50-02 Queens Boulevard Rezoning

Environmental Assessment Statement

PREPARED FOR
5002 Woodside Development LLC
333 Eagle Ovington Boulevard
Uniondale, NY 11533
516-584-3177

PREPARED BY

One Penn Plaza
Suite 715
New York, NY 10119
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CEQR/ULURP #

August 30, 2024

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* 50-02 Queens Boulevard

3. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
25DCP021Q	
ULURP REFERENCE NUMBER (if applicable)	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)
240316ZMQ N240317ZRQ	

4a. *Lead Agency Information*			**4b. *Applicant Information***		
NAME OF LEAD AGENCY NYC Department of City Planning			NAME OF APPLICANT Stuart Sipoos		
NAME OF LEAD AGENCY CONTACT PERSON Stephanie Shelloe, AICP, Director			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON Sipos Realty LLC		
ADDRESS 120 Broadway, 31st Floor			ADDRESS 2035 OCean Boulevard		
CITY New York	STATE NY	ZIP 10271	CITY Atlantic Beach	STATE NY	ZIP 11509
TELEPHONE 212-720-3328	EMAIL sshellooe@planning.nyc.gov		TELEPHONE 516-728-1211	EMAIL stuartsipos@yahoo.com	

5. *Project Description*

The Applicant, 50-02 Woodside Development LLC, is seeking discretionary actions that include a zoning map amendment and a zoning text amendment (collectively, the "Proposed Actions") before the City Planning Commission (CPC) to facilitate a mixed-used development (the "Proposed Project") of approximately 361,508 gross square feet (gsf) at 50-02 Queens Boulevard in the Woodside neighborhood of Queens Community District 2 (Queens Block 2283, Lots 1, 12, 22, and 36; the "Development Site" or "Projected Development Site 1").The Proposed Project would include approximately 278,047 gsf of residential space (or 257 units*), 20,171 gsf of commercial space, 4,308 gsf of community facility (daycare) space, and 129 accessory parking spaces. The Proposed Project would meet the requirements of the Mandatory Inclusionary Housing program and have a maximum height of 115 feet (excluding the bulkhead).

In addition to the Applicant-owned Projected Development Site 1, the Proposed Actions would also affect the non-Applicant-owned property at Lot 43 ("Projected Development Site 2"). With approval of the Proposed Actions, Projected Development Site 2 would be redeveloped with a 14-story (145-foot-tall) mixed-use building of approximately 74,944 gsf, containing approximately 63,089 gsf of residential space (63 DUs; of which 16 to 19 would be affordable pursuant to MIH), 3,228 gsf of commercial space, and 24 accessory parking spaces.

Combined, the projected development sites would introduce approximately 341,136 gsf of residential uses (341 DUs; of which approximately 86 to 102 units would be affordable pursuant to MIH), 23,399 gsf of commercial uses, 4,308 gsf of community faciliyt (daycare) uses, and 153 accessory parking spaces (67,609 gsf), for a total development of 436,452 gsf.

*It should be noted that for conservative analysis purposes, the reasonable worst-case development scenario (RWCDS) assumes an average DU size of 1,000-gsf; as such, the Proposed Project could include up to 278 DUs, of which 70 to 83 units would be affordable pursuant to MIH.

Project Location

BOROUGH Queens	COMMUNITY DISTRICT(S) 2	STREET ADDRESS 50-02 Queens Boulevard
TAX BLOCK(S) AND LOT(S) Block 2283, Lots 1, 12, 22, 36, 43		ZIP CODE 11377
DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS Bounded by Queens Boulevard to the north, 50th Street to the west,		

51st Street to the east, and 47th Avenue to the south.

EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY M1-1 | ZONING SECTIONAL MAP NUMBER 9B

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

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

- ☐ CITY MAP AMENDMENT
- ☒ ZONING MAP AMENDMENT
- ☒ ZONING TEXT AMENDMENT
- ☐ SITE SELECTION—PUBLIC FACILITY
- ☐ HOUSING PLAN & PROJECT
- ☐ SPECIAL PERMIT (if appropriate, specify type: ☐ modification; ☐ renewal; ☐ other); EXPIRATION DATE:
- ☐ ZONING CERTIFICATION
- ☐ ZONING AUTHORIZATION
- ☐ ACQUISITION—REAL PROPERTY
- ☐ DISPOSITION—REAL PROPERTY
- ☐ OTHER, explain:
- ☐ CONCESSION
- ☐ UDAAP
- ☐ REVOCABLE CONSENT
- ☐ FRANCHISE

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION Zoning Map 9b and 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:

***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.): 70,095 sf | Waterbody area (sq. ft) and type: 0

Roads, buildings, and other paved surfaces (sq. ft.): 70,095 sf | 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): 436,452 gsf

NUMBER OF BUILDINGS: 2

GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): Projected Development Site 1: 361,508 gsf; Projected Development Site 2: 74,944 gsf

HEIGHT OF EACH BUILDING (ft.): Projected Development Site 1: 115'; Projected Development Site 2: 145'

NUMBER OF STORIES OF EACH BUILDING: Projected Development Site 1: 11; Projected Development Site 2: 14

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: 57,874 sf

The total square feet not owned or controlled by the applicant: 12,221 sf

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: 70,095 sq. ft. (width x length) VOLUME OF DISTURBANCE: 700,950 cubic ft. (width x length x depth)

AREA OF PERMANENT DISTURBANCE: 70,095 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.)	341,136	23,399	4,308	0
Type (*e.g.,* retail, office, school)	341 units	P.C. Richard & Son; local retail	Daycare	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: 815 NUMBER OF ADDITIONAL WORKERS: 97

Provide a brief explanation of how these numbers were determined: The number of additional residents assumed an average household size of 2.39 people per the Sunnyside Neighborhood Tabulation Area (NTA) under the 2017-2021 American Community Survey). The number of additional workers assumes 3 workers per 1,000 gsf of retail space, 3 workers per 1,000 gsf of community facility space, and 1 worker per 25 residential units.

Does the proposed project create new open space? ☒ YES ☐ NO If "yes," specify size of project-created open space: 5,400 sq. ft.

Has a No-Action scenario been defined for this project that differs from the existing condition? ☐ YES ☒ NO

If "yes," see Chapter 2, "Establishing the Analysis Framework" and describe briefly:

9. *Analysis Year* CEQR Technical Manual Chapter 2

ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2027

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 22 months

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

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE:

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

☒ RESIDENTIAL ☒ MANUFACTURING ☒ COMMERCIAL ☐ PARK/FOREST/OPEN SPACE ☐ OTHER, specify:

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. Please see attached.		
(e) Is the project a large, publicly sponsored project?	☐	☒
○ If "yes," complete a PlaNYC assessment and attach.		
(f) Is any part of the directly affected area within the City's Waterfront Revitalization Program boundaries?	☐	☒
○ If "yes," complete the Consistency Assessment Form.		
2. *SOCIOECONOMIC CONDITIONS*: CEQR Technical Manual Chapter 5		
(a) Would the proposed project:		
○ Generate a net increase of 200 or more residential units?	☒	☐
○ Generate a net increase of 200,000 or more square feet of commercial space?	☐	☒
○ Directly displace more than 500 residents?	☐	☒
○ Directly displace more than 100 employees?	☐	☒
○ Affect conditions in a specific industry?	☐	☒
3. *COMMUNITY FACILITIES*: CEQR Technical Manual Chapter 6		
(a) Direct Effects		
○ Would the project directly eliminate, displace, or alter public or publicly funded community facilities such as educational facilities, libraries, hospitals and other health care facilities, day care centers, police stations, or fire stations?	☐	☒
(b) Indirect Effects		
○ **Early Childhood Programs:** Would the project result in 20 or more eligible children under age 6, based on the number of low or low/moderate income residential units? (See Table 6-1 in Chapter 6)	☐	☒
○ **Public Schools:** Would the project result in 50 or more elementary or middle school students, or 150 or more high school students based on number of residential units? (See Table 6-1 in Chapter 6)	☒	☐
○ **Libraries:** Would the project result in a 5 percent or more increase in the ratio of residential units to library branches? (See Table 6-1 in Chapter 6)	☐	☒
○ **Health Care Facilities and Fire/Police Protection:** Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
4. *OPEN SPACE*: CEQR Technical Manual Chapter 7		
(a) Would the project change or eliminate existing open space?	☐	☒
(b) Would the project generate more than 200 additional residents or 500 additional employees?	☒	☐
5. *SHADOWS*: CEQR Technical Manual Chapter 8		
(a) Would the proposed project result in a net height increase of any structure of 50 feet or more?	☒	☐
(b) Would the proposed project result in any increase in structure height and be located adjacent to or across the street from a sunlight-sensitive resource?	☒	☐
6. *HISTORIC AND CULTURAL RESOURCES*: CEQR Technical Manual Chapter 9		

