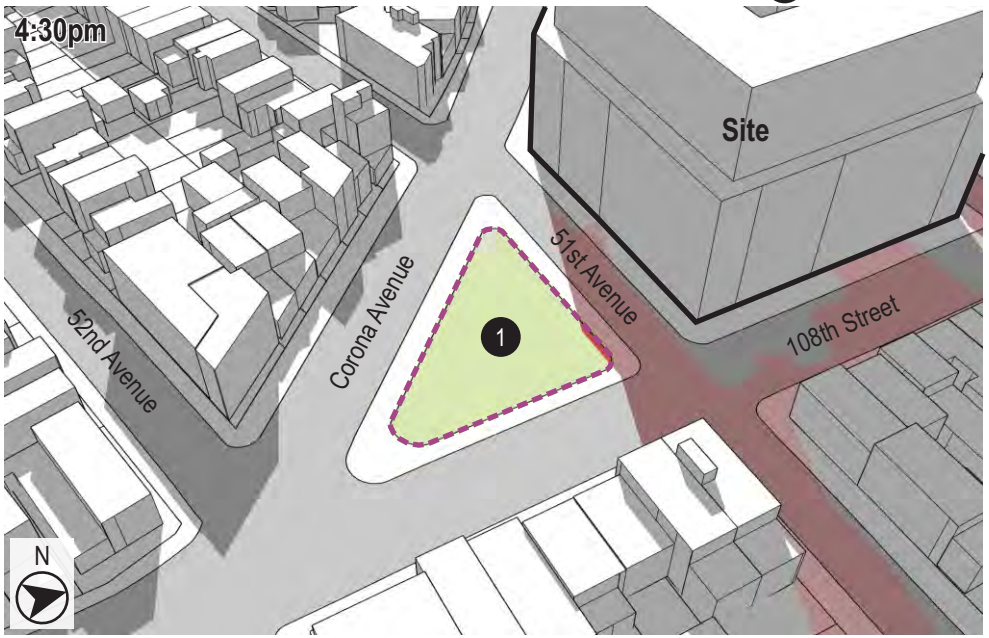
Figure 7: Detailed Analysis for the May 6 Analysis Day

Shadows Cast on Sunlight-Sensitive Resources

1 4:27pm – 5:18pm

2 6:27am – 6:40am







Urban Cartographics

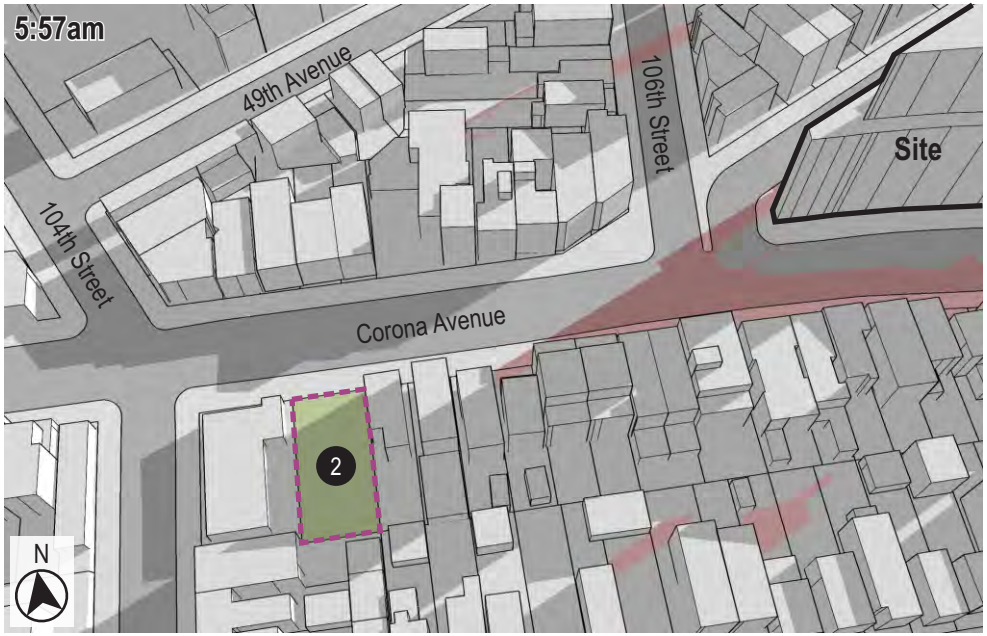
50-20 108th Street, Queens

Figure 7: Detailed Analysis for the June 21 Analysis Day

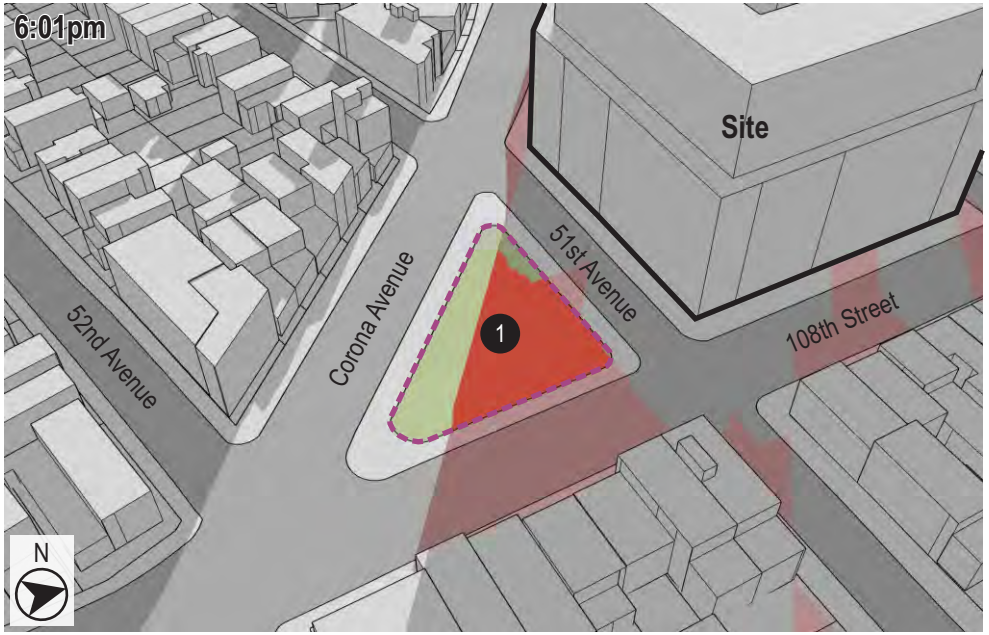
Shadows Cast on Sunlight-Sensitive Resources

1 4:05pm – 6:01pm

2 n/a







Urban Cartographics

Table 8-1: Shadow Durations on William F. Moore Park

Analysis Day	December 21	March 21/ September 21	May 6 /August 6	June 21
Shadow enter and exit times	N/A	N/A	4:27-5:18 PM	4:05-6:01 PM
Shadow duration	N/A	N/A	51 minutes	1 hour 56 minutes
Note: Daylight savings time not used.				

Table 8-2: Shadow Durations on Corona Health Sanctuary Playground

Analysis Day	December 21	March 21/ September 21	May 6 /August 6	June 21
Shadow enter and exit times	N/A	N/A	6:27-6:40 AM	N/A
Shadow duration	N/A	N/A	13 minutes	N/A
Note: Daylight savings time not used.				

On May 6 and August 6, shadows would fall over a corner of William F. Moore Park for 51 minutes during the late afternoon, from 4:27 to 5:18 PM EST (5:27 to 6:18 DST). At all times, at least 75 percent of the park would remain shadow free. New shadows would be cast over the northern edge of Corona Health Sanctuary Playground for 13 minutes during the early morning, before the pre-school opens.

On June 21 shadows would be cast over William F. Moore Park for just under two hours during the late afternoon, from 4:05 to 6:01 PM EST (5:05 to 7:01 DST). They would initially cover the park's southwest corner but would gradually extend to cover most of the park. Although the children's playground would be in shadow during the morning, the playground is already in shadow during that time period because of existing buildings. The projected developments would not cast any new shadows onto Corona Health Sanctuary Playground.

In summary, the projected developments would cast late afternoon shadows over the sitting area during the late spring and summer. In midspring, those shadows would fall for close to an hour and would be confined to about a quarter of the park. By the summer solstice, the shadows

would fall for close to two hours and would initially cover a corner of the park but would extend over most of the park by the end of the period. After June 21, the duration and extent of the shadows would start to decline, and by midsummer would fall for close to an hour and would be confined to about a quarter of the park. The projected developments would cast new shadows over the northern edge of the playground for brief periods in the early mornings during certain days in midspring and midsummer.

These shadows would not constitute a significant adverse impact on William F. Moore Park. During most of the spring and summer, most of the park would be shadow free at all times. During the weeks near the summer solstice when the shadows would cover a larger portion of the park, no shadows would be cast before 5:05 PM DST. These shadows would not result in a significant reduction in the park's attractiveness to users, and they would not threaten the health of its trees. With regard to the children's playground, the effect of new incremental shadows would be inconsequential, lasting no more than 13 minutes and covering only the northernmost edge of the playground, a paved area where no playground equipment is located. For these reasons, the Proposed Actions would not cause a significant adverse shadows impact.

Conclusion

Based on the above analyses, it has been determined that no potentially significant adverse impacts related to shadows would occur as a result of the Proposed Actions. Therefore, no further analysis is required.

9. HISTORIC AND CULTURAL RESOURCES

Introduction

This section considers the proposed action's potential impact on archaeological and architectural resources. Archaeological resources are artifacts or other remains, from either the prehistoric (Native American) or the historic (colonial or post-colonial) period that might provide information about the period from which they date or the society that produced them. Architectural resources include designated New York City landmarks and buildings within a designated New York City historic district, properties calendared for consideration by the New York City Landmarks Preservation Commission (LPC), properties listed on or determined to be eligible for listing on the State or National Register of Historic Places, National Historic Landmarks, and other properties that meet the eligibility criteria for such designations.

Archaeological Resources

According to the 2021 *CEQR Technical Manual*, archaeological resources generally need to be assessed for any project 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.

The Proposed Actions would result in redevelopment involving in-ground disturbance at three projected development sites.

In correspondence dated August 27, 2024 (which is included in Appendix A to this report), the LPC stated that none of the sites has archaeological significance. The Proposed Actions would therefore not have a significant adverse impact on archaeological resources.

Architectural Resources

No architectural resources have been identified within the Affected Area or within 400 feet of the area. In correspondence dated August 27, 2024 (which is included in Appendix A to this report), the LPC confirmed that all properties within the Affected Area lack architectural significance. The Proposed Actions would therefore not have a significant adverse impact on architectural resources.

Conclusion

The Proposed Actions would not result in significant adverse impacts related to archaeological or architectural resources, and further assessment is not warranted.

10. URBAN DESIGN AND VISUAL RESOURCES

Introduction

An assessment of urban design is needed when a project may have effects on any of the elements that contribute to the pedestrian experience of public space. A preliminary assessment is appropriate when there is the potential for a pedestrian to observe, from the street level, a physical alteration beyond that allowed by existing zoning, including the following:

1. Projects that permit the modification of yard, height, and setback requirements;

2. Projects that result in an increase in built floor area beyond what would be allowed 'as-of-right' or in the future without the proposed project.

The Proposed Actions consist of (1) a Zoning Map Amendment to rezone the Project Area identified as Block 1994, Lots 1, 3, 4, 6, 7, 9, 10, 12, 13, 15, 16, 18, 19, 22, 23, 25, 30, 33, 36, 37, 40, 41, and 42, and Block 1993, Lot 65, from the current R6B and R6B/C2-3 zoning to R7A & R7A/C2-4 zoning districts and (2) a Zoning Text Amendment to Appendix F to establish the Project Area as a Mandatory Inclusionary Housing (MIH) Area.

Existing Conditions

Project Area

The Project Area includes the Applicant controlled properties, Projected Development Sites 1 and 2 and Potential Development Site 1, the non-Applicant controlled Projected Development Site 3, and a number of properties that are not anticipated to be developed as further detailed below. The Project Area totals approximately 76,822 square feet in size, with the Applicant controlled parcels totaling approximately 45,687 square feet in area and the non-Applicant controlled parcels totaling approximately 31,135 square feet in size. It consists of Block 1994, which is bounded by 108th Street, 50th and 51st Avenues, and Corona Avenue, and a lot at the northwest corner of 50th Avenue and 108th Street, located across 50th Avenue from Block 1994, which is part of Block 1993 (bounded by 106th and 108th Streets and 49th and 50th Avenues).Corona Avenue and 108th Street are 80 feet wide; 50th and 51st Streets are 60 feet wide.

The Applicant owned Projected Development Site 1 is located on Block 1994, Lots 12, 13, 15, 16, 18, 19, 22, 23, 25, and 30. The site is approximately 28,187 square feet in size. It occupies the block's entire 108th Street and 51st Avenue frontages and small parts of its 50th Avenue and Corona Avenue frontages. It is improved with 18,155 gsf of floor area with 2 two-story mixed residential and commercial buildings, 2 two-story residential buildings, and 2 one- to two-story commercial buildings. Much of the site consists of undeveloped lots used for surface parking, located behind opaque fencing along 94 feet of frontage on 108th Street and 50 feet of frontage on 50th Avenue, with a curb cut onto 51st Avenue. (See Photos 1, 4, 6, 7, 8, 9, 11, 12, 13, 15, 16, 17, 18, 19, 20, 22, 24, 25, 26, 28, and 45.)

The Applicant owned Projected Development Site 2 is located on Block 1993, Lot 65. The site is approximately 15,000 square feet in size, with 150 feet of frontage along 50th Avenue and 100 feet of frontage along 108th Street. It is improved with 3 one-story warehouse buildings totaling approximately 7,855 gsf in floor area constructed in 1930. The windowless facades are covered

with lettering advertising lumber and other building products. (See Photos 19, 27, 35, 46, 47, 49, 50, 52, 53, 54, 55, 58, 59, and 60.)

The non-Applicant-owned Projected Development Site 3 is located on Block 1994, Lots 40 and 41. The site is approximately 4,979 square feet in size. It is improved with 3 two-story, mixed residential and commercial buildings, dating from 1901 and 1931, totaling approximately 6,212 gsf in floor area. (See Photos 37, 39, 40, 41, and 42.)

The Applicant owned Potential Development Site 1 is located on Block 1994, Lot 6. The midblock interior lot is approximately 2,500 square feet in size. It is improved with a two-story, two-family residential building, built in 1925, totaling approximately 1,688 gsf in floor area. (See Photos 31 and 48.)

The remaining non-Applicant owned properties within the Project Area include Block 1994, Lots 1, 3, 4, 7, 9, 10, 33, 36, 37, and 42, consisting of the midblocks along 50th and Corona Avenues. These lots total approximately 28,156 square feet in area and are improved with 10 two- to four-story mixed residential buildings, and one mixed-use residential and commercial building totaling approximately 35,561 gsf in floor area. (See Photos 29, 30, 31, 33, 43, 44, and 48.)

The sidewalks are well maintained. Street trees are planted on Block 1994. The terrain is level.

No visual resources are located within the Project Area.

400-Foot Radius Project Study Area

The proposed Project Area is located in the Corona neighborhood of Queens within Community District 4. The area within a 400-foot radius of the Project Area is characterized by a mix of one- and two-family and small multi-family residences; mixed residential and commercial buildings; community facility uses including churches; commercial office and retail uses; parking lots and vacant land; and a small triangularly shaped open space with benches for sitting and perimeter trees. The buildings range in height from one to four stories. Because of the mix of building types and façade styles, the area does not have a strong, consistent sense of place.

The open space, William F. Moore Park, is the one visual resource within the study area. It is bounded by 108th Street, 51st Avenue, and Corona Avenue and is located directly across 51st Avenue from Projected Development Site 1

No-Action Scenario

Project Area

It is assumed that Projected Development Site 1, owned by the Applicant, would be developed with approximately 87,044 gsf of floor area (56,374 zsf) comprised of 39,393 gsf of residential floor area, 15,545 gsf of retail space, 5,670 gsf of community facility space (medical offices), and 22,500 gsf of parking floor area plus 3,936 gsf of floor area for mechanicals, storage, bicycle parking, and utilities within the 26,436 gsf cellar level. The building would be 3-stories and 35 feet in height and would contain 46 dwelling units. The cellar level of the building would contain 76 parking spaces, of which 23 would be for the residential occupants of the building, 39 for the

commercial tenants, and 14 for the community facility space in the building. The parking would be accessed via a new 12-foot wide curb cut on 50th Avenue. The development would have a total FAR of 2.0 and the building would cover the entire lot.

It is assumed that Projected Development Site 2, owned by the Applicant, would be developed with approximately 44,522 gsf of floor area (30,000 zsf) comprised of 21,735 gsf of residential floor area, 10,000 gsf of community facility space (medical offices), and 4,000 gsf of parking floor area plus 8,787 gsf of floor area for mechanicals, storage, bicycle parking, and utilities within the 12,787 gsf cellar level. The building would be 3-stories and 35 feet in height and would contain 26 dwelling units. The cellar level of the building would contain 13 parking spaces for the residential occupants of the building, and would be accessed via a new 12-foot wide curb cut on 108th Street. The development would have a total FAR of 2.0 and the building would cover the entire lot.

It is assumed that Projected Development Site 3, which is non-Applicant owned, would not be redeveloped as it is currently developed to an FAR of 1.26 with an unbuilt FAR of about 37% of the maximum permitted FAR of 2.0 under the site's existing R6B/C2-3 zoning, much lower than the standard 50% threshold. It is therefore assumed that the site would remain in its existing condition for the No-Action Scenario and would continue to be improved with 3 two-story, mixed residential and commercial buildings, totaling approximately 6,212 gsf in floor area (4,210 gsf residential and 2,002 gsf commercial) and containing 3 residential dwelling units.

It is assumed that Potential Development Site 1, which is Applicant owned, would not be redeveloped due to its small lot size of only 2,500 sf, the limited development potential of a total FAR of 2.0 with an existing FAR of 0.62, and the difficulty of obtaining financing for a small infill development. It is therefore assumed that the site would remain in its existing condition for the No-Action Scenario and would continue to be improved with a two-story, two-family residential building, totaling approximately 1,688 gsf in floor area and containing 2 residential dwelling units.

In the future without the Proposed Actions, Projected Development Sites 1, 2, and 3 would contain a total of approximately 137,778 gsf (92,586 zsf) of floor area comprised of 65,338 gsf of residential floor area, 17,547 gsf of retail floor area, and 15,670 gsf of community facility space (medical offices). The No-Action scenario would include 75 dwelling units and 89 accessory parking spaces (36 residential, 39 commercial, and 14 community facility).

It is assumed that the remaining non-Applicant owned properties within the Project Area including Block 1994, Lots 1, 3, 4, 7, 9, 10, 33, 36, 37, and 42 would not be redeveloped under the No-Action Scenario as further discussed below. Therefore, the existing development on these parcels comprised of 33,873 gsf of floor area including 31,773 gsf of residential floor area and 2,100 gsf of commercial retail space would remain.

400-Foot Radius Project Study Area

The following new development projects have been identified for the 400-foot radius project study area based on a review of the NYC Active Construction website (maintained by the New York City Department of Buildings).

- 104-22 Corona Avenue (B 1935, L 6) – 4-story 6,363 sf enlargement to an existing building to include 6 dwelling units.
- 104-49 49th Avenue (B 1992, L 67) – new 3-story 3,276 sf residential building with 3 dwelling units.
- 104-47 49th Avenue (B 1992, L 69) - new 3-story 3,600 sf residential building with 3 dwelling units.
- 106-03 49th Avenue (B 1992, L 64) - new 3-story 2,912 sf residential building with 1 dwelling unit.
- 106-05 49th Avenue (B 1992, L 63) - new 3-story 3,600 sf residential building with 3 dwelling units.

No other development plans are known to exist for the undeveloped parcels or other uses within the project study area as identified above by the project build year of 2029. Although the few small vacant parcels and parcels used for at-grade parking could be redeveloped, existing land uses within the immediate study area are expected to remain largely unchanged by the project build year.

With-Action Scenario

Project Area

Projected Development Sites 1 and 2 are owned by the Applicant while Projected Development Site 3 is non-Applicant owned. Lots 40 and 41, which comprise Projected Development Site 3, have shared ownership and would have a combined lot size of nearly 5,000 square feet if merged, and are therefore included as a projected development site. All three sites are developed to significantly less than 50% of the maximum FAR of 5.01 that would be permitted under the proposed rezoning to R7A/C2-4. Projected Development Site 1 (28,187 sf lot with 18,155 building square footage), Projected Development Site 2 (15,000 sf lot with 7,855 building square footage), and Projected Development Site 3 (4,979 sf lot with 6,212 building square footage) are currently developed to FARs of 0.64, 0.52, and 1.25, respectively. Much of the existing development is outdated as most buildings were built before 1930, and four of the 13 lots within the Projected Development Sites are primarily or totally used for at-grade parking only.

Block 1994, Lot 6 is considered to be a Potential Development Site as it is owned by the Applicant. However, the Applicant does not have any plans to redevelop Lot 6 given the difficulty of obtaining financing for a small infill development and limited upside compared to the other Applicant-owned sites within the rezoning area.

The With-Action Scenario analyzes the Applicant owned Projected Development 1 as an 11-story, 115 foot-tall, mixed-use building with 177,642 total gsf (141,217 zsf) for a total FAR of 5.01 including 15,820 gsf/zsf of commercial floor area, 6,940 gsf/zsf of community facility floor area, 128,436 gsf (118,456 zsf) of residential floor area, plus subsurface accessory parking, mechanical, bicycle storage, utility, and general storage areas. There would be 151 dwelling units. There would be a curb cut onto 50th Avenue.

The With-Action Scenario analyzes the Applicant owned Projected Development 2 as an 11-story, 115 foot-tall, mixed-use building with 90,959 total gsf (75,150 zsf) for a total FAR of 5.01 including 10,349 gsf/zsf of community facility floor area, 67,657 gsf (64,801 zsf) of residential floor area, plus subsurface accessory parking, mechanical, bicycle storage, utility, and general storage areas. There would be 80 dwelling units. There would be a curb cut onto 108th Street.

The With-Action Scenario analyzes Projected Development Site 3 as an 11-story, 115 foot-tall, mixed-use building with 24,945 gsf/zsf of floor area for a total FAR of 5.01 including 3,050 gsf/zsf of commercial space, 1,979 gsf/zsf of community facility space, and 19,916 gsf/zsf of residential floor area plus cellar space for mechanicals, bicycle parking, and utility and storage rooms. There would be 23 dwelling units. No parking would be provided or required.

Tables 10-1 through 10-3 compare the existing, No-Action, and With-Action Scenarios for the three sites.

Table 10-1
Projected Development Site 1: Existing, No-Action, and With-Action Scenarios

	Existing Conditions	No-Action Scenario	With-Action Scenario
Development scenario	2 two-family homes and a vacant lot	Residential apartments above medical offices and commercial space	Residential apartments above medical offices and commercial space
Gross/zoning floor area and FAR	18,155 gsf/zsf (0.65 FAR)	87,044 gsf/56,374 zsf (2.00 FAR)	177,642 gsf/141,217 zsf (5.01 FAR)
Lot coverage	10,100 sf (36%)	28,187 sf (100%)	28,187 sf (100%)
Building height	2 stories (21 to 29 feet)	3 stories (35 feet)	11 stories (115 feet)

Table 10-2
Projected Development Site 2: Existing, No-Action, and With-Action Scenarios

	Existing Conditions	No-Action scenario	With-Action Scenario
Development scenario	3 warehouses	Residential apartments above medical offices	Residential apartments above medical offices
Gross/zoning floor area and FAR	7,855 gsf/zsf (0.52 FAR)	44,522 gsf/30,000 zsf (2.00 FAR)	90,959 gsf/75,150 zsf (5.01 FAR)
Lot coverage	6,000 sf (40%)	12,900 sf (86%)	12,900 sf (86%)
Building height	1 story (15 feet)	3 stories (35 feet)	11 stories (115 feet)

Table 10-3
Projected Development Site 3: Existing, No-Action, and With-action Scenarios

	Existing Conditions	No-Action Scenario	With-Action Scenario
Development scenario	3 mixed use (residential over commercial) buildings	3 mixed use (residential over commercial) buildings	Residential apartments above medical offices and commercial space
Gross/zoning floor area and FAR	6,212 gsf/zsf (1.26 FAR)	6,212 gsf/zsf (1.26 FAR)	24,945 gsf/zsf (5.01 FAR)
Lot coverage	4,232 sf (85%)	4,232 sf (85%)	4,979 sf (100%)
Building height	2 stories (21 feet)	2 stories (21 feet)	11 stories (115 feet)

If and when Potential Development Site 1 is redeveloped, it is assumed that the development would be an 11-story, 115 foot-tall, residential building with 12,525 gsf/zsf of floor area for a total FAR of 5.01. There would be 15 dwelling units. No parking would be provided or required. **Table 10-4** compares the existing, No-Action, and With-Action Scenarios for the site.

Table 10-4
Potential Development Site 1: Existing, No-Action, and With-action Scenarios

	Existing Conditions	No-Action Scenario	With-Action Scenario
Development scenario	2-family home	2-family home	Residential apartments
Gross/zoning floor area and FAR	1,688 gsf/zsf (0.68 FAR)	1,688 gsf/zsf (0.68 FAR)	12,525 gsf/zsf (5.01 FAR)
Lot coverage	844 sf (34%)	844 sf (34%)	1,480 sf (59%)
Building height	2 stories (21 feet)	2 stories (21 feet)	11 stories (115 feet)

It is assumed that the remainder of the Project Area including Block 1994, Lots 1, 3, 4, 7, 9, 10, 33, 36, 37, and 42 would not be redeveloped.

400-Foot Radius Project Study Area

The Proposed Actions would not result in any changes in land use within the 400-foot radius project study area.

Preliminary Assessment

As a result of the Proposed Actions, Projected Development Sites 1 and 2 would be redeveloped with 11-story, 5.01 FAR buildings rather than 3-story, 2.00 FAR buildings, and the two-story mixed-use buildings on Projected Development Site 3 would be replaced by a single 5.01 FAR building with ten residential stories above ground floor commercial and community facility space. It is also possible that an 11-story residential building could replace the two-family home on Potential Development Site 1. The new developments would not alter the arrangement of buildings on the blocks, the street system, or the terrain and would not introduce land uses different from those that already

exist within the Project Area. As the urban design diagrams in **Figures 10-1 through 10-12** show, the new developments would contrast with the adjacent low-rise buildings. As noted under Existing Conditions, however, the study area contains a mix of building types and façade styles and does not have a strong, consistent sense of place, and the projected developments would not disrupt the experience of a pedestrian walking past the development sites. The Proposed Actions would not result in a significant adverse urban design impact.

The projected developments would not block pedestrian views of William F. Moore Park, the one visual resource identified within the study area. The Proposed Actions would therefore not result in a significant adverse impact regarding visual resources.

50-20 108th Street, Queens

Figure 1: Urban Design Diagram

No-Action Scenario

Corona Avenue facing east (Projected Development Site 1 at left)



With-Action Scenario

Corona Avenue facing east (Projected Development Site 1 at left)



Maximum Permitted Base Height (85')

Maximum Permitted Building Height (115')

Proposed Base Height

Proposed Building Height

50-20 108th Street, Queens

Figure 2: Urban Design Diagram

No-Action Scenario

The intersection of 51st Avenue and Corona Avenue facing north (Projected Development Site 1 ahead)



With-Action Scenario

The intersection of 51st Avenue and Corona Avenue facing north (Projected Development Site 1 ahead)



Maximum Permitted Base Height (85')

Maximum Permitted Building Height (115')

Proposed Base Height

Proposed Building Height

50-20 108th Street, Queens

Figure 3: Urban Design Diagram

No-Action Scenario

The intersection of 51st Avenue and 108th Street facing east (Projected Development Site 1 ahead)



With-Action Scenario

The intersection of 51st Avenue and 108th Street facing east (Projected Development Site 1 ahead)



Maximum Permitted Base Height (85')

Maximum Permitted Building Height (115')

Proposed Base Height

Proposed Building Height

50-20 108th Street, Queens

Figure 4: Urban Design Diagram

No-Action Scenario

The intersection of 108th Street and 50th Avenue facing south (Projected Development Site 1 ahead)



With-Action Scenario

The intersection of 108th Street and 50th Avenue facing south (Projected Development Site 1 ahead)



Maximum Permitted Base Height (85')

Maximum Permitted Building Height (115')

Proposed Base Height

Proposed Building Height

50-20 108th Street, Queens

Figure 5: Urban Design Diagram

No-Action Scenario

50th Avenue facing southeast (Projected Development Site 1 at right)



With-Action Scenario

50th Avenue facing southeast (Projected Development Site 1 at right)



Maximum Permitted Base Height (85')

Maximum Permitted Building Height (115')

Proposed Base Height

Proposed Building Height

50-20 108th Street, Queens

Figure 6: Urban Design Diagram

No-Action Scenario

50th Avenue facing northeast (Projected Development Site 2 at left)



With-Action Scenario

50th Avenue facing northeast (Projected Development Site 2 at left)



Maximum Permitted Base Height (85')

Maximum Permitted Building Height (115')

Proposed Base Height

Proposed Building Height

50-20 108th Street, Queens

Figure 7: Urban Design Diagram

No-Action Scenario

The intersection of 108th Street and 50th Avenue facing west (Projected Development Site 2 ahead)



With-Action Scenario

The intersection of 108th Street and 50th Avenue facing west (Projected Development Site 2 ahead)



Maximum Permitted Base Height (85')

Maximum Permitted Building Height (115')

Proposed Base Height

Proposed Building Height

50-20 108th Street, Queens

Figure 8: Urban Design Diagram

No-Action Scenario

108th Street facing south (Projected Development Site 2 at right)



With-Action Scenario

108th Street facing south (Projected Development Site 2 at right)



Maximum Permitted Base Height (85')

Maximum Permitted Building Height (115')

Proposed Base Height

Proposed Building Height

50-20 108th Street, Queens

Figure 9: Urban Design Diagram

No-Action Scenario

The intersection of Corona Avenue and 106th Street facing east (Projected Development Site 3 ahead)



With-Action Scenario

The intersection of Corona Avenue and 106th Street facing east (Projected Development Site 3 ahead)



Maximum Permitted Base Height (85')
Maximum Permitted Building Height (115')
Proposed Base Height
Proposed Building Height

50-20 108th Street, Queens

Figure 10: Urban Design Diagram

No-Action Scenario

Corona Avenue facing northeast (Projected Development Site 3 at right)



With-Action Scenario

Corona Avenue facing northeast (Projected Development Site 3 at right)



Maximum Permitted Base Height (85')

Maximum Permitted Building Height (115')

Proposed Base Height

Proposed Building Height

Urban Cartographics

50-20 108th Street, Queens

Figure 11: Urban Design Diagram

No-Action Scenario

50th Avenue facing southwest (Projected Development Site 3 at left)



With-Action Scenario

50th Avenue facing southwest (Projected Development Site 3 at left)



Maximum Permitted Base Height (85')

Maximum Permitted Building Height (115')

Proposed Base Height

Proposed Building Height

50-20 108th Street, Queens

Figure 12: Urban Design Diagram

No-Action Scenario

106th Street facing southeast (Projected Development Site 3 ahead)



With-Action Scenario

106th Street facing southeast (Projected Development Site 3 ahead)



Maximum Permitted Base Height (85')

Maximum Permitted Building Height (115')

Proposed Base Height

Proposed Building Height

50-20 108th Street, Queens

Figure 13: Urban Design Diagram

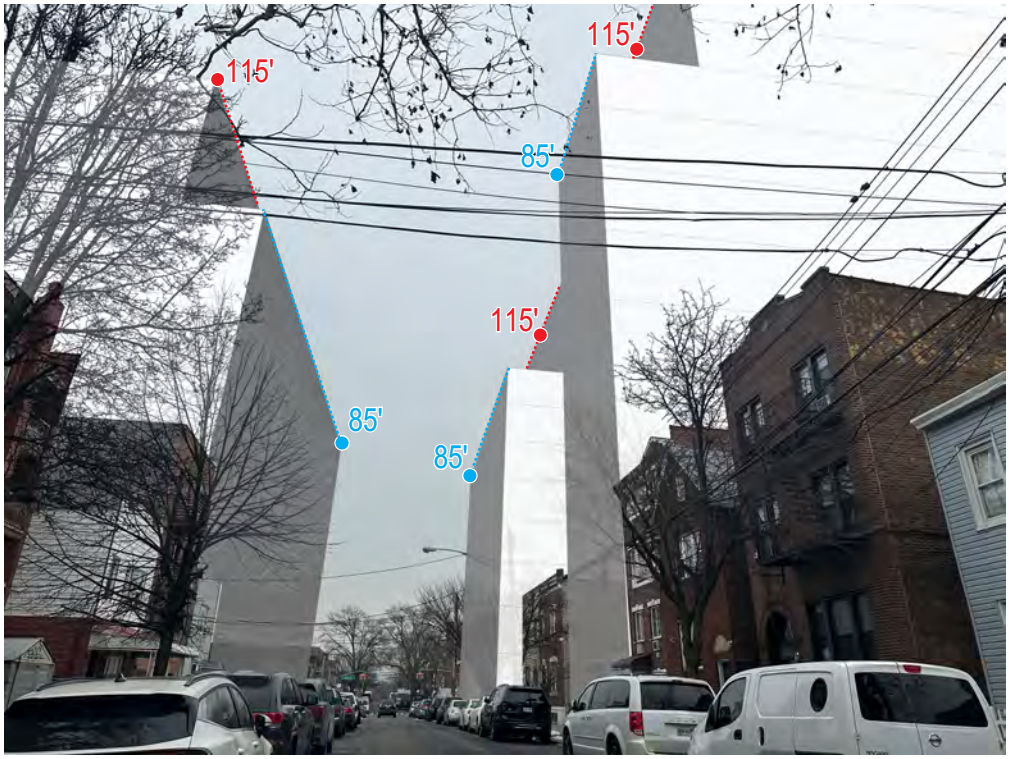
No-Action Scenario

50th Avenue facing east (Potential Development Site 1 at right)



With-Action Scenario

50th Avenue facing east (Potential Development Site 1 at right)



Maximum Permitted Base Height (85')

Maximum Permitted Building Height (115')

Proposed Base Height

Proposed Building Height

50-20 108th Street, Queens

Figure 13: Urban Design Diagram

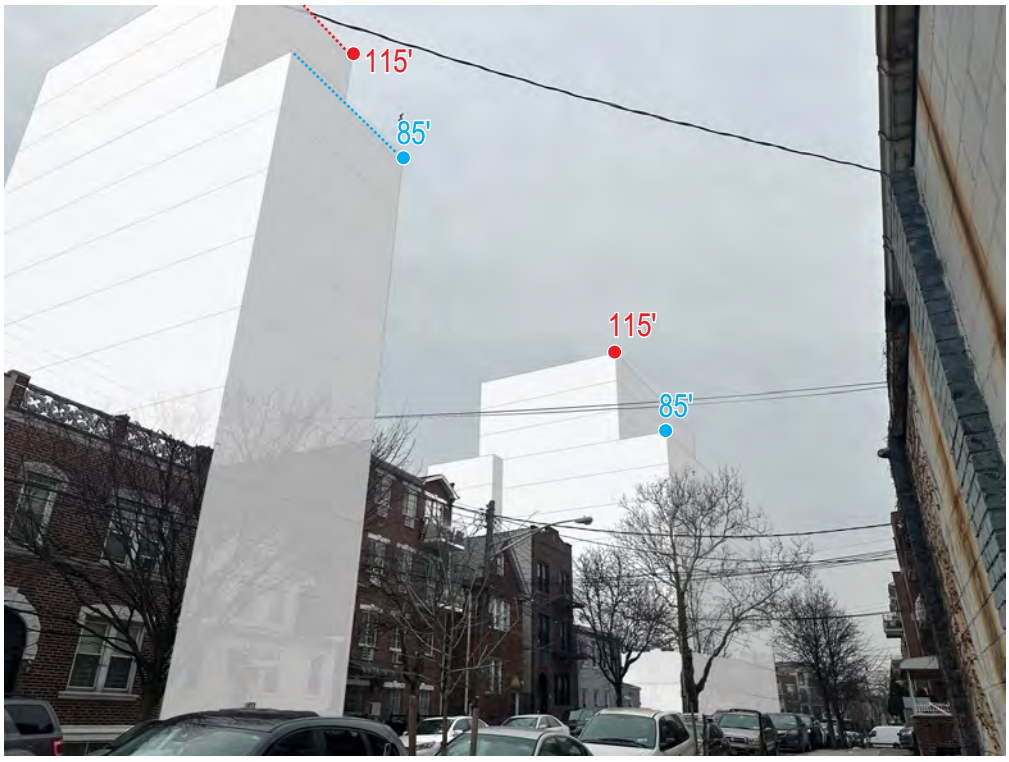
No-Action Scenario

50th Avenue facing southwest (Potential Development Site 1 at left)



With-Action Scenario

50th Avenue facing southwest (Potential Development Site 1 at left)



Maximum Permitted Base Height (85')

Maximum Permitted Building Height (115')

Proposed Base Height

Proposed Building Height

Conclusion

As explained above, the Proposed Actions would not have a significant adverse impact regarding urban design and visual resources. No further analysis is warranted.

14. HAZARDOUS MATERIALS

Phase I Environmental Site Assessment

Introduction

Environmental Studies Corp. has performed a Phase I Environmental Site Assessment (ESA) of the subject property referred to as the 50-20 108th Street Rezoning. The subject property consists of Lot 65 on Block 1993, and Lots 12, 13, 15, 16, 18, 19, 22, 23, 25, and 30 on Block 1994, in the Corona section of the Borough of Queens, New York City, New York. This Phase I ESA was prepared in accordance with the ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM Designation E 1527-13).

Site Description

The subject property referred to as the 50-20 108th Street Rezoning consists of one lot (Lot 65) on the block bounded by 49th Avenue to the north, 50th Avenue to the south, 108th Street to the east, and 106th Street to the west (Block 1993), and ten adjoining tax lots (Lots 12, 13, 15, 16, 18, 19, 22, 23, 25 & 30) on the block bounded by 50th Avenue to the north, 51st Avenue to the south, 108th Street to the east, and Corona Avenue to the west (Block 1994), in the Corona section of the Borough of Queens, New York City, New York.

Lot 65 on Block 1993 is a 15,000 square foot parcel which is occupied by a lumber yard (108th Street Lumber). The lot is occupied by a 1- and 2-story building containing the office and retail store for the yard. Heat and hot water for this building are provided by gas-fired systems. The yard also contains three, open front, lumber and materials storage sheds. Exterior portions of this lot consist of asphalt-paved and unpaved materials storage areas.

The ten lots located on Block 1994 have a total combined area of approximately 28,225 square feet. Lot 12 is occupied by a 2-story (plus basement), mixed use building (i.e., residential and ground floor office). Heat and hot water for this building are provided by electric powered systems. The rest of the lot contains an asphalt-paved parking area. Lots 13, 15, 16, and 18 are asphalt-paved parking lots. Lot 19 contains a 2-story (plus basement) dwelling. Heat and hot water for this building are provided by gas-fired systems. The rest of this lot consist of an asphalt-paved parking area. Lot 22 is occupied by a 2-story (plus basement) dwelling and a detached, 2-car garage. Heat and hot water for the dwelling are provided by gas-fired systems.

Lot 23 is fully occupied by a 2-story (plus basement), mixed-use building (residential with ground floor commercial/retail). At the time of the site visit, this building was occupied by a grocery store (Lorena's Fruits), Max Multi Services, NY (money orders, bill pay, copy services, etc.), a private social club, and Nail Studio (nail salon). Heat and hot water for this building are provided by gas-fired systems. Lot 25 is an asphalt-paved parking lot. Lot 30 is occupied by a 2-story (plus basement) restaurant (Park Side Restaurant). Heat and hot water for this building are provided by gas-fired systems.

Site History

Block 1993, Lot 65

Block 1993, Lot 65 was occupied by a recreational facility (bowling alley, dance hall, park) from at least 1893 to 1924. Sometime between 1924 and 1939, the use of the lot was converted to a lumber yard, and the lot has remained in use continuously as a lumber yard since that time. Environmental concerns associated with lumber yards include the storage/use of wood treatment/preservative chemicals, petroleum products, lubricating oils, and others, and represents a Recognized Environmental Condition.

Block 1994, Lots 12, 13, 15, 16, 18, 19, 22, 23, 25 & 30

All of these lots, with the exception of Lot 18, were occupied by various residential and commercial/retail uses from the early 1900s. Lot 18 was historically an accessory yard or driveway to the adjoining dwelling to the north. The former commercial building on Lot 25 was demolished in 1982. The former dwellings on Lots 13 and 15 were demolished in 2010, and the former dwelling on Lot 16 was demolished in 2012. These lots have all been used for parking since the demolition of the former buildings. There were not any former businesses or operations that typically involve the storage or use of hazardous substances or petroleum products identified on Lots 12, 13, 15, 16, 18, 19, 22, or 30 in the information reviewed for this report. Given the identified former uses of these lots, it is considered unlikely that they would have impacted the subject property.

Lot 23 formerly contained a dry cleaner and dyer from at least 1962 to 1983 (Wallack Cleaners and Dyers). Dry cleaners and dyers are types of operations that typically use hazardous substances in their operations. In addition to the former dry cleaner and dyer, other businesses identified on Lot 23 that may have involved the storage or use of hazardous substances or petroleum products in their operations include A&H Truck Tank Repair Service (1967), Future Polishing Co. (1976), Melita Equipment Rentals (1983), and AAD Painting (1991-1992). Any past spills leaks or discharges of hazardous substances or petroleum products from these former businesses on Lot 23 would represent a potential source of contamination to the subject property.

Identified former uses of Lot 25 include a handkerchief factory, a shirt waist shop, a private garage, and a coat, apron, and linen company. It is likely that the operations of some or all of these former occupants involved the storage or use of hazardous substances or petroleum products. Any past spills leaks or discharges of hazardous substances or petroleum products from these former businesses on Lot 25 would represent a potential source of contamination to the property.

Site Drainage

Typical lavatory drainage structures such as sinks and toilets are located in the subject buildings. In addition, several stormwater drains are located in the exterior areas of the site. These structures discharge to the municipal sewer system. No staining or other indications of past

discharges of hazardous substances or petroleum products were observed around any of the drainage structures at the project site.

Petroleum Storage Tanks

There were not any aboveground storage tanks (ASTs) observed at the subject property during the site visit. No indications of the presence of underground storage tanks (USTs), such as tank fillports, vent lines, or associated mechanical equipment, were observed at the property during the site visit. The subject property is not identified in the New York State Department of Environmental Conservation (NYSDEC) Petroleum Bulk Storage (PBS) database, which lists all registered facilities with a total combined petroleum storage capacity in excess of 1,100 gallons. There are not any Oil Burner applications for the subject property on file with the New York City Buildings Department.

According to New York City Department of Buildings records, the heating system in the building on Block 1994, Lot 12 was converted from oil heat to gas heat in 2012. There were not any records of tank closures or removals at the property found in the information reviewed for this report. The location of the former heating oil tank on Lot 12 (i.e., aboveground or belowground) is not known. In addition, the types of heating systems used in the former buildings at the property (e.g., oil, gas, electric, etc.) is not known. Any petroleum storage tanks discovered at the property during re-development should be properly closed or removed in accordance with all applicable regulations.

Asbestos/Lead-Based Paints/PCBs

Given the age of the buildings (constructed prior to 1970), it is possible that they contain asbestos building materials and lead-based paints in underlying layers. No transformers or other large electrical equipment suspected of containing PCBs were observed at the property.

Regulatory Agency Database Records

The subject property does not appear in the Federal or State environmental databases reviewed including the United States Environmental Protection Agency (USEPA's) Superfund, SEMS or ERNS databases, the RCRA Hazardous Waste Handler database or the Hazardous Waste Treatment/Storage/Disposal Facilities list, or the NYSDEC Spills database, PBS database, Solid Waste Facilities database, Voluntary Cleanup Program database, Brownfield Cleanup Program database, Registered Dry Cleaner database, or the Registry of Inactive Hazardous Waste Disposal Sites.

Surrounding Land Uses

The property is adjoined by residential and commercial/retail uses. Land uses in the immediate vicinity of the property (i.e., within approximately 500 feet of the site) are primarily comprised of a mix of residential and commercial/retail uses. No gasoline filling stations or heavy industrial uses were identified in the immediate vicinity of the property during the site visit.

A review of Sanborn historical maps shows that land uses in the immediate vicinity of the property have historically contained a mix of residential and commercial/retail uses. There are not any gasoline filling stations or heavy industrial uses identified in the immediate vicinity of the property on any of the Sanborn historical maps reviewed.

There were not any off-site, potential sources of contamination which are considered likely to have impacted the subject property identified in the information reviewed for this report.

Conclusions

The assessment revealed the following evidence of *Recognized Environmental Conditions* in connection with the property:

- The potential for contamination on Block 1993, Lot 65 of the property from past lumber yard operations.
- The potential for contamination on Block 1994, Lots 23 and 25 of the property from past operations involving the storage or use of hazardous substances or petroleum products.

DEP Response

The NYC Department of Environmental Protection (DEP) reviewed the Phase I ESA and responded in correspondence dated June 27, 2025, which is included in Appendix A to this EAS. With regard to Projected Development Site 1 (Block 1994, Lots 12, 13, 15, 16, 18, 19, 22, 23, 25, and 30) and Projected Development Site 2 (Block 1993, Lot 65). The letter stated as follows:

> "… based on the historical on-site and/or surrounding area land uses, a Phase II Environmental Site Assessment (Phase II) is necessary to adequately identify/characterize the surface and subsurface soils, groundwater, and soil vapor of the subject property, and to inform and disclose the measures necessary to avoid impacts from hazardous materials. A Phase II Investigation Protocol/Work Plan summarizing the proposed drilling, soil, groundwater, and soil vapor sampling activities should be developed in accordance with the City Environmental Quality Review (CEQR) Technical Manual and submitted for DEP review and approval."

With regard to Projected Development Site 3 (Block 1994, Lots 40 and 41), which is not owned or controlled by the Applicant and which was not addressed in the Phase I ESA, the letter stated as follows:

> "Based on prior on-site and/or surrounding area land uses which could result in environmental contamination, an (E) Designation for hazardous materials should be placed on the subject property 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 occurs, as well as to ensure the maintenance and oversight of any required engineering controls through

oversight by the Mayor's Office of Environmental Remediation (OER). Further hazardous materials assessments should be coordinated through OER."

The letter also asked for an explanation of how the potential for hazardous materials impacts would be addressed for Potential Development Site 1 (Block 1994, Lot 6).

(E) Designations

As described above in the Phase I ESA summary, most of the lots in the projected development sites are covered by buildings occupied by occupied residences and active businesses. The Projected Development Sites currently contain a total of 14 residential dwelling units (10,496 gsf), 13,871 gsf of commercial retail space and 7,855 gsf of manufacturing/warehouse space. Invasive testing cannot be performed at this time without interfering with the daily operations of the existing businesses and the daily lives of building residents. Therefore, (E) designations for hazardous materials will be placed on the zoning map for the lots specified below.

The hazardous materials text of E-[number to come] would be as follows:

(E) Designation (E-884)

Projected Development Site 1 (Block 1994, Lots 12, 13, 15, 16, 18, 19, 22, 23, 25, and 30)

Projected Development Site 2 (Block 1993, Lot 65)

Projected Development Site 3 (Block 1994, Lots 40 and 41)

Potential Development Site 1 (Block 1994, Lot 6):

Task 1-Sampling Protocol

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

Task 2-Remediation Determination and Protocol

A written report with findings and a summary of the data must he submitted to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such results, a determination is made by OER if the results indicate that remediation

is necessary. If OER determines that no remediation is necessary, written notice shall be given by OER.

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

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

Conclusion

With the (E) designation in place to ensure that soil, groundwater, and vapor testing and any required remediation would precede redevelopment, no significant adverse impacts related to hazardous materials would occur, and no further analysis is warranted.

16. TRANSPORTATION

INTRODUCTION

Pursuant to the guidance of the *2021 City Environmental Quality Review (CEQR) Technical Manual*, this chapter examines the potential effects of the Proposed Actions on the Project Area's transportation systems. Specifically, a reasonable worst-case development scenario (RWCDS) for future with the Proposed Actions (the With-Action Scenario) and future without the Proposed Actions (the No-Action Scenario) are analyzed to determine the potential for significant adverse transportation impacts of the Proposed Actions. If transportation impacts are warranted, this chapter would also identify improvement measures that are appropriate to address those impacts.

PROJECT AREA

The proposed rezoning area consists of 24 tax and zoning lots, (Block 1994, Lots 1, 3, 4, 6, 7, 9, 10, 12, 13, 15, 16, 18, 19, 22, 23, 25, 30, 33, 36, 37, 40, 41, and 42, and Block 1993, Lot 65) in the Corona neighborhood of Queens Community District 4. The area is bounded by 108th Street, a two-way north-southbound roadway, to the east; 49th Avenue, a one-way westbound roadway, to the north; 106th Street, a one-way southwest-bound roadway, to the west; Corona Avenue, a two-way northwest/southeast-bound roadway, to the west; and 51st Avenue, a one-way westbound roadway, to the south.

The rezoning area spans two blocks, divided by 50th Avenue, a one-way eastbound roadway, as illustrated in **Figure 1** (Transportation Appendix).

PROJECTED DEVELOPMENT SITES

The transportation analyses are based on three (3) Projected Development Sites, as described below:

- Block 1994, Lots 12, 13, 15, 16, 18, 19, 22, 23, 25, and 30: Will be developed as Projected Development Site 1 in the With-Action Scenario (owned by the Applicant).
- Block 1993, Lot 65: Will be developed as Projected Development Site 2 in the With-Action Scenario (owned by the Applicant).
- Block 1994, Lots 40 and 41: This non-Applicant owned site will be developed as Projected Development Site 3 in the future under the Proposed Actions.

EXISTING CONDITIONS

The three (3) Projected Development Sites within the Project Area currently contain a total of 14 residential dwelling units (10,496 gsf), 13,871 gsf of commercial retail space and 7,855 gsf of manufacturing/warehouse space, with 25 accessory parking spaces, as summarized in **Table 1.**

NO-ACTION SCENARIO

Absent the Proposed Actions, it is assumed that the three (3) Projected Development Sites within the Project Area would be improved with a total of 75 residential dwelling units (65,338 gsf), 17,547 gsf of commercial retail space and 15,670 gsf of community facility (medical office) space, with 83 accessory parking spaces, as summarized in **Table 1**.

WITH-ACTION SCENARIO

The Proposed Actions would result in a development comprised of 254 residential dwelling units (216,009 gsf), 18,870 gsf of commercial retail space and 19,268 gsf of community facility (medical office) space, with 74 accessory parking spaces, as summarized in **Table 1**.

Table 1 – Existing, No-Action Scenario, With-Action Scenario, and Increment on Projected Development Sites

Land Use	Existing	No-Action	With-Action	Increment
Residential (d.u.)	14 d.u. (10,496 gsf)	75 d.u. (65,338 gsf)	254 d.u. (216,009 gsf)	+ 179 d.u. (150,671 gsf)
Local Retail (gsf)	13,871 gsf	17,547 gsf	18,870 gsf	+ 1,323 gsf
Medical Office (gsf)	0	15,670 gsf	19,268 gsf	+ 3,598 gsf
Warehouse (gsf)	7,855 gsf	0	0	0
Accessory Parking	25	83	74	- 9

Source: Approved RWCDS.

ANALYSIS FRAMEWORK

The transportation analyses are based on the net difference between the Proposed With-Action and No-Action Scenarios or build increment.

INCREMENT

The Proposed Actions would result in a net increase of 179 residential dwelling units (150,671 gsf), 1,323 gsf of local retail space, 3,598 gsf of medical office space, and a net decrease of 9 accessory parking spaces, as summarized in **Table 1**.

PRINCIPAL CONCLUSIONS

The following trip generation (Level 1 Screening) analyses have been conducted for the project increment scenario, as are summarized in **Table 1**.

The Proposed Actions would generate a total of 181, 142, 183, and 200 net person trip-ends, 48 (19 inbound and 29 outbound), 41 (20 inbound and 21 outbound), 44 (24 inbound and 20 outbound), and 45 (23 inbound and 22 outbound) net vehicle trip-ends; 63, 38, 60, and 65 net subway trip-ends; 24, 16, 22, and 24 net bus trip-ends; and 120, 92, 129, and 143 net pedestrian trip-ends, during the Weekday AM, Midday, PM, and Saturday Midday peak hours, respectively. Based on the results of trip generation (Level 1) screening analyses, as summarized in **Tables 2 through 4 (**Transportation Appendix), the Proposed Actions would generate fewer vehicle, transit (subway and bus) and pedestrian trips than the *2021 CEQR Technical Manual* thresholds. Therefore, in accordance with the threshold guidelines as detailed in the *2021 CEQR Technical Manual,* the Proposed Actions would not result in significant adverse impacts related to transportation (traffic, transit and pedestrian network) and no further transportation analyses would be warranted, as detailed below.

BUILD YEAR

It is assumed that the Proposed Actions would be approved by 2025. The Proposed Developments on the three Projected Development Sites are expected to be constructed in two phases and would be completed within approximately three to four years (40 months) by the year 2029.

TRANSPORTATION PLANNING ASSUMPTIONS

Trip generation factors for the Proposed Actions were determined based on information from the 2021 *City Environmental Quality Review (CEQR) Technical Manual*, U.S. Census Data, trip generation and modal split data provided by the NYCDOT, and other approved EASs and EISs. The travel demand assumptions and trip generation sources are summarized in **Table 2** (Transportation Appendix) and detailed below.

Residential Development

The *2021 CEQR Technical Manual* Table 16-2 was utilized for trip generation rates, including truck trips, peak hour temporal distribution, and directional splits. The 2015-2019 American Community Survey (ACS) Journey-to Work (JTW) data for Census Tract #'s 413, 415, 427, 437.01,

and 439 in Queens, NY was used for modal split information and auto occupancy rate, as is estimated in **Exhibits 1 and 2**, and summarized in **Table 2** (Transportation Appendix).

The estimated modal split data for residential use found that approximately 24.0% would travel by car, 1.4% would travel by taxi, 16.4% would travel by bus, 46.6% would travel by subway, and 11.6% would travel by foot and other modes of travel, such as bicycle, as shown and summarized in **Exhibit 1**. The auto occupancy rate is 1.3, based on the 2015-2019 ACS JTW data for Census Tract #'s 413, 415, 427, 437.01, and 439 in Queens NY as summarized in **Exhibit 2**. The taxi occupancy rate is based on the *East New York Rezoning Proposal FEIS* (Table 13-8).

Local Commercial Retail Development

The *2021 CEQR Technical Manual* Table 16-2 was utilized for trip generation rates, peak hour temporal distribution, directional splits, and truck trip rates. Modal split information and vehicle occupancy rates are provided by *NYCDOT in the 2021 CEQR Technical Manual* based on the survey results for similar local retail use in Queens outside the Transit Zones, as is summarized in **Table 2** (Transportation Appendix). In addition, the travel demand forecast for local retail uses reflects a 25 percent linked-trip credit, consistent with *CEQR Technical Manual* guidance.

The estimated modal split results for local commercial retail use found that 11% would travel by car, 0% would travel by taxi, 2% would travel by bus, 3% would travel by subway, and 84% would travel by foot and other modes of travel.

Medical Office Development

The *2021 CEQR Technical Manual* Table 16-2 was utilized for trip generation rates, peak hour temporal distribution and directional splits. Modal split information and vehicle occupancy rates are provided by *NYCDOT in the 2021 CEQR Technical Manual* based on the survey results for similar medical office use in Queens outside the Transit Zones. Truck trip rates are based on *East New York Rezoning FEIS*, Table 13-8, as is summarized in **Table 2** (Transportation Appendix).

The estimated modal split results for medical office use found that approximately 69% would travel by car, 7% would travel by taxi, 6% would travel by bus, 2% would travel by subway, and 16% would travel by foot and other modes of travel.

PRELIMINARY ANALYSIS METHODOLOGY AND SCREENING ASSESSMENTS

The *CEQR Technical Manual* recommends a two-tier screening procedure for the preparation of a "preliminary analysis" to determine if quantified analyses of transportation conditions are warranted. As discussed below, the preliminary analysis begins with a trip generation analysis (Level 1) to estimate the volume of person and vehicle trip-ends attributable to the Proposed Actions. If the Proposed Actions are expected to result in fewer than 50 peak hour vehicle trip-ends and fewer than 200 peak hour transit or pedestrian trip-ends, further quantified analyses are not warranted. When these thresholds are exceeded, detailed trip assignments (Level 2) are performed to estimate the incremental trip-ends at specific transportation elements and to

identify potential locations for further analysis. If the trip assignments show that the Proposed Actions would result in 50 or more peak hour vehicle trip-ends at an intersection, 200 or more peak hour subway trip-ends at a station, 50 or more peak hour bus trip-ends in one direction along a bus route, or 200 or more peak hour pedestrian trip-ends traversing a pedestrian element, then further quantified analyses may be warranted to assess the potential for significant adverse impacts on traffic, transit, pedestrians, and parking.

LEVEL 1 SCREENING ASSESSMENTS

A Level 1 trip generation screening assessment was conducted for the project increment, as summarized in **Table 1,** to estimate the numbers of person and vehicle trip-ends by mode generated by the Proposed Actions during the Weekday AM, Midday, PM, and Saturday peak hours, as summarized in **Tables 3, and 4** (Transportation Appendix). These trip estimates were then compared to the *CEQR Technical Manual* thresholds to determine if a Level 2 screening and/or quantified operational analyses would be warranted.

The Proposed Actions would generate a total of 181, 142, 183, and 200 net person trip-ends, 48 (19 inbound and 29 outbound), 41 (20 inbound and 21 outbound), 44 (24 inbound and 20 outbound), and 45 (23 inbound and 22 outbound) net vehicle trip-ends; 63, 38, 60, and 65 net subway trip-ends; 24, 16, 22, and 24 net bus trip-ends; and 120, 92, 129, and 143 net pedestrian trip-ends, during the Weekday AM, Midday, PM, and Saturday Midday peak hours, respectively. Based on the results of trips generated by the Proposed Actions, as summarized in **Tables 3, and 4** (Transportation Appendix), a Level 2 screening analysis (trip assignment) would not be required for assessing vehicle, transit or pedestrian impact during any of the peak hours.

CONCLUSION

In accordance with the threshold guidelines as detailed in the *2021 CEQR Technical Manual*, the Proposed Actions would not result in significant adverse impacts related to transportation. Specifically, the Proposed Actions would not have a significant adverse impact on the neighborhood's traffic, parking, transit, and pedestrian movements. No further analysis is warranted.

17. AIR QUALITY

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. Under the City Environmental Review (CEQR), an air quality assessment determines both a proposed project's effects on ambient air quality and the quality of the ambient air at the project.

The entire Proposed Rezoning Area ("Project Area") consists of twenty-four tax and zoning lots (Block 1994, Lots 1, 3, 4, 6, 7, 9, 10, 12, 13, 15, 16, 18, 19, 22, 23, 25, 30, 33, 36, 37, 40, 41, and 42, and Block 1993, Lot 65) in the Corona neighborhood of Queens Community District 4. It is bounded by 108th Street, 51st Avenue, Corona Avenue, and 50th Avenue. The Reasonable Worst Case Development Scenario (RWCDS) for the proposed Project Area consists of three projected development sites:

Projected Development Site 1: The With-Action Condition analyzes the Applicant-owned Projected Development 1 (Block 1994, Lots 12, 13, 15, 16, 18, 19, 22, 23, 25, and 30) as an 11-story, 115-foot-tall, mixed-use building with 178,712 total gsf, including 15,327 gsf of commercial floor area, 6,447 gsf of community facility floor area, 129,506 gsf of residential floor area, plus subsurface 19,389 gsf accessory parking, and 8,043 gsf mechanical, bicycle storage, utility, and general storage areas. Forty-four (44) residential parking spaces would be provided in the cellar level with driveway access to 50th Avenue.

Projected Development Site 2: The With-Action Condition analyzes the Applicant-owned Projected Development 2 (Block 1993, Lot 65) as an 11-story, 115-foot-tall, mixed-use building with 93,575 total gsf, including 10,198 gsf of community facility floor area, 70,424 gsf of residential floor area, plus 8,400 gsf subsurface accessory parking, and 4,553 gsf mechanical and utility space, bicycle parking, and storage rooms. Twenty-four (24) residential parking spaces would be provided in the cellar level with driveway access to 108th Street.

Projected Development Site 3: The With-Action Condition analyzes Projected Development Site 3 (Block 1994, Lots 40 and 41) as an 11-story, 115-foot-tall, mixed-use building with 24,945 gsf of floor area, including 3,050 gsf of commercial space, 1,979 gsf of community facility space, and 19,916 gsf of residential floor area plus cellar space for mechanicals, bicycle parking, and utility and storage rooms. No parking would be provided or required.

Potential Development Site 1 (Block 1994, Lot 6): The With-Action Condition analyzes Potential Development Site 1 (Block 1994, Lot 6) as an 11-story, 115-foot-tall, residential building with 12,525 gsf of floor area. No parking would be provided or required.

The Proposed Actions would not affect the other properties located within the Project Area.

Air Quality Standards, Regulations, and Benchmarks

Criteria Pollutants

As required by the Clean Air Act, National Ambient Air Quality Standards (NAAQS) have been established for the most common air pollutants (six criteria pollutants) by the U.S. Environmental Protection Agency ("EPA"). The presence of these pollutants in ambient air is generally due to numerous diverse and widespread sources of emissions. Ambient air quality describes pollutant levels in the surrounding environment to which the public has access. New York has adopted the NAAQS as the State ambient air quality standard. Criteria pollutants that a detailed analysis was required for are associated with stationary source combustion of natural gas-fired HVAC systems. These include particulate matter with aerodynamic diameters less than or equal to 2.5 microns ("$PM_{2.5}$") and nitrogen dioxide ("NO_2").

In addition to the NAAQS, the *CEQR Technical Manual* requires that projects subject to CEQR apply carbon monoxide (CO) and $PM_{2.5}$ significant impact criteria (*de minimis*). 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 action. The $PM_{2.5}$ 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.

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. **Table 17-1** shows the NAAQS, background concentration, and the *City's de minimis* for stationary source for the pollutants that a detailed analysis was required for.

Table 17-1: NAAQS and CEQR *de minimis* for the relevant pollutants

Pollutant	Averaging Period	NAAQS	Background Concentration	Monitoring Station	CEQR *de minimis*
NO_2	1 Hour	0.10 ppm (188 $\mu g/m^3$)	55.1 ppb (103.6 $\mu g/m^3$)	Queens College Site No. 36-081-0124 (1)	---
	Annual	0.053 ppm (100 $\mu g/m^3$)	14.18 ppb (26.8 $\mu g/m^3$)		---
$PM_{2.5}$	24 Hour	35 $\mu g/m^3$	18.1 $\mu g/m^3$	Queens College Site No. 36-081-0124 (2)	8.45 $\mu g/m^3$
	Annual	9 $\mu g/m^3$	7.0 $\mu g/m^3$		0.3 $\mu g/m^3$

Note:
1. Background concentration: NYSDEC. 2019. "New York State Ambient Air Quality Report for 2019." File version: 11/12/2020. extapps.dec.ny.gov/docs/air_pdf/2019airqualreport.pdf.

ppb = parts per billion
$\mu g/m^3$ = micrograms per cubic meter

Non-Criteria Pollutants

Noncriteria pollutants include hundreds of toxic pollutants, ranging in toxicity levels (from high to low). 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). NYSDEC also regulates pollutants that produce discomfort due to odors, where significant discomfort is evaluated on quantity, characteristic, or duration.

Mobile Source

Based on the *CEQR Technical Manual,* projects 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 (e.g., diesel trains, helicopters, boats), or add new uses near mobile sources (e.g., roadways, garages, parking lots). Certain types of projects may require further analysis, including microscale analyses.

The Proposed Actions would generate a total of 28, 42, 44, and 45 net vehicle trip-ends during the Weekday AM, Midday, PM, and Saturday Midday peak hours, respectively (see Chapter "Transportation"). As such, the projected traffic volumes would not exceed the carbon monoxide (CO) screening threshold defined in the 2021 *CEQR Technical Manual* (170 peak-hour vehicle trips at an intersection in the study area). Given the roadway types along the corridor at each intersection, it is anticipated that particulate matter (PM) emissions would not exceed the *de minimis* thresholds referenced in the *2021 CEQR Technical Manual*.

The Proposed Action would feature 44 and 24 indoor accessory parking spaces in Projected Development Sites 1 and 2, respectively. The incremental parking spaces between the With-

Action and No-Action scenarios would not exceed the 85 spaces (DCP's threshold that requires an air quality parking detailed analysis). In addition, the Proposed Actions would not result in operable windows or air intakes within 200 feet of an atypical roadway, create a covered road or be affected by a covered road, or create a new sensitive receptor adjacent to an existing large parking facility, or significantly increase the vehicle miles traveled in a large area. As such, no detailed analysis is warranted.

Stationary Source

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

Heating and Hot Water Systems

The heating/hot water, ventilation, and air conditioning (HVAC) systems analysis considers the potential for emissions from an HVAC system(s) associated with a proposed action to result in a significant adverse air quality impact at another land use in the area. Based on the *CEQR Technical Manual*, a preliminary screening assessment can be conducted as a first step to predict whether the potential impacts of the heat and hot water system(s) boiler emissions can be significant.

HVAC Screening Assessment

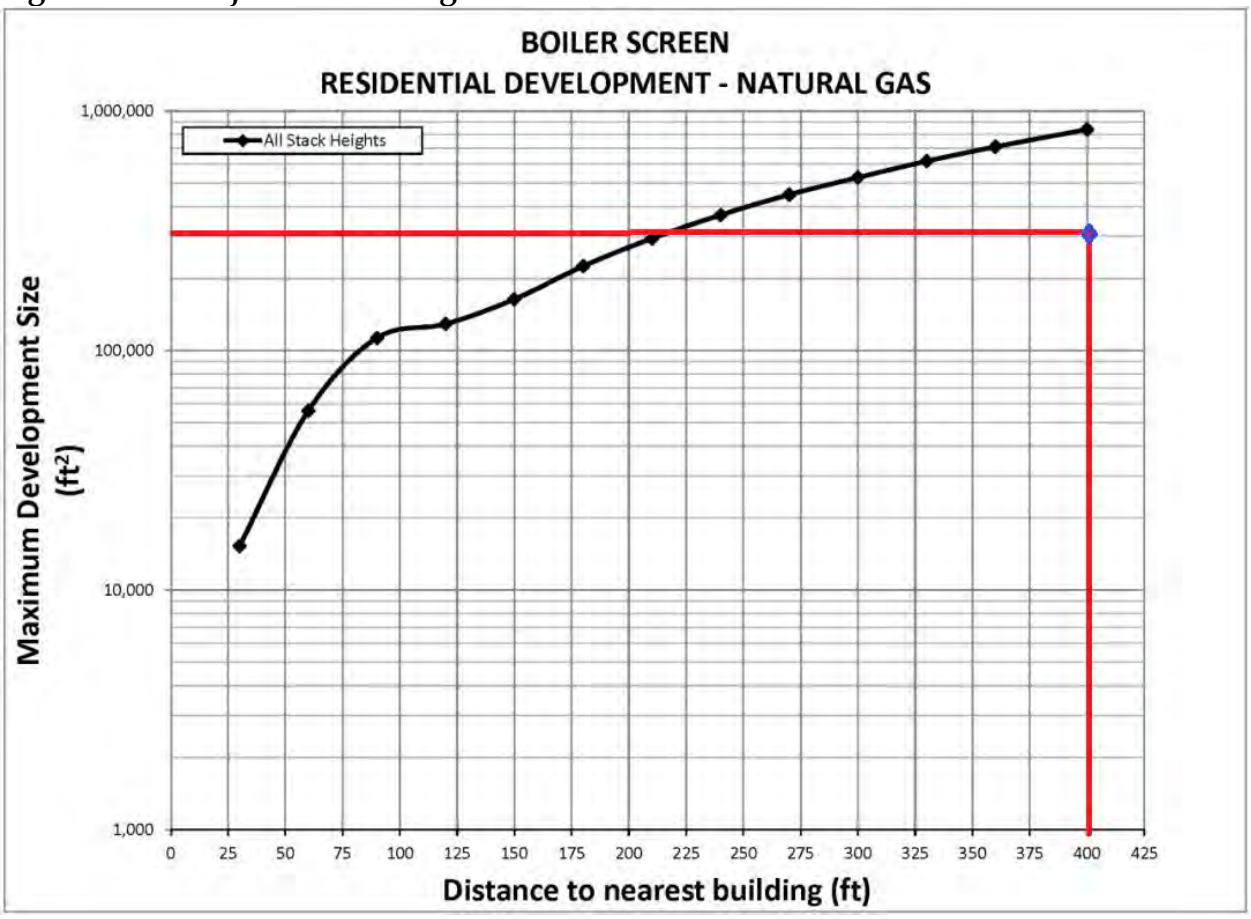
As determined in the analysis, natural gas will have to be the type of fossil fuel, if any, used in any HVAC system(s) associated with the Proposed Actions. The *CEQR Technical Manual Appendices Figure App 17-2* nomograph was used for the screening assessment. The nomograph, applicable to residential developments using natural gas-fired HVAC system(s), depicts the size of the development versus the distance below which the potential impact can occur and provides a conservative estimate of the threshold distance. As screening analysis only applies to a single smokestack, the cumulative project-on-existing screening analysis combined emissions from multiple stacks in a single stack situated as close as possible to a receiving building.

Project-on-Existing: The Projected Development Sites 1, 2, and 3, and Potential Development Site 1 RWCDS floor areas were combined as a single 115-feet-tall, 309,757 gsf building for the project-on-existing screening assessment. A distance of 400 feet was applied in the screening analysis as no building 115 feet or taller is within 400 feet of Projected Development Sites 1, 2, or 3, or Potential Development Site 1.[2] **Figure 17-1** shows the project-on-existing screening nomograph. As seen in the screening analysis **Figure 17-1** (using Figure App 17-2 of the *CEQR*

[2] Buildings in the area include existing buildings (City of New York, Office of Technology and Innovation (2016)). "Building-Footprints." opendata.cityofnewyork.us, Feb. 28, 2023), tall buildings currently under construction (NYC DOB. "Active Major Construction." January 15, 2025), and developments associated with other rezoning projects in the area.

Technical Manual Appendices), the Projected Development Sites 1, 2, and 3, and Potential Development Site 1 combined RWCDS floor areas intersect the 400-foot distance from the stack below the curve for the natural gas-fired HVAC system. Therefore, the Proposed Actions pass the project-on-existing screening analysis.

Figure 17-1: Project on Existing – HVAC Screen



Project-on-Project: For the project-on-project screening assessments, each scenario includes the combined gsf of three projected/potential development sites and the shortest distance to the other development site. As Projected Development Site 1 is located 25 feet from Potential Development Site 1 (less than 30 feet), the screening analysis is not applicable, and a detailed project-on-project analysis is required.

HVAC Detailed Analysis

Pollutant concentrations were 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, where applicable. AERMOD was run for both downwash

effect options, where the Building Profile Input Program (BPIP) was run with the downwash effect enabled. All analyses used five consecutive years of meteorological data (2017-2021) from the NYSDEC. 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. Meteorology surface data is from LaGuardia Airport, and upper air data is from Brookhaven station, New York. The meteorological data provided hour-by-hour wind speeds and directions, stability states, and temperature inversion elevations over the five years. 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.

Natural gas was assumed to be the type of fossil fuel, if any, used in the HVAC systems associated with the Proposed Actions. The pollutants of concern for natural gas-fueled boilers are NO_2 and $PM_{2.5}$. The HVAC systems' total energy capacities were calculated based on the RWCDS' gsf and an energy consumption rate of 60.3 thousand Btu per gsf[3] (natural gas consumption rate of 59.1 ft^3 per gsf per year, using a natural gas high heating value of 1,020 Btu per ft^3). All fuel was assumed to be consumed during the 100-day heating season (2,400 hours).

$PM_{2.5}$ and NOx emissions were calculated using emission factors for external combustion sources published in the EPA AP-42 manual. **Table 17-2** shows the pollutant emission rates of the RWCDSs HVAC systems.

Table 17-2: HVAC Systems Short-term and Annual Emission Rates

Site ID	RWCDS Floor Arae & Building Height	HVAC System	Pollutant	Short-term Emission Rate (g/s)	Annual Emission Rate (g/s)
Projected Development Site 1	178712 (gsf); 115 (ft)	Natural Gas	NO_2	5.55E-02	1.52E-02
			$PM_{2.5}$	4.22E-03	1.15E-03
Projected Development Site 2	93575 (gsf); 115 (ft)	Natural Gas	NO_2	2.90E-02	7.96E-03
			$PM_{2.5}$	2.21E-03	6.05E-04
Projected Development Site 3	24945 (gsf); 115 (ft)	Natural Gas	NO_2	7.74E-03	2.12E-03
			$PM_{2.5}$	5.88E-04	1.61E-04
Potential Development Site 1	12525 (gsf); 115 (ft)	Natural Gas	NO_2	3.89E-03	1.07E-03
			$PM_{2.5}$	2.95E-04	8.09E-05

The boiler stack diameters and exit temperature were estimated based on values obtained from the DEP "CA Permit" database.[4] The stack exit velocities were calculated based on the fuel dry volume of combustion components per unit of heat content. The boiler stacks were initially placed 3 feet above the roofline and as close as possible to the receiving building. If a significant adverse impact was predicted, the stack was raised higher or setback further from the receiving building. Pollutant concentrations at Potential Development Site 1 were predicted for two stack locations at Projected Development Site 1.

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

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

The Projected Development Sites 1, 2, and 3, and Potential Development Site 1 were modeled as buildings that cover their entire lot(s) area (wall façade placed on the outer lot lines) and rise to their RWCDS heights. Receptors were placed around the building envelopes from the ground floor to rooftop height in spaced intervals.

The map application (North American Datum 1983, Urchin Tracking Module (UTM) coordinates (zone 18)), built into Lakes Environmental, Inc.'s commercial application of AERMOD (AERMOD View), was used to spatially locate buildings. 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.

The model was run twice, with the building wake effect enabled/disabled. The predicted concentration is the highest concentration of these. One-hour NO_2 concentrations were predicted using a Tier 1 approach. The NO_2 modeled concentrations were added to the background concentrations, and the result was evaluated with the NAAQS. $PM_{2.5}$ modeled concentrations were evaluated with the *de minimis* for stationary source. The HVAC dispersion analysis results are shown in **Table 17-3**.

Table 17-3: HVAC System(s) Dispersion Analysis Results

Scenario	Pollutant	Concentration (µg/m3)				Threshold Standard
		Increment (Modeled) Concentration	Background	Evaluated	Standard Design Value	
On Projected D. Site 1	1-Hour NO_2	83.23	103.59	**186.8**	**188**	NAAQS
	Annual NO_2	1.52	26.8	**28.3**	**100**	NAAQS
	24-Hour $PM_{2.5}$	2.17	18.1	**2.17**	**8.45**	*de minimis*
	Annual $PM_{2.5}$	0.28	7.0	**0.28**	**0.3**	*de minimis*
On Projected D. Site 2	1-Hour NO_2	37.36	103.59	**140.9**	**188**	NAAQS
	Annual NO_2	0.77	26.8	**27.5**	**100**	NAAQS
	24-Hour $PM_{2.5}$	1.08	18.1	**1.08**	**8.45**	*de minimis*
	Annual $PM_{2.5}$	0.06	7.0	**0.06**	**0.3**	*de minimis*
On Projected D. Site 3	1-Hour NO_2	25.33	103.59	**128.9**	**188**	NAAQS
	Annual NO_2	0.52	26.8	**27.3**	**100**	NAAQS
	24-Hour $PM_{2.5}$	0.62	18.1	**0.62**	**8.45**	*de minimis*
	Annual $PM_{2.5}$	0.04	7.0	**0.04**	**0.3**	*de minimis*
On Potential D. Site 1	1-Hour NO_2	79.49	103.59	**183.1**	**188**	NAAQS
	Annual NO_2	1.54	26.8	**28.3**	**100**	NAAQS
	24-Hour $PM_{2.5}$	2.03	18.1	**2.03**	**8.45**	*de minimis*
	Annual $PM_{2.5}$	0.12	7.0	**0.12**	**0.3**	*de minimis*

As seen in **Table 17-3**, the NO_2 future ambient concentrations (1-hour or annual) are within the NAAQS, and the $PM_{2.5}$ increment concentrations do not exceed the *de minimis*. These results

were predicted with specific requirements to ensure no significant adverse air quality impact(s) would occur. Therefore, the Proposed Actions HVAC system(s) would not result in any violations of the ambient air quality standards with the environmental requirement(s) adhered to.

Existing Stationary Sources

Per the *CEQR Technical Manual*, projects that would result in new uses (particularly schools, hospitals, parks, and residences) within 400 feet of a manufacturing processing facility, or introduce new uses near (generally, a development site within 1,000 feet of a source) "major" sources, "large" sources or odor-producing facility, may result in potentially significant adverse impacts. An air dispersion analysis is required if any existing manufacturing processing facility or "major," "large," or odor-producing facility is in the study area.

Existing manufacturing processing facilities with exhaust stacks, vents, or other emission sources that may have the potential to adversely affect the uses introduced by the project were identified by reviewing the DEP online Clean Air Tracking System (CATS) database (accessible through New York City Open Data[5]), the NYSDEC map application (DECinfo Locator[6]), the New York City Department of City Planning (DCP) online Land Use Map (ZOLA) application, the NYS Department of Motor Vehicle (NYS DMV)[7] (vehicle repair shops, inspection stations, and dealerships, accessible through the NYS Open Data), Google maps online application, and through a field survey performed on November 1st, 2024.

The study area encompasses all or part of Blocks 1934, 1935, 1942, 1943, 1992, 1993, 1994, 2004, 2005, 2006, 2007, and 2008, and includes properties along 108th Street, Corona Avenue, 48th Avenue, 49th Avenue, 50th Avenue, 51st Avenue, 52nd Avenue, 104th Street, 106th Street, and Alstyne Avenue. Land uses in the study area consist of a mix of residential uses, commercial/retail uses, public parks, and schools. There were not any industrial or manufacturing uses identified in the study area.

No facility with a DEP processing permit(s), a NYSDEC air facility registration certificate, or a facility licensed by the NYSDMV was identified in the 400-foot study area. During the field survey, no potential air toxics emission source was observed in the study area, and no auto repair or auto body shop is located within 400 feet of a development site. There are two industrial/manufacturing land uses in the 400-foot study area: 104-16 49th Avenue (Block 1993, Lot 3) and 49-20 108th Street (Block 1993, Lot 65). At the time of the field survey, the property at 104-16 49th Avenue was occupied by commercial office use (International Transport Services), and the property at 49-20 108th Street is part of Projected Development Site 1 (currently occupied by a lumber yard (108th Street Lumber)). Therefore, no significant adverse air quality impact is predicted in the future with the Proposed Actions from manufacturing or processing facilities operating within 400 feet of the Projected Development Sites 1, 2, or 3.

[5] New York City Open Data. "Clean Air Tracking System (CATS)." data.cityofnewyork.us/Environment/Clean-Air-Tracking-System-CATS-Permits/f4rp-2kvy/about_data, Sep. 25, 2024.

[6] NYSDEC. "DECinfo Locator." gisservices.dec.ny.gov/gis/dil/, Sep. 25, 2024.

[7] Data.NY.GOV. Data set containing information on the facilities licensed by DMV in accordance with Vehicle and Traffic Law. Sep. 25, 2024.

The NYSDEC map application was used to identify any "major" or "large" source (typically asphalt or concrete plants, power generating plants, large public facilities boilers, or large industrial facilities) or odor-producing facility. No "major" or "large" source or odor-producing facility is located within 1,000 feet of a development site associated with the Proposed Actions. Therefore, no significant adverse air quality impact is predicted in the future with the Proposed Actions from "major" or "large" emission source(s) or odor-producing facility, and further analysis is not warranted.

Conclusion

Based on the analysis, conditions associated with the Proposed Actions would not result in any violations of the ambient air quality standards. Therefore, there is no reason to believe that the Proposed Actions would result in any potentially significant adverse stationary or mobile source air quality impact(s), and further assessment is not warranted. The summary results of the analysis are as follows:

- The project-increment traffic associated with the Proposed Actions will not exceed the screening threshold that requires a detailed analysis.
- No manufacturing processing facility (toxic air emission source) within the 400-foot study area was identified in the study. Additionally, no "major" or "large" emission source is located within 1,000 feet of a development site associated with the Proposed Actions; thus, no analysis was warranted.
- A detailed analysis was required for the project-increment buildings' HVAC system(s). No significant adverse air quality impact was predicted in the HVAC analysis, with natural gas being the type of fossil fuel used in the Projected Development Sites HVAC equipment, and the location of the HVAC stacks is adhered to. Accordingly, based on the results of the dispersion analysis, an environmental requirement (E-Designation) related to HVAC system(s) would be required. The language of E-884 is as follows:

(E) Designation (E-884)

Block 1994, Lots 12, 13, 15, 16, 18, 19, 22, 23, 25, and 30 (Projected Development Site 1): Any new residential, commercial, or community facility development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) system and hot water equipment, ensure that stack is located at the building's highest level and at a minimum of 125 feet above grade, that the stack is located at least 65 feet from the northern lot line of Block 1994, Lot 12 and at least 69 feet from Block 1994, Lot 6 to avoid any potential significant adverse air quality impacts.

Block 1993, Lot 65 (Projected Development Site 2): Any new residential or community facility development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) system and hot water equipment, ensure that stack is located at the building's highest level and at a minimum of 120 feet above

grade, and that the stack is located at least 50 feet from the southern lot line of Block 1993, Lot 65 to avoid any potential significant adverse air quality impacts.

Block 1994, Lots 40 and 41 (Projected Development Site 3): Any new residential, commercial, or community facility development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) system and hot water equipment, and ensure that stack is located at the building's highest level and at a minimum of 118 feet above grade to avoid any potential significant adverse air quality impacts.

Block 1994, Lot 6 (Potential Development Site 1): Any new residential development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) system and hot water equipment, and ensure that stack is located at the building's highest level and at a minimum of 118 feet above grade to avoid any potential significant adverse air quality impacts.

19. NOISE

Introduction

This Noise Analysis was conducted to assess the potential for adverse noise impacts related to the proposed actions involving the Project Site – 50-20 108th Street, Queens, New York (Block 1993 / Lot 65 and Block 1994 / Lots 12, 13, 15, 16, 19, 22, 23, 25, 30, 40, and 41). The Project Site is located within Queens Community District 4 and is a collection of parcels between Corona Avenue and 108th Street.

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 19-1** notes the decibel levels of common noise sources.

Table 19-1 : Noise Levels of Common Sources[8]

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.

[8] Source: *2021 CEQR Technical Manual*

The drop-off rate 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 19-2** 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 19-3**.

Table 19-2: 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 19-3: 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)

Initial Impact Screening

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 Sites are not subject to high ambient noise levels from any nearby stationary source, no stationary source noise impacts from surrounding uses are anticipated. 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 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 Actions to determine the level of building attenuation necessary to ensure that interior noise levels satisfy CEQR requirements. The Proposed Actions would not 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.

Noise Monitoring Results

Measurement Location and Equipment

Because the predominant noise source in the area of the proposed project is vehicular and rail traffic, noise monitoring was conducted during peak weekday vehicular travel periods (AM, Midday, PM) on a typical midweek day at five (5) locations for 20-minute periods as well as one (1) elevated 24-hour period. Noise Monitoring Location One (1) was located on the rooftop of the building at Projected Development Site 2 along the 50th Avenue frontage. Noise Monitoring Location Two (2) was located at street level below Noise Monitoring Location One (1) along the 50th Avenue frontage of Projected Development Site 2; monitoring at this location was used to provide information about ambient noise levels at both Projected Development Site 2 and Potential Development Site 1. Noise Monitoring Location Three (3) was located at street level along the 108th Street frontage of Projected Development Site 1. Noise Monitoring Location Four (4) was located at street level along the 51st Avenue frontage of Projected Development Site 1. Noise Monitoring Location Five (5) was located at street level along the Corona Avenue frontage of Projected Development Site 1. Noise Monitoring Location Six (6) was located along the 50th Avenue frontage of Projected Development Site 3. Monitoring locations are shown in **Figures 19-**

1 to Figure 19-7 below.

Noise monitoring was conducted using Type 1 Casella CEL-633 sound level meters and Larson Davis SoundExpert 821 sound level meters with wind screens. The monitors were placed on a tripod at a height of approximately five feet above the ground, away from any other noise-reflective surfaces. The monitors were calibrated prior to and following each monitoring session.

Periods of peak vehicular activity around the Affected Area constitute a worst-case condition for noise at the Project Site. Noise meter calibration certifications and back up data are provided.