	YES	NO
(a) Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; that is listed or eligible for listing on the New York State or National Register of Historic Places; or that is within a designated or eligible New York City, New York State or National Register Historic District? (See the GIS System for Archaeology and National Register to confirm)	☐	☒
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	☒	☐
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting information on whether the proposed project would potentially affect any architectural or archeological resources. Please see attached.		
7. *URBAN DESIGN AND VISUAL RESOURCES*: CEQR Technical Manual Chapter 10		
(a) Would the proposed project introduce a new building, a new building height, or result in any substantial physical alteration to the streetscape or public space in the vicinity of the proposed project that is not currently allowed by existing zoning?	☒	☐
(b) Would the proposed project result in obstruction of publicly accessible views to visual resources not currently allowed by existing zoning?	☐	☒
8. *NATURAL RESOURCES*: CEQR Technical Manual Chapter 11		
(a) Does the proposed project site or a site adjacent to the project contain natural resources as defined in Section 100 of Chapter 11?	☐	☒
○ If "yes," list the resources and attach supporting information on whether the proposed project would affect any of these resources.		
(b) Is any part of the directly affected area within the Jamaica Bay Watershed?	☐	☒
○ If "yes," complete the Jamaica Bay Watershed Protection Plan Project Tracking Form, and submit according to its instructions.		
9. *HAZARDOUS MATERIALS*: CEQR Technical Manual Chapter 12		
(a) Would the proposed project allow commercial or residential uses in an area that is currently, or was historically, a manufacturing area that involved hazardous materials?	☒	☐
(b) Would the proposed project introduce new activities or processes using hazardous materials and increase the risk of human or environmental exposure?	☐	☒
(c) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to hazardous materials that preclude the potential for significant adverse impacts?	☐	☒
(d) Would the project require soil disturbance in a manufacturing area or any development on or near a manufacturing area or existing/historic facilities listed in the Hazardous Materials Appendix (including nonconforming uses)?	☒	☐
(e) Would the project result in the development of a site where there is reason to suspect the presence of hazardous materials, contamination, illegal dumping or fill, or fill material of unknown origin?	☒	☐
(f) Would the project result in development on or near a site that has or had underground and/or aboveground storage tanks (*e.g.*, gas stations, oil storage facilities, heating oil storage)?	☒	☐
(g) Would the project result in renovation of interior existing space on a site with the potential for compromised air quality; vapor intrusion from either on-site or off-site sources; or the presence of asbestos, PCBs, mercury or lead-based paint?	☐	☒
(h) Would the project result in development on or near a site with potential hazardous materials issues such as government-listed voluntary cleanup/brownfield site, current or former power generation/transmission facilities, coal gasification or gas storage sites, railroad tracks or rights-of-way, or municipal incinerators?	☐	☒
(i) Has a Phase I Environmental Site Assessment been performed for the site?	☒	☐
○ If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: Refer to Attachment 8, "Hazardous Materials" for more info	☒	☐
(j) Based on the Phase I Assessment, is a Phase II Investigation needed? Refer to Attachment 8, "Hazardous Materials" for more info	☒	☐
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?	☐	☒