Figure 19-1: Noise Monitoring Locations

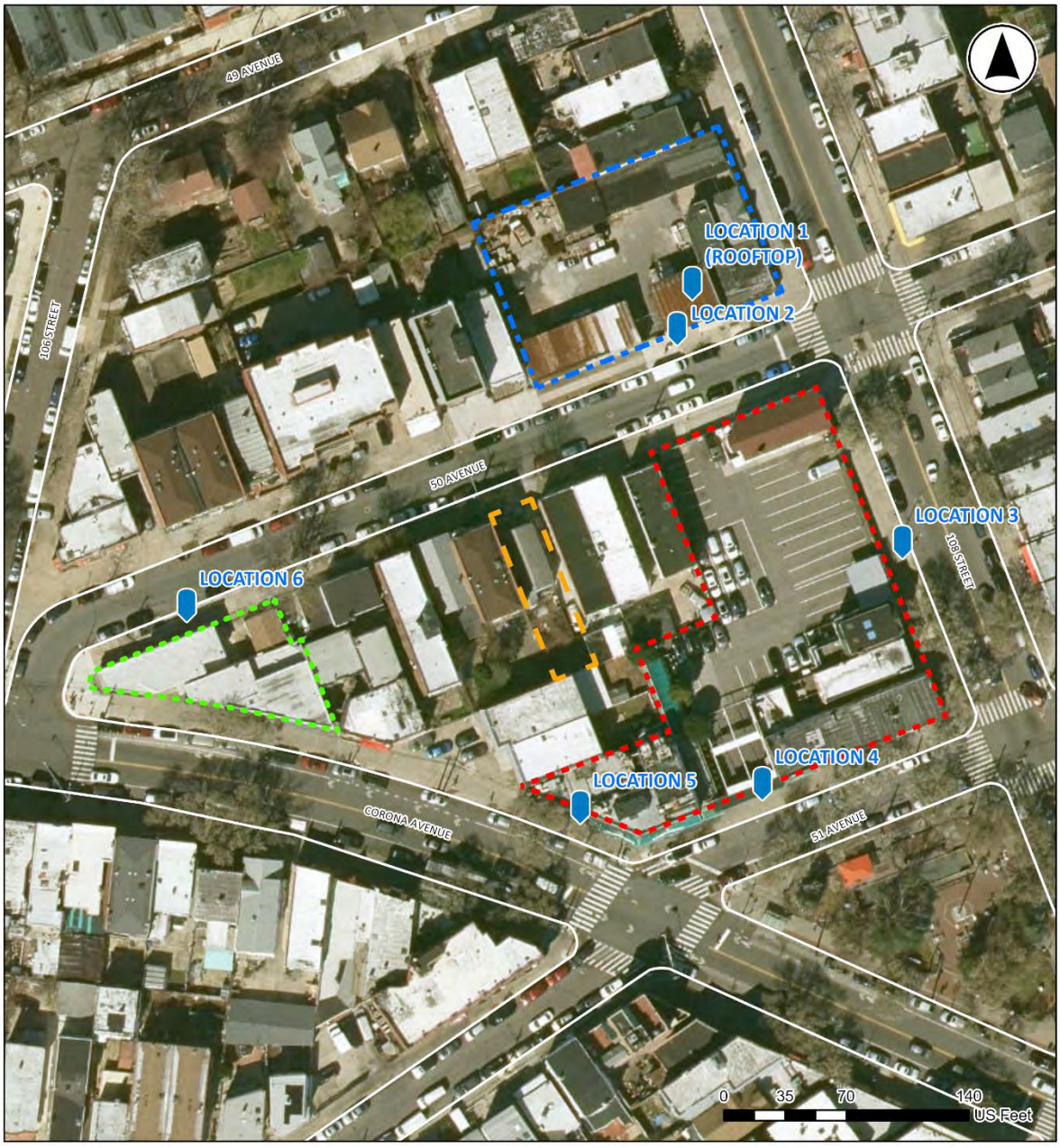


Figure 19-2: Location 1 – Noise Monitor Location Photo



Figure 19-3: Location 2 – Noise Monitor Location Photo



Figure 19-4: Location 3 – Noise Monitor Location Photo



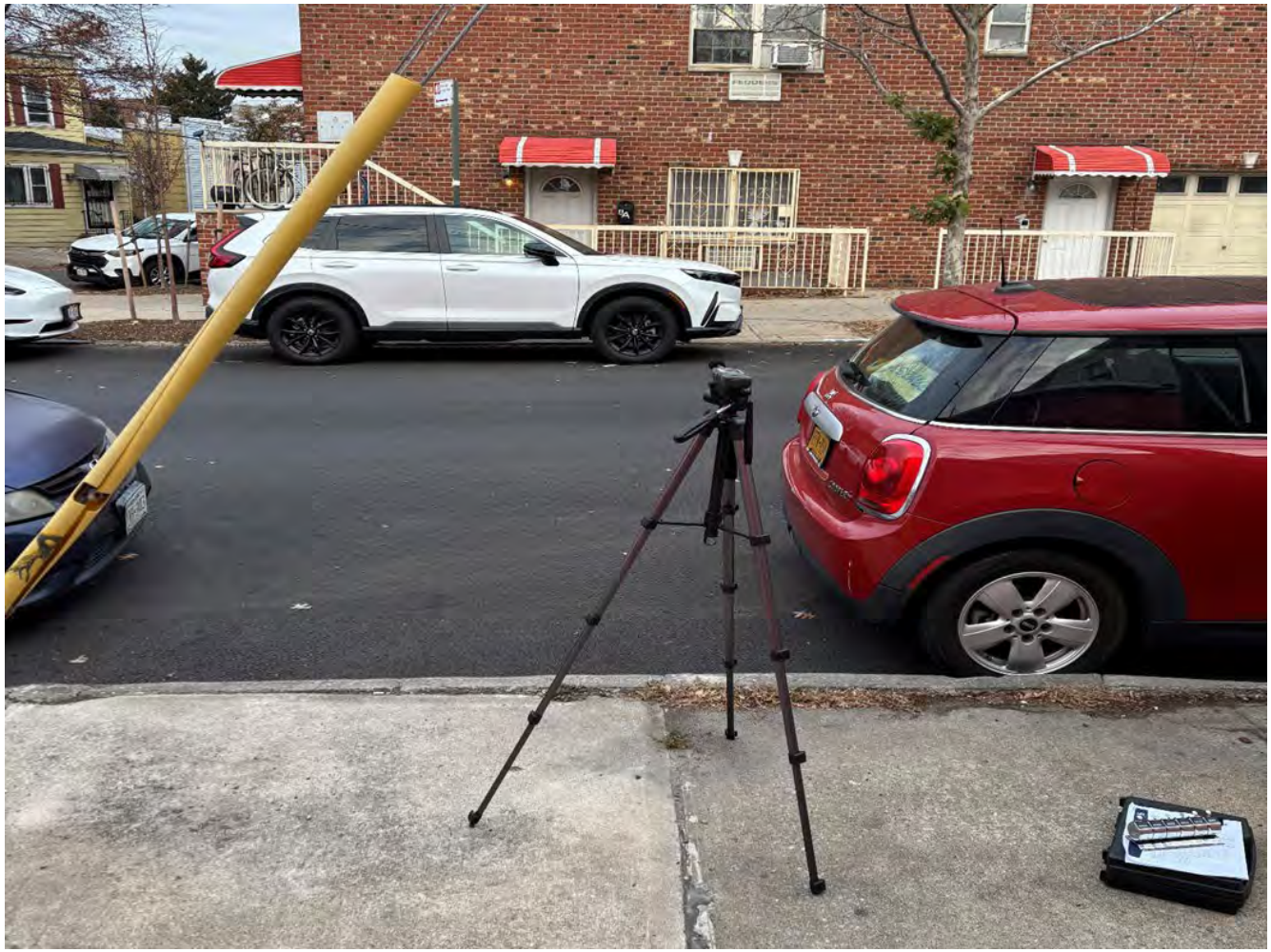
Figure 19-5: Location 4 – Noise Monitor Location Photo



Figure 19-6: Location 5 – Noise Monitor Location Photo



Figure 19-7: Location 6 – Noise Monitor Location Photo



Existing Conditions

Monitoring was conducted during typical midweek conditions, on Tuesday, December 3, 2024, through Wednesday, December 4, 2024. The weather was dry and wind speeds were moderate during all monitoring periods. **Tables 19-4 through Table 19-9** below contain the results for the measurements taken at Location 1 through Location 3.

Table 19-5: Noise Levels in dBA at Location 2

	Tuesday, December 3, 2024		
Time	7:43 am – 8:03 am	12:03 pm – 12:23 pm	4:31 pm – 4:51 pm
L_{max}	83.9	72.2	76.3
L_{10}	63.7	62.6	62.1
L_{eq}	62.3	60.6	59.7
L_{50}	58.8	59.4	56.8
L_{90}	55.0	56.2	50.6
L_{min}	51.7	47.5	45.7

Table 19-6: Noise Levels in dBA at Location 3

	Tuesday, December 3, 2024		
Time	8:05 am – 8:25 am	12:26 pm – 12:46 pm	4:54 pm – 5:14 pm
L_{max}	78.6	78.8	88.7
L_{10}	67.9	66.3	66.1
L_{eq}	64.5	63.3	66.1
L_{50}	60.5	58.6	59.1
L_{90}	54.3	54.0	55.1
L_{min}	51.4	52.1	52.9

Table 19-7: Noise Levels in dBA at Location 4

	Tuesday, December 3, 2024		
Time	8:27 am – 8:47 am	12:48 pm – 1:08 pm	5:15 pm – 5:35 pm
L_{max}	76.3	77.3	72.3
L_{10}	65.0	65.0	61.1
L_{eq}	61.6	61.6	57.9
L_{50}	58.4	59.0	54.9
L_{90}	54.2	54.5	51.1
L_{min}	50.8	51.8	46.8

Table 19-8: Noise Levels in dBA at Location 5

	Tuesday, December 3, 2024		
Time	8:26 am – 8:26 am	12:30 pm – 12:50 pm	4:56 pm – 5:16 pm
L_{max}	96.9	88.2	100.1
L_{10}	70.5	67.5	66.5
L_{eq}	71.4	66.2	70.3
L_{50}	61.0	64.0	59.5
L_{90}	58.0	63.0	56.0
L_{min}	56.4	60.8	52.6

Table 19-9: Noise Levels in dBA at Location 6

	Tuesday, December 3, 2024		
Time	8:02 am – 8:22 am	12:03 pm – 12:23 pm	4:34 pm – 4:54 pm
L_{max}	90.6	80.4	83.2
L_{10}	71.5	62.5	62.5
L_{eq}	67.4	59.5	60.1
L_{50}	60.0	54.0	54.5
L_{90}	53.0	48.5	49.0
L_{min}	47.6	45.9	45.3

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 2 through Location 6 are shown below in **Tables 19-10 through Table 19-14**.

Table 19-10: Traffic Volumes and Vehicle Classifications Noise Location 2

	Tuesday, December 3, 2024		
	7:43 am – 8:03 am	12:03 pm – 12:23 pm	4:31 pm – 4:51 pm
Car/ Taxi	19	11	12
Van/Light Truck/SUV	23	16	16
Medium Truck	2	0	0
Heavy Truck	0	0	0
Bus	0	0	0

Table 19-11: Traffic Volumes and Vehicle Classifications Noise Location 3

	Tuesday, December 3, 2024		
	8:05 am – 8:25 am	12:26 pm – 12:46 pm	4:54 pm – 5:14 pm
Car/ Taxi	12	14	2
Van/Light Truck/SUV	27	41	31
Medium Truck	5	4	3
Heavy Truck	0	1	2
Bus	5	4	6

Table 19-12: Traffic Volumes and Vehicle Classifications Noise Location 4

	Tuesday, December 3, 2024		
	8:27 am – 8:47 am	12:48 pm – 1:08 pm	5:15 pm – 5:35 pm
Car/ Taxi	5	3	2
Van/Light Truck/SUV	7	13	4
Medium Truck	1	3	1
Heavy Truck	0	0	0
Bus	0	0	0

Table 19-13: Traffic Volumes and Vehicle Classifications Noise Location 5

	Tuesday, December 3, 2024		
	8:26 am – 8:26 am	12:30 pm – 12:50 pm	4:56 pm – 5:16 pm
Car/ Taxi	55	76	80
Van/Light Truck/SUV	11	13	11
Medium Truck	1	4	0
Heavy Truck	0	0	0
Bus	16	5	12

Table 19-14: Traffic Volumes and Vehicle Classifications Noise Location 6

	Tuesday, December 3, 2024		
	8:02 am – 8:22 am	12:03 pm – 12:23 pm	4:34 pm – 4:54 pm
Car/ Taxi	60	28	42
Van/Light Truck/SUV	4	5	3
Medium Truck	2	1	1
Heavy Truck	0	0	0
Bus	10	0	0

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 40 dB(A) or lower where train traffic is the noise source. For commercial, residential, and community facility uses, an LDN of between 65 and 75 dB(A) is identified as marginally unacceptable general external exposure. An L_{10} of between 65 and 70 dB(A) is identified as marginally acceptable general external exposure and an L_{10} of between 70 and 80 dB(A) is identified as marginally unacceptable general exposure.

LDN at Location 1 was 64.5 dB(A). The highest recorded L_{10} at Location 2 was 63.7 dB(A) during the morning period. The highest recorded L_{10} at Location 3 was 67.9 dB(A) during the morning period. The highest recorded L_{10} at Location 4 was 65.0 dB(A) during the morning period. The highest recorded L_{eq} at Location 5 was 71.4 dB(A) during the morning period. The highest recorded L_{10} at Location 6 was 71.5 dB(A) during the morning period.

Based on the noise readings, a window wall attenuation of 28 dB(A) would be required on all façades on all floors along Corona Avenue, on 50th Avenue connecting to Corona Avenue, on 51st Avenue for 50' from Corona Avenue, and on the north side of Projected Development Site 1 for 90' from Corona Avenue. No attenuation would be required on

the remaining façades on Projected Development Sites 1 and 3 or on Projected Development Site 2. With this level of attenuation, there would be no significant adverse impacts related to noise. **Figure 19-5** below shows the attenuation requirements.

To ensure that this level of attenuation is provided, (E) designations related to noise would be placed on Projected Development Sites 1 and 3. The text of the (E) designation (E-884) would be as follows:

(E) Designation (E-?)

Projected Development Site 1 (Block 1994, Lots 12, 13, 15, 16, 18, 19, 22, 23, 25, and 30):

In order to ensure an acceptable interior noise environment, future residential/ commercial office/community facility uses must provide a closed-window condition with a minimum window wall attenuation of 28 dB(A) on all floors on the western façade facing Corona Avenue, on the southern façade facing 51st Avenue within 50 feet of Corona Avenue, and on the northern façade facing 50th Avenue within 50 feet of Corona Avenue in order to maintain an interior noise level no greater than 45 dB(A) for residential and community facility uses or no greater than 50 dB(A) for commercial office uses as illustrated in the EAS. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.

Projected Development Site 3 (Block 1994, Lots 40 and 41):

In order to ensure an acceptable interior noise environment, future residential/ commercial office/community facility uses must provide a closed-window condition with a minimum of 28 dB(A) window/wall attenuation on all floors on the southern façade facing Corona Avenue, on the northern façade facing 50th Avenue, and on the eastern facade facing 108th Street within 25 feet of Corona Ave and within 25 feet of 50th Avenue, in order to maintain an interior noise level no greater than 45 dB(A) for residential and community facility uses or no greater than 50 dB(A) for commercial office uses as illustrated in the EAS. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.

With the implementation of the (E) Designation, no significant adverse impacts related to noise would occur. The Proposed Actions would not result in any potentially significant adverse stationary or mobile source noise impacts, and further assessment is not warranted.

Figure 19-5: Attenuation Requirements



*Attenuation Requirements are for residential and community facility. Commercial would receive a 5 dB(A) reduction.

21. NEIGHBORHOOD CHARACTER

Introduction

Neighborhood character is a mixture of various elements that give neighborhoods their distinct "personality." These elements may include a neighborhood's land use, urban design visual resources, historic resources, socioeconomics, transportation, and noise. A neighborhood character assessment under CEQR considers how elements of the environment combine to create the context of a neighborhood and how a project may affect that context. Thus, to determine a project's effects on neighborhood character, the elements that contribute to that context, discussed separately in the other technical analyses, are considered together. A proposed action may cause a significant adverse neighborhood character impact either by having a significant adverse impact on an element that is central to an area's neighborhood context or by having a combination of moderate adverse impacts in technical areas that are central to the area's character.

Study Area

According to the 2021 *CEQR Technical Manual*, the study area for a neighborhood character assessment should generally be the same as the one for land use, zoning, and public policy. The Land Use Study Area has been defined as the area located within a 400-foot radius of the site. This 400-foot radius is referred to as the "Study Area" and is generally bounded by 48th Avenue on the north, a point between 52nd and 53rd Avenue to the south, a point between 108th and 111th Streets on the east, and 104th Street on the west.

Existing Conditions

The Project Area includes the Applicant controlled properties, Projected Development Sites 1 and 2 and Potential Development Site 1, the non-Applicant controlled Projected Development Site 3, and a number of properties that are not anticipated to be developed as further detailed below. The Project Area totals approximately 76,822 square feet in size, with the Applicant controlled parcels totaling approximately 45,687 square feet in area and the non-Applicant controlled parcels totaling approximately 31,135 square feet in size. It consists of Block 1994, which is bounded by 108th Street, 50th and 51st Avenues, and Corona Avenue, and a lot at the northwest corner of 50th Avenue and 108th Street, located across 50th Avenue from Block 1994, which is part of Block 1993 (bounded by 106th and 108th Streets and 49th and 50th Avenues).Corona Avenue and 108th Street are 80 feet wide; 50th and 51st Streets are 60 feet wide.

The Applicant owned Projected Development Site 1 is located on Block 1994, Lots 12, 13, 15, 16, 18, 19, 22, 23, 25, and 30. The site is approximately 28,187 square feet in size. It occupies the block's entire 108th Street and 51st Avenue frontages and small parts of its 50th Avenue and Corona Avenue frontages. It is improved with 18,155 gsf of floor area with 2 two-story mixed residential and commercial buildings, 2 two-story residential buildings, and 2 one- to two-story commercial buildings. Much of the site consists of

undeveloped lots used for surface parking, located behind opaque fencing along 94 feet of frontage on 108th Street and 50 feet of frontage on 50th Avenue, with a curb cut onto 51st Avenue. (See Photos 1, 4, 6, 7, 8, 9, 11, 12, 13, 15, 16, 17, 18, 19, 20, 22, 24, 25, 26, 28, and 45.)

The Applicant owned Projected Development Site 2 is located on Block 1993, Lot 65. The site is approximately 15,000 square feet in size, with 150 feet of frontage along 50th Avenue and 100 feet of frontage along 108th Street. It is improved with 3 one-story warehouse buildings totaling approximately 7,855 gsf in floor area constructed in 1930. The windowless facades are covered with lettering advertising lumber and other building products. (See Photos 19, 27, 35, 46, 47, 49, 50, 52, 53, 54, 55, 58, 59, and 60.)

The non-Applicant-owned Projected Development Site 3 is located on Block 1994, Lots 40 and 41. The site is approximately 4,979 square feet in size. It is improved with 3 two-story, mixed residential and commercial buildings, dating from 1901 and 1931, totaling approximately 6,212 gsf in floor area. (See Photos 37, 39, 40, 41, and 42.)

The Applicant owned Potential Development Site 1 is located on Block 1994, Lot 6. The midblock interior lot is approximately 2,500 square feet in size. It is improved with a two-story, two-family residential building, built in 1925, totaling approximately 1,688 gsf in floor area. (See Photos 31 and 48.)

The remaining non-Applicant owned properties within the Project Area include Block 1994, Lots 1, 3, 4, 7, 9, 10, 33, 36, 37, and 42, consisting of the midblocks along 50th and Corona Avenues. These lots total approximately 28,156 square feet in area and are improved with 10 two- to four-story mixed residential buildings, and one mixed-use residential and commercial building totaling approximately 35,561 gsf in floor area. (See Photos 29, 30, 31, 33, 43, 44, and 48.)

The proposed Project Area is located in the Corona neighborhood of Queens within Community District 4. The area within a 400-foot radius of the Project Area is characterized by a mix of one- and two-family and small multi-family residences; mixed residential and commercial buildings; community facility uses including churches; commercial office and retail uses; parking lots and vacant land; and a small triangularly shaped open space. The prevailing built form in the area generally ranges from one to three stories.

The sidewalks are well maintained. Street trees are planted in parts of the Study Area. The terrain is level.

Although the Project Area is located within a Walk to a Park Service Area, the open space resources within the open space study area do not meet the City's guidelines for the provision of publicly accessible open space. The existing open space ratios per 1,000 residents are below the City's goal of 2.5 acres per 1,000 residents. However, the open space ratios do not reflect the active and passive open space resources contained within

Flushing Meadows Corona Park. This large park, located within a quarter-mile of, and just one block to the east of, the Project Area, greatly increases open space available to current and future residents of the Study Area. Flushing Meadows Corona Park, is a "flagship park" covering 898 acres, with both active and passive open space resources, as well as several cultural institutions such as the New York Hall of Science and the Queens Zoo.

Two open space resources are located within the radius of the longest shadows cast by the projected developments: (1) William F. Moore Park, a triangular seating area with benches and trees bounded by 108th Street, 51st Avenue, and Corona Avenue, directly across 51st Avenue from Projected Development Site 1; and (2) a children's playground on the property of the Mosaic Pre-K Center at 104-04 Corona Avenue. No other visual resources, historic resources, or natural resources are located within the Study Area.

Vehicular traffic is the predominant source of noise in the area. Noise monitoring conducted at the edges of the Project Area revealed ambient noise levels that ranged from the marginally acceptable to the marginally unacceptable.

No-Action Scenario

It is assumed that Projected Development Site 1, owned by the Applicant, would be developed with approximately 87,044 gsf of floor area (56,374 zsf) comprised of 39,393 gsf of residential floor area, 15,545 gsf of retail space, 5,670 gsf of community facility space (medical offices), and 22,500 gsf of parking floor area plus 3,936 gsf of floor area for mechanicals, storage, bicycle parking, and utilities within the 26,436 gsf cellar level. The building would be 3-stories and 35 feet in height and would contain 46 dwelling units. The cellar level of the building would contain 76 parking spaces, of which 23 would be for the residential occupants of the building, 39 for the commercial tenants, and 14 for the community facility space in the building. The parking would be accessed via a new 12-foot wide curb cut on 50th Avenue. The development would have a total FAR of 2.0 and the building would cover the entire lot.

It is assumed that Projected Development Site 2, owned by the Applicant, would be developed with approximately 44,522 gsf of floor area (30,000 zsf) comprised of 21,735 gsf of residential floor area, 10,000 gsf of community facility space (medical offices), and 4,000 gsf of parking floor area plus 8,787 gsf of floor area for mechanicals, storage, bicycle parking, and utilities within the 12,787 gsf cellar level. The building would be 3-stories and 35 feet in height and would contain 26 dwelling units. The cellar level of the building would contain 13 parking spaces for the residential occupants of the building, and would be accessed via a new 12-foot wide curb cut on 108th Street. The development would have a total FAR of 2.0 and the building would cover the entire lot.

It is assumed that Projected Development Site 3, which is non-Applicant owned, would not be redeveloped as it is currently developed to an FAR of 1.26 with an unbuilt FAR of about 37% of the maximum permitted FAR of 2.0 under the site's existing R6B/C2-3

zoning, much lower than the standard 50% threshold. It is therefore assumed that the site would remain in its existing condition for the No-Action Scenario and would continue to be improved with 3 two-story, mixed residential and commercial buildings, totaling approximately 6,212 gsf in floor area (4,210 gsf residential and 2,002 gsf commercial) and containing 3 residential dwelling units.

It is assumed that Potential Development Site 1, which is Applicant owned, would not be redeveloped due to its small lot size of only 2,500 sf, the limited development potential of a total FAR of 2.0 with an existing FAR of 0.62, and the difficulty of obtaining financing for a small infill development. It is therefore assumed that the site would remain in its existing condition for the No-Action Scenario and would continue to be improved with a two-story, two-family residential building, totaling approximately 1,688 gsf in floor area and containing 2 residential dwelling units.

In the future without the Proposed Actions, Projected Development Sites 1, 2, and 3 would contain a total of approximately 137,778 gsf (92,586 zsf) of floor area comprised of 65,338 gsf of residential floor area, 17,547 gsf of retail floor area, and 15,670 gsf of community facility space (medical offices). The No-Action Scenario would include 75 dwelling units and 89 accessory parking spaces (36 residential, 39 commercial, and 14 community facility).

It is assumed that the remaining non-Applicant owned properties within the Project Area including Block 1994, Lots 1, 3, 4, 7, 9, 10, 33, 36, 37, and 42 would not be redeveloped under the No-Action Scenario as further discussed below. Therefore, the existing development on these parcels comprised of 33,873 gsf of floor area including 31,773 gsf of residential floor area and 2,100 gsf of commercial retail space would remain.

The following new development projects have been identified for the 400-foot radius project study area based on a review of the NYC Active Construction website (maintained by the New York City Department of Buildings).

- 104-22 Corona Avenue (B 1935, L 6) – 4-story 6,363 sf enlargement to an existing building to include 6 dwelling units.
- 104-49 49th Avenue (B 1992, L 67) – new 3-story 3,276 sf residential building with 3 dwelling units.
- 104-47 49th Avenue (B 1992, L 69) - new 3-story 3,600 sf residential building with 3 dwelling units.
- 106-03 49th Avenue (B 1992, L 64) - new 3-story 2,912 sf residential building with 1 dwelling unit.
- 106-05 49th Avenue (B 1992, L 63) - new 3-story 3,600 sf residential building with 3 dwelling units.

None of these developments would significantly change the neighborhood character.

With-Action Scenario

The With-Action Scenario analyzes the Applicant owned Projected Development 1 as an 11-story, 115-foot-tall, mixed-use building with 178,712 gsf and 141,217 zsf of floor area, for an FAR of 5.01, including 15,327 gsf (and zsf) of commercial floor area, 6,447 gsf (and zsf) of community facility floor area, an estimated 129,506 gsf (119,443 zsf) of residential floor area, 19,389 gsf (0 zsf) of subsurface accessory parking area, and 8,043 gsf (0 zsf) of mechanical space, bicycle parking, and utility and storage rooms. The proposed mixed-use building would have commercial and community facility uses and a recreation room on the ground floor, 44 accessory parking spaces in the cellar, and 151 dwelling units on the upper floors. From 30 to 45 dwelling units (20 percent to 30 percent of the total) would be permanently income-restricted per MIH, depending on whether Option 1, 2, or 3 is used. The building would rise to a maximum height of 105 feet on the portion of the building at the corner of 108th Street and 51st Avenue with 4- and 5-story portions to the north and west. A new curb cut would be provided on 50th Avenue to provide access to the underground parking garage.

The With-Action Scenario analyzes the Applicant owned Projected Development 2 as an 11-story, 115 foot-tall, mixed-use building with 93,575 gsf and 75,150 zsf of floor area (5.01 FAR), including 10,198 gsf (and zsf) of community facility floor area, an estimated 70,424 gsf (64,952 zsf) of residential floor area, 8,400 gsf (0 zsf) of subsurface accessory parking area, and 4,553 gsf (0 zsf) for mechanical and utility space, bicycle parking, and storage rooms. The proposed residential and community facility building would have community facility uses and the residential lobby on the ground floor, 24 accessory parking spaces in the cellar, and 80 dwelling units on the upper floors, of which 16 to 24 would be permanently income-restricted per MIH. A new curb cut would be provided on 108th Street to provide access to the underground parking garage.

The With-Action Scenario analyzes Projected Development Site 3 as an 11-story, 115 foot-tall, mixed-use building with 24,945 gsf/zsf of floor area for a total FAR of 5.01 including 3,050 gsf/zsf of commercial space, 1,979 gsf/zsf of community facility space, and 19,916 gsf/zsf of residential floor area plus cellar space for mechanicals, bicycle parking, and utility and storage rooms. There would be 23 dwelling units. The number of affordable units would be 25-30% of the total residential units or 6 to 7 dwelling units. No parking would be provided or required.

The With-Action Scenario analyzes Potential Development Site 1 as an 11-story, 115 foot-tall, residential building with 12,525 gsf/zsf of floor area for a total FAR of 5.01. There would be 15 dwelling units. The number of affordable units would be 25-30% of the total residential units or 4 to 5 dwelling units. No parking would be provided or required.

It is assumed that the remainder of the Project Area including Block 1994, Lots 1, 3, 4, 7, 9, 10, 33, 36, 37, and 42 would not be redeveloped.

The Proposed Actions would not result in any changes in land use within the 400-foot radius project study area.

The proposed development sites are underutilized, and the Proposed Actions would facilitate their redevelopment with new housing, including permanently income-restricted units under MIH, and local retail and community facility uses. In addition, there is a critical need for housing in Community District 4 where 54 percent of residents rent-burdened. Community District 4 has the sixth highest rent-burdened population in New York City (higher than Queens overall at 46.8 percent and NYC overall at 44.5 percent). However, there are no IHDAs or MIH Areas in the immediate area with the exception of the MIH Area established in connection with the 110-40 Saultell Ave. Rezoning (C 200103 ZMQ; effective November 19, 2020).

While the Proposed Actions would introduce increased density to the Project Area, the Proposed Actions would also provide substantial new affordable housing. The Proposed Actions would allow for the replacement of underutilized and vacant lots with affordable housing, retail space, and medical office space. The replacement of the existing at-grade parking would not be considered to be a significant land use impact.

The Proposed Actions could alter existing development patterns in the surrounding project study areas in the future, especially of underutilized lots, parking lots, and vacant parcels, by encouraging the development of new residential, community facility, and mixed uses. However, this would be in compliance with City policies to encourage the development of new housing, especially affordable and supportive housing, throughout the city.

Based on the above analyses, it has been determined that no potentially significant adverse impacts related to land use would occur as a result of the Proposed Actions.

No impacts to public policies would occur as a result of the Proposed Actions. The Proposed Actions would be a contextually appropriate development within the study area and support existing public policies applicable to the area, including the OneNYC and Housing New York. The Proposed Actions would facilitate the development of needed affordable and supportive housing in the Corona neighborhood of Queens.

The Proposed Actions would not physically displace or alter a community facility or cause a change that could affect the service delivery of a community facility. In addition, the development would not create a demand that would overtax services or facilities. Development under the Proposed Actions would not adversely affect hospitals and other health care facilities, public libraries, publicly subsidized child-care centers, and police and fire protection services. Utilization rates for elementary schools and intermediate schools in CSD 24 Sub-district 1 would remain below 100% under the With-Action Scenario for the 2029 analysis year. Therefore, no significant adverse impacts to community facility uses would occur in the future with the approval of the Proposed Actions.

The Proposed Actions would not have a direct adverse impact on any publicly accessible open space resources. By adding residents, the Proposed Actions would reduce the already quite low open space ratios in the area by a modest 1.14 percent. As discussed above, the open space ratios presented in the quantitative analyses above do not reflect the active and passive open space resources contained within Flushing Meadows Corona Park. This large "flagship" park located less than 0.25 miles from the Project Area, greatly increases open space available to current and future residents of the Study Area. Despite a decrease in overall, active and passive open space ratios between the No-Action and With-Action Scenarios, the Proposed Actions would not result in significant adverse open space impact.

Computer-generated shadow diagrams demonstrate that the shadows generated by the projected developments would not constitute a significant adverse impact on William F. Moore Park. During most of the spring and summer, most of the park would be shadow free at all times. During the weeks near the summer solstice when the shadows would cover a larger portion of the park, no shadows would be cast before 5:05 PM DST. These shadows would not result in a significant reduction in the park's attractiveness to users, and they would not threaten the health of its trees. With regard to the children's playground, the effect of new incremental shadows would be inconsequential, lasting no more than 13 minutes and covering only the northernmost edge of the playground, a paved area where no playground equipment is located. For these reasons, the Proposed Actions would not cause a significant adverse shadows impact.

Because no architectural resources have been identified within the Project Area or Study Area, the Proposed Actions would not have a significant adverse impact on cultural and historic resources.

The new developments would not alter the arrangement of buildings on the blocks, the street system, or the terrain and would not introduce land uses different from those that already exist within the Project Area. The new developments would contrast with the adjacent low-rise buildings; however, the study area contains a mix of building types and façade styles and does not have a strong, consistent sense of place, and the projected developments would not disrupt the experience of a pedestrian walking past the development sites. The Proposed Actions would not result in a significant adverse urban design impact.

The projected developments would not block pedestrian views of William F. Moore Park, the one visual resource identified within the study area. The Proposed Actions would therefore not result in a significant adverse impact regarding visual resources.

The Proposed Actions would not generate sufficient vehicular traffic, transit users, or pedestrians to cause a significant adverse transportation impact.

Based on the analysis, conditions associated with the Proposed Actions would not result in any violations of the ambient air quality standards. Therefore, the Proposed Actions

would not result in any potentially significant adverse stationary or mobile source air quality impact.

The Proposed Actions would not introduce new stationary or mobile source noise sources and would therefore not cause a significant adverse impact on Study Area ambient noise levels.

Conclusion

For the reasons stated above, the Proposed Actions would not have a significant advese impact on neighborhood character, and further analysis is not warranted.

22. CONSTRUCTION

Introduction

Although temporary, construction impacts can include noticeable and disruptive effects from an action that is associated with construction or could induce construction. Determination of the significance of construction impacts and need for mitigation is generally based on the duration and magnitude of the impacts. Based on 2021 *CEQR Technical Manual* guidance, when the duration of construction is expected to be short-term (less than two years), any impacts resulting from construction generally do not require detailed assessment. Construction impacts are usually important when construction activity could affect traffic conditions, archaeological resources, the integrity of historic resources, community noise patterns, and air quality conditions.

Projected Construction Timeline and Activities

The Proposed Actions would facilitate the development of three 11-story mixed-use buildings with 293,546 gsf (216,009 residential gsf, 18,870 commercial gsf, and 19,268 community facility (medical office) gsf, There would be a total of 254 dwelling units and approximately 68 accessory parking spaces located in the cellars of two of the buildings.

Construction of the Applicant-controlled Proposed Development Site 2 is expected to begin in late 2025 or early 2026, following approval of the Proposed Actions, and would be completed in approximately 12 months. After a pause of several months, redevelopment of Projected Development Sites 1 and 3 would occur simultaneously over an additional 22 months and would be completed in 2029.

Figure 22-1 presents a conceptual construction sequencing of the three projected developments. Construction would include approximately two months of demolition on Projected Development Sites 2 and 3 and approximately four months on Projected Development Site 1. Excavation and foundation work would last from two to four months, depending on the size of the site. **Figure 22-1** shows three to four months of building superstructure erection and exteriors; however, because the chart was prepared for buildings with the same floor area but fewer stories than is projected, it is assumed that this phase of construction would last approximately six, four, and three months at Projected Development Sites 1, 2, and 3 respectively. Interior work on each site would last three or four months.

Construction would occur on multiple development sites in the same geographic area and is anticipated to last more than two years overall. However, construction on Development Site 2 would occur over a 15-month period and would be completed before construction begins on Projected Development Sites 1 and 3 and would therefore not overlap with work on those sites. Construction on Projected Development Sites 1 and 3 would commence simultaneously, with the development of Projected Development Site 3 lasting 13 months and that of the larger Projected Development Site 1 lasting 22 months.

108th STREET ESTIMATED CONSTRUCTION TIMELINE	2025			2026											2027												2028												2029											
	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
PHASE I																																																		
SITE 2 (7 story)																																																		
PHASE II																																																		
SITE 1 (8 story)																																																		
SITE 3 (6 story)																																																		

LEGEND

Demolition

Site Preparation & Excavation

Foundation

Superstructure and Exterior

Interior

Project construction activities are expected to be typical for building construction projects in New York City. Construction activities would predominantly occur Monday through Friday, although limited delivery of certain critical pieces of equipment (e.g., cranes) may be necessary on weekend days if required in order to minimize traffic disruptions. Any weekend work would be contingent upon any conditions that may be imposed by City agencies that approve and monitor construction activities such as the NYC Department of Buildings (DOB) and the NYC Department of Transportation (DOT). DOB also regulates the permitted hours of construction. In accordance with those regulations, typical construction activities in New York City begin no earlier than 7 AM during the week, and workers typically arrive and begin to prepare work areas between 6 and 7 AM. The standard weekday construction workday ends by 3:30 PM with an occasional extended shift until 6 PM.

Potential Construction Impacts

In accordance with the 2021 *CEQR Technical Manual*, the proposed developments was reviewed to determine whether further analysis of the proposed construction activities is needed for any technical area, as follows.

Transportation

Construction of the projected developments would generate trips resulting from arriving and departing construction workers, movement of materials and equipment, and removal of construction waste. As discussed above, construction is expected to occur during the typical construction hours of 7AM and 3:30PM. Therefore, worker trips would be concentrated in off-peak hours and would not represent a substantial increment during the area's peak travel periods. Construction workers would use both public transportation and private automobiles. Construction workers typically park off-site for larger developments and at curbside near smaller developments. These curbside spaces are typically available as area residents use their autos to travel to work and elsewhere, and are vacated by construction workers in the afternoon before resident demand increases after the typical workday.

Truck movements would be spread throughout the day and would generally occur between the hours of 6AM and 3PM, depending on the stage of construction. Flaggers are expected to be present during construction to manage the access and movements of trucks to and from the development site. Little if any rerouting of traffic is anticipated because of the construction. Additionally, moving lanes of traffic are expected to be available at all times along the affected streets. These conditions would be temporary and not result in significant adverse impacts on traffic conditions.

The daily construction worker vehicle trips are expected to be distributed throughout the workday based on projected work shift allocations and conventional arrival/departure patterns of construction workers and trucks. While construction truck trips would be

made throughout the day (with more trips typically made during the early morning), construction workers would typically commute during the hours before and after the work shift.

Construction activities could result in short-term disruption of pedestrian movements around the projected development sites, occurring primarily because of the temporary loss of curbside lanes from the staging of equipment and the movement of materials to and from the sites. Additionally, it is anticipated that some sidewalks could also be closed to accommodate heavy loading areas for at least the months during which the construction of the superstructures is in progress. Curb lane and/or sidewalk closures would not affect access points to public transportation including subway and bus stops. In these instances, pedestrians would either walk on the opposite side of the street or in a sectioned-off portion of the street. Detailed Maintenance and Protection of Traffic (MPT) Plans for each building would be submitted prior to construction for approval by DOT-OCMC, which issues permits for any street/sidewalk closures after evaluation of traffic and pedestrian conditions. Appropriate protective measures for ensuring pedestrian safety surrounding the sites would be implemented under these plans.

Therefore, no significant adverse construction impacts on transportation are expected due to the Proposed Actions.

Air Quality

Possible impacts on local air quality during construction include fugitive dust (particulate) emission from land clearing operation and mobile source emissions, including hydrocarbons, nitrogen oxide, and carbon monoxide.

Fugitive dust emissions from land clearing operations can occur from excavation, hauling, dumping, spreading, grading, compaction, wind erosion, and traffic over unpaved areas and would be of short duration for the projected developments. Actual quantities of emissions depend on the extent and nature of the clearing operations, the type of equipment employed, the physical characteristics of the underlying soil, the speed at which construction vehicles are operated, and the type of fugitive dust control methods employed. Much of the fugitive dust generated by construction activities consists of relatively large-size particles, which are expected to settle within a short distance from the construction site (and would largely be contained within the site itself) and to not significantly impact nearby buildings or people. All appropriate fugitive dust control measures, including watering of exposed areas and dust covers for trucks, would be employed, at least on the Applicant-controlled Projected Development 1. Therefore, the fugitive source emissions generated by the Proposed Actions would not be significant.

Mobile source emissions may result from the operation of construction equipment, trucks delivering materials and removing debris, workers' private vehicles, or occasional disruptions in traffic near the construction site. Given the moderate sizes of the projected developments, the number of construction-related vehicle trips generated by the

Proposed Actions would be relatively small. and the emissions from such vehicles as well as construction equipment would occur over two limited periods that together would amount to less than two years. The mobile-source emissions generated by the Proposed Actions would not be significant.

Overall, the Proposed Actions would not result in significant adverse construction era air quality impacts.

Noise

Noise and vibration from construction equipment operation and noise from construction workers' vehicles and delivery vehicles traveling to and from construction sites can affect community noise levels. The severity of impact of these noise sources would depend on the noise characteristics of the equipment, activities involved, the construction schedule, and the location of potentially sensitive noise receptors. Noise and vibration levels at a given location would be dependent on the kind and number of pieces of construction equipment being operated, as well as the distance of the location from the construction site and the types of structures, if any, between the location and the noise source. Noise levels caused by construction activities can vary widely, depending on the phase of construction (e.g. demolition, land clearing and excavation, foundation, erection of structure, construction of exterior walls) and the specific task being undertaken. Construction noise associated with the Proposed Actions is expected to be similar to noise generated by similar construction projects in the city. Increased noise level caused by construction activities can be expected to be more significant during early excavation phases of construction and would be of relatively short duration. Increases in noise levels caused by delivery trucks and other construction vehicles would not be significant. As construction would occur over two limited periods that together would amount to less than two years, the level and duration of construction noise would not be significant.

Construction noise is regulated by the New York City Noise Control Code and by the Environmental Protection Agency (EPA) noise emission standards for construction equipment. These local and federal requirements mandate that certain classifications of construction equipment and motor vehicles meet specified noise emissions standards; that, except under exceptional circumstances, construction activities be limited to weekdays between the hours of 7:00 AM and 6:00 PM; and that construction material be handled and transported in such a manner as not to create unnecessary noise. In addition, whenever possible, appropriate low noise emission level equipment and operational procedures can be utilized to minimize noise and its effect on adjacent uses. Thus, these regulations would be followed in such a manner that no significant adverse construction era noise impacts would result from the Proposed Actions, and no further analysis is warranted.

Historic and Cultural Resources

No construction activities would occur within 400 feet of a historic resource as no such resources are located within this distance from the Affected Area. LPC has determined that no historic or archaeological resources are located within the Affected Area.

Hazardous Materials

As discussed in Section 14, Hazardous Materials, (E) designations for hazardous materials will be placed on the zoning map for Projected Development Sites 1, 2, and 3 and Potential Development Site 1, requiring that a Phase I ESA as well as soil, groundwater, and vapor sampling and testing and necessary hazardous materials remediation be performed, to the satisfaction of the Mayor's Office of Environmental Remediation (OER), before DOB issues permits for excavation and construction. The (E) designations will also require that construction-related health and safety plans 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. With the (E) designation in place, the Proposed Actions would not result in significant adverse hazardous materials impacts during construction.

Conclusion

On the basis of the above analysis, the Proposed Actions would not have any potentially significant adverse construction impacts, and further analysis would not be warranted.

EFFECTS ON DISADVANTAGED COMMUNITIES

Introduction

Effective 30 December 2024, Section 8-0109(2)(k) of the New York State Environmental Conservation Law requires that environmental impact assessments include a statement of the effects of the proposed actions on disadvantaged communities, including whether the action may cause or increase a disproportionate pollution burden. The *2021 CEQR Technical Manual* predates these revisions to the Environmental Conservation Law and does not provide guidance regarding the scope of this analysis. On January 29, 2025, the New York State Department of Environmental Conservation (NYSDEC) proposed draft revisions to its State Environmental Quality Review Act (SEQRA) regulations (6 NYCRR Part 617) to implement this new statutory provision. This assessment considers the impacts that have been identified pursuant to the *CEQR Technical Manual* as well as applicable guidance from NYSDEC in determining whether the Proposed Actions would result in disproportionate impacts on disadvantaged communities.

Identification of Disadvantaged Communities

In 2023 the Climate Justice Working Group (CJWG) used 45 indicators to identify disadvantagedcommunities (DAC) in New York State. Approximately 35 percent of New York State census tracts were identified as DAC. The criteria include multiple indicators that represent the environmental burdens or climate change risks within a community, or population characteristics and health vulnerabilities that can contribute to more severe adverse effects of climate change. Each Census Tract was scored based on relative burden, risk, vulnerability, or sensitivity. Specifically, the percentile ranks of the indicators for each census tract were combined to produce a value measuring a census tract's relative level of "Environmental Burdens and Climate Change Risks" as well as "Population Characteristics and Health Vulnerabilities" relative to other census tracts. Census tracts with higher scores relative to other census tracts statewide or to their region (i.e., New York City) were identified as DACs.

NYSDEC's Disadvantaged Community Assessment Tool (DACAT) compares three scores (Combined Score, Burden Component Score, and Vulnerability Component Score) for each Census Tract to non-DAC comparison scenarios (statewide urban, statewide rural, and urban/rural for each of the ten regions). The Tool then selects the lowest score in each of the comparison scenarios, called the "aggregate denominator." It also displays the percent difference between the three scores and the statewide mean or median for each. The DACAT compares the three scores with the identified aggregate denominators. If the Combined Score is 25 percent higher than its aggregate denominator, and one or both the Burden and Vulnerability Component Scores are 35 percent higher than their aggregate denominators, then DACAT highlights the Census Tract as having comparatively higher existing burdens or vulnerabilities. This indicates an increased likelihood that a proposed action may have a moderate or large impact on the DAC. If the conditions above are not met, then the DACAT highlights the Census Tract as having

comparatively lower existing burdens or vulnerabilities, and therefore a decreased likelihood that a proposed action may have a moderate or large impact on the DAC.

Most of the Corona neighborhood, including Queens County census tract 427 in which the Project Area is located, has been identified as a DAC having comparatively lower burdens and vulnerabilities. A disadvantaged community assessment is therefore warranted.

Hazardous Materials

The Proposed Actions would not result in any activities that would involve hazardous waste generation, transport, or disposal within or through a disadvantaged community.

(E) designations for hazardous materials would be placed on the zoning map for Projected Development Sites 1, 2, and 3 and Potential Development Site 1, requiring that a Phase I ESA as well as soil, groundwater, and vapor sampling and testing and necessary hazardous materials remediation be performed, to the satisfaction of the Mayor's Office of Environmental Remediation (OER), before DOB issues permits for excavation and construction. The (E) designations will also require that construction-related health and safety plans 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. With the (E) designation in place, the Proposed Actions would not result in significant adverse hazardous materials impacts during construction.

Water and Sewer Infrastructure

The Proposed Actions would not result in a substantial increase in wastewater or stormwater effluent flow that could overburden the infrastructure within a disadvantaged community, would not result in increased stormwater runoff or risk of flooding, would not result in an industrial facility or activity that would cause industrial discharges, and would not result in a new stormwater outfall within a disadvantaged community.

Solid Waste and Sanitation Services

The Proposed Actions would not result in substantial new solid waste generation, transport, or disposal within or through a disadvantaged community.

Air Quality

Based on the analysis, conditions associated with the Proposed Actions would not result in any violations of the ambient air quality standards. Therefore, the Proposed Actions would not result in any potentially significant adverse stationary or mobile source air

Figure 23-1: Disadvantaged Community Map



quality impact(s), and further assessment is not warranted. The summary results of the analysis are as follows:

- The project-increment traffic associated with the Proposed Actions would not exceed the screening threshold that requires a detailed analysis.

- No manufacturing processing facility (toxic air emission source) within the 400-foot study area was identified in the study. Additionally, no "major" or "large" emission source is located within 1,000 feet of a development site associated with the Proposed Actions; thus, no analysis was warranted.

- A detailed analysis was required for the project-increment buildings' HVAC system(s). No significant adverse air quality impact was predicted in the HVAC analysis, with natural gas being the type of fossil fuel used in the Projected Development Sites HVAC equipment, and the location of the HVAC stacks is adhered to. Accordingly, based on the results of the dispersion analysis, an environmental requirement (E-Designation related to HVAC system(s) would be required (the E-Designation language will be specified in consultation with the reviewing agency).

- The Proposed Actions would not introduce any facility or activity that would be a source of noxious odors.

Noise

Vehicular traffic is the predominant source of noise in the area. Noise monitoring conducted at the edges of the Project Area revealed ambient noise levels that ranged from the marginally acceptable to the marginally unacceptable.

The Proposed Actions would not introduce new stationary or mobile source noise sources and would therefore not cause a significant adverse impact on Study Area ambient noise levels.

Light

The Proposed Actions would result in the development of predominantly residential buildings with ground floor local commercial and community facility space. They would not introduce industrial or commercial lighting that would be detrimental to community residents.

Construction

Possible impacts on local air quality during construction include fugitive dust (particulate) emission from land clearing operation and mobile source emissions, including hydrocarbons, nitrogen oxide, and carbon monoxide.

Fugitive dust emissions from land clearing operations can occur from excavation, hauling, dumping, spreading, grading, compaction, wind erosion, and traffic over unpaved areas and would be of short duration for the projected developments. Actual quantities of emissions depend on the extent and nature of the clearing operations, the type of equipment employed, the physical characteristics of the underlying soil, the speed at which construction vehicles are operated, and the type of fugitive dust control methods employed. Much of the fugitive dust generated by construction activities consists of relatively large-size particles, which are expected to settle within a short distance from the construction site (and would largely be contained within the site itself) and to not significantly impact nearby buildings or people. All appropriate fugitive dust control measures, including watering of exposed areas and dust covers for trucks, would be employed, at least on the Applicant-controlled Projected Development 1. Therefore, the fugitive source emissions generated by the Proposed Actions would not be significant.

Mobile source emissions may result from the operation of construction equipment, trucks delivering materials and removing debris, workers' private vehicles, or occasional disruptions in traffic near the construction site. Given the moderate sizes of the projected developments, the number of construction-related vehicle trips generated by the Proposed Actions would be relatively small. and the emissions from such vehicles as well as construction equipment would occur over two limited periods that together would amount to less than two years. The mobile-source emissions generated by the Proposed Actions would not be significant.

Overall, the Proposed Actions would not result in significant adverse construction era air quality impacts.

Noise and vibration from construction equipment operation and noise from construction workers' vehicles and delivery vehicles traveling to and from construction sites can affect community noise levels. The severity of impact of these noise sources would depend on the noise characteristics of the equipment, activities involved, the construction schedule, and the location of potentially sensitive noise receptors. Noise and vibration levels at a given location would be dependent on the kind and number of pieces of construction equipment being operated, as well as the distance of the location from the construction site and the types of structures, if any, between the location and the noise source. Noise levels caused by construction activities can vary widely, depending on the phase of construction (e.g. demolition, land clearing and excavation, foundation, erection of structure, construction of exterior walls) and the specific task being undertaken. Construction noise associated with the Proposed Actions is expected to be similar to noise generated by similar construction projects in the city. Increased noise level caused by construction activities can be expected to be more significant during early excavation phases of construction and would be of relatively short duration. Increases in noise levels caused by delivery trucks and other construction vehicles would not be significant. As construction would occur over two limited periods that together would amount to less than two years, the level and duration of construction noise would not be significant.

Construction noise is regulated by the New York City Noise Control Code and by the Environmental Protection Agency (EPA) noise emission standards for construction equipment. These local and federal requirements mandate that certain classifications of construction equipment and motor vehicles meet specified noise emissions standards; that, except under exceptional circumstances, construction activities be limited to weekdays between the hours of 7:00 AM and 6:00 PM; and that construction material be handled and transported in such a manner as not to create unnecessary noise. In addition, whenever possible, appropriate low noise emission level equipment and operational procedures can be utilized to minimize noise and its effect on adjacent uses. Thus, these regulations would be followed in such a manner that no significant adverse construction era noise impacts would result from the Proposed Actions, and no further analysis is warranted.

Conclusion

Although the Project Area is located within a disadvantaged community, the Proposed Actions would not contribute to the community's environmental burdens. Accordingly, the Proposed Actions would not disproportionately affect disadvantaged communities and would not cause or increase a disproportionate pollution burden on disadvantaged communities. No further assessment is warranted.

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-Q
Project: 108 ST REZONING
Date Received: 8/20/2024

Properties with no Architectural or Archaeological significance:

1) 49-20 108 STREET, BBL: 4019930065
2) 50-02 108 STREET, BBL: 4019940012
3) 50-04 108 STREET, BBL: 4019940013
4) 50-08 108 STREET, BBL: 4019940015
5) 50-10 108 STREET, BBL: 4019940016
6) 50-12 108 STREET, BBL: 4019940018
7) 50-16 108 STREET, BBL: 4019940019
8) 50-18 108 STREET, BBL: 4019940022
9) 50-20 108 STREET, BBL: 4019940023
10) 107-05 51 AVENUE, BBL: 4019940025
11) 107-01 CORONA AVENUE, BBL: 4019940030
12) 106-05 CORONA AVENUE, BBL: 4019940040
13) 106-01 CORONA AVENUE, BBL: 4019940041

Gina Santucci 8/27/2024

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 37436_FSO_DNP_08272024.docx

Rohit T. Aggarwala
Commissioner

Angela Licata
Deputy Commissioner
Sustainability

59-17 Junction Blvd.
Flushing, NY 11373

Tel. (718) 595-4398
alicata@dep.nyc.gov

June 27, 2025

Ibrahim Jobe
Project Manager
Environmental Assessment and Review Division
New York City Department of City Planning
120 Broadway, 31st Floor
New York, New York 10271

Re: 50-20 108th Street Rezoning
Block 1993, Lot 65; and
Block 1994, Lots 1, 3, 4, 6, 7, 9, 10, 12, 13, 15, 16, 18, 19, 22, 23, 25, 30, 33, 36, 37, 40, 41 & 42
CEQR # 25DCP082Q

Dear Mr. Jobe:

The New York City Department of Environmental Protection, Bureau of Sustainability (DEP) has reviewed the April 2025 Environmental Assessment Statement (EAS) and the January 2025 Phase I Environmental Site Assessment (Phase I) prepared by Environmental Studies Corporation, on behalf of Anthony Federici, Federici Builders Corp., (applicant), for the above referenced project. It is our understanding that the applicant is seeking a zoning map amendment from the New York City Department of City Planning (DCP) to rezone a R6B and a R6B/C2-3 zoning district to a R7A and R7A/C2-4 zoning districts, as well as a zoning text amendment to Appendix F of the Zoning Resolution to designate the project area as a Mandatory Inclusionary Housing Area. The proposed actions under a reasonable worst-case development scenario would facilitate the redevelopment of Block 1994, Lots 12, 13, 15, 16, 18, 19, 22, 23, 25 and 30 (Projected Development Site 1) with a new 11-story, 178,712 gross square feet (gsf), mixed-use building containing approximately 15,327 gsf of commercial space, 6,447 gsf of community facility space, 129,506 gsf of residential space, 19,389 gsf of subsurface parking space and 8,043 gsf of storage and mechanical space, as well as the redevelopment of Block 1993, Lot 65 (Projected Development Site 2) with a new 11-story, 93,575 gsf, mixed-use building containing approximately 10,198 gsf of community facility space, 70,424 gsf of residential space, 8,400 gsf of subsurface parking space and 4,553 gsf of storage and mechanical space. The applicant-owned Projected Development Sites 1 and 2, as well as Potential Development Site 1 (Block 1994, Lot 6), located between 49th Avenue and 51st Avenue in the Corona neighborhood of Queens Community District 4, are currently developed with 10 multi-story mixed-use and residential buildings and asphalt-paved parking areas, while the remainder of the project area not controlled by the applicant, Block 1994, Lots 40 and 41 (Projected Development Site 3) and Block 1994, Lots 1, 3, 4, 7, 9, 10, 33, 36, 37 and 42, is currently developed with 14 residential and commercial buildings. It should also be noted that in the With-Action Scenario, Projected Development Site 3 would be redeveloped with a new 11-story, 24,945 gsf, mixed-use building containing 19,916 gsf of residential space, (23 dwelling units), 3,050 gsf of commercial space and 1,979 gsf of community facility space, while Potential Development Site 1 would be redeveloped with a new 11-story, 12,525 gsf, residential building containing 15 dwelling units.

Projected Development Site 1: Block 1994, Lots 12, 13, 15, 16, 18, 19, 22, 23, 25 & 30 and Projected Development Site 2: Block 1993, Lot 65

The January 2025 Phase I report revealed that historical on-site and surrounding area land uses consists of residential and commercial uses including Lorena's Fruits grocery store, Max Multi Services, NY, a private social club, a nail salon, a recreational facility, a lumber yard, Corona Heights Pharmacy, Rose Grocery, Park Side Restaurant, Wallack Cleaners and Dyers, A&H Truck Tank Repair Service, Future Polishing Co., Melita Equipment Rentals, AAD Painting, a handkerchief factory, a shirt waist shop, a private garage, a coat, apron, and linen company, as well as several residential buildings. Regulatory databases such as the New York State Department of Environmental Conservation SPILLS, Leaking Underground Storage Tank, Leaking Storage Tanks (LTANKS), Resource Conservation and Recovery Act Generators, and Petroleum Bulk Storage (PBS) Underground Storage Tanks (USTs) and PBS Aboveground Storage Tanks (ASTs) identified several sites in close proximity to the project area. The SPILLS database reported 12 SPILLS within a 1/8-mile radius of the project area and the LTANKS database reported 24 LTANKS within a 1/2-mile radius of the project area. The PBS USTs and the PBS ASTs databases reported five USTs and six ASTs within a 1/4-mile radius of the project area. The Phase I also reported one Historical Auto Station and one Historical Cleaner within a 1/8-mile radius of the project area. Based on the age of the buildings that currently occupies the project sites, asbestos containing materials and lead based paint could be present in the structures.

Based upon our review of the submitted documentation, we have the following comments and recommendations to DCP:

EAS

- DCP should inform the applicant that the EAS should be revised/updated as appropriate as the hazardous materials assessment progresses.

Phase I

- The cover page and the table of contents references Block 1994, Lots 12, 13, 15, 16, 18, 19, 22, 23, 25 and 30; however, the Introduction states that the subject property consists of Lot 65 on Block 1993, and Lots 12, 13, 15, 16, 18, 19, 22, 23, 25, and 30 on Block 1994. In addition, the Sanborn Maps and aerial photos does not identify Block 1993, Lot 65. Therefore, DCP should instruct the applicant to clarify the block and lots that the Phase I covers.

Projected Development Site 1: Block 1994, Lots 12, 13, 15, 16, 18, 19, 22, 23, 25 & 30 and Projected Development Site 2: Block 1993, Lot 65
(Sites under the control or ownership of the applicant)

- DCP should inform the applicant that based on the historical on-site and/or surrounding area land uses, a Phase II Environmental Site Assessment (Phase II) is necessary to adequately identify/characterize the surface and subsurface soils, groundwater, and soil vapor of the subject property, and to inform and disclose the measures necessary to avoid impacts from hazardous materials. A Phase II Investigation Protocol/Work Plan summarizing the proposed drilling, soil, groundwater, and soil vapor sampling activities should be developed in accordance with the City Environmental Quality Review (CEQR) Technical Manual and submitted for DEP review and approval. The Work Plan should include blueprints and/or site plans displaying the current surface grade and sub-grade elevations and a site map depicting the proposed soil, groundwater, and soil vapor sampling locations. Soil and groundwater samples should be collected and analyzed by a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory for the presence of volatile organic compounds

(VOCs) by United States Environmental Protection Agency (EPA) Method 8260, semi-volatile organic compounds by EPA Method 8270, pesticides by EPA Method 8081, polychlorinated biphenyls by EPA Method 8082, and Target Analyte List metals (filtered and unfiltered for groundwater samples). The soil vapor sampling should be conducted in accordance with the NYSDOH October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York. The soil vapor samples should be collected and analyzed by a NYSDOH ELAP certified laboratory for the presence of VOCs by EPA Method TO-15. A site-specific Health and Safety Plan (HASP) should also be submitted for DEP review and approval.

- DCP should instruct the applicant that a minimum of nine soil borings, five groundwater wells and eight soil vapor probes should be installed in Projected Development Site 1. Sampling locations should be spread to ensure that there is proper coverage of the site.

- DCP should instruct the applicant that a minimum of eight soil borings, four groundwater wells and seven soil vapor probes should be installed on Projected Development Site 2. Sampling locations should be spread to ensure that there is proper coverage of the site.

- DCP should also instruct the applicant that the Phase II Work Plan and HASP should be submitted for DEP review and approval prior to the start of any fieldwork.

Potential Development Site 1: Block 1994, Lot 6 (Site under the control or ownership of the applicant)

- DCP should instruct the applicant to explain how the potential for hazardous materials impacts would be addressed.

Projected Development Site 3: Block 1994, Lots 40 & 41 (Site not under the control or ownership of the applicant)

- Based on prior on-site and/or surrounding area land uses which could result in environmental contamination, an (E) Designation for hazardous materials should be placed on the subject property 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 occurs, as well as to ensure the maintenance and oversight of any required engineering controls through oversight by the Mayor's Office of Environmental Remediation (OER). Further hazardous materials assessments should be coordinated through OER.

Future correspondence and submittals related to this project should include the following CEQR # **25DCP082Q**. If DCP has any questions, you may contact Ms. Cassandra Scantlebury at CassandraS@dep.nyc.gov.

Sincerely,

Wei Yu

Wei Yu
Deputy Director, Hazardous Materials

cc: R. Weissbard, T. Estesen, C. Scantlebury, M. Wimbish, S. Shellooe – DCP, E. Ulker-Kacar – DCP, M. Bertini – OER

APPENDIX B
Transportation

Selection Method | 50-20 108 STREET, Southl | Census Tract | Neighborhood Tabulation Area (NTA) | Community District Tabulation Area (CDTA) | Community District (CD) | More Geographies | Add Map Layers

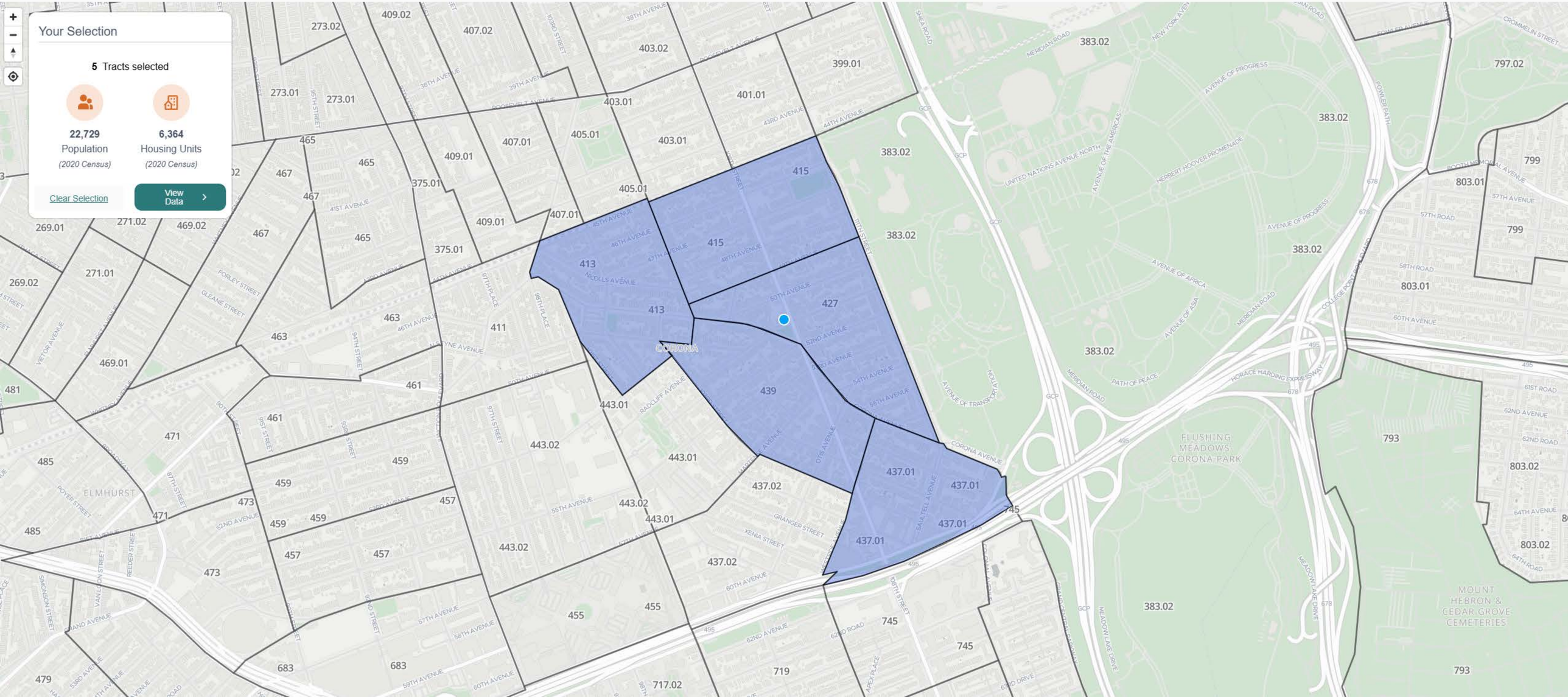


Exhibit 1

Modal Split Data

2015-2019 ACS 5-YEAR Journey-to-Work (JTW) for Census Tract numbers 413, 415, 427, 437.01, and 439 in Queens, NY

50-20 108th Street, Queens NY

2015-2019 ACS 5-Year, Journey-to-Work:

Census Tract	Total Workers	Car or Van Drive-Alone	Carpool	Bus	Street Car	Subway	R.R.	Ferry	Taxi	Motor Cycle	Bicycle	Walked	Other Means	Worked @ Home	Total
413	2136	250	168	278	0	897	184	0	0	3	85	192	46	33	2,136
415	1953	264	137	226	0	952	82	0	30	0	25	202	0	35	1,953
427	2401	455	108	467	0	1045	0	0	96	28	0	161	0	41	2,401
437.01	1102	221	54	283	0	455	5	0	0	9	0	68	0	7	1,102
439	1438	437	72	229	0	581	8	0	0	0	6	105	0	0	1,438
Total	9,030	1,627	539	1,483	0	3,930	279	0	126	40	116	728	46	116	9,030
		0.180	***0.060***	***0.164***	***0.00***	***0.435***	***0.031***	***0.00***	***0.01***	***0.00***	***0.01***	***0.081***	***0.01***	***0.013***	***1.00***

Exhibit 2

Vehicle Occupancy Rate Data

2015-2019 ACS 5-YEAR Journey-to-Work (JTW) for Census Tract numbers 413, 415, 427, 437.01, and 439 in Queens, NY

2015-2019 ACS-5 Year (JTW), Vehicle Occupancy Rate:

Census Tract	Total	Drove Alone	Total Carpool	Carpool 2 Person	Carpool 3 Person	Carpool 4 Person	Carpool 5 or 6 Person	Carpool 7 or more Person	Total
413	418	250	168	147	0	11	10	0	168
415	401	264	137	41	43	0	1	52	137
427	563	455	108	108	0	0	0	0	108
437.01	275	221	54	30	8	16	0	0	54
439	509	437	72	39	22	1	10	0	72
persons	2,166	1,627	539		73	28	21	52	539
cars		1627		0	24	7	4	7	1,670

Modal Split Data Summary

Auto	**0.240**
Taxi	**0.014**
Bus	**0.164**
Subway	**0.466**
Walk	**0.081**
Other	**0.035**
Total	**1.00**

Vehicle Occupancy = 1.30

Table 2 : Transportation Planning Factors

50-20 108th Street, Queens NY

Land Use:	***Residential***		***Local Retail***		***Medical Office***	
	d.u.		***gsf***		***gsf***	
Size/Units:	***179***		***1,323***		***3,598***	
	(1)		**(1)**		**(1)**	
Trip Generation:						
Weekday	8.18		329		74.6	
Saturday	9.08		358		37	
	per d.u.		per 1,000 gsf		per 1,000 gsf	
Linked-Trip:	0%		25%		0%	
Temporal Distribution:	**(1)**		**(1)**		**(1)**	
AM Peak Hour	9.3%		4.8%		11.0%	
MD Peak Hour	5.6%		8%		12.6%	
PM Peak Hour	8.5%		10.9%		8.5%	
Saturday Midday Peak Hour	8.4%		11.7%		16.6%	
	(2)		**(1)**		**(1)**	
Modal Split :	All Periods		All Periods		All Periods	
Auto	24.0%		11%		69%	
Taxi	1.4%		0%		7%	
Subway	46.6%		3%		2%	
Bus	16.4%		2%		6%	
Walk & Other	11.6%		84%		16%	
Total	100%		100%		100%	
	(1)		**(1)**		**(1)**	
In/Out Splits:	In	Out	In	Out	In	Out
AM Peak Hour	22%	78%	53%	47%	62%	38%
MD Peak Hour	50%	50%	50%	50%	47%	53%
PM Peak Hour	63%	37%	50%	50%	35%	65%
Saturday Midday Peak Hour	51%	49%	50%	50%	49%	51%
Vehicle Occupancy:	**(2&3)**		**(4)**		**(3)**	
Auto	1.3		2.0		1.5	
Taxi	1.3		2.0		1.5	
Truck Trip Generation:	**(1)**		**(1)**		**(3)**	
Weekday	0.06		0.35		0.29	
Saturday	0.02		0.04		0.29	
	per d.u.		per 1,000 gsf		per 1,000 gsf	
	(1)		**(1)**		**(3)**	
AM Peak Hour	12%		8%		3%	
MD Peak Hour	9%		11%		11%	
PM Peak Hour	2%		2%		1%	
Saturday Midday Peak Hour	9%		11%		0%	
Truck In/Out Splits:	In	Out	In	Out	In	Out
AM/MD/PM/Sat.Midday	50%	50%	50%	50%	50%	50%

Sources:

(1)-2021 CEQR Technical Manual, Table 16-2.

(2)-2015-2019 American Community Survey (ACS)- Journey-to-Work (JTW) Census Tract #'s 413, 415, 427, 437.01, and 439 in Queens N.Y.

(3)-East New York Rezoing FEIS, Table 13-8.

(4)-2013 Willets Point FEIS.

Table 3 : Estimated Person Trips

50-20 108th Street, Queens NY

Land Use:	***Residential***		***Local Retail***		***Medical Office***		Total Net Demand		Subway
	d.u.		***gsf***		***gsf***				Bus
Size/Units:	***179***		***1,323***		***3,598***				Walk
									Pedestrian Volumes
Peak hour Trips									
AM Peak Hour	136		16		30		181		
Midday Peak Hour	82		26		34		142		
PM Peak Hour	124		36		23		183		
Saturday Midday Peak Hour	137		42		22		200		
Person Trips:									
AM Peak Hour	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	
Auto	7	25	1	1	13	8	21	34	
Taxi	0	1	0	0	1	1	1	2	
Subway	14	49	0	0	0	0	14	49	63
Bus	5	17	0	0	1	1	6	18	24
Walk & Other	3	12	7	6	3	2	13	20	33
Total	29	104	8	7	18	12	55	123	120
Midday Peak Hour	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	
Auto	10	10	1	1	11	12	22	23	
Taxi	1	1	0	0	1	1	2	2	
Subway	19	19	0	0	0	0	19	19	38
Bus	7	7	0	0	1	1	8	8	16
Walk & Other	5	5	11	11	3	3	19	19	38
Total	42	42	12	12	16	17	70	71	92
PM Peak Hour	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	
Auto	19	11	2	2	6	10	27	23	
Taxi	1	1	0	0	1	1	2	2	
Subway	37	21	1	1	0	0	38	22	60
Bus	13	8	0	0	0	1	13	9	22
Walk & Other	9	5	15	15	1	2	25	22	47
Total	79	46	18	18	8	14	105	78	129
Saturday Midday Peak Hour	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	
Auto	17	16	2	2	7	8	26	26	
Taxi	1	1	0	0	1	1	2	2	
Subway	32	31	1	1	0	0	33	32	65
Bus	11	11	0	0	1	1	12	12	24
Walk & Other	8	8	17	17	2	2	27	27	54
Total	69	67	20	20	11	12	100	99	143

Table 4 : Estimated Vehicular Trips

50-20 108th Street, Queens NY

Land Use:	*Residential*		*Local Retail*		*Medical Office*		Total Net Demand		
	d.u.		*gsf*		*gsf*				
Size/Units:	*179*		*1,323*		*3,598*				
Vehicular Trips									
AM Peak Hour	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**Total**
Auto (Total)	5	19	1	1	9	5	15	25	40
Taxi	0	1	0	0	1	1	1	2	3
Taxi (Balanced)	1	1	0	0	2	2	3	3	6
Truck(Balanced)	1	1	0	0	0	0	1	1	2
Total	7	21	1	1	11	7	19	29	48
Midday Peak Hour	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**Total**
Auto (Total)	8	8	1	1	7	8	16	17	33
Taxi	1	1	0	0	1	1	2	2	4
Taxi (Balanced)	2	2	0	0	2	2	4	4	8
Truck(Balanced)	0	0	0	0	0	0	0	0	0
Total	10	10	1	1	9	10	20	21	41
PM Peak Hour	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**Total**
Auto (Total)	15	8	1	1	4	7	20	16	36
Taxi	1	1	0	0	1	1	2	2	4
Taxi (Balanced)	2	2	0	0	2	2	4	4	8
Truck(Balanced)	0	0	0	0	0	0	0	0	0
Total	17	10	1	1	6	9	24	20	44
Saturay Midday Peak Hour	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**Total**
Auto (Total)	13	12	1	1	5	5	19	18	37
Taxi	1	1	0	0	1	1	2	2	4
Taxi (Balanced)	2	2	0	0	2	2	4	4	8
Truck(Balanced)	0	0	0	0	0	0	0	0	0
Total	15	14	1	1	7	7	23	22	45

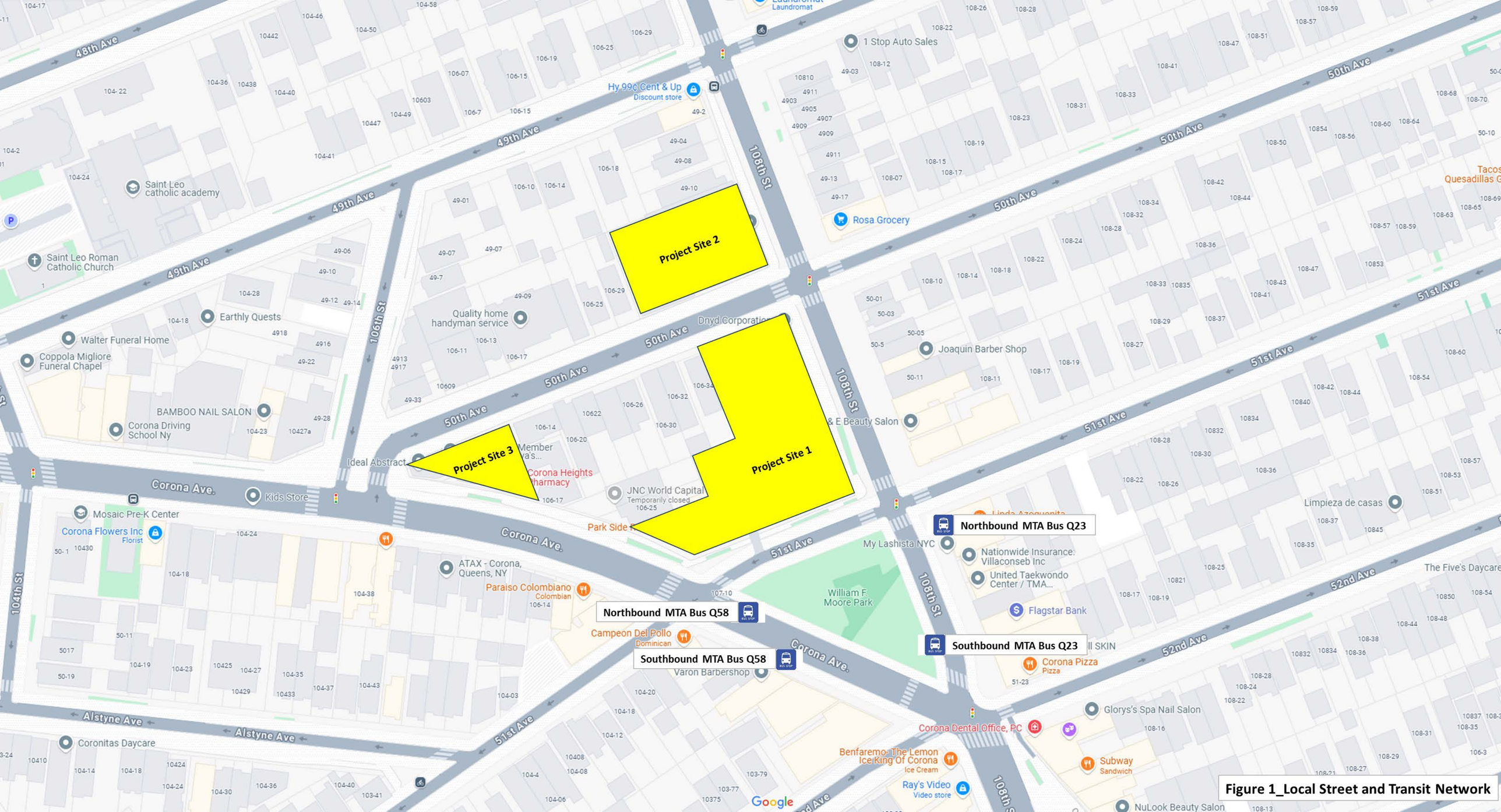
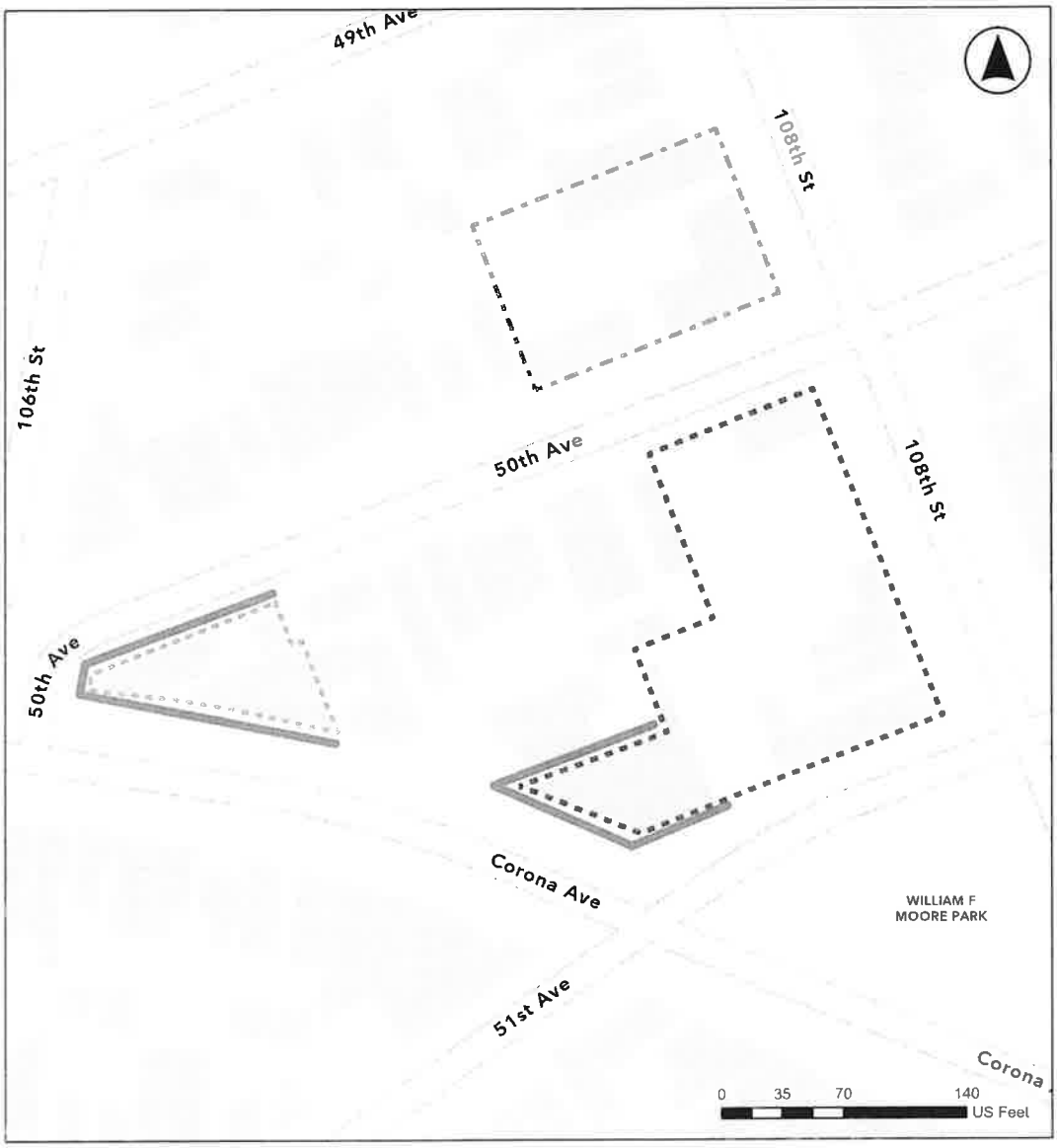


Figure 1_Local Street and Transit Network

APPENDIX C
Noise

Figure 1-5: Attenuation Requirements



LEGEND

PROJECTED DEVELOPMENT SITE 1
PROJECTED DEVELOPMENT SITE 2
PROJECTED DEVELOPMENT SITE 3
28 DB(A) ATTENUATION REQUIREMENT

*Attenuation Requirements are for residential and community facility. Commercial would receive a 5 dB(A) reduction.



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Fairfield, NJ 07004

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

Noise Assignment Field Sheet

Name of Project: 50-20 108th Street 12.0078008.00

Project Address: 50-20 108th Street Queens, New York

Date(s) of Field Work: 12/3-12/4 2024

Personnel: Shlok Raval and Kenley TOulous

Project Specific Scope of Work:

5 x 20-minute reading readings AM, Midday, PM

1 x rooftop 24-hour reading

Site Contact – Anthony – lumber yard

I. Start of Noise Monitoring Day

Departure Time: 5:45 Arrival Time: 6:30

Weather Conditions (temp, wind speed, precipitation): 20°, 9 MPH, 0"

Meter Type: CEL-6XX Meter Serial #: 427300G Meter Location: 1

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

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

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

Calibrator Serial #: 4478708 Meters used on: 1

Calibrator Serial #: _____ Meters used on: _____

Calibrator Serial #: _____ Meters used on: _____

Were Photos Taken of Each Location? Y / N *Discuss specific photo instructions w/ Project Manager

**On a separate sheet of paper (field book) make a sketch of the noise meter locations and the distances to nearest wall, fence, building, or other solid surfaces.*

II. Morning Session 7:30 AM – 9:00 AM

Before Measurement:

Meter Serial #: 4273006 Time: 7:23 Calibration Passed at 114 dB? Y / N Run - 239

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

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

After Measurement:

Meter Serial #: 4273006 Time: 8:15 Calibration Passed at 114 dB? Y / N Run - 239

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	7:24	7:24 (24hrs)

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

Location #	Car	SUV	Medium Truck	Heavy Truck	Bus	Train

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

Noise Source: please note any loud noises here and time (sirens, garbage truck, etc):

_____

_____

_____

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

III. Midday 12:00 PM – 1:30 PM

Before Measurement:

Meter Serial #: _____ Time: _____ 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 #: _____ Time: _____ 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

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

Location #	Car	SUV	Medium Truck	Heavy Truck	Bus	Train

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

Noise Source: please note any loud noises here and time (sirens, garbage truck, etc): _____

_____

_____

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

IV. Evening Session 4:30 PM – 6:00 PM

Before Measurement:

Meter Serial #: _____ Time: _____ 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 #: _____ Time: _____ 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

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

Location #	Car	SUV	Medium Truck	Heavy Truck	Bus	Train

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

Noise Source: please note any loud noises here and time (sirens, garbage truck, etc):

_____

_____

_____

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

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: _____ Arrival Time: _____

Total Time to Be Billed: _____



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Noise Assignment Field Sheet

Name of Project: 50-20 108th Street 12.0078008.00

Project Address: 50-20 108th Street Queens, New York

Date(s) of Field Work: 12/3-12/4 2024

Personnel: Shlok Raval and Kenley TOulous

Project Specific Scope of Work:

5 x 20-minute reading readings AM, Midday, PM

1 x rooftop 24-hour reading

Site Contact – Anthony – lumber yard

I. Start of Noise Monitoring Day

Departure Time: 5:45 AM Arrival Time: 6:30AM

Weather Conditions (temp, wind speed, precipitation): 20°C, 4MPH, 0"

Meter Type: Sound Expert Meter Serial #: 40344 Meter Location: 2

Meter Type: Sound Expert Meter Serial #: 40344 Meter Location: 3

Meter Type: Sound Expert Meter Serial #: 40344 Meter Location: 4

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

Calibrator Serial #: 6755 Meters used on: 2

Calibrator Serial #: 6755 Meters used on: 4

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 #: 40344 Time: 7:43 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 #: 40344 Time: 8:48 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
2	7:44	8:04
3	8:05	8:25
4	8:27	8:47

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

Location #	Car	SUV	Medium Truck	Heavy Truck	Bus	Train
2	19	23	02	00	00	00
3	12	27	5	0	5	0
4	5	7	1	0	0	0

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

Noise Source: please note any loud noises here and time (sirens, garbage truck, etc):

_____

_____

_____

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

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III. Midday 12:00 PM – 1:30 PM

Before Measurement:

Meter Serial #: 40344 Time: 12:07 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 #: 40344 Time: 1:09 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

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

Location #	Start Time	End Time
2	12:03	12:23
3	12:26	12:46
4	12:48	1:08

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

Location #	Car	SUV	Medium Truck	Heavy Truck	Bus	Train
2	11	16	0	0	0	0
3	14	41	04	01	04	0
4	03	13	3	0	0	0

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

Noise Source: please note any loud noises here and time (sirens, garbage truck, etc):

_____

_____

_____

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

IV. Evening Session 4:30 PM – 6:00 PM

Before Measurement:

Meter Serial #: 40344 Time: 4:29 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 #: 40344 Time: 5:36 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
2	4:31	4:51
3	4:54	5:14
4	5:16	5:36

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

Location #	Car	SUV	Medium Truck	Heavy Truck	Bus	Train
2	12	16	0	0	0	0
3	2	31	3	2	6	0
4	2	4	1	0	0	0

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

Noise Source: please note any loud noises here and time (sirens, garbage truck, etc):

_____

_____

_____

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

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: _____ Arrival Time: _____

Total Time to Be Billed: _____



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New York, NY 10001

Noise Assignment Field Sheet

Name of Project: 50-20 108th Street 12.0078008.00

Project Address: 50-20 108th Street Queens, New York

Date(s) of Field Work: 12/3-12/4 2024

Personnel: Shlok Raval and Kenley TOulous

Project Specific Scope of Work:

5 x 20-minute reading readings AM, Midday, PM

1 x rooftop 24-hour reading

Site Contact – Anthony – lumber yard

I. Start of Noise Monitoring Day

Departure Time: 5:00 Arrival Time: 7:10

Weather Conditions (temp, wind speed, precipitation): 20° 4 mph Sunny & Cold

Meter Type: CEL63X Meter Serial #: 5086866 Meter Location: 6

Meter Type: CEL63X Meter Serial #: 5086866 Meter Location: 5

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

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

Calibrator Serial #: 1090999 Meters used on: 6

Calibrator Serial #: 1090999 Meters used on: 5

Calibrator Serial #: _____ Meters used on: _____

Were Photos Taken of Each Location? Y / N *Discuss specific photo instructions w/ Project Manager

An Equal Opportunity Employer M/F/V/H

On a separate sheet of paper (field book) make a sketch of the noise meter locations and the distances to nearest wall, fence, building, or other solid surfaces.

II. Morning Session 7:30 AM – 9:00 AM

Before Measurement:

Meter Serial #: 5086866 Time: 7:59 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 #: 5086866 Time: 8:49 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
6	8:02	8:22
5	8:26	8:46

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

Location #	Car	SUV	Medium Truck	Heavy Truck	Bus	Train
6	60	4	2	0	10	0
5	55	11	1	0	16	0

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

Noise Source: please note any loud noises here and time (sirens, garbage truck, etc):
8:17 – A dog was making noises location 6
A baby was crying location 6
8:40 – Street clean truck was passing by twice location 5

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 #: 5086866 Time: 12:03 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 #: 5086866 Time: 12:51 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
6	12:03	12:23
5	12:30	12:50

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

Location #	Car	SUV	Medium Truck	Heavy Truck	Bus	Train
6	28	5	1	0	0	0
5	16	13	4	0	5	0

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

Noise Source: please note any loud noises here and time (sirens, garbage truck, etc):
12:36 - Opening a diamond Plate steel doors ~~noise~~ sfight noise
12:43 - horn
12:49 - Bike noise

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

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IV. Evening Session 4:30 PM – 6:00 PM

Before Measurement:

Meter Serial #: 5086866 Time: 4:33 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

After Measurement:

Meter Serial #: 5086866 Time: 5:17 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
6	4:34	4:54
5	4:56	5:16

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

Location #	Car	SUV	Medium Truck	Heavy Truck	Bus	Train
6	42	3	1	0	0	0
5	80	11	0	0	12	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):
4:58 - horn 5:01 - loud motorcycle and horn
5:03 - horn 5:07 - horn and loud mosic
5:10 - loud motorcycle 5:15 - loud motorcycle

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

GZA
Known for excellence.
Built on trust.

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: _____

_____

_____

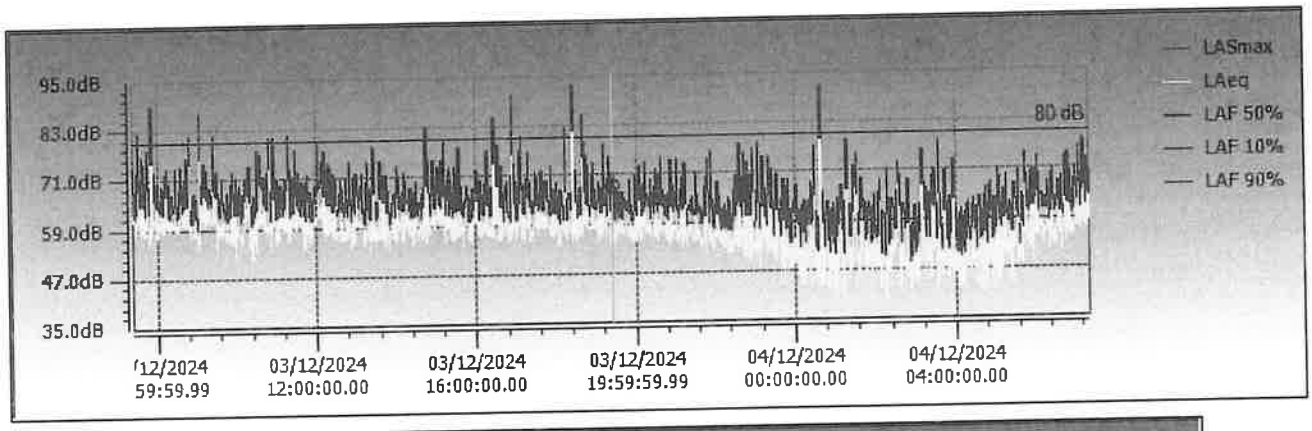
Departure Time: 5:35 Arrival Time: 7:30

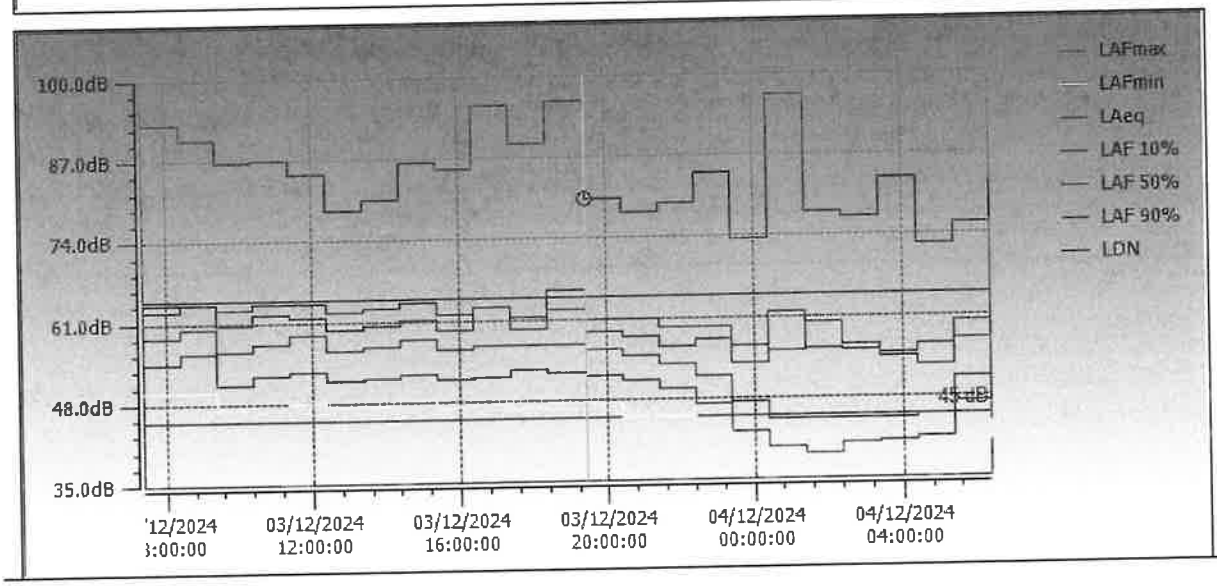
Total Time to Be Billed: _____

Casella CEL Ltd.

Report On CEL-63X

Instrument Model	**CEL-633C**
Serial Number	4278006
Start Date & Time	12/3/2024 7:23:27 AM
End Date & Time	12/4/2024 7:23:27 AM
Duration	24:00:00 HH:MM:SS
Pause Duration	00:00:00 HH:MM:SS
Calibration (Before) Date	12/3/2024 7:22:41 AM
Calibration (After) Date	12/4/2024 8:14:41 AM
LAFmax	96.5 dB
LAFmin	36.2 dB
LAeq	60.4 dB
LAF 10%	N/A
LAF 50%	N/A
LAF 90%	N/A
LDN	64.5
Result	Period





LARSON DAVIS
A PCB DIVISION

SoundExpert 821 Summary: 2024-12-04 10:20:34

User:

Location:

Job Description:

Notes: Could not parse section, making sure you have the latest G4 installed may resolve this issue.

Meter General Information

	Model	Serial
Meter	SoundExpert 821	40344
Preamp	PRM821	001768
Microphone	377B02	356730
Unique File Id	00C:00009D98:674EB6B5:000008E2	

Overall Measurement

Start Date & Time	2024-12-03 07:43:49			
Stop Date & Time	2024-12-03 08:03:53			
Run Time	00:20:04			
Pre-Calibration				
Date/Time	2024-12-03 07:43:35			
Calibrator Level	114.0 dB			
Meter Sensitivity	-25.73 dB re 1V/Pa			
Post-Calibration				
Date/Time	2024-12-03 08:48:10			
Calibrator Level	114.0 dB			
Meter Sensitivity	-25.75 dB re 1V/Pa			
Sensitivity Delta	-0.02 dB			
LAleq	68.1 dB			
	A	**C**	**Z**	
Lweq	62.3	71.5	75.0	
Lwpk	99.6 dB	101.6 dB	103.4 dB	
	2024-12-03 07:52:58	2024-12-03 07:51:06	2024-12-03 07:50:06	
LwSmin	51.7 dB	63.6 dB	66.4 dB	
	2024-12-03 08:03:13	2024-12-03 08:03:13	2024-12-03 07:55:28	
LwSmax	83.9 dB	89.4 dB	89.6 dB	
	2024-12-03 07:51:06	2024-12-03 07:51:06	2024-12-03 07:51:06	
LwFmin	50.8 dB	61.8 dB	64.5 dB	
	2024-12-03 08:03:10	2024-12-03 07:50:08	2024-12-03 07:49:11	
LwFmax	86.6 dB	92.5 dB	92.6 dB	
	2024-12-03 07:51:06	2024-12-03 07:51:06	2024-12-03 07:57:40	
Lwlmin	52.5 dB	65.9 dB	69.0 dB	
	2024-12-03 08:03:13	2024-12-03 08:01:38	2024-12-03 07:55:26	
Lwlmax	87.6 dB	104.5 dB	109.6 dB	
	2024-12-03 07:52:58	2024-12-03 07:43:49	2024-12-03 07:43:49	

w = frequency weighting (A, C or Z)

Community Noise	**LDN**	**LDay (07:00-22:00)**	**LNight (22:00-07:00)**	
	62.3 dB	62.3 dB	--- dB	
	LDEN	**LDay (07:00-19:00)**	**LEve (19:00-22:00)**	**LNight (22:00-07:00)**
	62.3 dB	62.3 dB	--- dB	--- dB
LCeq - LAeq	9.2 dB			
LAleq	68.1 dB			
Overload Count	0			
Overload Duration	00:00:00			
	A	**C**	**Z**	
Under Range Peak	50.0 dB	50.0 dB	62.0 dB	
Under Range Limit	24.0 dB	27.0 dB	37.0 dB	
Noise Floor	17.0 dB	18.0 dB	25.0 dB	

Ln Percentiles

LAS 5.0	65.6 dB
LAS 10.0	63.7 dB
LAS 33.3	60.2 dB
LAS 50.0	58.8 dB
LAS 66.6	57.4 dB
LAS 90.0	55.0 dB

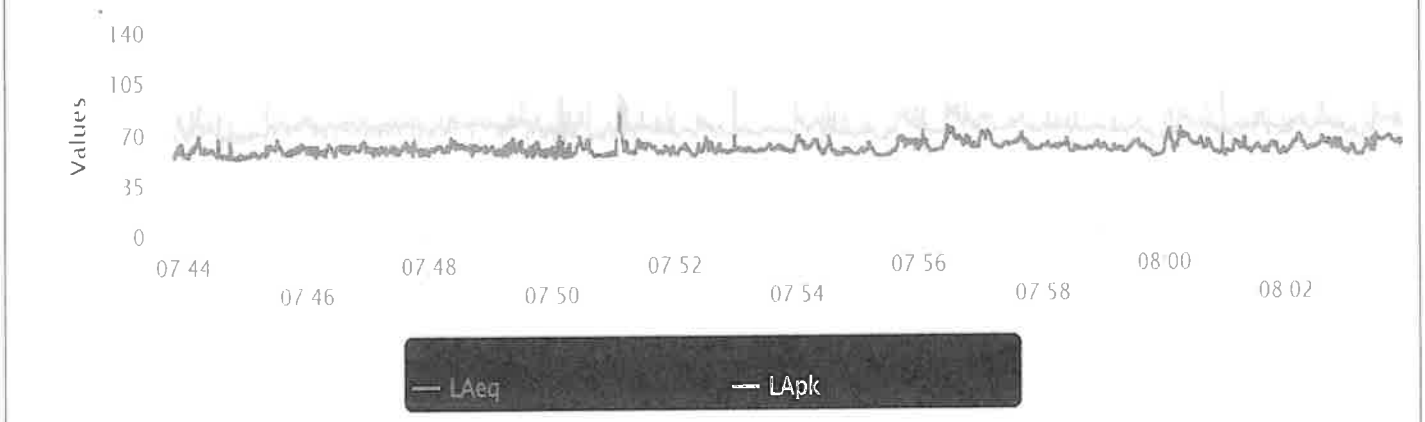
Exceedances

	Count	Duration
LAS > 85 dB	0	0
LAS > 95 dB	0	0
LApk > 135 dB	0	0
LApk > 137 dB	0	0
LApk > 140 dB	0	0

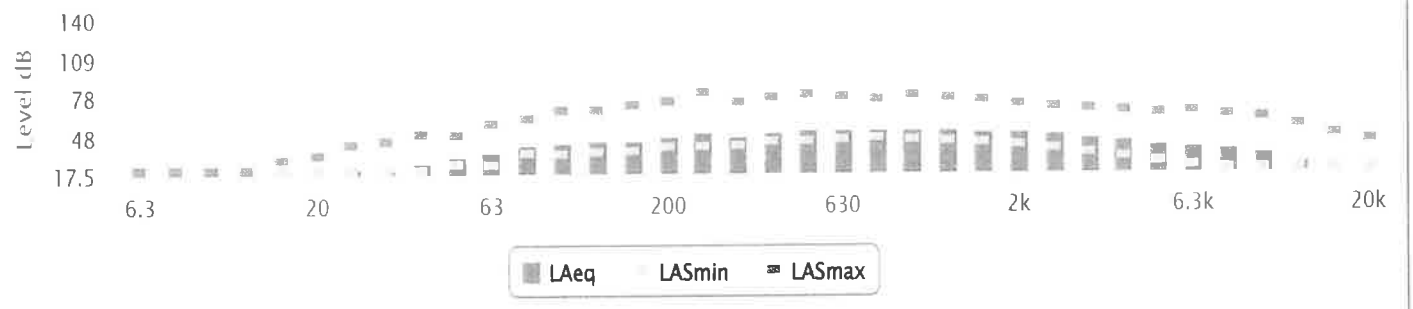
Sound Exposure

SELA	93.1 dB
EA (Pa²s)	0.8 Pa²s
EA,8 h (Pa²s)	19.4 Pa²s
EA,40 h (Pa²s)	97.1 Pa²s
EA (Pa²h)	0.0 Pa²h
EA,8 h (Pa²h)	0.0 Pa²h
EA,40 h (Pa²h)	0.0 Pa²h

Time History



Overall OBA



LARSON DAVIS
A PCB DIVISION

SoundExpert 821 Summary: 2024-12-04 10:10:59

User:

Location:

Job Description:

Notes: Could not parse section, making sure you have the latest G4 installed may resolve this issue.

Meter General Information

	Model	Serial
Meter	SoundExpert 821	40344
Preamp	PRM821	001768
Microphone	377B02	356730
Unique File Id	00C:00009D98:674EF383:00000916	

Overall Measurement

Start Date & Time	2024-12-03 12:03:15			
Stop Date & Time	2024-12-03 12:23:50			
Run Time	00:20:35			
Pre-Calibration				
Date/Time	2024-12-03 12:02:56			
Calibrator Level	114.0 dB			
Meter Sensitivity	-25.68 dB re 1V/Pa			
Post-Calibration				
Date/Time	2024-12-03 13:09:21			
Calibrator Level	114.0 dB			
Meter Sensitivity	-25.75 dB re 1V/Pa			
Sensitivity Delta	-0.07 dB			
LAleq	64.4 dB			
	A	**C**	**Z**	
Lweq	60.6	71.0	75.2	
Lwpk	88.0 dB	95.5 dB	101.3 dB	
	2024-12-03 12:18:28	2024-12-03 12:04:26	2024-12-03 12:05:04	
LwSmin	47.5 dB	62.0 dB	66.5 dB	
	2024-12-03 12:22:27	2024-12-03 12:22:26	2024-12-03 12:22:31	
LwSmax	72.2 dB	83.8 dB	89.4 dB	
	2024-12-03 12:12:07	2024-12-03 12:04:38	2024-12-03 12:15:45	
LwFmin	46.9 dB	60.1 dB	63.8 dB	
	2024-12-03 12:22:27	2024-12-03 12:22:27	2024-12-03 12:22:54	
LwFmax	74.6 dB	86.0 dB	94.9 dB	
	2024-12-03 12:18:28	2024-12-03 12:04:38	2024-12-03 12:15:45	
Lwlmin	48.4 dB	64.5 dB	69.1 dB	
	2024-12-03 12:22:27	2024-12-03 12:23:21	2024-12-03 12:22:31	
Lwlmax	87.7 dB	104.1 dB	110.1 dB	
	2024-12-03 12:03:15	2024-12-03 12:03:15	2024-12-03 12:03:15	
w = frequency weighting (A, C or Z)				
Community Noise	**LDN**	**LDay (07:00-22:00)**	**LNight (22:00-07:00)**	
	60.6 dB	60.6 dB	--- dB	
	LDEN	**LDay (07:00-19:00)**	**LEve (19:00-22:00)**	**LNight (22:00-07:00)**
	60.6 dB	60.6 dB	--- dB	--- dB
LCeq - LAeq	10.3 dB			
LAleq	64.4 dB			
Overload Count	0			
Overload Duration	00:00:00			
	A	**C**	**Z**	
Under Range Peak	50.0 dB	50.0 dB	62.0 dB	
Under Range Limit	24.0 dB	27.0 dB	37.0 dB	
Noise Floor	17.0 dB	18.0 dB	25.0 dB	

Ln Percentiles

LAS 5.0	64.5 dB
LAS 10.0	62.6 dB
LAS 33.3	60.1 dB
LAS 50.0	59.4 dB
LAS 66.6	58.8 dB
LAS 90.0	56.2 dB

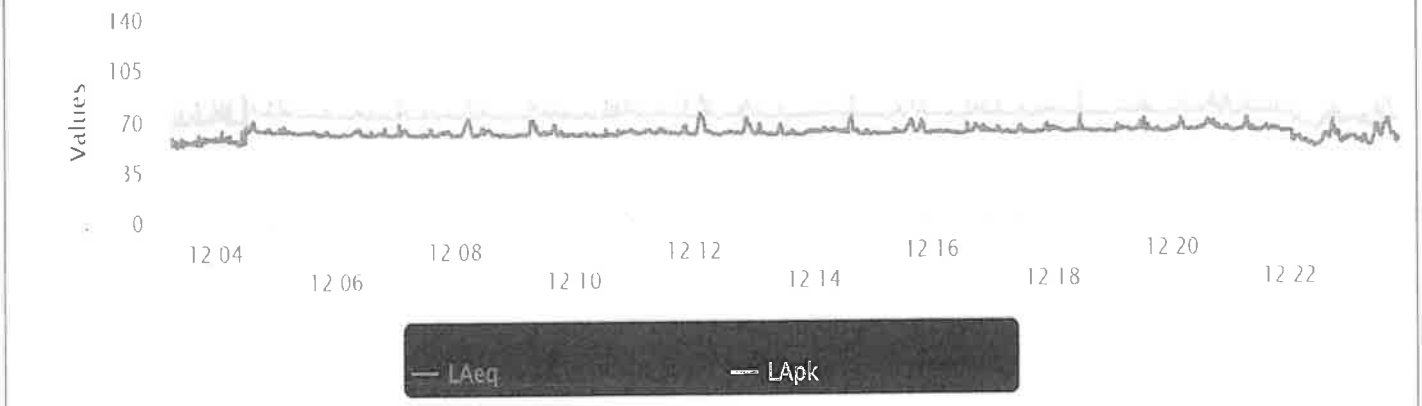
Exceedances

	Count	Duration
LAS > 85 dB	0	0
LAS > 95 dB	0	0
LApk > 135 dB	0	0
LApk > 137 dB	0	0
LApk > 140 dB	0	0

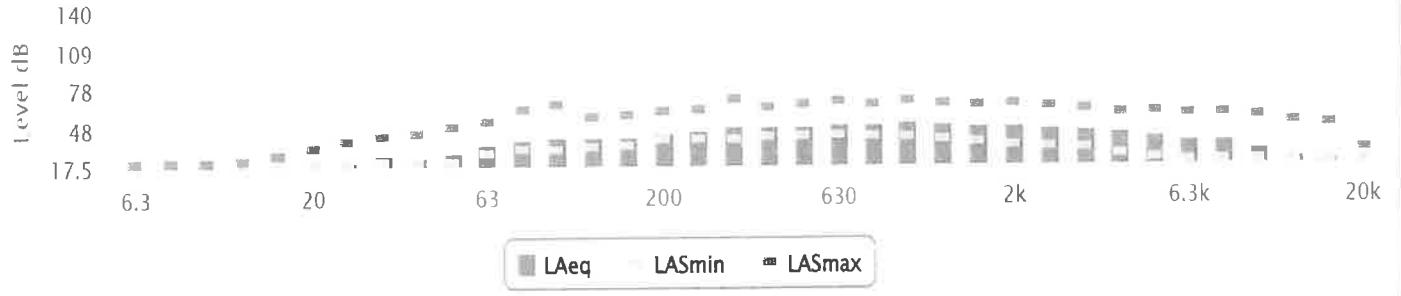
Sound Exposure

SELA	91.5 dB
EA (Pa²s)	0.6 Pa²s
EA,8 h (Pa²s)	13.3 Pa²s
EA,40 h (Pa²s)	66.4 Pa²s
EA (Pa²h)	0.0 Pa²h
EA,8 h (Pa²h)	0.0 Pa²h
EA,40 h (Pa²h)	0.0 Pa²h

Time History



Overall OBA



LARSON DAVIS
A PCB DIVISION

SoundExpert 821 Summary: 2024-12-04 10:08:59

User:

Location:

Job Description:

Notes: Could not parse section, making sure you have the latest G4 installed may resolve this issue.

Meter General Information

	Model	Serial
Meter	SoundExpert 821	40344
Preamp	PRM821	001768
Microphone	377B02	356730
Unique File Id	00C:00009D98:674F326B:00000949	

Overall Measurement

Start Date & Time	2024-12-03 16:31:39			
Stop Date & Time	2024-12-03 16:51:46			
Run Time	00:20:07			
Pre-Calibration				
Date/Time	2024-12-03 16:29:40			
Calibrator Level	114.0 dB			
Meter Sensitivity	-25.75 dB re 1V/Pa			
Post-Calibration				
Date/Time	2024-12-03 17:36:11			
Calibrator Level	114.0 dB			
Meter Sensitivity	-25.87 dB re 1V/Pa			
Sensitivity Delta	-0.12 dB			
LAleq	64.6 dB			
	A	**C**	**Z**	
Lweq	59.7	73.7	75.8	
Lwpk	93.1 dB	102.7 dB	103.0 dB	
	2024-12-03 16:36:07	2024-12-03 16:44:43	2024-12-03 16:44:43	
LwSmin	45.7 dB	62.1 dB	66.9 dB	
	2024-12-03 16:47:53	2024-12-03 16:48:02	2024-12-03 16:51:43	
LwSmax	76.3 dB	94.6 dB	95.1 dB	
	2024-12-03 16:36:07	2024-12-03 16:44:43	2024-12-03 16:44:43	
LwFmin	45.1 dB	59.5 dB	63.0 dB	
	2024-12-03 16:47:53	2024-12-03 16:47:30	2024-12-03 16:51:25	
LwFmax	82.1 dB	96.9 dB	97.2 dB	
	2024-12-03 16:36:07	2024-12-03 16:44:43	2024-12-03 16:44:43	
Lwlmin	46.8 dB	64.7 dB	69.9 dB	
	2024-12-03 16:47:53	2024-12-03 16:47:36	2024-12-03 16:51:43	
Lwlmax	83.4 dB	97.9 dB	98.2 dB	
	2024-12-03 16:36:07	2024-12-03 16:44:43	2024-12-03 16:44:43	

w = frequency weighting (A, C or Z)

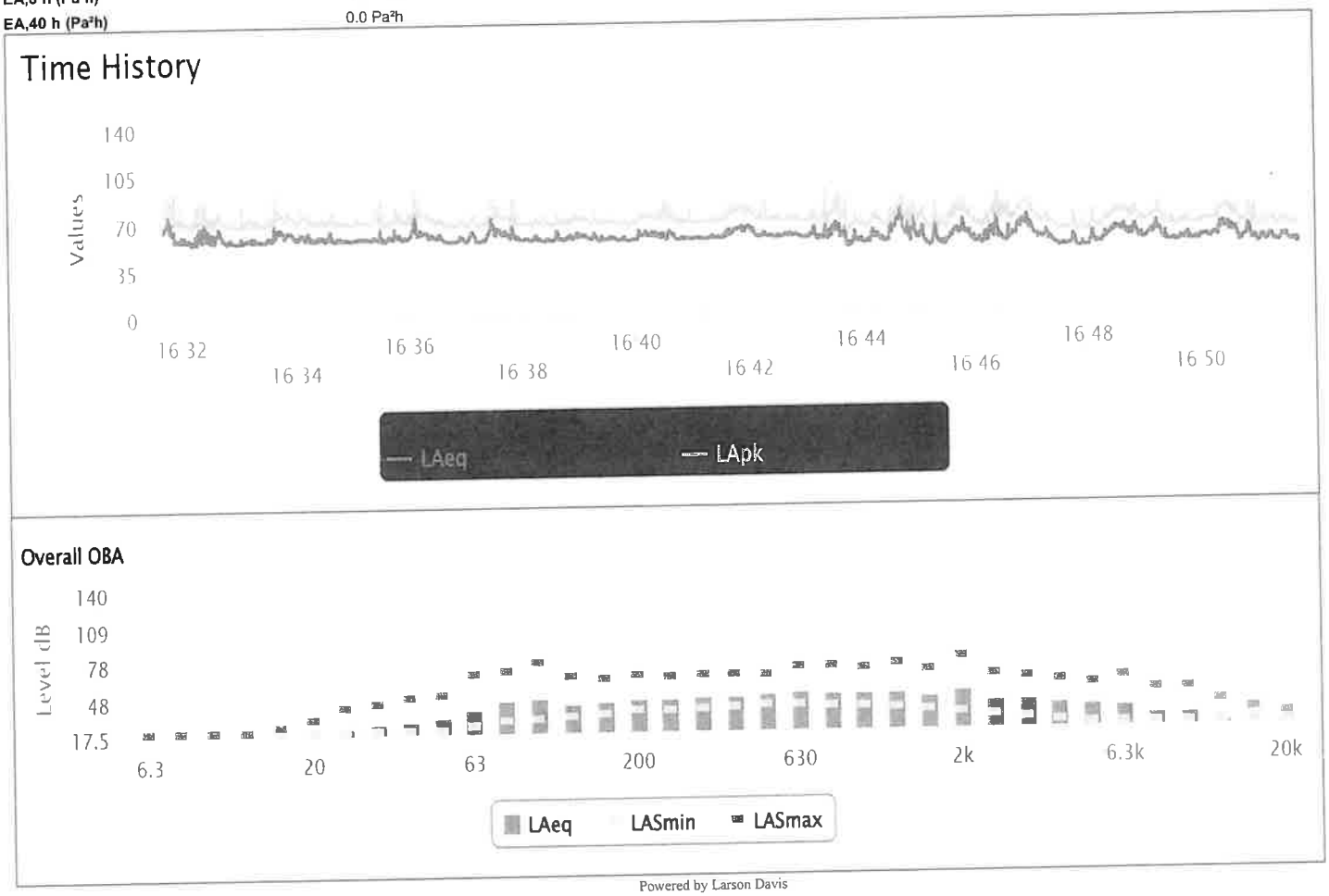
Community Noise	**LDN**	**LDay (07:00-22:00)**	**LNight (22:00-07:00)**	
	59.7 dB	59.7 dB	--- dB	
	LDEN	**LDay (07:00-19:00)**	**LEve (19:00-22:00)**	**LNight (22:00-07:00)**
	59.7 dB	59.7 dB	--- dB	--- dB
LCeq - LAeq	14.0 dB			
LAleq	64.6 dB			
Overload Count	0			
Overload Duration	00:00:00			
	A	**C**	**Z**	
Under Range Peak	50.0 dB	50.0 dB	62.0 dB	
Under Range Limit	24.0 dB	27.0 dB	37.0 dB	
Noise Floor	17.0 dB	18.0 dB	25.0 dB	

Ln Percentiles

LAS 5.0	64.1 dB
LAS 10.0	62.1 dB
LAS 33.3	58.2 dB
LAS 50.0	56.8 dB
LAS 66.6	55.6 dB
LAS 90.0	50.6 dB

Exceedances	Count	Duration
LAS > 85 dB	0	0
LAS > 95 dB	0	0
LApk > 135 dB	0	0
LApk > 137 dB	0	0
LApk > 140 dB	0	0

Sound Exposure	
SELA	90.5 dB
EA (Pa²s)	0.4 Pa²s
EA,8 h (Pa²s)	10.7 Pa²s
EA,40 h (Pa²s)	53.6 Pa²s
EA (Pa²h)	0.0 Pa²h
EA,8 h (Pa²h)	0.0 Pa²h
EA,40 h (Pa²h)	0.0 Pa²h



LARSON DAVIS
A PCB DIVISION

SoundExpert 821 Summary: 2024-12-04 10:19:54

User:

Location:

Job Description:

Notes: Could not parse section, making sure you have the latest G4 installed may resolve this issue.

Meter General Information

	Model	Serial
Meter	SoundExpert 821	40344
Preamp	PRM821	001768
Microphone	377B02	356730
Unique File Id	00C:00009D98:674EBBAB:000008F4	

Overall Measurement

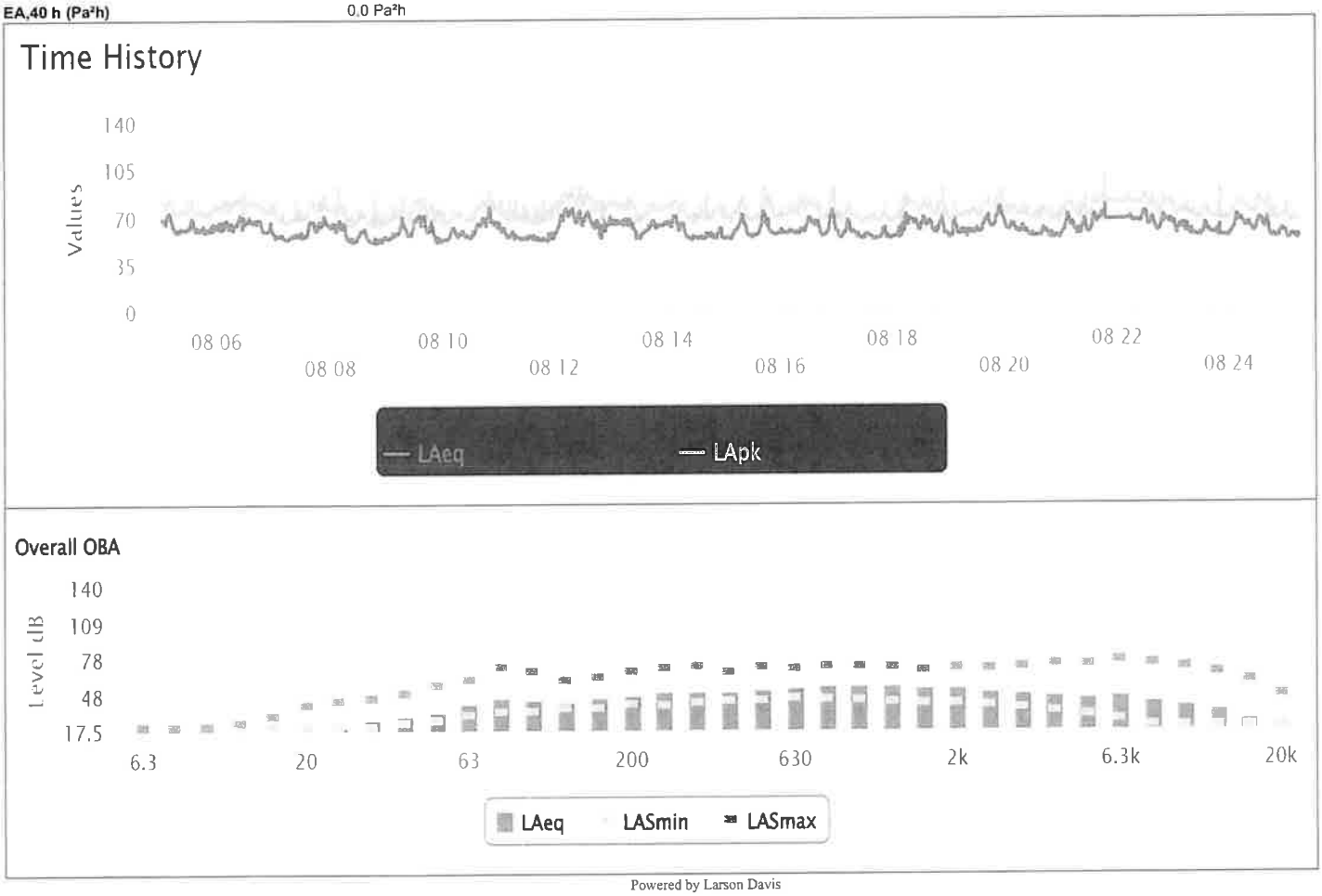
Start Date & Time	2024-12-03 08:04:59			
Stop Date & Time	2024-12-03 08:25:17			
Run Time	00:20:18			
Pre-Calibration				
Date/Time	2024-12-03 07:43:35			
Calibrator Level	114.0 dB			
Meter Sensitivity	-25.73 dB re 1V/Pa			
Post-Calibration				
Date/Time	2024-12-03 08:48:10			
Calibrator Level	114.0 dB			
Meter Sensitivity	-25.75 dB re 1V/Pa			
Sensitivity Delta	-0.02 dB			
LAleq	68.0 dB			
	A	**C**	**Z**	
Lweq	64.5	74.3	79.8	
Lwpk	100.5 dB	99.4 dB	107.4 dB	
	2024-12-03 08:21:47	2024-12-03 08:12:12	2024-12-03 08:20:36	
LwSmin	51.4 dB	64.1 dB	67.6 dB	
	2024-12-03 08:08:47	2024-12-03 08:08:23	2024-12-03 08:08:51	
LwSmax	78.6 dB	89.9 dB	98.0 dB	
	2024-12-03 08:21:47	2024-12-03 08:12:14	2024-12-03 08:20:37	
LwFmin	50.7 dB	61.6 dB	64.7 dB	
	2024-12-03 08:08:48	2024-12-03 08:08:25	2024-12-03 08:08:51	
LwFmax	85.2 dB	93.0 dB	102.8 dB	
	2024-12-03 08:21:47	2024-12-03 08:12:13	2024-12-03 08:20:37	
Lwlmin	52.9 dB	66.8 dB	70.9 dB	
	2024-12-03 08:08:44	2024-12-03 08:08:23	2024-12-03 08:08:48	
Lwlmax	88.2 dB	93.6 dB	105.5 dB	
	2024-12-03 08:21:47	2024-12-03 08:12:13	2024-12-03 08:20:36	
w = frequency weighting (A, C or Z)				
Community Noise	**LDN**	**LDay (07:00-22:00)**	**LNight (22:00-07:00)**	
	64.5 dB	64.5 dB	--- dB	
	LDEN	**LDay (07:00-19:00)**	**LEve (19:00-22:00)**	**LNight (22:00-07:00)**
	64.5 dB	64.5 dB	--- dB	--- dB
LCeq - LAeq	9.8 dB			
LAleq	68.0 dB			
Overload Count	0			
Overload Duration	00:00:00			
	A	**C**	**Z**	
Under Range Peak	50.0 dB	50.0 dB	62.0 dB	
Under Range Limit	24.0 dB	27.0 dB	37.0 dB	
Noise Floor	17.0 dB	18.0 dB	25.0 dB	

Ln Percentiles

LAS 5.0	69.8 dB
LAS 10.0	67.9 dB
LAS 33.3	64.0 dB
LAS 50.0	60.5 dB
LAS 66.6	57.7 dB
LAS 90.0	54.3 dB

Exceedances	Count	Duration
LAS > 85 dB	0	0
LAS > 95 dB	0	0
LApk > 135 dB	0	0
LApk > 137 dB	0	0
LApk > 140 dB	0	0

Sound Exposure	
SELA	95.4 dB
EA (Pa²s)	1.4 Pa²s
EA,8 h (Pa²s)	32.7 Pa²s
EA,40 h (Pa²s)	163.7 Pa²s
EA (Pa²h)	0.0 Pa²h
EA,8 h (Pa²h)	0.0 Pa²h
EA,40 h (Pa²h)	0.0 Pa²h



LARSON DAVIS
A PCB DIVISION

SoundExpert 821 Summary: 2024-12-04 10:10:31

User:

Location:

Job Description:

Notes: Could not parse section, making sure you have the latest G4 installed may resolve this issue.

Meter General Information

	Model	Serial
Meter	SoundExpert 821	40344
Preamp	PRM821	001768
Microphone	377B02	356730
Unique File Id	00C:00009D98:674EF8E2:00000926	

Overall Measurement

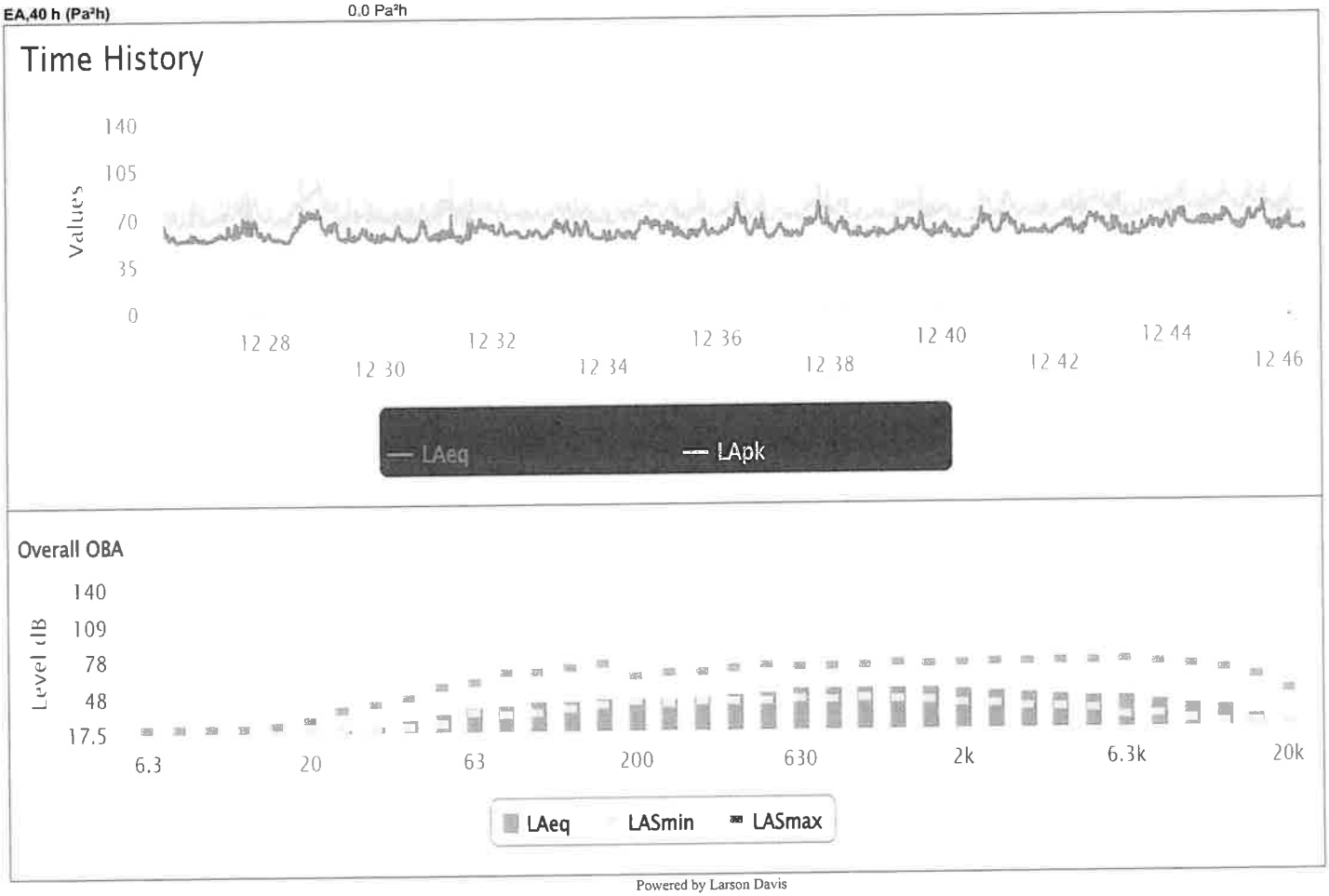
Start Date & Time	2024-12-03 12:26:10			
Stop Date & Time	2024-12-03 12:46:29			
Run Time	00:20:19			
Pre-Calibration				
Date/Time	2024-12-03 12:02:56			
Calibrator Level	114.0 dB			
Meter Sensitivity	-25.68 dB re 1V/Pa			
Post-Calibration				
Date/Time	2024-12-03 13:09:21			
Calibrator Level	114.0 dB			
Meter Sensitivity	-25.75 dB re 1V/Pa			
Sensitivity Delta	-0.07 dB			
LAleq	68.1 dB			
	A	**C**	**Z**	
Lweq	63.3	72.4	75.7	
Lwpk	100.2 dB 2024-12-03 12:28:38	99.5 dB 2024-12-03 12:37:58	102.1 dB 2024-12-03 12:28:38	
LwSmin	52.1 dB 2024-12-03 12:31:29	64.7 dB 2024-12-03 12:35:40	67.1 dB 2024-12-03 12:42:28	
LwSmax	78.8 dB 2024-12-03 12:28:38	87.5 dB 2024-12-03 12:37:59	91.3 dB 2024-12-03 12:31:23	
LwFmin	50.9 dB 2024-12-03 12:31:29	62.8 dB 2024-12-03 12:38:44	65.2 dB 2024-12-03 12:38:44	
LwFmax	85.7 dB 2024-12-03 12:28:38	91.9 dB 2024-12-03 12:37:58	96.5 dB 2024-12-03 12:31:23	
Lwlmin	53.1 dB 2024-12-03 12:28:23	67.1 dB 2024-12-03 12:35:30	69.1 dB 2024-12-03 12:42:29	
Lwlmax	88.6 dB 2024-12-03 12:28:38	93.4 dB 2024-12-03 12:37:58	98.9 dB 2024-12-03 12:31:23	
w = frequency weighting (A, C or Z)				
Community Noise	**LDN**	**LDay (07:00-22:00)**	**LNight (22:00-07:00)**	
	63.3 dB	63.3 dB	--- dB	
	LDEN	**LDay (07:00-19:00)**	**LEve (19:00-22:00)**	**LNight (22:00-07:00)**
	63.3 dB	63.3 dB	--- dB	--- dB
LCeq - LAeq	9.1 dB			
LAleq	68.1 dB			
Overload Count	0			
Overload Duration	00:00:00			
	A	**C**	**Z**	
Under Range Peak	50.0 dB	50.0 dB	62.0 dB	
Under Range Limit	24.0 dB	27.0 dB	37.0 dB	
Noise Floor	17.0 dB	18.0 dB	25.0 dB	

Ln Percentiles

LAS 5.0	68.8 dB
LAS 10.0	66.3 dB
LAS 33.3	61.3 dB
LAS 50.0	58.6 dB
LAS 66.6	56.6 dB
LAS 90.0	54.0 dB

Exceedances	Count	Duration
LAS > 85 dB	0	0
LAS > 95 dB	0	0
LApk > 135 dB	0	0
LApk > 137 dB	0	0
LApk > 140 dB	0	0

Sound Exposure	
SELA	94.2 dB
EA (Pa²s)	1.1 Pa²s
EA,8 h (Pa²s)	24.9 Pa²s
EA,40 h (Pa²s)	124.5 Pa²s
EA (Pa²h)	0.0 Pa²h
EA,8 h (Pa²h)	0.0 Pa²h
EA,40 h (Pa²h)	0.0 Pa²h



Powered by Larson Davis

LARSON DAVIS
A PCB DIVISION

SoundExpert 821 Summary: 2024-12-04 10:08:05

User:

Location:

Job Description:

Notes: Could not parse section, making sure you have the latest G4 installed may resolve this issue.

Meter General Information

	Model	Serial
Meter	SoundExpert 821	40344
Preamp	PRM821	001768
Microphone	377B02	356730
Unique File Id	00C:00009D98:674F37C9:00000959	

Overall Measurement

Start Date & Time	2024-12-03 16:54:33
Stop Date & Time	2024-12-03 17:14:38
Run Time	00:20:05
Pre-Calibration	
Date/Time	2024-12-03 16:29:40
Calibrator Level	114.0 dB
Meter Sensitivity	-25.75 dB re 1V/Pa
Post-Calibration	
Date/Time	2024-12-03 17:36:11
Calibrator Level	114.0 dB
Meter Sensitivity	-25.87 dB re 1V/Pa
Sensitivity Delta	-0.12 dB
LAleq	71.1 dB

	A	C	Z
Lweq	66.1	76.0	79.4
Lwpk	107.4 dB 2024-12-03 17:08:09	108.2 dB 2024-12-03 16:55:44	108.3 dB 2024-12-03 16:55:44
LwSmin	52.9 dB 2024-12-03 17:03:01	66.3 dB 2024-12-03 17:09:47	69.8 dB 2024-12-03 17:09:51
LwSmax	88.7 dB 2024-12-03 16:55:44	96.0 dB 2024-12-03 16:55:44	96.1 dB 2024-12-03 16:55:44
LwFmin	51.7 dB 2024-12-03 17:02:54	64.1 dB 2024-12-03 17:09:47	67.5 dB 2024-12-03 17:13:10
LwFmax	92.6 dB 2024-12-03 16:55:44	99.3 dB 2024-12-03 16:55:44	99.4 dB 2024-12-03 16:55:44
Lwlmin	53.8 dB 2024-12-03 17:03:01	68.7 dB 2024-12-03 17:09:50	72.7 dB 2024-12-03 17:11:01
Lwlmax	93.9 dB 2024-12-03 17:08:09	100.1 dB 2024-12-03 16:55:44	100.2 dB 2024-12-03 16:55:44

w = frequency weighting (A, C or Z)

Community Noise	**LDN**	**LDay (07:00-22:00)**	**LNight (22:00-07:00)**	
	66.1 dB	66.1 dB	--- dB	
	LDEN	**LDay (07:00-19:00)**	**LEve (19:00-22:00)**	**LNight (22:00-07:00)**
	66.1 dB	66.1 dB	--- dB	--- dB

LCeq - LAeq	9.9 dB
LAleq	71.1 dB
Overload Count	0
Overload Duration	00:00:00

	A	C	Z
Under Range Peak	50.0 dB	50.0 dB	62.0 dB
Under Range Limit	24.0 dB	27.0 dB	37.0 dB
Noise Floor	17.0 dB	18.0 dB	25.0 dB

Ln Percentiles

LAS 5.0	68.8 dB
LAS 10.0	66.1 dB
LAS 33.3	61.4 dB
LAS 50.0	59.1 dB
LAS 66.6	57.3 dB
LAS 90.0	55.1 dB

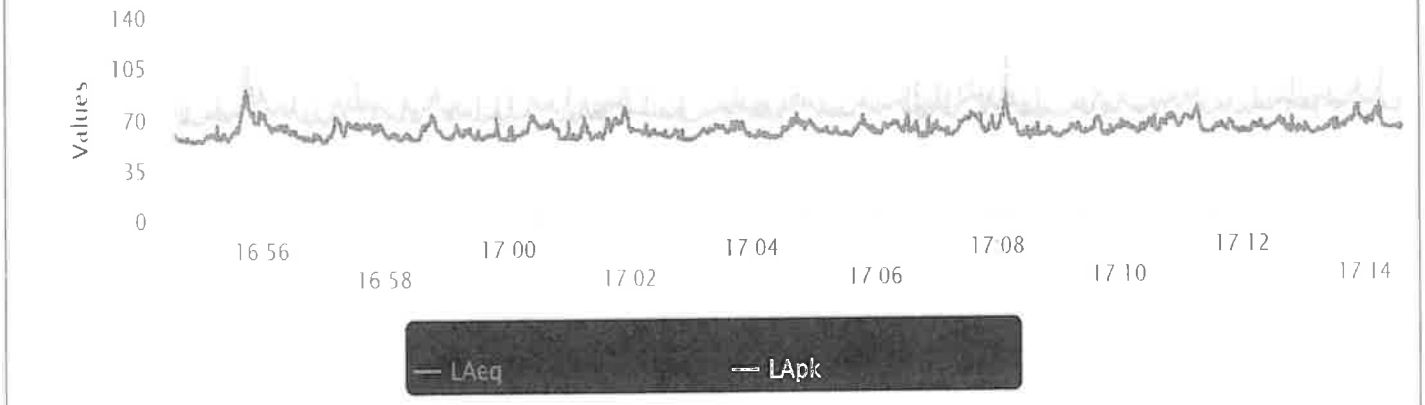
Exceedances

	Count	Duration
LAS > 85 dB	2	5
LAS > 95 dB	0	0
LApk > 135 dB	0	0
LApk > 137 dB	0	0
LApk > 140 dB	0	0

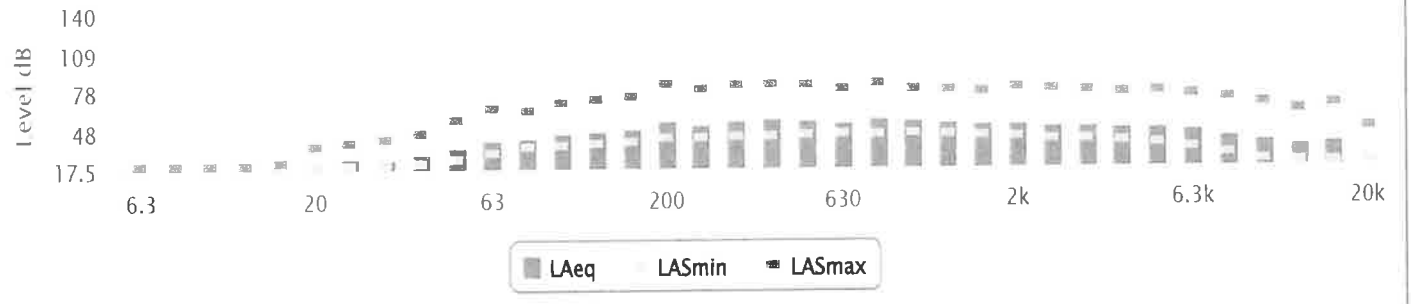
Sound Exposure

SELA	96.9 dB
EA (Pa²s)	2.0 Pa²s
EA,8 h (Pa²s)	47.2 Pa²s
EA,40 h (Pa²s)	236.0 Pa²s
EA (Pa²h)	0.0 Pa²h
EA,8 h (Pa²h)	0.0 Pa²h
EA,40 h (Pa²h)	0.1 Pa²h

Time History



Overall OBA



LARSON DAVIS
A PCB DIVISION

SoundExpert 821 Summary: 2024-12-04 10:19:24

User:

Location:

Job Description:

Notes: Could not parse section, making sure you have the latest G4 installed may resolve this issue.

Meter General Information

	Model	Serial
Meter	SoundExpert 821	40344
Preamp	PRM821	001768
Microphone	377B02	356730
Unique File Id	00C:00009D98:674EC0D6:00000904	

Overall Measurement

Start Date & Time	2024-12-03 08:27:02			
Stop Date & Time	2024-12-03 08:47:09			
Run Time	00:20:07			
Pre-Calibration				
Date/Time	2024-12-03 07:43:35			
Calibrator Level	114.0 dB			
Meter Sensitivity	-25.73 dB re 1V/Pa			
Post-Calibration				
Date/Time	2024-12-03 08:48:10			
Calibrator Level	114.0 dB			
Meter Sensitivity	-25.75 dB re 1V/Pa			
Sensitivity Delta	-0.02 dB			
LAleq	67.4 dB			
	A	**C**	**Z**	
Lweq	61.6	71.4	74.3	
Lwpk	104.3 dB 2024-12-03 08:30:39	103.4 dB 2024-12-03 08:40:48	103.2 dB 2024-12-03 08:40:48	
LwSmin	50.8 dB 2024-12-03 08:34:28	62.4 dB 2024-12-03 08:33:58	65.2 dB 2024-12-03 08:32:56	
LwSmax	76.3 dB 2024-12-03 08:28:42	83.3 dB 2024-12-03 08:37:39	87.4 dB 2024-12-03 08:31:56	
LwFmin	50.0 dB 2024-12-03 08:34:24	60.6 dB 2024-12-03 08:32:29	63.8 dB 2024-12-03 08:32:52	
LwFmax	82.6 dB 2024-12-03 08:28:42	86.5 dB 2024-12-03 08:37:39	89.3 dB 2024-12-03 08:31:55	
LwImin	51.9 dB 2024-12-03 08:34:27	64.6 dB 2024-12-03 08:33:58	68.0 dB 2024-12-03 08:33:02	
LwImax	84.6 dB 2024-12-03 08:46:55	88.8 dB 2024-12-03 08:40:48	91.7 dB 2024-12-03 08:31:54	

w = frequency weighting (A, C or Z)

Community Noise	**LDN**	**LDay (07:00-22:00)**	**LNight (22:00-07:00)**	
	61.6 dB	61.6 dB	--- dB	
	LDEN	**LDay (07:00-19:00)**	**LEve (19:00-22:00)**	**LNight (22:00-07:00)**
	61.6 dB	61.6 dB	--- dB	--- dB
LCeq - LAeq	9.8 dB			
LAleq	67.4 dB			
Overload Count	0			
Overload Duration	00:00:00			
	A	**C**	**Z**	
Under Range Peak	50.0 dB	50.0 dB	62.0 dB	
Under Range Limit	24.0 dB	27.0 dB	37.0 dB	
Noise Floor	17.0 dB	18.0 dB	25.0 dB	

Ln Percentiles

LAS 5.0	66.9 dB
LAS 10.0	65.0 dB
LAS 33.3	60.1 dB
LAS 50.0	58.4 dB
LAS 66.6	56.9 dB
LAS 90.0	54.2 dB

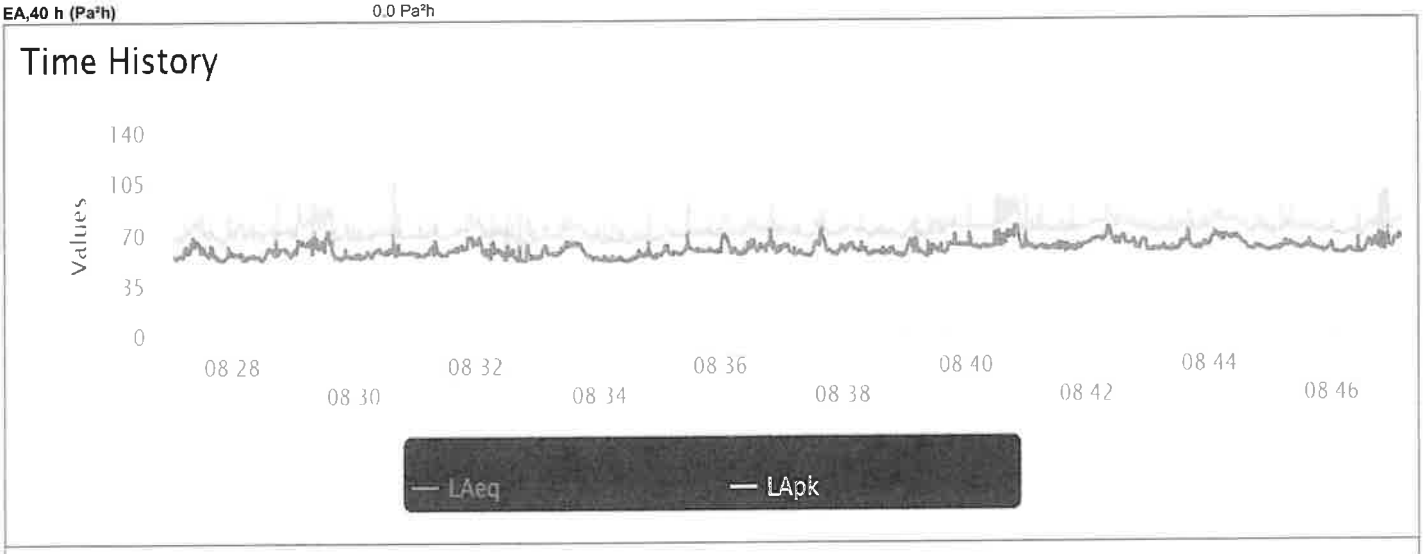
Exceedances

	Count	Duration
LAS > 85 dB	0	0
LAS > 95 dB	0	0
LApk > 135 dB	0	0
LApk > 137 dB	0	0
LApk > 140 dB	0	0

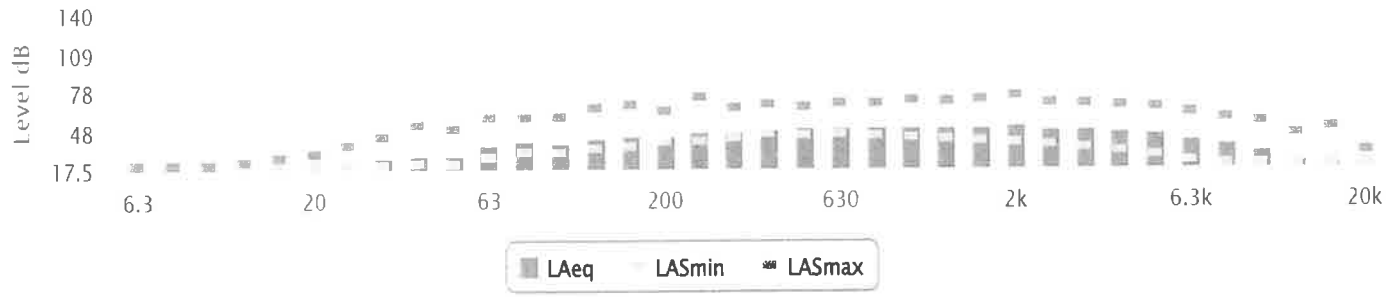
Sound Exposure

SELA	92.4 dB
EA (Pa²s)	0.7 Pa²s
EA,8 h (Pa²s)	16.7 Pa²s
EA,40 h (Pa²s)	83.5 Pa²s
EA (Pa²h)	0.0 Pa²h
EA,8 h (Pa²h)	0.0 Pa²h
EA,40 h (Pa²h)	0.0 Pa²h

Time History



Overall OBA



LARSON DAVIS
A PCB DIVISION

SoundExpert 821 Summary: 2024-12-04 10:09:32

User:

Location:

Job Description:

Notes: Could not parse section, making sure you have the latest G4 installed may resolve this issue.

Meter General Information

	Model	Serial
Meter	SoundExpert 821	40344
Preamp	PRM821	001768
Microphone	377B02	356730
Unique File Id	00C:00009D98:674EFE04:00000937	

Overall Measurement

Start Date & Time	2024-12-03 12:48:04			
Stop Date & Time	2024-12-03 13:08:17			
Run Time	00:20:05			
Pre-Calibration				
Date/Time	2024-12-03 12:02:56			
Calibrator Level	114.0 dB			
Meter Sensitivity	-25.68 dB re 1V/Pa			
Post-Calibration				
Date/Time	2024-12-03 13:09:21			
Calibrator Level	114.0 dB			
Meter Sensitivity	-25.75 dB re 1V/Pa			
Sensitivity Delta	-0.07 dB			
LAleq	67.1 dB			
	A	**C**	**Z**	
Lweq	61.6	71.0	74.0	
Lwpk	93.3 dB 2024-12-03 12:53:09	95.7 dB 2024-12-03 13:03:13	99.5 dB 2024-12-03 13:03:13	
LwSmin	51.8 dB 2024-12-03 12:55:31	62.8 dB 2024-12-03 12:55:20	66.1 dB 2024-12-03 12:55:21	
LwSmax	77.3 dB 2024-12-03 12:53:10	82.2 dB 2024-12-03 12:51:59	84.2 dB 2024-12-03 13:03:13	
LwFmin	50.4 dB 2024-12-03 12:55:31	61.3 dB 2024-12-03 12:55:30	63.8 dB 2024-12-03 12:55:20	
LwFmax	82.0 dB 2024-12-03 12:53:09	86.4 dB 2024-12-03 12:51:59	91.6 dB 2024-12-03 13:03:13	
LwImin	53.3 dB 2024-12-03 13:05:19	65.0 dB 2024-12-03 12:55:20	69.2 dB 2024-12-03 12:55:21	
LwImax	84.2 dB 2024-12-03 12:53:09	87.9 dB 2024-12-03 12:51:59	94.9 dB 2024-12-03 13:03:13	
w = frequency weighting (A, C or Z)				
Community Noise	**LDN**	**LDay (07:00-22:00)**	**LNight (22:00-07:00)**	
	61.6 dB	61.6 dB	--- dB	
	LDEN	**LDay (07:00-19:00)**	**LEve (19:00-22:00)**	**LNight (22:00-07:00)**
	61.6 dB	61.6 dB	--- dB	--- dB
LCeq - LAeq	9.4 dB			
LAleq	67.1 dB			
Overload Count	0			
Overload Duration	00:00:00			
	A	**C**	**Z**	
Under Range Peak	50.0 dB	50.0 dB	62.0 dB	
Under Range Limit	24.0 dB	27.0 dB	37.0 dB	
Noise Floor	17.0 dB	18.0 dB	25.0 dB	

Ln Percentiles

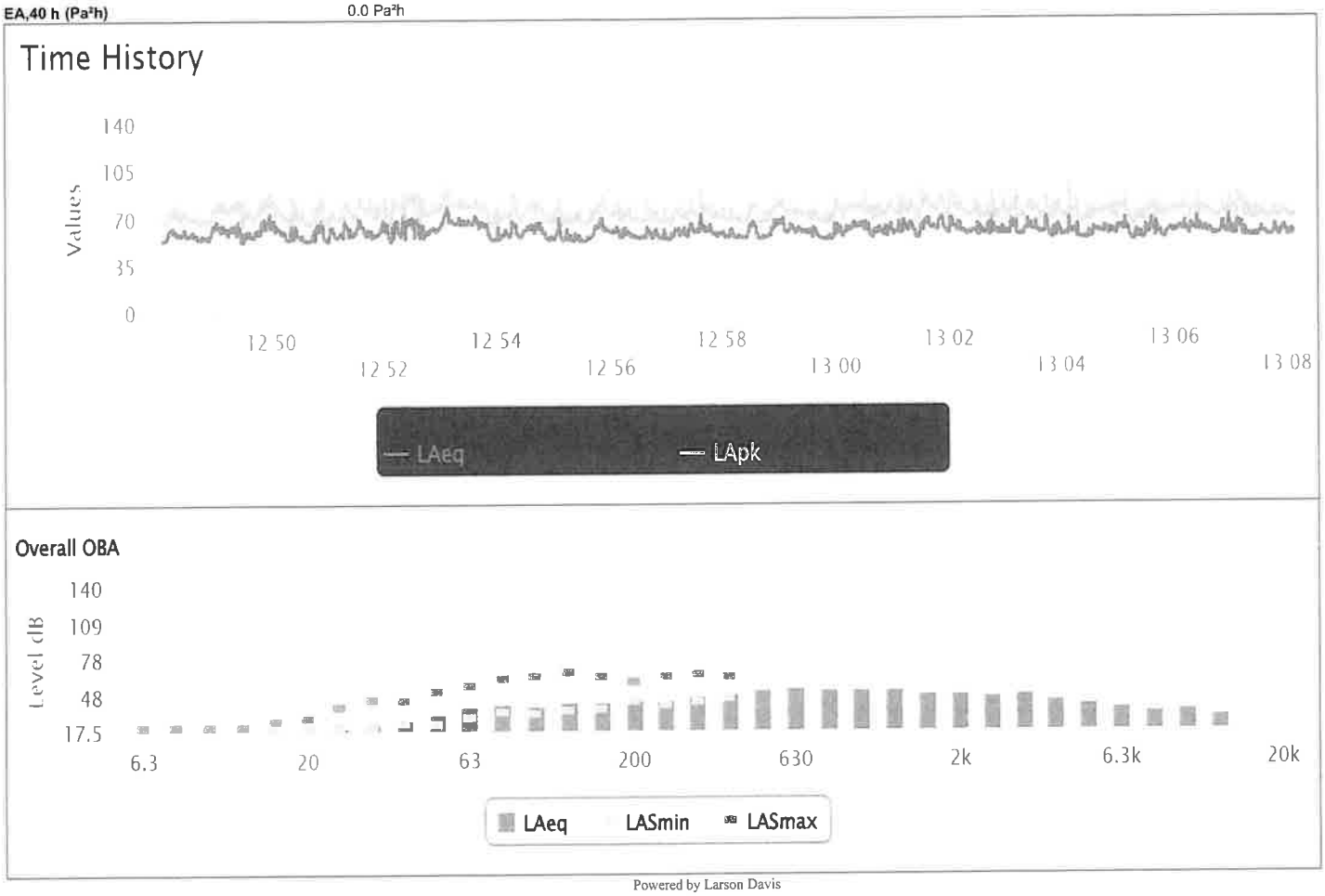
LAS 5.0	66.5 dB
LAS 10.0	65.0 dB
LAS 33.3	60.7 dB
LAS 50.0	59.0 dB
LAS 66.6	57.4 dB
LAS 90.0	54.5 dB

Exceedances

	Count	Duration
LAS > 85 dB	0	0
LAS > 95 dB	0	0
LApk > 135 dB	0	0
LApk > 137 dB	0	0
LApk > 140 dB	0	0

Sound Exposure

SELA	92.4 dB
EA (Pa²s)	0.7 Pa²s
EA,8 h (Pa²s)	16.6 Pa²s
EA,40 h (Pa²s)	83.2 Pa²s
EA (Pa²h)	0.0 Pa²h
EA,8 h (Pa²h)	0.0 Pa²h
EA,40 h (Pa²h)	0.0 Pa²h



LARSON DAVIS
A PCB DIVISION

SoundExpert 821 Summary: 2024-12-04 10:17:05

User:

Location:

Job Description:

Notes: Could not parse section, making sure you have the latest G4 installed may resolve this issue.

Meter General Information

	Model	Serial
Meter	SoundExpert 821	40344
Preamp	PRM821	001768
Microphone	377B02	356730
Unique File Id	00C:00009D98:674F3CBB:00000969	

Overall Measurement

Start Date & Time	2024-12-03 17:15:39			
Stop Date & Time	2024-12-03 17:35:44			
Run Time	00:20:05			
Pre-Calibration				
Date/Time	2024-12-03 16:29:40			
Calibrator Level	114.0 dB			
Meter Sensitivity	-25.75 dB re 1V/Pa			
Post-Calibration				
Date/Time	2024-12-03 17:36:11			
Calibrator Level	114.0 dB			
Meter Sensitivity	-25.87 dB re 1V/Pa			
Sensitivity Delta	-0.12 dB			
LAleq	63.1 dB			
	A	**C**	**Z**	
Lweq	57.9	72.5	77.9	
Lwpk	92.9 dB 2024-12-03 17:23:01	98.1 dB 2024-12-03 17:30:25	102.6 dB 2024-12-03 17:25:57	
LwSmin	46.8 dB 2024-12-03 17:17:57	63.6 dB 2024-12-03 17:22:48	67.8 dB 2024-12-03 17:22:19	
LwSmax	72.3 dB 2024-12-03 17:19:25	86.4 dB 2024-12-03 17:24:54	92.3 dB 2024-12-03 17:25:57	
LwFmin	46.0 dB 2024-12-03 17:23:47	60.8 dB 2024-12-03 17:22:19	65.0 dB 2024-12-03 17:22:17	
LwFmax	75.6 dB 2024-12-03 17:16:17	90.4 dB 2024-12-03 17:24:54	98.8 dB 2024-12-03 17:25:57	
Lwlmin	48.4 dB 2024-12-03 17:17:58	66.6 dB 2024-12-03 17:19:09	71.4 dB 2024-12-03 17:21:16	
Lwlmax	78.8 dB 2024-12-03 17:16:17	92.4 dB 2024-12-03 17:24:54	101.3 dB 2024-12-03 17:25:57	
w = frequency weighting (A, C or Z)				
Community Noise	**LDN**	**LDay (07:00-22:00)**	**LNight (22:00-07:00)**	
	57.9 dB	57.9 dB	--- dB	
	LDEN	**LDay (07:00-19:00)**	**LEve (19:00-22:00)**	**LNight (22:00-07:00)**
	57.9 dB	57.9 dB	--- dB	--- dB
LCeq - LAeq	14.6 dB			
LAleq	63.1 dB			
Overload Count	0			
Overload Duration	00:00:00			
	A	**C**	**Z**	
Under Range Peak	50.0 dB	50.0 dB	62.0 dB	
Under Range Limit	24.0 dB	27.0 dB	37.0 dB	
Noise Floor	17.0 dB	18.0 dB	25.0 dB	

Ln Percentiles

LAS 5.0	62.8 dB
LAS 10.0	61.1 dB
LAS 33.3	56.9 dB
LAS 50.0	54.9 dB
LAS 66.6	53.3 dB
LAS 90.0	51.1 dB

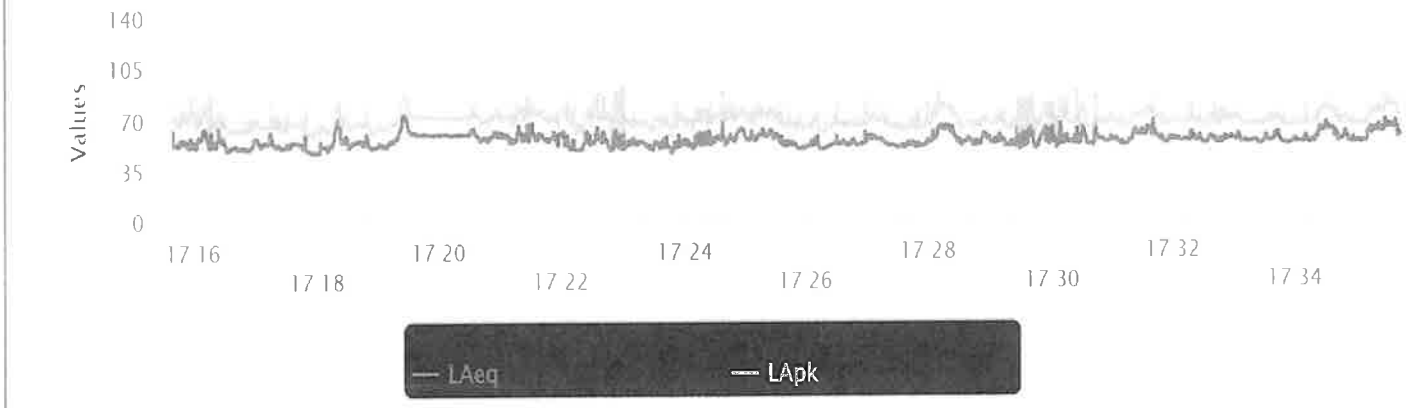
Exceedances

	Count	Duration
LAS > 85 dB	0	0
LAS > 95 dB	0	0
LApk > 135 dB	0	0
LApk > 137 dB	0	0
LApk > 140 dB	0	0

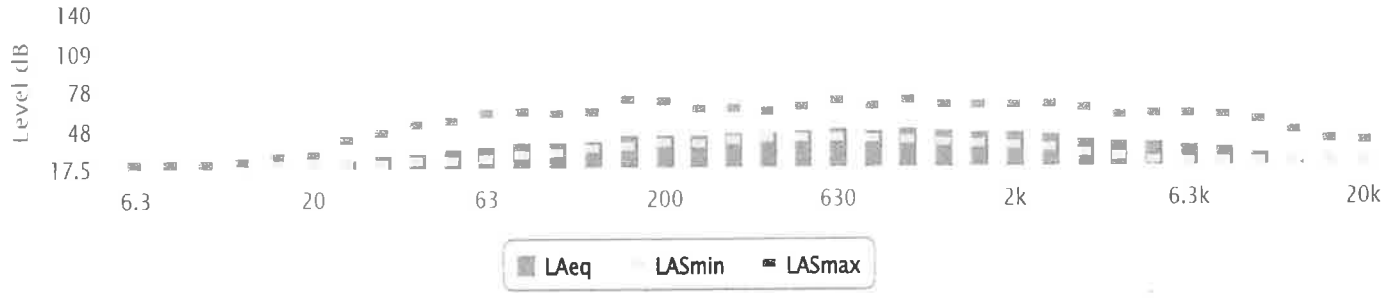
Sound Exposure

SELA	88.7 dB
EA (Pa²s)	0.3 Pa²s
EA,8 h (Pa²s)	7.1 Pa²s
EA,40 h (Pa²s)	35.6 Pa²s
EA (Pa²h)	0.0 Pa²h
EA,8 h (Pa²h)	0.0 Pa²h
EA,40 h (Pa²h)	0.0 Pa²h

Time History



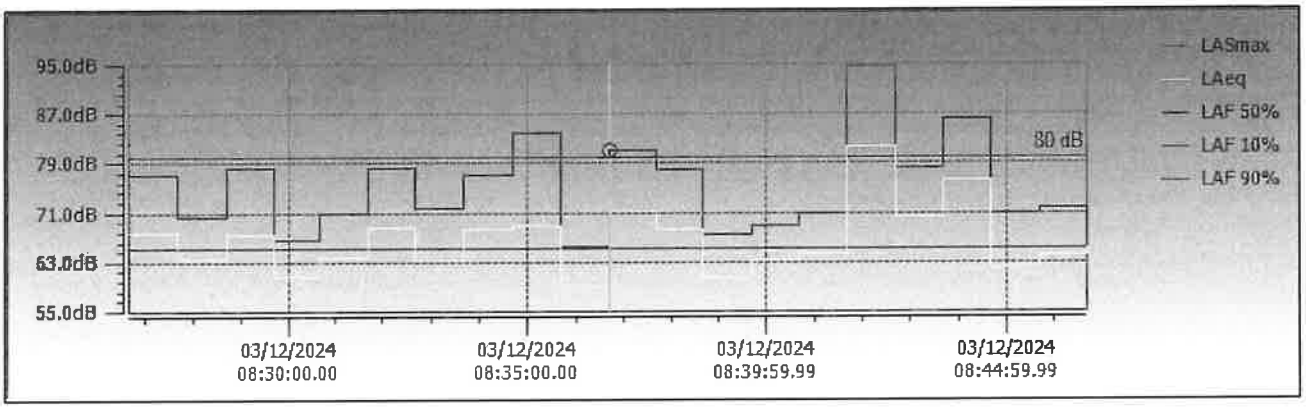
Overall OBA



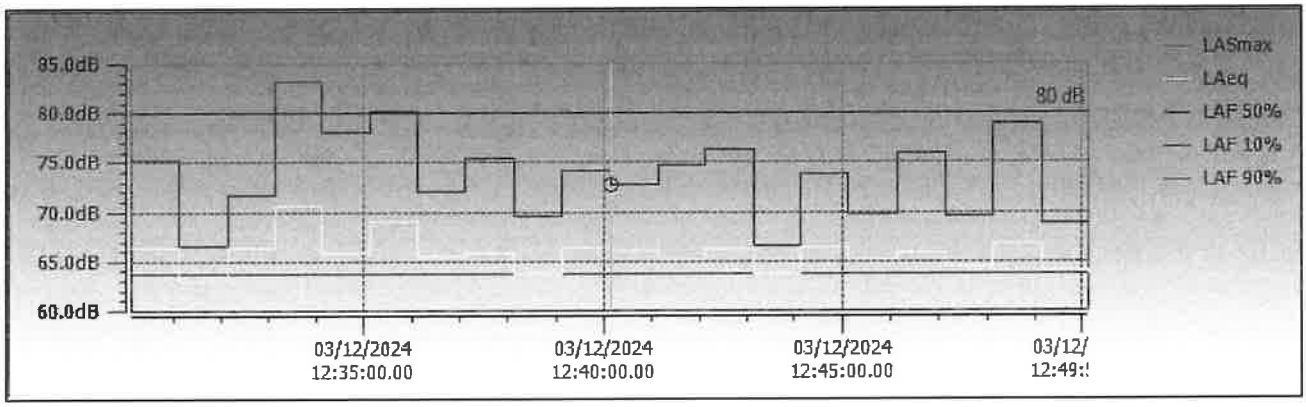
Casella CEL Ltd.

Report On CEL-63X

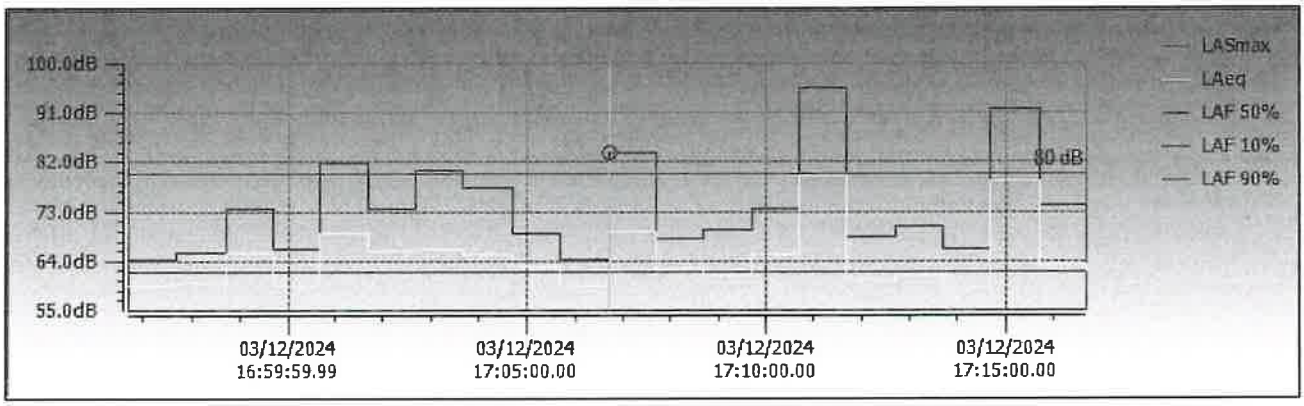
Instrument Model	**CEL-633C**		
Serial Number	5086866	LASmin	56.4 dB
Start Date & Time	12/3/2024 8:26:40 AM	LAeq	71.4 dB
End Date & Time	12/3/2024 8:46:41 AM	LAS 10%	70.5 dB
Duration	00:20:01 HH:MM:SS	LAS 50%	61 dB
Pause Duration	00:00:00 HH:MM:SS	LAS 90%	58 dB
Calibration (Before) Date	12/3/2024 7:59:15 AM	LDN	0
Calibration (After) Date	12/3/2024 8:49:48 AM	Result	Cumulative
LASmax	96.9 dB		



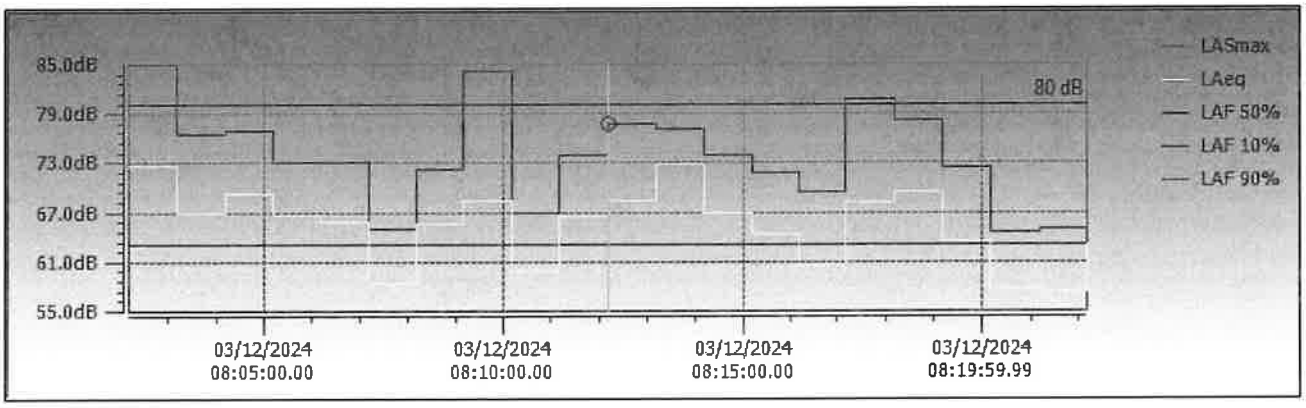
Instrument Model	CEL-633C		
Serial Number	5086866	LASmin	60.8 dB
Start Date & Time	12/3/2024 12:30:07 PM	LAeq	66.2 dB
End Date & Time	12/3/2024 12:50:11 PM	LAS 10%	67.5 dB
Duration	00:20:04 HH:MM:SS	LAS 50%	64 dB
Pause Duration	00:00:00 HH:MM:SS	LAS 90%	63 dB
Calibration (Before) Date	12/3/2024 12:03:05 PM	LDN	0
Calibration (After) Date	12/3/2024 12:51:21 PM	Result	Cumulative
LASmax	88.2 dB		



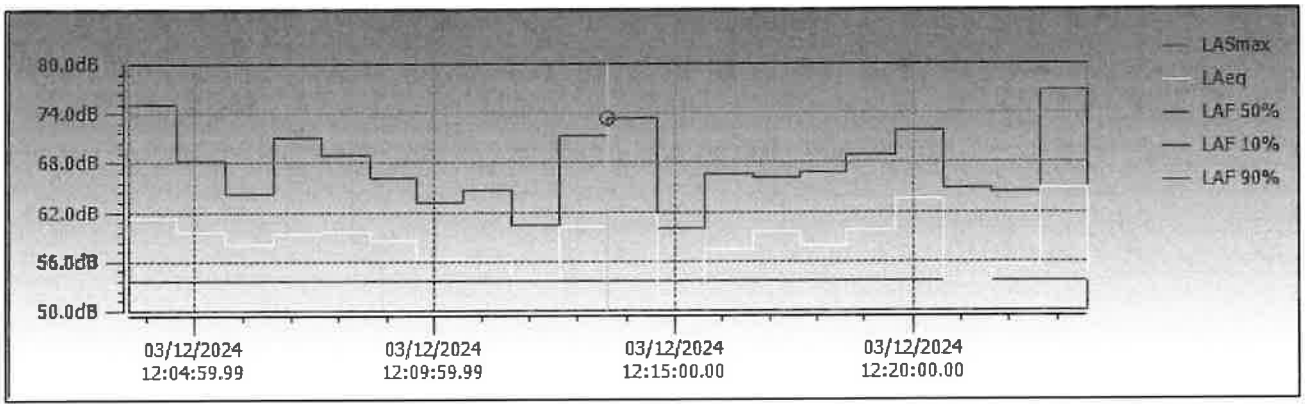
Instrument Model	CEL-633C		
Serial Number	5086866	LASmin	52.6 dB
Start Date & Time	12/3/2024 4:56:41 PM	LAeq	70.3 dB
End Date & Time	12/3/2024 5:16:49 PM	LAS 10%	66.5 dB
Duration	00:20:08 HH:MM:SS	LAS 50%	59.5 dB
Pause Duration	00:00:00 HH:MM:SS	LAS 90%	56 dB
Calibration (Before) Date	12/3/2024 4:33:49 PM	LDN	0
Calibration (After) Date	12/3/2024 5:17:45 PM	Result	Cumulative
LASmax	100.1 dB		



Instrument Model	CEL-633C		
Serial Number	5086866	LASmin	47.6 dB
Start Date & Time	12/3/2024 8:02:10 AM	LAeq	67.4 dB
End Date & Time	12/3/2024 8:22:11 AM	LAS 10%	71.5 dB
Duration	00:20:01 HH:MM:SS	LAS 50%	60 dB
Pause Duration	00:00:00 HH:MM:SS	LAS 90%	53 dB
Calibration (Before) Date	12/3/2024 7:59:15 AM	LDN	0
Calibration (After) Date	12/3/2024 8:49:48 AM	Result	Cumulative
LASmax	90.6 dB		



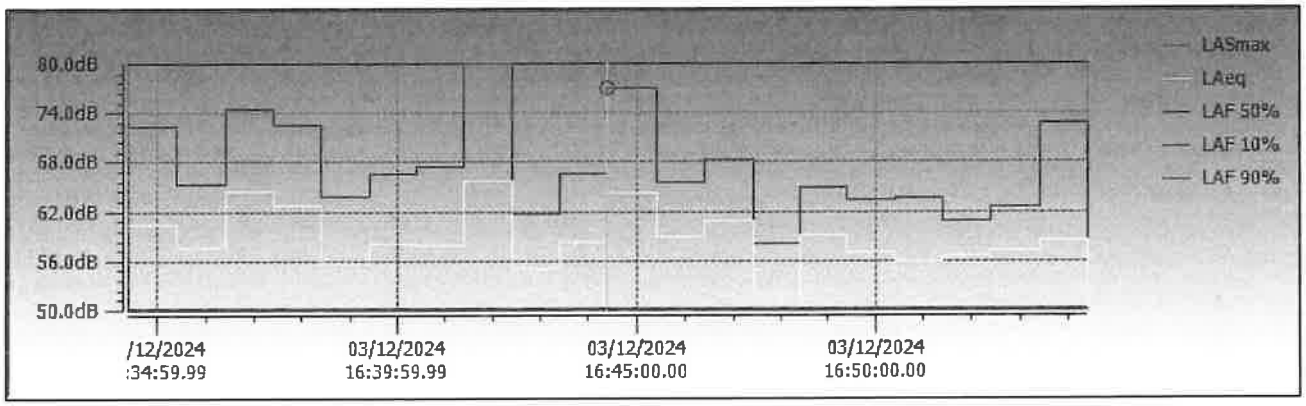
Instrument Model	CEL-633C		
Serial Number	5086866	LASmin	45.9 dB
Start Date & Time	12/3/2024 12:03:37 PM	LAeq	59.5 dB
End Date & Time	12/3/2024 12:23:43 PM	LAS 10%	62.5 dB
Duration	00:20:06 HH:MM:SS	LAS 50%	54 dB
Pause Duration	00:00:00 HH:MM:SS	LAS 90%	48.5 dB
Calibration (Before) Date	12/3/2024 12:03:05 PM	LDN	0
Calibration (After) Date	12/3/2024 12:51:21 PM	Result	Cumulative
LASmax	80.4 dB		



Casella CEL Ltd.

Report On CEL-63X

Instrument Model	**CEL-633C**		
Serial Number	5086866	LASmin	45.3 dB
Start Date & Time	12/3/2024 4:34:24 PM	LAeq	60.1 dB
End Date & Time	12/3/2024 4:54:38 PM	LAS 10%	62.5 dB
Duration	00:20:14 HH:MM:SS	LAS 50%	54.5 dB
Pause Duration	00:00:00 HH:MM:SS	LAS 90%	49 dB
Calibration (Before) Date	12/3/2024 4:33:49 PM	LDN	0
Calibration (After) Date	12/3/2024 5:17:45 PM	Result	Cumulative
LASmax	83.2 dB		



Calibration Certificate

Certificate Number 2024013619

Customer:

GZA GeoEnvironmental Inc.
55 Lane Rd
Suite 407
Fairfield NJ 07004

Model Number	SoundExpert 821		***Procedure Number***	D0001.8465	
Serial Number	40345		***Technician***	Sean Childs	
Test Results	**Pass**		***Calibration Date***	2024-09-18	
Initial Condition	Inoperable		***Calibration Due***		
			Temperature	23.18 °C	± 0.25 °C
Description	SoundExpert 821		***Humidity***	53.1 %RH	± 2.0 %RH
	Class 1 Sound Level Meter		***Static Pressure***	85.95 kPa	± 0.13 kPa
	Firmware Revision: 1.300R17				

Evaluation Method Tested electrically using Larson Davis PRM821 S/N 001769 and a 12.0 pF capacitor to simulate microphone capacitance. Data reported in dB re 20 µPa assuming a microphone sensitivity of 50.0 mV/Pa.

Compliance Standards Compliant to Manufacturer Specifications and the following standards when combined with Calibration Certificate from procedure D0001.8468:

IEC 60651:2001 Type 1	ANSI S1.4-2014 Class 1
IEC 60804:2000 Type 1	ANSI S1.4 (R2006) Type 1
IEC 61252:2002	ANSI S1.25 (R2007)
IEC 61672:2013 Class 1	ANSI S1.43 (R2007) Type 1

Issuing lab certifies that the instrument described above meets or exceeds all specifications as stated in the referenced procedure (unless otherwise noted). The results documented in this certificate relate only to the item(s) calibrated or tested. It has been calibrated using measurement standards traceable to the International System of Units (SI) through the National Institute of Standards and Technology (NIST), or other national measurement institutes, and meets the requirements of ISO/IEC 17025:2017. **Test points marked with a ‡ in the uncertainties column do not fall within this laboratory's scope of accreditation.**

The quality system is registered to ISO 9001:2015.

This calibration is a direct comparison of the unit under test to the listed reference standards and did not involve any sampling plans to complete. No allowance has been made for the instability of the test device due to use, time, etc. Such allowances would be made by the customer as needed.

The uncertainties were computed in accordance with the ISO Guide to the Expression of Uncertainty in Measurement (GUM). A coverage factor of approximately 2 sigma (k=2) has been applied to the standard uncertainty to express the expanded uncertainty at approximately 95% confidence level.

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Correction data from Larson Davis SoundExpert 721/821 Manual, I821.01 Rev B

Calibration Check Frequency: 1000 Hz; Reference Sound Pressure Level: 114 dB re 20 µPa

Periodic tests were performed in accordance with procedures from IEC 61672-3:2013 / ANSI/ASA S1.4-2014/Part3.

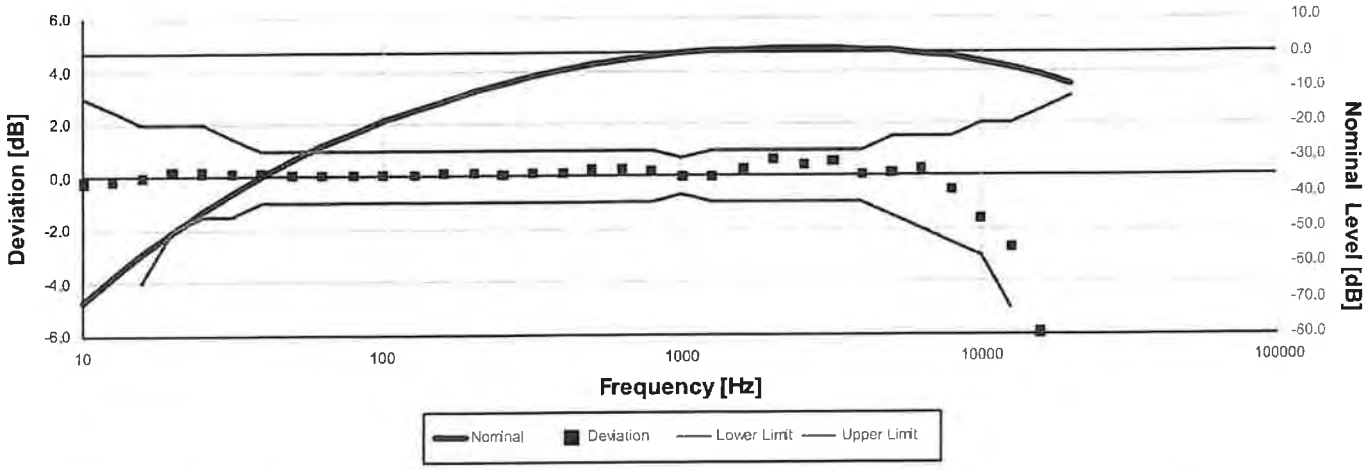
No Pattern approval for IEC 61672-1:2013 / ANSI/ASA S1.4-2014/Part 1 available.

The sound level meter submitted for testing successfully completed the periodic tests of IEC 61672-3:2013 / ANSI/ASA S1.4-2014/Part 3, for the environmental conditions under which the tests were performed. However, no general statement or conclusion can be made about conformance of the sound level meter to the full specifications of IEC 61672-1:2013 / ANSI/ASA S1.4-2014/Part 1 because (a) evidence was not publicly available, from an independent testing organization responsible for pattern approvals, to demonstrate that the model of sound level meter fully conformed to the class 1 specifications in IEC 61672-1:2013 / ANSI/ASA S1.4-2014/Part 1 or correction data for acoustical test of frequency weighting were not provided in the Instruction Manual and (b) because the periodic tests of IEC 61672-3:2013 / ANSI/ASA S1.4-2014/Part 3 cover only a limited subset of the specifications in IEC 61672-1:2013 / ANSI/ASA S1.4-2014/Part 1.

Standards Used

Description	Cal Date	Cal Due	Cal Standard
Larson Davis 1/2" Preamplifier for Model 831 Type 1	2024-05-22	2025-05-22	0000354
Hart Scientific 2626-S Humidity/Temperature Sensor	2024-05-07	2025-11-07	006943
PCB 377A13 1/2 inch Prepolarized Pressure Microphone	2024-03-11	2025-03-11	007081
SRS DS360 Ultra Low Distortion Generator	2023-08-24	2024-09-27	007710
Larson Davis CAL200 Acoustic Calibrator	2024-04-15	2025-04-15	007784
Larson Davis Model 831	2024-01-26	2025-01-26	007867
TMS 9917C-LD Microphone Comparison Calibrator	2024-02-21	2025-02-21	007870

A-weight Filter Response

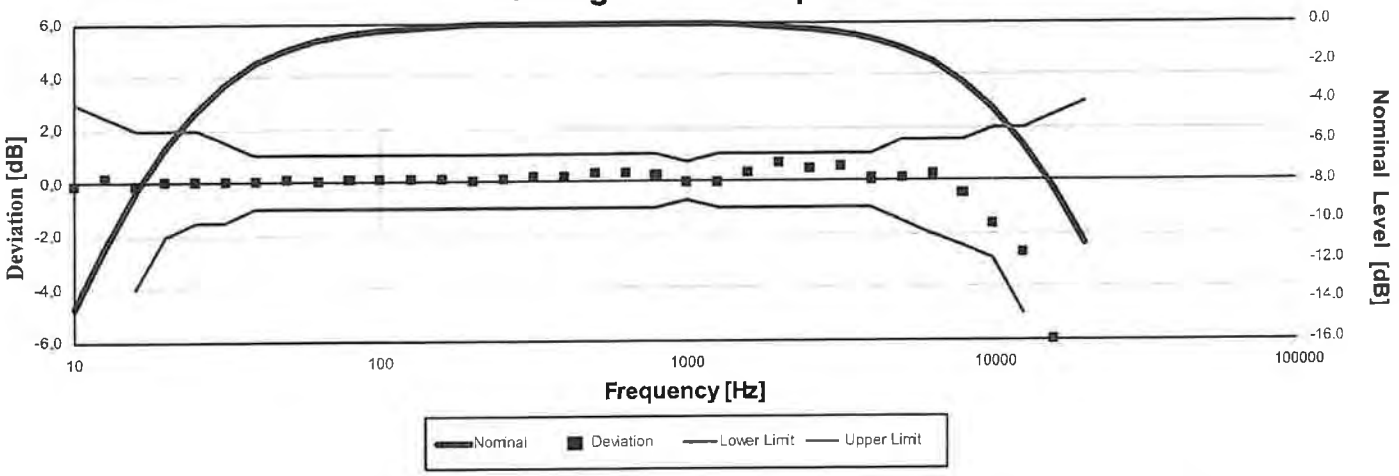


Test performed with FF:FF microphone correction filter enabled. Electrical signal test of frequency weighting performed according to IEC 61672-3:2013 13 and ANSI S1.4-2014 Part 3: 13 for compliance to IEC 61672-1:2013 5.5; IEC 60651:2001 6.1 and 9.2.2; IEC 60804:2000 5; ANSI S1.4:1983 (R2006) 5.1 and 8.2.1; ANSI S1.4-2014 Part 1: 5.5

Frequency [Hz]	Test Result [dB]	Deviation [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
10.00	-70.58	-0.18	-inf	3.00	0.15	Pass
12.59	-63.56	-0.16	-inf	2.50	0.15	Pass
15.85	-56.68	0.02	-4.00	2.00	0.15	Pass
19.95	-50.27	0.23	-2.00	2.00	0.15	Pass
25.12	-44.52	0.18	-1.50	2.00	0.15	Pass
31.62	-39.23	0.17	-1.50	1.50	0.15	Pass
39.81	-34.46	0.14	-1.00	1.00	0.15	Pass
50.12	-30.10	0.10	-1.00	1.00	0.15	Pass
63.10	-26.10	0.10	-1.00	1.00	0.29	Pass
79.43	-22.42	0.08	-1.00	1.00	0.29	Pass
100.00	-19.04	0.06	-1.00	1.00	0.29	Pass
125.89	-16.02	0.08	-1.00	1.00	0.29	Pass
158.49	-13.27	0.13	-1.00	1.00	0.29	Pass
199.53	-10.78	0.12	-1.00	1.00	0.29	Pass
251.19	-8.53	0.07	-1.00	1.00	0.29	Pass
316.23	-6.48	0.12	-1.00	1.00	0.29	Pass
398.11	-4.67	0.13	-1.00	1.00	0.29	Pass
501.19	-2.95	0.25	-1.00	1.00	0.29	Pass
630.96	-1.62	0.28	-1.00	1.00	0.29	Pass
794.33	-0.59	0.21	-1.00	1.00	0.29	Pass
1,000.00	0.00	0.00	-0.70	0.70	0.29	Pass
1,258.93	0.61	0.01	-1.00	1.00	0.29	Pass
1,584.89	1.32	0.32	-1.00	1.00	0.29	Pass
1,995.26	1.87	0.67	-1.00	1.00	0.29	Pass
2,511.89	1.73	0.43	-1.00	1.00	0.38	Pass
3,162.28	1.78	0.58	-1.00	1.00	0.38	Pass
3,981.07	1.06	0.06	-1.00	1.00	0.38	Pass
5,011.87	0.66	0.16	-1.50	1.50	0.47	Pass
6,309.57	0.16	0.26	-2.00	1.50	0.47	Pass
7,943.28	-1.59	-0.49	-2.50	1.50	0.47	Pass
10,000.00	-4.11	-1.61	-3.00	2.00	0.57	Pass
12,589.25	-7.01	-2.71	-5.00	2.00	0.57	Pass
15,848.93	-12.54	-5.94	-16.00	2.50	1.00	Pass
19,952.62	-24.14	-14.84	-inf	3.00	1.00	Pass

-- End of measurement results--

C-weight Filter Response

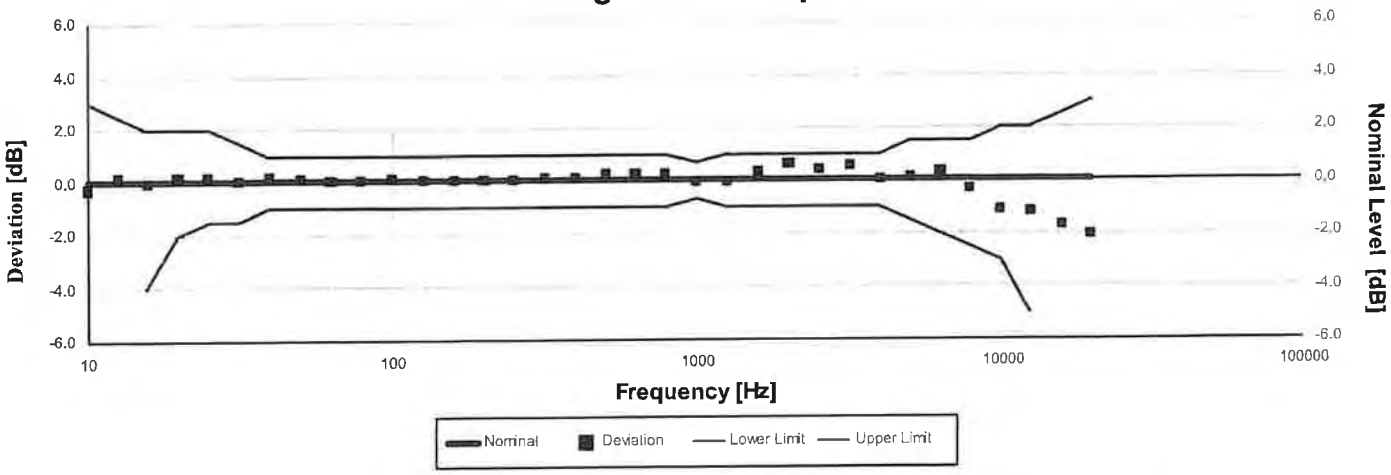


Test performed with FF:FF microphone correction filter enabled. Electrical signal test of frequency weighting performed according to IEC 61672-3:2013 13 and ANSI S1.4-2014 Part 3: 13 for compliance to IEC 61672-1:2013 5.5; IEC 60651:2001 6.1 and 9.2.2; IEC 60804:2000 5; ANSI S1.4:1983 (R2006) 5.1 and 8.2.1; ANSI S1.4-2014 Part 1: 5.5

Frequency [Hz]	Test Result [dB]	Deviation [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
10.00	-14.39	-0.09	-inf	3.00	0.15	Pass
12.59	-11.02	0.18	-inf	2.50	0.15	Pass
15.85	-8.60	-0.10	-4.00	2.00	0.15	Pass
19.95	-6.18	0.02	-2.00	2.00	0.15	Pass
25.12	-4.36	0.04	-1.50	2.00	0.15	Pass
31.62	-2.96	0.04	-1.50	1.50	0.15	Pass
39.81	-1.93	0.07	-1.00	1.00	0.15	Pass
50.12	-1.16	0.14	-1.00	1.00	0.15	Pass
63.10	-0.78	0.02	-1.00	1.00	0.29	Pass
79.43	-0.41	0.09	-1.00	1.00	0.29	Pass
100.00	-0.19	0.11	-1.00	1.00	0.29	Pass
125.89	-0.07	0.13	-1.00	1.00	0.29	Pass
158.49	0.03	0.13	-1.00	1.00	0.29	Pass
199.53	0.06	0.06	-1.00	1.00	0.29	Pass
251.19	0.10	0.10	-1.00	1.00	0.29	Pass
316.23	0.16	0.16	-1.00	1.00	0.29	Pass
398.11	0.18	0.18	-1.00	1.00	0.29	Pass
501.19	0.33	0.33	-1.00	1.00	0.29	Pass
630.96	0.32	0.32	-1.00	1.00	0.29	Pass
794.33	0.26	0.26	-1.00	1.00	0.29	Pass
1,000.00	0.00	0.00	-0.70	0.70	0.29	Pass
1,258.93	-0.01	-0.01	-1.00	1.00	0.29	Pass
1,584.89	0.26	0.36	-1.00	1.00	0.29	Pass
1,995.26	0.51	0.71	-1.00	1.00	0.29	Pass
2,511.89	0.16	0.46	-1.00	1.00	0.38	Pass
3,162.28	0.08	0.58	-1.00	1.00	0.38	Pass
3,981.07	-0.72	0.08	-1.00	1.00	0.38	Pass
5,011.87	-1.18	0.12	-1.50	1.50	0.47	Pass
6,309.57	-1.71	0.29	-2.00	1.50	0.47	Pass
7,943.28	-3.48	-0.48	-2.50	1.50	0.47	Pass
10,000.00	-6.02	-1.62	-3.00	2.00	0.57	Pass
12,589.25	-8.93	-2.73	-5.00	2.00	0.57	Pass
15,848.93	-14.47	-5.97	-16.00	2.50	1.00	Pass
19,952.62	-26.06	-14.86	-inf	3.00	1.00	Pass

-- End of measurement results--

Z-weight Filter Response



Test performed with FF:FF microphone correction filter enabled. Electrical signal test of frequency weighting performed according to IEC 61672-3:2013 13 and ANSI S1.4-2014 Part 3: 13 for compliance to IEC 61672-1:2013 5.5; IEC 60651:2001 6.1 and 9.2.2; IEC 60804:2000 5; ANSI S1.4:1983 (R2006) 5.1 and 8.2.1; ANSI S1.4-2014 Part 1: 5.5

Frequency [Hz]	Test Result [dB]	Deviation [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
10.00	-0.26	-0.26	-inf	3.00	0.15	Pass
12.59	0.22	0.22	-inf	2.50	0.15	Pass
15.85	-0.01	-0.01	-4.00	2.00	0.15	Pass
19.95	0.21	0.21	-2.00	2.00	0.15	Pass
25.12	0.20	0.20	-1.50	2.00	0.15	Pass
31.62	0.08	0.08	-1.50	1.50	0.15	Pass
39.81	0.19	0.19	-1.00	1.00	0.15	Pass
50.12	0.14	0.14	-1.00	1.00	0.15	Pass
63.10	0.06	0.06	-1.00	1.00	0.29	Pass
79.43	0.09	0.09	-1.00	1.00	0.29	Pass
100.00	0.11	0.11	-1.00	1.00	0.29	Pass
125.89	0.06	0.06	-1.00	1.00	0.29	Pass
158.49	0.09	0.09	-1.00	1.00	0.29	Pass
199.53	0.10	0.10	-1.00	1.00	0.29	Pass
251.19	0.10	0.10	-1.00	1.00	0.29	Pass
316.23	0.15	0.15	-1.00	1.00	0.29	Pass
398.11	0.15	0.15	-1.00	1.00	0.29	Pass
501.19	0.30	0.30	-1.00	1.00	0.29	Pass
630.96	0.29	0.29	-1.00	1.00	0.29	Pass
794.33	0.25	0.25	-1.00	1.00	0.29	Pass
1,000.00	0.00	0.00	-0.70	0.70	0.29	Pass
1,258.93	0.02	0.02	-1.00	1.00	0.29	Pass
1,584.89	0.34	0.34	-1.00	1.00	0.29	Pass
1,995.26	0.67	0.67	-1.00	1.00	0.29	Pass
2,511.89	0.45	0.45	-1.00	1.00	0.38	Pass
3,162.28	0.57	0.57	-1.00	1.00	0.38	Pass
3,981.07	0.08	0.08	-1.00	1.00	0.38	Pass
5,011.87	0.11	0.11	-1.50	1.50	0.47	Pass
6,309.57	0.32	0.32	-2.00	1.50	0.47	Pass
7,943.28	-0.30	-0.30	-2.50	1.50	0.47	Pass
10,000.00	-1.07	-1.07	-3.00	2.00	0.57	Pass
12,589.25	-1.14	-1.14	-5.00	2.00	0.57	Pass
15,848.93	-1.69	-1.69	-16.00	2.50	1.00	Pass
19,952.62	-2.02	-2.02	-inf	3.00	1.00	Pass

-- End of measurement results--

High Level Stability

Electrical signal test of high level stability performed according to IEC 61672-3:2013 21 and ANSI S1.4-2014 Part 3: 21 for compliance to IEC 61672-1:2013 5.15 and ANSI S1.4-2014 Part 1: 5.15

Measurement	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
High Level Stability	0.00	-0.10	0.10	0.01 ‡	Pass

– End of measurement results–

Long-Term Stability

Electrical signal test of long term stability performed according to IEC 61672-3:2013 15 and ANSI S1.4-2014 Part 3: 15 for compliance to ISC 61672-1:2013 5.14 and ANSI S1.4-2014 Part 1: 5.14

Test Duration [min]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
25	0.00	-0.10	0.10	0.01 ‡	Pass

– End of measurement results–

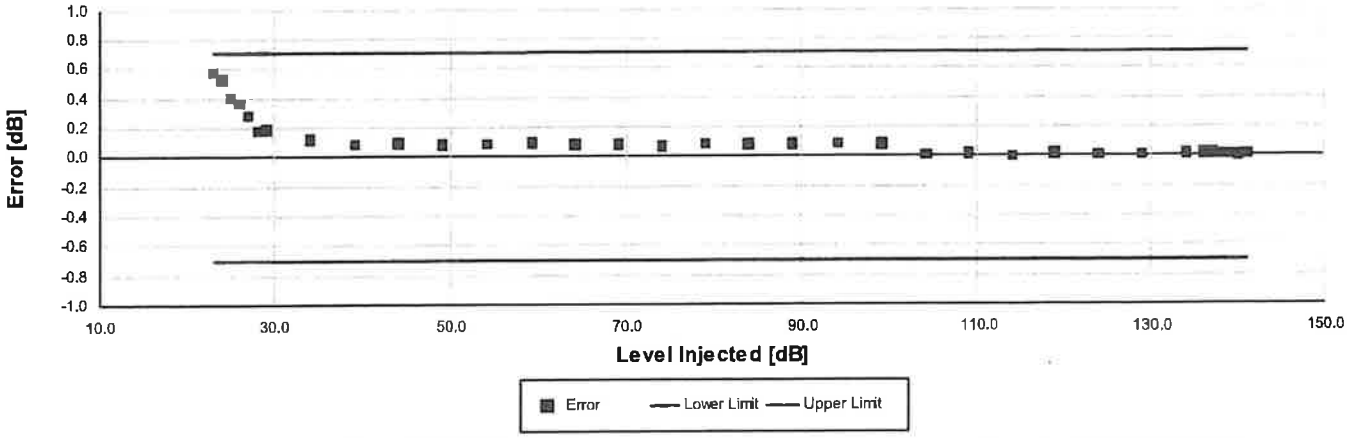
1 kHz Reference Levels

Frequency weightings and time weightings at 1 kHz (reference is A weighted Fast) performed according to IEC 61672-3:2013 14 and ANSI S1.4-2014 Part 3: 14 for compliance to IEC 61672-1:2013 5.5.9 and 5.8.3 and ANSI S1.4-2014 Part 1: 5.5.9 and 5.8.3

Measurement	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
peak C weight	0.01	-0.20	0.20	0.15	Pass
peak Z weight	0.01	-0.20	0.20	0.15	Pass
C weight	0.01	-0.20	0.20	0.15	Pass
Z weight	0.01	-0.20	0.20	0.15	Pass
Slow	0.00	-0.10	0.10	0.15	Pass
Impulse	0.00	-0.10	0.10	0.15	Pass

– End of measurement results–

A-weighted Broadband Log Linearity: 8,000.00 Hz



Broadband level linearity performed according to IEC 61672-3:2013 16 and ANSI S1.4-2014 Part 3: 16 for compliance to IEC 61672-1:2013 5.6, IEC 60804:2000 6.2, IEC 61252:2002 8, ANSI S1.4 (R2006) 6.9, ANSI S1.4-2014 Part 1: 5.6, ANSI S1.43 (R2007) 6.2

Level [dB]	Error [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
23.00	0.58	-0.70	0.70	0.16	Pass
24.00	0.53	-0.70	0.70	0.16	Pass
25.00	0.40	-0.70	0.70	0.16	Pass
26.00	0.36	-0.70	0.70	0.16	Pass
27.00	0.29	-0.70	0.70	0.16	Pass
28.00	0.18	-0.70	0.70	0.16	Pass
29.00	0.19	-0.70	0.70	0.16	Pass
34.00	0.13	-0.70	0.70	0.16	Pass
39.00	0.09	-0.70	0.70	0.16	Pass
44.00	0.10	-0.70	0.70	0.16	Pass
49.00	0.09	-0.70	0.70	0.16	Pass
54.00	0.09	-0.70	0.70	0.16	Pass
59.00	0.10	-0.70	0.70	0.16	Pass
64.00	0.08	-0.70	0.70	0.16	Pass
69.00	0.08	-0.70	0.70	0.16	Pass
74.00	0.07	-0.70	0.70	0.16	Pass
79.00	0.09	-0.70	0.70	0.16	Pass
84.00	0.08	-0.70	0.70	0.16	Pass
89.00	0.08	-0.70	0.70	0.16	Pass
94.00	0.09	-0.70	0.70	0.16	Pass
99.00	0.08	-0.70	0.70	0.16	Pass
104.00	0.01	-0.70	0.70	0.15	Pass
109.00	0.02	-0.70	0.70	0.15	Pass
114.00	0.00	-0.70	0.70	0.15	Pass
119.00	0.02	-0.70	0.70	0.15	Pass
124.00	0.01	-0.70	0.70	0.15	Pass
129.00	0.01	-0.70	0.70	0.15	Pass
134.00	0.02	-0.70	0.70	0.15	Pass
136.00	0.02	-0.70	0.70	0.15	Pass
137.00	0.02	-0.70	0.70	0.15	Pass
138.00	0.01	-0.70	0.70	0.15	Pass
139.00	0.02	-0.70	0.70	0.15	Pass
140.00	0.01	-0.70	0.70	0.15	Pass
141.00	0.01	-0.70	0.70	0.15	Pass

-- End of measurement results--

Slow Detector

Toneburst response performed according to IEC 61672-3:2013 18 and ANSI S1.4-2014 Part 3: 18 for compliance to IEC 61672-1:2013 5.9, IEC 60651:2001 9.4.2, ANSI S1.4:1983 (R2006) 8.4.2 and ANSI S1.4-2014 Part 1: 5.9

Amplitude [dB]	Duration [ms]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
137.00	200	-7.46	-7.92	-6.92	0.15	Pass
	2	-27.02	-29.99	-25.99	0.15	Pass

-- End of measurement results--

Fast Detector

Toneburst response performed according to IEC 61672-3:2013 18 and ANSI S1.4-2014 Part 3: 18 for compliance to IEC 61672-1:2013 5.9, IEC 60651:2001 9.4.2, ANSI S1.4:1983 (R2006) 8.4.2 and ANSI S1.4-2014 Part 1: 5.9

Amplitude [dB]	Duration [ms]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
137.00	200.00	-1.05	-1.48	-0.48	0.15	Pass
	2.00	-18.14	-19.49	-16.99	0.15	Pass
	0.25	-27.08	-29.99	-25.99	0.15	Pass

-- End of measurement results--

Sound Exposure Level

Toneburst response performed according to IEC 61672-3:2013 18 and ANSI S1.4-2014 Part 3: 18 for compliance to IEC 61672-1:2013 5.9, IEC 60651:2001 9.4.2, ANSI S1.4:1983 (R2006) 8.4.2 and ANSI S1.4-2014 Part 1: 5.9

Amplitude [dB]	Duration [ms]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
137.00	200.00	-7.01	-7.49	-6.49	0.15	Pass
	2.00	-27.04	-28.49	-25.99	0.15	Pass
	0.25	-36.15	-39.02	-35.02	0.15	Pass

-- End of measurement results--

Peak C-weight

C-weighted peak sound level performed according to IEC 61672-3:2013 19 and ANSI S1.4-2014 Part 3: 19 for compliance to IEC 61672-1:2013 5.13 and ANSI S1.4-2014 Part 1: 5.13

Level [dB]	Frequency [Hz]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
135.00	31.50	137.92	135.50	139.50	0.15	Pass
135.00	500.00	138.51	137.50	139.50	0.15	Pass
135.00	8,000.00	137.50	136.40	140.40	0.15	Pass
135.00, Negative	500.00	137.19	136.40	138.40	0.15	Pass
135.00, Positive	500.00	137.23	136.40	138.40	0.15	Pass

-- End of measurement results--

Overload Detector

Overload indication performed according to IEC 61672-3:2013 20 and ANSI S1.4-2014 Part 3: 20 for compliance to IEC 61672-1:2013 5.11, IEC 60804:2000 9.3.5, IEC 61252:2002 11, ANSI S1.4 (R2006) 5.8, and ANSI S1.4-2014 Part 1: 5.11, ANSI S1.25 (R2007) 7.6, ANSI S1.43 (R2007) 7

Measurement	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
Positive	142.01	140.50	142.50	0.15	Pass
Negative	141.91	140.50	142.50	0.15	Pass
Comparison	0.10	-1.50	1.50	0.15	Pass

-- End of measurement results--

Range

Measured in A-weight at 8000 Hz for compliance to IEC 61672-1:2013 5.6.4, IEC 60804:2000 6.2, IEC 61252:2002 8, ANSI S1.4 (R2006) 6.9, ANSI S1.4-2014 Part 1: 5.6.4, ANSI S1.43 (R2007) 6.2

Measurement	Measured Level [dB]	Lower limit [dB]	Expanded Uncertainty [dB]	Result
Primary Indicator Range	119.00	106.00	0.15	Pass
Dynamic Range	129.67	118.00	0.15	Pass

-- End of measurement results--

Gain

Gain measured according to IEC 61672-3:2013 17.3 and 17.4 and ANSI S1.4-2014 Part 3: 17.3 and 17.4

Measurement	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
0 dB Gain	93.56	93.20	94.80	0.15	Pass
0 dB Gain, Linearity	26.70	25.86	27.26	0.16	Pass

-- End of measurement results--

Broadband Noise Floor

Self-generated noise measured according to IEC 61672-3:2013 11.2 and ANSI S1.4-2014 Part 3: 11.2

Measurement	Test Result [dB]	Upper limit [dB]	Result
A-weight Noise Floor	12.33	14.50	Pass
C-weight Noise Floor	14.30	16.70	Pass
Z-weight Noise Floor	22.88	25.00	Pass

-- End of measurement results--

-- End of Report--

Signatory: *Sean Childs*

LARSON DAVIS – A PCB DIVISION
1681 West 820 North
Provo,UT 84601 United States
716-684-0001

ACCREDITED CERT #3622.01

LARSON DAVIS A PCB DIVISION

Calibration Certificate

Certificate Number 2024013706

Customer:

GZA GeoEnvironmental Inc.
55 Lane Rd
Suite 407
Fairfield NJ 07004

Model Number	SoundExpert 821	***Procedure Number***	D0001.8465		
Serial Number	40344	***Technician***	Sean Childs		
Test Results	**Pass**	***Calibration Date***	2024-09-19		
Initial Condition	AS RECEIVED same as shipped	***Calibration Due***			
		Temperature	23.14	°C	± 0.25 °C
Description	SoundExpert 821 Class 1 Sound Level Meter Firmware Revision: 1.300R17	***Humidity***	52.7	%RH	± 2.0 %RH
		Static Pressure	86.19	kPa	± 0.13 kPa

Evaluation Method Tested electrically using Larson Davis PRM821 S/N 001768 and a 12.0 pF capacitor to simulate microphone capacitance. Data reported in dB re 20 µPa assuming a microphone sensitivity of 50.0 mV/Pa.

Compliance Standards Compliant to Manufacturer Specifications and the following standards when combined with Calibration Certificate from procedure D0001.8468:

IEC 60651:2001 Type 1	ANSI S1.4-2014 Class 1
IEC 60804:2000 Type 1	ANSI S1.4 (R2006) Type 1
IEC 61252:2002	ANSI S1.25 (R2007)
IEC 61672:2013 Class 1	ANSI S1.43 (R2007) Type 1

Issuing lab certifies that the instrument described above meets or exceeds all specifications as stated in the referenced procedure (unless otherwise noted). The results documented in this certificate relate only to the item(s) calibrated or tested. It has been calibrated using measurement standards traceable to the International System of Units (SI) through the National Institute of Standards and Technology (NIST), or other national measurement institutes, and meets the requirements of ISO/IEC 17025:2017. **Test points marked with a ‡ in the uncertainties column do not fall within this laboratory's scope of accreditation.**

The quality system is registered to ISO 9001:2015.

This calibration is a direct comparison of the unit under test to the listed reference standards and did not involve any sampling plans to complete. No allowance has been made for the instability of the test device due to use, time, etc. Such allowances would be made by the customer as needed.

The uncertainties were computed in accordance with the ISO Guide to the Expression of Uncertainty in Measurement (GUM). A coverage factor of approximately 2 sigma (k=2) has been applied to the standard uncertainty to express the expanded uncertainty at approximately 95% confidence level.

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Correction data from Larson Davis SoundExpert 721/821 Manual, I821.01 Rev B

Calibration Check Frequency: 1000 Hz; Reference Sound Pressure Level: 114 dB re 20 µPa

Periodic tests were performed in accordance with procedures from IEC 61672-3:2013 / ANSI/ASA S1.4-2014/Part3.

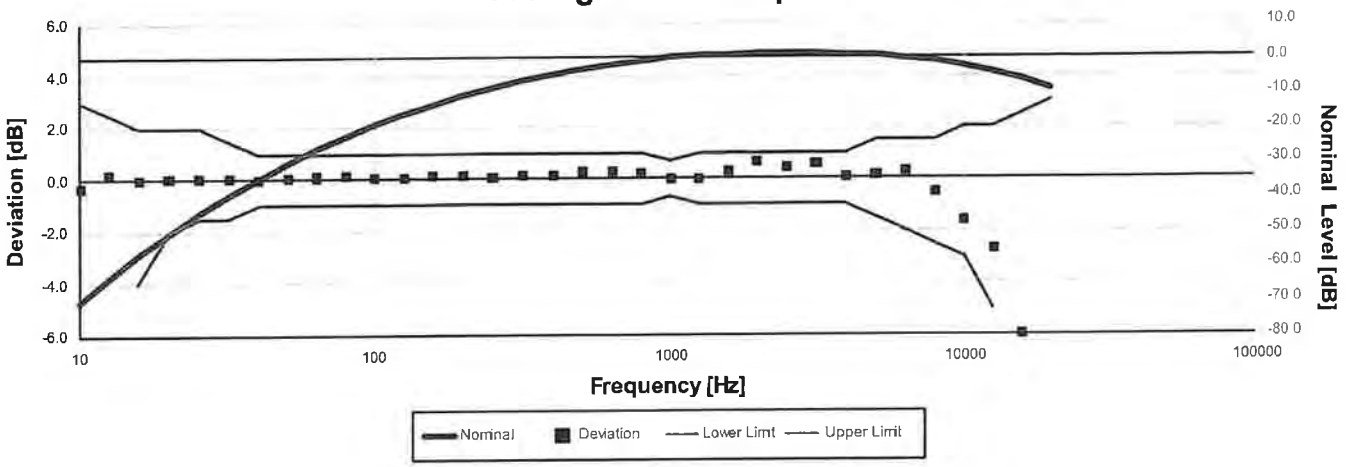
No Pattern approval for IEC 61672-1:2013 / ANSI/ASA S1.4-2014/Part 1 available.

The sound level meter submitted for testing successfully completed the periodic tests of IEC 61672-3:2013 / ANSI/ASA S1.4-2014/Part 3, for the environmental conditions under which the tests were performed. However, no general statement or conclusion can be made about conformance of the sound level meter to the full specifications of IEC 61672-1:2013 / ANSI/ASA S1.4-2014/Part 1 because (a) evidence was not publicly available, from an independent testing organization responsible for pattern approvals, to demonstrate that the model of sound level meter fully conformed to the class 1 specifications in IEC 61672-1:2013 / ANSI/ASA S1.4-2014/Part 1 or correction data for acoustical test of frequency weighting were not provided in the Instruction Manual and (b) because the periodic tests of IEC 61672-3:2013 / ANSI/ASA S1.4-2014/Part 3 cover only a limited subset of the specifications in IEC 61672-1:2013 / ANSI/ASA S1.4-2014/Part 1.

Standards Used

Description	Cal Date	Cal Due	Cal Standard
Hart Scientific 2626-S Humidity/Temperature Sensor	2024-05-07	2025-11-07	006943
SRS DS360 Ultra Low Distortion Generator	2023-08-24	2024-09-27	007710

A-weight Filter Response

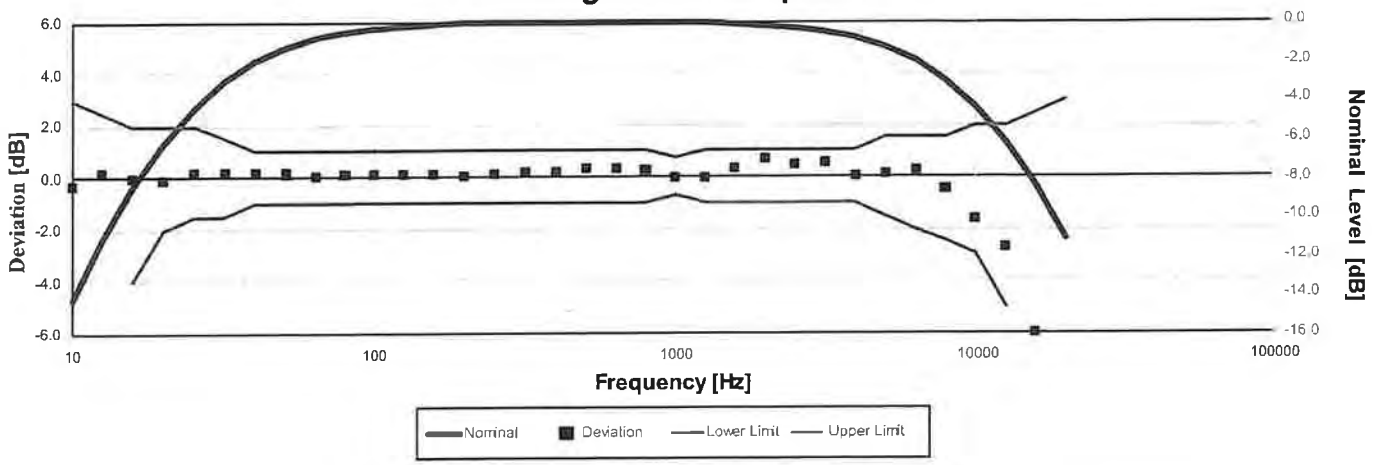


Test performed with FF:FF microphone correction filter enabled. Electrical signal test of frequency weighting performed according to IEC 61672-3:2013 13 and ANSI S1.4-2014 Part 3: 13 for compliance to IEC 61672-1:2013 5.5; IEC 60651:2001 6.1 and 9.2.2; IEC 60804:2000 5; ANSI S1.4:1983 (R2006) 5.1 and 8.2.1; ANSI S1.4-2014 Part 1: 5.5

Frequency [Hz]	Test Result [dB]	Deviation [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
10.00	-70.70	-0.30	-inf	3.00	0.15	Pass
12.59	-63.17	0.23	-inf	2.50	0.15	Pass
15.85	-56.69	0.01	-4.00	2.00	0.15	Pass
19.95	-50.44	0.06	-2.00	2.00	0.15	Pass
25.12	-44.66	0.04	-1.50	2.00	0.15	Pass
31.62	-39.30	0.10	-1.50	1.50	0.15	Pass
39.81	-34.59	0.01	-1.00	1.00	0.15	Pass
50.12	-30.11	0.09	-1.00	1.00	0.15	Pass
63.10	-26.09	0.11	-1.00	1.00	0.29	Pass
79.43	-22.37	0.13	-1.00	1.00	0.29	Pass
100.00	-19.04	0.06	-1.00	1.00	0.29	Pass
125.89	-16.01	0.09	-1.00	1.00	0.29	Pass
158.49	-13.25	0.15	-1.00	1.00	0.29	Pass
199.53	-10.78	0.12	-1.00	1.00	0.29	Pass
251.19	-8.54	0.06	-1.00	1.00	0.29	Pass
316.23	-6.48	0.12	-1.00	1.00	0.29	Pass
398.11	-4.66	0.14	-1.00	1.00	0.29	Pass
501.19	-2.95	0.25	-1.00	1.00	0.29	Pass
630.96	-1.62	0.28	-1.00	1.00	0.29	Pass
794.33	-0.59	0.21	-1.00	1.00	0.29	Pass
1,000.00	0.00	0.00	-0.70	0.70	0.29	Pass
1,258.93	0.61	0.01	-1.00	1.00	0.29	Pass
1,584.89	1.31	0.31	-1.00	1.00	0.29	Pass
1,995.26	1.87	0.67	-1.00	1.00	0.29	Pass
2,511.89	1.73	0.43	-1.00	1.00	0.38	Pass
3,162.28	1.78	0.58	-1.00	1.00	0.38	Pass
3,981.07	1.06	0.06	-1.00	1.00	0.38	Pass
5,011.87	0.66	0.16	-1.50	1.50	0.47	Pass
6,309.57	0.16	0.26	-2.00	1.50	0.47	Pass
7,943.28	-1.59	-0.49	-2.50	1.50	0.47	Pass
10,000.00	-4.11	-1.61	-3.00	2.00	0.57	Pass
12,589.25	-7.01	-2.71	-5.00	2.00	0.57	Pass
15,848.93	-12.55	-5.95	-16.00	2.50	1.00	Pass
19,952.62	-24.14	-14.84	-inf	3.00	1.00	Pass

-- End of measurement results--

C-weight Filter Response

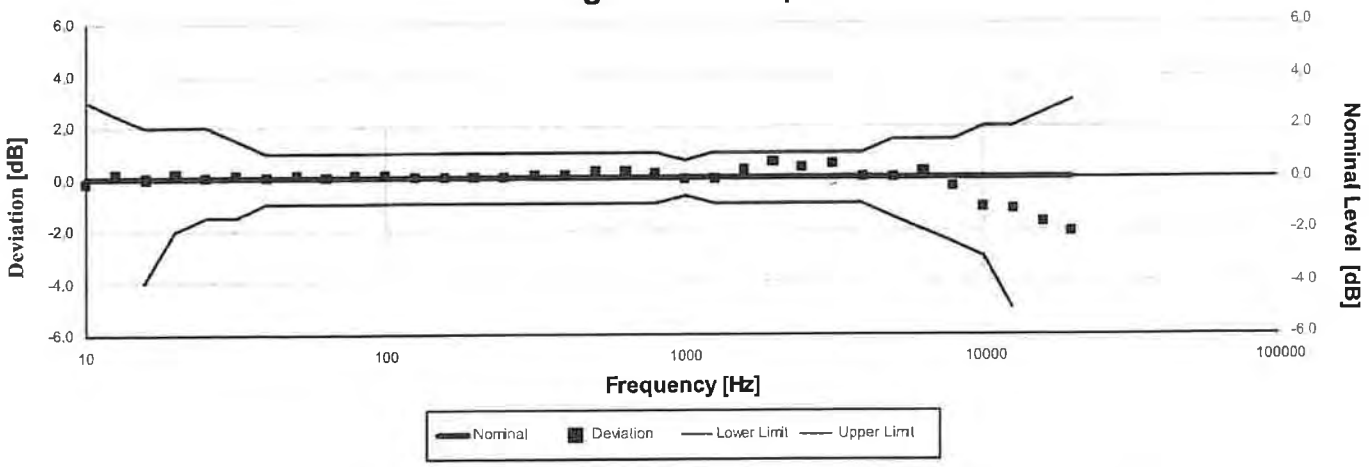


Test performed with FF:FF microphone correction filter enabled. Electrical signal test of frequency weighting performed according to IEC 61672-3:2013 13 and ANSI S1.4-2014 Part 3: 13 for compliance to IEC 61672-1:2013 5.5; IEC 60651:2001 6.1 and 9.2.2; IEC 60804:2000 5; ANSI S1.4:1983 (R2006) 5.1 and 8.2.1; ANSI S1.4-2014 Part 1: 5.5

Frequency [Hz]	Test Result [dB]	Deviation [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
10.00	-14.59	-0.29	-inf	3.00	0.15	Pass
12.59	-11.03	0.17	-inf	2.50	0.15	Pass
15.85	-8.51	-0.01	-4.00	2.00	0.15	Pass
19.95	-6.29	-0.09	-2.00	2.00	0.15	Pass
25.12	-4.21	0.19	-1.50	2.00	0.15	Pass
31.62	-2.79	0.21	-1.50	1.50	0.15	Pass
39.81	-1.82	0.18	-1.00	1.00	0.15	Pass
50.12	-1.15	0.15	-1.00	1.00	0.15	Pass
63.10	-0.76	0.04	-1.00	1.00	0.29	Pass
79.43	-0.37	0.13	-1.00	1.00	0.29	Pass
100.00	-0.19	0.11	-1.00	1.00	0.29	Pass
125.89	-0.11	0.09	-1.00	1.00	0.29	Pass
158.49	0.03	0.13	-1.00	1.00	0.29	Pass
199.53	0.06	0.06	-1.00	1.00	0.29	Pass
251.19	0.10	0.10	-1.00	1.00	0.29	Pass
316.23	0.17	0.17	-1.00	1.00	0.29	Pass
398.11	0.17	0.17	-1.00	1.00	0.29	Pass
501.19	0.32	0.32	-1.00	1.00	0.29	Pass
630.96	0.31	0.31	-1.00	1.00	0.29	Pass
794.33	0.26	0.26	-1.00	1.00	0.29	Pass
1,000.00	0.00	0.00	-0.70	0.70	0.29	Pass
1,258.93	-0.01	-0.01	-1.00	1.00	0.29	Pass
1,584.89	0.25	0.35	-1.00	1.00	0.29	Pass
1,995.26	0.50	0.70	-1.00	1.00	0.29	Pass
2,511.89	0.16	0.46	-1.00	1.00	0.38	Pass
3,162.28	0.07	0.57	-1.00	1.00	0.38	Pass
3,981.07	-0.73	0.07	-1.00	1.00	0.38	Pass
5,011.87	-1.18	0.12	-1.50	1.50	0.47	Pass
6,309.57	-1.72	0.28	-2.00	1.50	0.47	Pass
7,943.28	-3.49	-0.49	-2.50	1.50	0.47	Pass
10,000.00	-6.02	-1.62	-3.00	2.00	0.57	Pass
12,589.25	-8.94	-2.74	-5.00	2.00	0.57	Pass
15,848.93	-14.47	-5.97	-16.00	2.50	1.00	Pass
19,952.62	-26.07	-14.87	-inf	3.00	1.00	Pass

-- End of measurement results--

Z-weight Filter Response



Test performed with FF:FF microphone correction filter enabled. Electrical signal test of frequency weighting performed according to IEC 61672-3:2013 13 and ANSI S1.4-2014 Part 3: 13 for compliance to IEC 61672-1:2013 5.5; IEC 60651:2001 6.1 and 9.2.2; IEC 60804:2000 5; ANSI S1.4:1983 (R2006) 5.1 and 8.2.1; ANSI S1.4-2014 Part 1: 5.5

Frequency [Hz]	Test Result [dB]	Deviation [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
10.00	-0.12	-0.12	-inf	3.00	0.15	Pass
12.59	0.23	0.23	-inf	2.50	0.15	Pass
15.85	0.04	0.04	-4.00	2.00	0.15	Pass
19.95	0.21	0.21	-2.00	2.00	0.15	Pass
25.12	0.10	0.10	-1.50	2.00	0.15	Pass
31.62	0.15	0.15	-1.50	1.50	0.15	Pass
39.81	0.07	0.07	-1.00	1.00	0.15	Pass
50.12	0.14	0.14	-1.00	1.00	0.15	Pass
63.10	0.10	0.10	-1.00	1.00	0.29	Pass
79.43	0.14	0.14	-1.00	1.00	0.29	Pass
100.00	0.11	0.11	-1.00	1.00	0.29	Pass
125.89	0.09	0.09	-1.00	1.00	0.29	Pass
158.49	0.10	0.10	-1.00	1.00	0.29	Pass
199.53	0.10	0.10	-1.00	1.00	0.29	Pass
251.19	0.09	0.09	-1.00	1.00	0.29	Pass
316.23	0.14	0.14	-1.00	1.00	0.29	Pass
398.11	0.15	0.15	-1.00	1.00	0.29	Pass
501.19	0.29	0.29	-1.00	1.00	0.29	Pass
630.96	0.29	0.29	-1.00	1.00	0.29	Pass
794.33	0.24	0.24	-1.00	1.00	0.29	Pass
1,000.00	0.00	0.00	-0.70	0.70	0.29	Pass
1,258.93	0.02	0.02	-1.00	1.00	0.29	Pass
1,584.89	0.33	0.33	-1.00	1.00	0.29	Pass
1,995.26	0.66	0.66	-1.00	1.00	0.29	Pass
2,511.89	0.45	0.45	-1.00	1.00	0.38	Pass
3,162.28	0.56	0.56	-1.00	1.00	0.38	Pass
3,981.07	0.07	0.07	-1.00	1.00	0.38	Pass
5,011.87	0.10	0.10	-1.50	1.50	0.47	Pass
6,309.57	0.31	0.31	-2.00	1.50	0.47	Pass
7,943.28	-0.31	-0.31	-2.50	1.50	0.47	Pass
10,000.00	-1.07	-1.07	-3.00	2.00	0.57	Pass
12,589.25	-1.15	-1.15	-5.00	2.00	0.57	Pass
15,848.93	-1.70	-1.70	-16.00	2.50	1.00	Pass
19,952.62	-2.02	-2.02	-inf	3.00	1.00	Pass

-- End of measurement results--

High Level Stability

Electrical signal test of high level stability performed according to IEC 61672-3:2013 21 and ANSI S1.4-2014 Part 3: 21 for compliance to IEC 61672-1:2013 5.15 and ANSI S1.4-2014 Part 1: 5.15

Measurement	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
High Level Stability	0.00	-0.10	0.10	0.01 ‡	Pass

-- End of measurement results--

Long-Term Stability

Electrical signal test of long term stability performed according to IEC 61672-3:2013 15 and ANSI S1.4-2014 Part 3: 15 for compliance to ISC 61672-1:2013 5.14 and ANSI S1.4-2014 Part 1: 5.14

Test Duration [min]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
25	0.00	-0.10	0.10	0.01 ‡	Pass

-- End of measurement results--

1 kHz Reference Levels

Frequency weightings and time weightings at 1 kHz (reference is A weighted Fast) performed according to IEC 61672-3:2013 14 and ANSI S1.4-2014 Part 3: 14 for compliance to IEC 61672-1:2013 5.5.9 and 5.8.3 and ANSI S1.4-2014 Part 1: 5.5.9 and 5.8.3

Measurement	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
peak C weight	0.01	-0.20	0.20	0.15	Pass
peak Z weight	0.01	-0.20	0.20	0.15	Pass
C weight	0.01	-0.20	0.20	0.15	Pass
Z weight	0.01	-0.20	0.20	0.15	Pass
Slow	0.00	-0.10	0.10	0.15	Pass
Impulse	0.00	-0.10	0.10	0.15	Pass

-- End of measurement results--

A-weighted Broadband Log Linearity: 8,000.00 Hz



Broadband level linearity performed according to IEC 61672-3:2013 16 and ANSI S1.4-2014 Part 3: 16 for compliance to IEC 61672-1:2013 5.6, IEC 60804:2000 6.2, IEC 61252:2002 8, ANSI S1.4 (R2006) 6.9, ANSI S1.4-2014 Part 1: 5.6, ANSI S1.43 (R2007) 6.2

Level [dB]	Error [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
21.00	0.67	-0.70	0.70	0.16	Pass
22.00	0.50	-0.70	0.70	0.16	Pass
23.00	0.37	-0.70	0.70	0.16	Pass
24.00	0.31	-0.70	0.70	0.16	Pass
25.00	0.26	-0.70	0.70	0.16	Pass
26.00	0.22	-0.70	0.70	0.16	Pass
27.00	0.16	-0.70	0.70	0.16	Pass
28.00	0.12	-0.70	0.70	0.16	Pass
29.00	0.10	-0.70	0.70	0.16	Pass
34.00	0.04	-0.70	0.70	0.16	Pass
39.00	0.01	-0.70	0.70	0.16	Pass
44.00	0.01	-0.70	0.70	0.16	Pass
49.00	0.00	-0.70	0.70	0.16	Pass
54.00	0.01	-0.70	0.70	0.16	Pass
59.00	0.01	-0.70	0.70	0.16	Pass
64.00	0.00	-0.70	0.70	0.16	Pass
69.00	-0.01	-0.70	0.70	0.16	Pass
74.00	-0.01	-0.70	0.70	0.16	Pass
79.00	0.00	-0.70	0.70	0.16	Pass
84.00	0.00	-0.70	0.70	0.16	Pass
89.00	-0.01	-0.70	0.70	0.16	Pass
94.00	0.01	-0.70	0.70	0.16	Pass
99.00	-0.01	-0.70	0.70	0.16	Pass
104.00	0.01	-0.70	0.70	0.15	Pass
109.00	0.01	-0.70	0.70	0.15	Pass
114.00	0.00	-0.70	0.70	0.15	Pass
119.00	0.01	-0.70	0.70	0.15	Pass
124.00	0.01	-0.70	0.70	0.15	Pass
129.00	-0.01	-0.70	0.70	0.15	Pass
134.00	0.02	-0.70	0.70	0.15	Pass
136.00	0.02	-0.70	0.70	0.15	Pass
137.00	0.02	-0.70	0.70	0.15	Pass
138.00	0.00	-0.70	0.70	0.15	Pass
139.00	0.01	-0.70	0.70	0.15	Pass
140.00	0.00	-0.70	0.70	0.15	Pass
141.00	0.01	-0.70	0.70	0.15	Pass

-- End of measurement results--

Slow Detector

Toneburst response performed according to IEC 61672-3:2013 18 and ANSI S1.4-2014 Part 3: 18 for compliance to IEC 61672-1:2013 5.9, IEC 60651:2001 9.4.2, ANSI S1.4:1983 (R2006) 8.4.2 and ANSI S1.4-2014 Part 1: 5.9

Amplitude [dB]	Duration [ms]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
137.00	200	-7.46	-7.92	-6.92	0.15	Pass
	2	-27.02	-29.99	-25.99	0.15	Pass

-- End of measurement results--

Fast Detector

Toneburst response performed according to IEC 61672-3:2013 18 and ANSI S1.4-2014 Part 3: 18 for compliance to IEC 61672-1:2013 5.9, IEC 60651:2001 9.4.2, ANSI S1.4:1983 (R2006) 8.4.2 and ANSI S1.4-2014 Part 1: 5.9

Amplitude [dB]	Duration [ms]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
137.00	200.00	-1.06	-1.48	-0.48	0.15	Pass
	2.00	-18.22	-19.49	-16.99	0.15	Pass
	0.25	-27.08	-29.99	-25.99	0.15	Pass

-- End of measurement results--

Sound Exposure Level

Toneburst response performed according to IEC 61672-3:2013 18 and ANSI S1.4-2014 Part 3: 18 for compliance to IEC 61672-1:2013 5.9, IEC 60651:2001 9.4.2, ANSI S1.4:1983 (R2006) 8.4.2 and ANSI S1.4-2014 Part 1: 5.9

Amplitude [dB]	Duration [ms]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
137.00	200.00	-7.01	-7.49	-6.49	0.15	Pass
	2.00	-27.04	-28.49	-25.99	0.15	Pass
	0.25	-36.15	-39.02	-35.02	0.15	Pass

-- End of measurement results--

Peak C-weight

C-weighted peak sound level performed according to IEC 61672-3:2013 19 and ANSI S1.4-2014 Part 3: 19 for compliance to IEC 61672-1:2013 5.13 and ANSI S1.4-2014 Part 1: 5.13

Level [dB]	Frequency [Hz]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
135.00	31.50	137.91	135.50	139.50	0.15	Pass
135.00	500.00	138.51	137.50	139.50	0.15	Pass
135.00	8,000.00	137.59	136.40	140.40	0.15	Pass
135.00, Negative	500.00	137.22	136.40	138.40	0.15	Pass
135.00, Positive	500.00	137.23	136.40	138.40	0.15	Pass

-- End of measurement results--

Overload Detector

Overload indication performed according to IEC 61672-3:2013 20 and ANSI S1.4-2014 Part 3: 20 for compliance to IEC 61672-1:2013 5.11, IEC 60804:2000 9.3.5, IEC 61252:2002 11, ANSI S1.4 (R2006) 5.8, and ANSI S1.4-2014 Part 1: 5.11, ANSI S1.25 (R2007) 7.6, ANSI S1.43 (R2007) 7

Measurement	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
Positive	141.91	140.50	142.50	0.15	Pass
Negative	141.71	140.50	142.50	0.15	Pass
Comparison	0.20	-1.50	1.50	0.15	Pass

-- End of measurement results--

Range

Measured in A-weight at 8000 Hz for compliance to IEC 61672-1:2013 5.6.4, IEC 60804:2000 6.2, IEC 61252:2002 8, ANSI S1.4 (R2006) 6.9, ANSI S1.4-2014 Part 1: 5.6.4, ANSI S1.43 (R2007) 6.2

Measurement	Measured Level [dB]	Lower limit [dB]	Expanded Uncertainty [dB]	Result
Primary Indicator Range	122.80	106.00	0.15	Pass
Dynamic Range	130.08	118.00	0.15	Pass

-- End of measurement results--

Gain

Gain measured according to IEC 61672-3:2013 17.3 and 17.4 and ANSI S1.4-2014 Part 3: 17.3 and 17.4

Measurement	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
0 dB Gain	93.89	93.20	94.80	0.15	Pass
0 dB Gain, Linearity	26.96	26.19	27.59	0.16	Pass

-- End of measurement results--

Broadband Noise Floor

Self-generated noise measured according to IEC 61672-3:2013 11.2 and ANSI S1.4-2014 Part 3: 11.2

Measurement	Test Result [dB]	Upper limit [dB]	Result
A-weight Noise Floor	11.72	14.50	Pass
C-weight Noise Floor	14.28	16.70	Pass
Z-weight Noise Floor	22.86	25.00	Pass

-- End of measurement results--

-- End of Report--

Signatory: *Sean Childs*

LARSON DAVIS – A PCB DIVISION
1681 West 820 North
Provo, UT 84601 United States
716-684-0001

ACCREDITED CERT #3622.01

LARSON DAVIS
A PCB DIVISION

Calibration Certificate

Certificate Number 2024010584

Customer:
GZA GeoEnvironmental Inc.
55 Lane Rd
Suite 407
Fairfield NJ 07004

Model Number	CAL200	***Procedure Number***	D0001.8386		
Serial Number	22789	***Technician***	Scott Montgomery		
Test Results	**Pass**	***Calibration Date***	2024-07-22		
Initial Condition	As Manufactured	***Calibration Due***			
		Temperature	23	°C	± 0.3 °C
Description	Larson Davis CAL200 Acoustic Calibrator	***Humidity***	35	%RH	± 3 %RH
		Static Pressure	101.1	kPa	± 1 kPa

Evaluation Method The data is aquired by the insert voltage calibration method using the reference microphone's open circuit sensitivity. Data reported in dB re 20 µPa.

Compliance Standards Compliant to Manufacturer Specifications per D0001.8190 and the following standards:
IEC 60942:2017 ANSI S1.40-2006

Issuing lab certifies that the instrument described above meets or exceeds all specifications as stated in the referenced procedure (unless otherwise noted). The results documented in this certificate relate only to the item(s) calibrated or tested. It has been calibrated using measurement standards traceable to the SI through the National Institute of Standards and Technology (NIST), or other national measurement institutes, and meets the requirements of ISO/IEC 17025:2017.
Test points marked with a ‡ in the uncertainties column do not fall within this laboratory's scope of accreditation.

The quality system is registered to ISO 9001:2015.

This calibration is a direct comparison of the unit under test to the listed reference standards and did not involve any sampling plans to complete. No allowance has been made for the instability of the test device due to use, time, etc. Such allowances would be made by the customer as needed.

The uncertainties were computed in accordance with the ISO Guide to the Expression of Uncertainty in Measurement (GUM). A coverage factor of approximately 2 sigma (k=2) has been applied to the standard uncertainty to express the expanded uncertainty at approximately 95% confidence level.

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Standards Used

Description	Cal Date	Cal Due	Cal Standard
Agilent 34401A DMM	2024-06-20	2025-06-20	001021
Larson Davis Model 2900 Real Time Analyzer	2024-04-01	2025-04-01	001051
Microphone Calibration System	2024-02-22	2025-02-22	005446
1/2" Preamplifier	2023-08-16	2024-08-16	006506
Larson Davis 1/2" Preamplifier 7-pin LEMO	2023-08-04	2024-08-04	006507
1/2 inch Microphone - Random Incidence - 200V	2024-02-12	2025-02-12	006510
Pressure Sensor	2024-02-28	2025-02-28	007825

Output Level

Nominal Level [dB]	Pressure [kPa]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
94	101.1	94.00	93.80	94.20	0.15	Pass
114	101.2	114.02	113.80	114.20	0.14	Pass

– End of measurement results–

Frequency

Nominal Level [dB]	Pressure [kPa]	Test Result [Hz]	Lower limit [Hz]	Upper limit [Hz]	Expanded Uncertainty [Hz]	Result
94	101.1	1,000.09	993.00	1,007.00	0.20	Pass
114	101.2	1,000.09	993.00	1,007.00	0.20	Pass

– End of measurement results–

Total Harmonic Distortion + Noise (THD+N)

Nominal Level [dB]	Pressure [kPa]	Test Result [%]	Lower limit [%]	Upper limit [%]	Expanded Uncertainty [%]	Result
94	101.1	0.35	0.00	2.00	0.25 ‡	Pass
114	101.2	0.29	0.00	2.00	0.25 ‡	Pass

– End of measurement results–

Level Change Over Pressure

Tested at: 114 dB, 23 °C, 38 %RH

Nominal Pressure [kPa]	Pressure [kPa]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
108.0	108.0	-0.03	-0.25	0.25	0.04 ‡	Pass
101.3	101.4	0.00	-0.25	0.25	0.04 ‡	Pass
92.0	92.0	0.02	-0.25	0.25	0.04 ‡	Pass
83.0	83.0	0.01	-0.25	0.25	0.04 ‡	Pass
74.0	74.0	-0.05	-0.25	0.25	0.04 ‡	Pass
65.0	65.2	-0.18	-0.25	0.25	0.04 ‡	Pass

– End of measurement results–

Frequency Change Over Pressure

Tested at: 114 dB, 23 °C, 38 %RH

Nominal Pressure [kPa]	Pressure [kPa]	Test Result [Hz]	Lower limit [Hz]	Upper limit [Hz]	Expanded Uncertainty [Hz]	Result
108.0	108.0	0.00	-7.00	7.00	0.20 ‡	Pass
101.3	101.4	0.00	-7.00	7.00	0.20 ‡	Pass
92.0	92.0	0.00	-7.00	7.00	0.20 ‡	Pass
83.0	83.0	-0.01	-7.00	7.00	0.20 ‡	Pass
74.0	74.0	-0.01	-7.00	7.00	0.20 ‡	Pass
65.0	65.2	-0.01	-7.00	7.00	0.20 ‡	Pass

– End of measurement results–

Certificate Number 2024010584

Total Harmonic Distortion + Noise (THD+N) Over Pressure

Tested at: 114 dB, 23 °C, 38 %RH

Nominal Pressure [kPa]	Pressure [kPa]	Test Result [%]	Lower limit [%]	Upper limit [%]	Expanded Uncertainty [%]	Result
108.0	108.0	0.29	0.00	2.00	0.25 ‡	Pass
101.3	101.4	0.28	0.00	2.00	0.25 ‡	Pass
92.0	92.0	0.28	0.00	2.00	0.25 ‡	Pass
83.0	83.0	0.28	0.00	2.00	0.25 ‡	Pass
74.0	74.0	0.29	0.00	2.00	0.25 ‡	Pass
65.0	65.2	0.30	0.00	2.00	0.25 ‡	Pass

– End of measurement results–

Signatory: Scott Montgomery

LARSON DAVIS – A PCB DIVISION
1681 West 820 North
Provo,UT 84601 United States
716-684-0001

ilac-MRA A2LA ACCREDITED CERT #3422.01

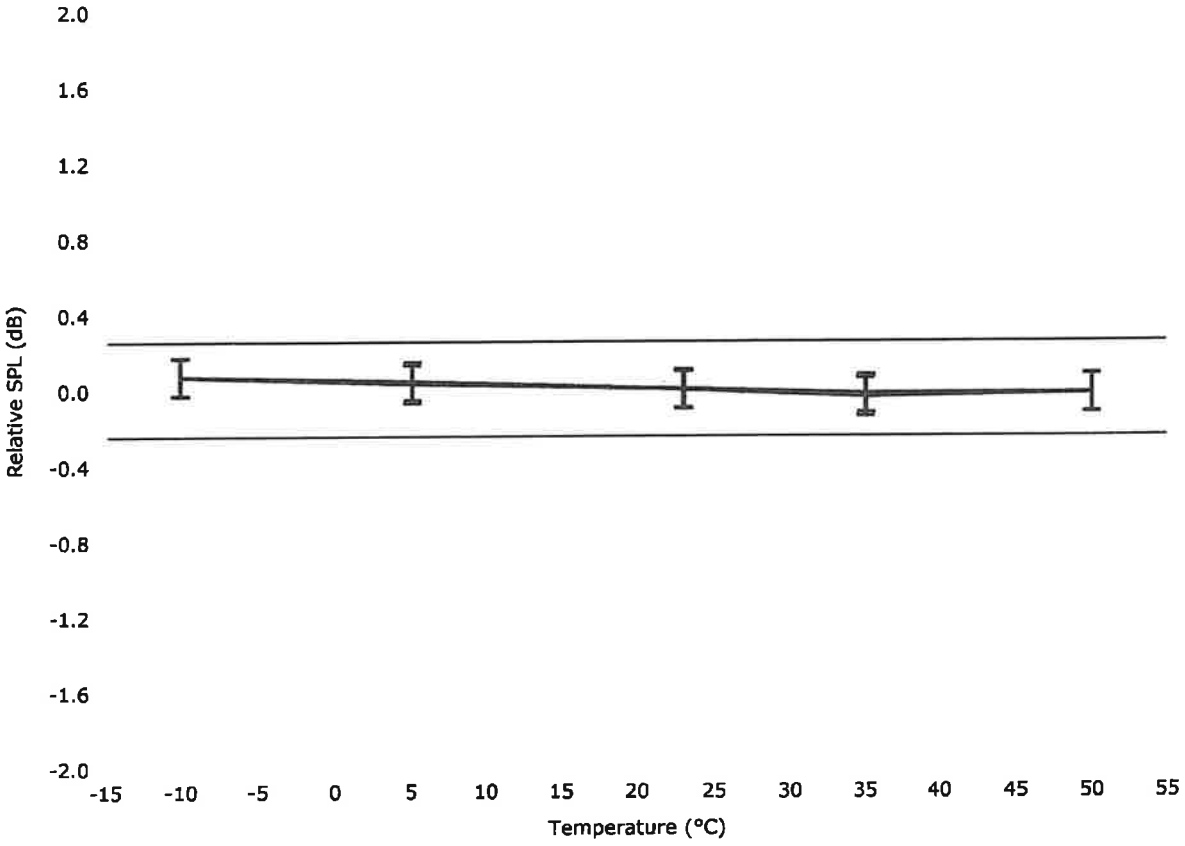
LARSON DAVIS A PCB DIVISION

Model CAL200 Relative SPL vs. Temperature

Larson Davis Model CAL200 Serial Number: 22789

Model CAL200 Relative SPL vs. Temperature at 50% RH.
A 2559 Mic (SN: 2906) with a PRM901 Preamp (SN: 0204), station 4 was used to check the levels.

Test Date: 13 Jun 2024 2:30:12 PM



0.1dB expanded uncertainty at ~95% confidence level (k=2)

Sequence File: CAL200.SEQ

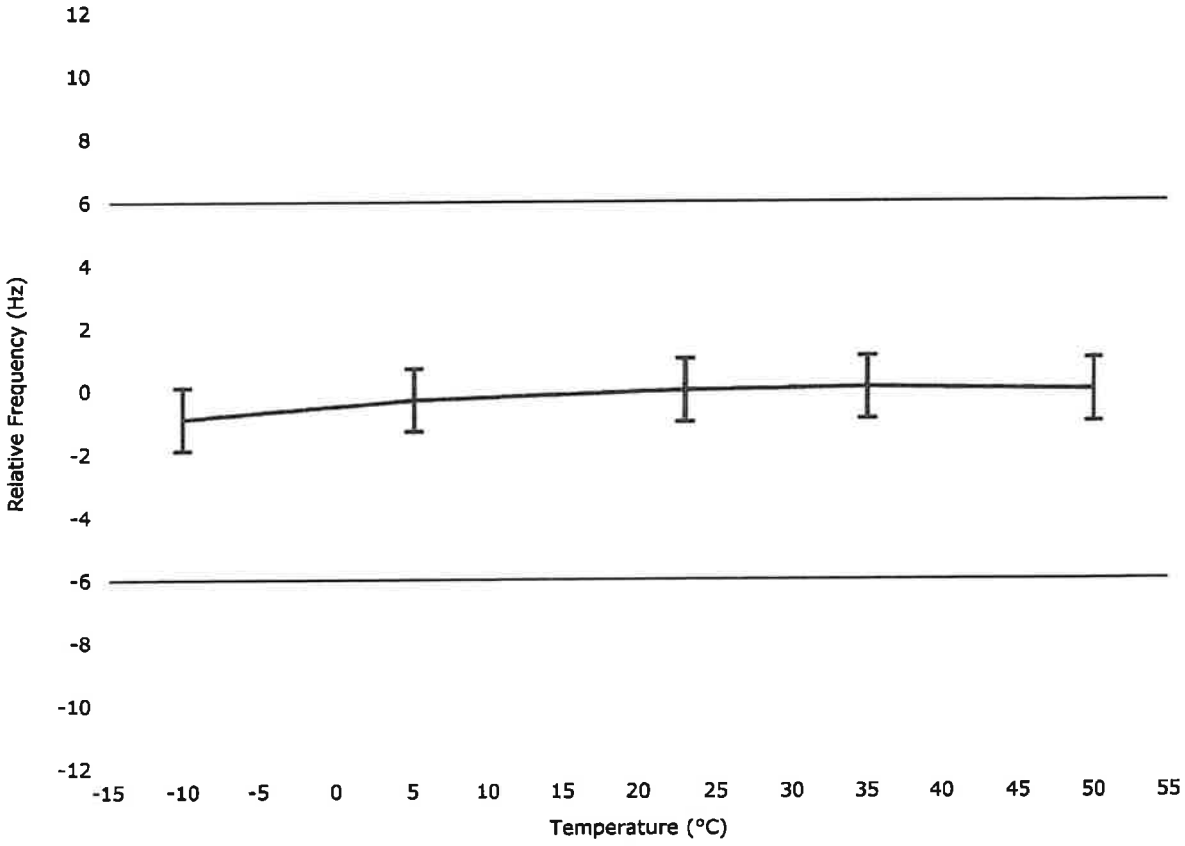
Test Location: Larson Davis – A PCB Division
1681 West 820 North, Provo, Utah 84601
Tel: 716 684-0001 www.LarsonDavis.com

Model CAL200 Relative Frequency vs. Temperature

Larson Davis Model CAL200 Serial Number: 22789

Model CAL200 Relative Frequency vs. Temperature at 50% RH.
A 2559 Mic (SN: 2906) with a PRM901 Preamp (SN: 0204), station 4 was used to check the levels.

Test Date: 13 Jun 2024 2:30:12 PM



1.0 Hz expanded uncertainty at ~95% confidence level (k=2)

Sequence File: CAL200.SEQ

Test Location: Larson Davis – A PCB Division
1681 West 820 North, Provo, Utah 84601
Tel: 716 684-0001 www.LarsonDavis.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.51749

Instrument: **Sound Level Meter**
Model: **63X**
Manufacturer: **CEL**
Serial number: **5086866**
Tested with: **Microphone 251 s/n 05784**
Preamplifier 495 s/n 003987
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 followng 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 (%)
23.6	100.63	48.5

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

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 05784 for acoustical test
Preamplifier: CEL 495 s/n 003987 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 # 51749 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.:51749

CEL Type: 63X Serial no: 5086866

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: 05784	Sens:-27.08dB
Preamplifier	CEL	Type: 495	Serial no: 003987	
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:
100.63	23.6	48.5

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.:51749

Manufacturer:	CEL
Instrument type:	63X
Serial no:	5086866
Customer:	GZA
Department:	
Order No:	
Contact Person:	Gene Bove
Address:	55 Lane Road Suite 407 Fairfield, NJ 07004

Environmental conditions:

Pressure:	100.63
Temperature:	23.6
Relative humidity:	48.5

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: 114.2
After calibration:
  Environmental corrections: 0.00
  Other corrections: -0.08
  Notional level: 113.87
Reference calibrator level after calibration: 113.9
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: 114.3
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	14.0	17.5	0.3	P	Equivalent capacity
C	16.3	21.0	0.3	P	Equivalent capacity
Z	21.7	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	95.0	0.7	-0.7	0.2	0.0	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	94.7	1.5	-2.5	0.2	-0.3	P
15848.9	95.0	92.2	2.5	-16.0	0.2	-2.8	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	95.0	1.0	-1.0	0.2	0.0	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	95.0	0.7	-0.7	0.2	0.0	P
1995.3	95.0	95.0	1.0	-1.0	0.2	0.0	P
3981.1	95.0	94.9	1.0	-1.0	0.2	-0.1	P
7943.3	95.0	94.6	1.5	-2.5	0.2	-0.4	P
15848.9	95.0	92.2	2.5	-16.0	0.2	-2.8	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	95.0	1.0	-1.0	0.2	0.0	P
125.9	95.0	95.0	1.0	-1.0	0.2	0.0	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	95.0	0.7	-0.7	0.2	0.0	P
1995.3	95.0	94.9	1.0	-1.0	0.2	-0.1	P
3981.1	95.0	94.9	1.0	-1.0	0.2	-0.1	P
7943.3	95.0	94.9	1.5	-2.5	0.2	-0.1	P
15848.9	95.0	94.7	2.5	-16.0	0.2	-0.3	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
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	64.1	0.8	-0.8	0.25	0.1	P
59.0	59.1	0.8	-0.8	0.25	0.1	P
54.0	54.4	0.8	-0.8	0.25	0.4	P
49.0	49.7	0.8	-0.8	0.25	0.7	P
44.0	44.1	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	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
138.0	138.0	0.8	-0.8	0.25	0.0	P
139.0	139.0	0.8	-0.8	0.25	0.0	P
140.0	140.0	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	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	59.0	0.8	-0.8	0.25	0.0	P
54.0	54.0	0.8	-0.8	0.25	0.0	P
49.0	49.0	0.8	-0.8	0.25	0.0	P
44.0	44.0	0.8	-0.8	0.25	0.0	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
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 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	124.0	0.8	-0.8	0.25	0.0	P
129.0	129.0	0.8	-0.8	0.25	0.0	P
134.9	134.9	0.8	-0.8	0.25	0.0	P
135.9	135.9	0.8	-0.8	0.25	0.0	P
136.9	136.9	0.8	-0.8	0.25	0.0	P
137.9	137.9	0.8	-0.8	0.25	0.0	P
138.9	138.9	0.8	-0.8	0.25	0.0	P
114.0	114.0	0.8	-0.8	0.25	0.0	P
109.0	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	98.9	0.8	-0.8	0.25	-0.1	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	68.9	0.8	-0.8	0.25	-0.1	P
64.0	64.0	0.8	-0.8	0.25	0.0	P
59.0	59.0	0.8	-0.8	0.25	0.0	P
54.0	54.0	0.8	-0.8	0.25	0.0	P
49.0	48.9	0.8	-0.8	0.25	-0.1	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

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	136.9	0.5	-0.5	0.3	-0.1	P
Fast 2.0 mSec	120.0	119.8	1.0	-1.5	0.3	-0.2	P
Fast 0.25 mSec	111.0	110.7	1.0	-3.0	0.3	-0.3	P
Slow 200 mSec	130.6	130.5	0.5	-0.5	0.3	-0.1	P
Slow 2.0 mSec	111.0	110.9	1.0	-3.0	0.3	-0.1	P
SEL 200 mSec	131.0	130.9	0.5	-0.5	0.3	-0.1	P
SEL 2.0 mSec	111.0	110.9	1.0	-1.5	0.3	-0.1	P
SEL 0.25 mSec	102.0	101.8	1.0	-3.0	0.3	-0.2	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	132.2	2.0	0.35	-0.2	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:	141.2			

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
26:02	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	58.0	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	113.6	0.0	120.0	P
32000.0	50.5	0.0	95.5	P
64000.0	14.8	0.0	76.0	P
128000	20.7	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	58.0	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	134.0	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	137.9	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	55.8	0.0	120.0	P
64000.0	18.9	0.0	95.5	P
128000	38.1	0.0	76.0	P
200000	55.4	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	59.8	0.0	63.0	P
5212.50	64.7	0.0	76.0	P
8479.30	79.8	0.0	95.5	P
12349.0	110.3	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	47.1	0.0	95.5	P
49112.7	40.0	0.0	76.0	P
86955.9	44.5	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	61.6	0.0	63.0	P
6567.33	67.4	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	62.6	0.0	95.5	P
61878.2	41.5	0.0	76.0	P
109558	33.0	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	-0.2	0.1					0.2	+-1.0	-0.3	P
250 Hz	-0.1	0.2	-0.3	0.1					0.2	+-1.0	-0.4	P
500 Hz	-0.1	0.2	-0.2	0.1					0.2	+-1.0	-0.3	P
1 kHz	0.0	0.2	0.1	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	-0.1	P
8 kHz	-0.3	0.2	0.7	0.4					0.5	+1.5/-2.5	0.4	P
16 kHz	-2.8	0.2	0.3	0.7					0.7	+2.5/-16.0	-2.5	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	0.0	0.2	-0.2	0.1					0.2	+-1.0	-0.2	P
250 Hz	-0.1	0.2	-0.3	0.1					0.2	+-1.0	-0.4	P
500 Hz	0.0	0.2	-0.2	0.1					0.2	+-1.0	-0.2	P
1 kHz	0.0	0.2	0.1	0.1					0.2	+-0.7	0.1	P
2 kHz	0.0	0.2	0.2	0.2					0.3	+-1.0	0.2	P
4 kHz	-0.1	0.2	0.1	0.2					0.3	+-1.0	0.0	P
8 kHz	-0.4	0.2	0.7	0.4					0.5	+1.5/-2.5	0.3	P
16 kHz	-2.8	0.2	0.3	0.7					0.7	+2.5/-16.0	-2.5	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	0.0	0.2	0.0	0.1					0.2	+-1.0	0.0	P
125 Hz	0.0	0.2	-0.2	0.1					0.2	+-1.0	-0.2	P
250 Hz	-0.1	0.2	-0.3	0.1					0.2	+-1.0	-0.4	P

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

500 Hz	-0.1	0.2	-0.2	0.1	0.2	+-1.0	-0.3	P
1 kHz	0.0	0.2	0.1	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	-0.1	0.2	0.1	0.2	0.3	+-1.0	0.0	P
8 kHz	-0.1	0.2	0.7	0.4	0.5	+1.5/-2.5	0.6	P
16 kHz	-0.3	0.2	0.3	0.7	0.7	+2.5/-16.0	0.0	P

The actual frequency response of CEL / 251 05784 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.51750

Instrument: **Microphone**
Model: **251**
Manufacturer: **CEL**
Serial number: **05784**
Composed of:

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

Customer: **GZA**
Tel/Fax: **973-774-3300**

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	8/14/24	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.

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 (%)
22.4 ± 1.0	100.63 ± 0.020	49.7 ± 2.0

Main measured parameters:

Tone frequency (Hz)	Measured[4] /Nominal Open circuit sensitivity (dB re 1V/Pa)	Sensitivity (mV/Pa)
250	-27.08 ± 0.12/ -26.0	44.26

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

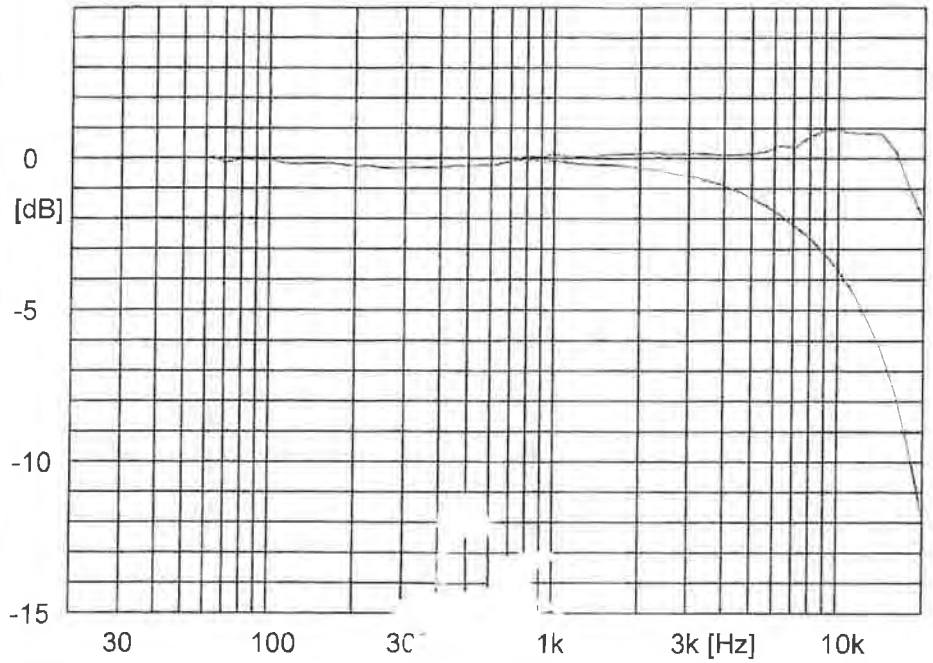
Measured Data: Found on Microphone Test Report # 51750 of one page.

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.:51750



CEL
Type: 251

Serial no: 05784

Sensitivity: 44.26 mV/Pa
-27.08 ±0.12 dB re. 1 V/Pa

Date: 8/14/2024

Signature:

Measurement conditions:

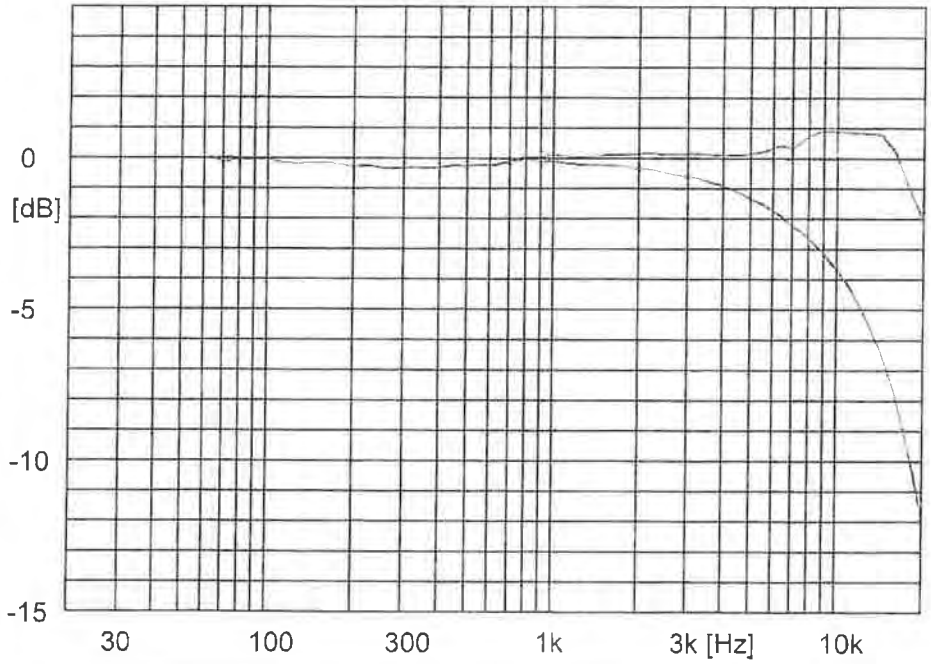
Polarisation voltage:	0.0 V
Pressure:	100.63 ±0.02 kPa
Temperature:	22.4 ±1.0 °C
Relative humidity:	49.7 ±2.0 %RH

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.:51750



CEL
Type: 251

Serial no: 05784

Sensitivity: 44.26 mV/Pa
-27.08 ±0.12 dB re. 1 V/Pa

Date: 8/14/2024

Signature:

Measurement conditions:

Polarisation voltage:	0.0 V
Pressure:	100.63 ±0.02 kPa
Temperature:	22.4 ±1.0 °C
Relative humidity:	49.7 ±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_05784_M1.nmf)

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.51760

Instrument:	**Acoustical Calibrator**
Model:	**120_1**
Manufacturer:	**CEL**
Serial number:	**4478708**
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**

	Received	Sent
Status:		
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
4838-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_4478708_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):
999.99 ± 1.0/1000.0 ± 10.0	0.20 ± 0.10/ < 3	94.17 ± 0.12/94.0 ± 0.4
999.99 ± 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 (%)
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 # 51760 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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Test Report No.:51760

Manufacturer:	**CEL**
Type:	**120_1**
Serial no:	**4478708**

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:	94.17	0.03	1000.02	0.01	0.20
2:	94.16	0.03	999.98	0.01	0.20
3:	94.17	0.03	999.98	0.01	0.20
Result (Average):	**94.17**	**0.03**	**999.99**	**0.01**	**0.20**
Expanded Uncertainty:	0.12	0.02	1.00	0.01	0.10
Degree of Freedom:	>100	>100	>100	57	>100
Coverage Factor:	2.00	2.00	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_4478708_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.:51760

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Contact Person:	**Gene Bove**
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eMail:	**gene.bove@gza.com**

Measurement Results:

	Level: (dB)	P. Stab : (dB)	Frequency: (Hz)	F. Stab : (%)	Distortion: (% TD)
1:	114.24	0.02	999.99	0.00	0.22
2:	114.24	0.02	999.99	0.00	0.22
3:	114.24	0.02	999.99	0.00	0.22
Result (Average):	**114.24**	**0.02**	**999.99**	**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_4478708_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
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