	YES	NO
(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?	☐	☒
(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): 21,707		
○ 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): 54,208,817.2		
(b) Would the proposed project affect the transmission or generation of energy?	☐	☒
13. *TRANSPORTATION*: CEQR Technical Manual Chapter 16		
(a) Would the proposed project exceed any threshold identified in Table 16-1 in Chapter 16?	☒	☐
(b) If "yes," conduct the screening analyses, attach appropriate back up data as needed for each stage and answer the following questions:		
○ Would the proposed project result in 50 or more Passenger Car Equivalents (PCEs) per project peak hour?	☒	☐
If "yes," would the proposed project result in 50 or more vehicle trips per project peak hour at any given intersection? ***It should be noted that the lead agency may require further analysis of intersections of concern even when a project generates fewer than 50 vehicles in the peak hour. See Subsection 313 of Chapter 16 for more information.*	☐	☒
○ Would the proposed project result in more than 200 subway/rail, bus trips, or 50 Citywide Ferry Service ferry trips per project peak hour?	☐	☒
If "yes," would the proposed project result, per project peak hour, in 50 or more bus trips on a single line (in one direction), 200 subway/rail trips per station or line, or 25 or more Citywide Ferry Service ferry trips on a single route (in one direction), or 50 or more passengers at a Citywide Ferry Service landing?	☐	☐
○ Would the proposed project result in more than 200 pedestrian trips per project peak hour?	☐	☒
If "yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, or bus stop, or Citywide Ferry Service landing?	☐	☐
14. *AIR QUALITY*: CEQR Technical Manual Chapter 17		
(a) *Mobile Sources*: Would the proposed project result in the conditions outlined in Section 210 in Chapter 17?	☐	☒
(b) *Stationary Sources*: Would the proposed project result in the conditions outlined in Section 220 in Chapter 17?	☒	☐
○ If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in Chapter 17? (Attach graph as needed)	☐	☐
(c) Does the proposed project involve multiple buildings on the project site?	☐	☒
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?	☐	☒
(e) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts?	☐	☒
15. *GREENHOUSE GAS EMISSIONS*: CEQR Technical Manual Chapter 18		
(a) Is the proposed project a city capital project or a power generation plant?	☐	☒
(b) Would the proposed project fundamentally change the City's solid waste management system?	☐	☒
(c) If "yes" to any of the above, would the project require a GHG emissions assessment based on the guidance in Chapter 18?	☐	☒
16. *NOISE*: CEQR Technical Manual Chapter 19		
(a) Would the proposed project generate or reroute vehicular traffic?	☒	☐
(b) Would the proposed project introduce new or additional receptors (see Section 114 in Chapter 19) near heavily trafficked roadways, within one horizontal mile of an existing or proposed flight path, or within 1,500 feet of an existing or proposed rail line with a direct line of site to that rail line?	☒	☐
(c) Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise?	☐	☒
(d) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?	☐	☒
17. *PUBLIC HEALTH*: CEQR Technical Manual Chapter 20		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality;	☐	☒

	YES	NO
Hazardous Materials; Noise?		
(b) If "yes," explain why an assessment of public health is or is not warranted based on the guidance in Chapter 20, "Public Health." Attach a preliminary analysis, if necessary.		
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:		
○ Construction activities lasting longer than two years?	☐	☒
○ Construction activities within a Central Business District or along an arterial highway or major thoroughfare?	☒	☐
○ Closing, narrowing, or otherwise impeding traffic, transit, or pedestrian elements (roadways, parking spaces, bicycle routes, sidewalks, crosswalks, corners, *etc.*)?	☒	☐
○ Construction of multiple buildings where there is a potential for on-site receptors on buildings completed before the final build-out?	☐	☒
○ The operation of several pieces of diesel equipment in a single location at peak construction?	☐	☒
○ Closure of a community facility or disruption in its services?	☐	☒
○ Activities within 400 feet of a historic or cultural resource?	☐	☒
○ Disturbance of a site containing or adjacent to a site containing natural resources?	☐	☒
○ Construction on multiple development sites in the same geographic area, such that there is the potential for several construction timelines to overlap or last for more than two years overall?	☐	☒
(b) If any boxes are checked "yes," explain why a preliminary construction assessment is or is not warranted based on the guidance in Chapter 22, "Construction." It should be noted that the nature and extent of any commitment to use the Best Available Technology for construction equipment or Best Management Practices for construction activities should be considered when making this determination.		

20. *APPLICANT'S CERTIFICATION*

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

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

APPLICANT/REPRESENTATIVE NAME	DATE
Jason Diaz	September 4, 2024

SIGNATURE Jason Diaz

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
NAME	DATE
SIGNATURE	

NEGATIVE DECLARATION (Use of this form is optional)

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, assumed the role of lead agency for the environmental review of the proposed project. Based on a review of information about the project contained in this environmental assessment statement and any attachments hereto, which are incorporated by reference herein, the lead agency has determined that the proposed project would not have a significant adverse impact on the environment.

Reasons Supporting this Determination

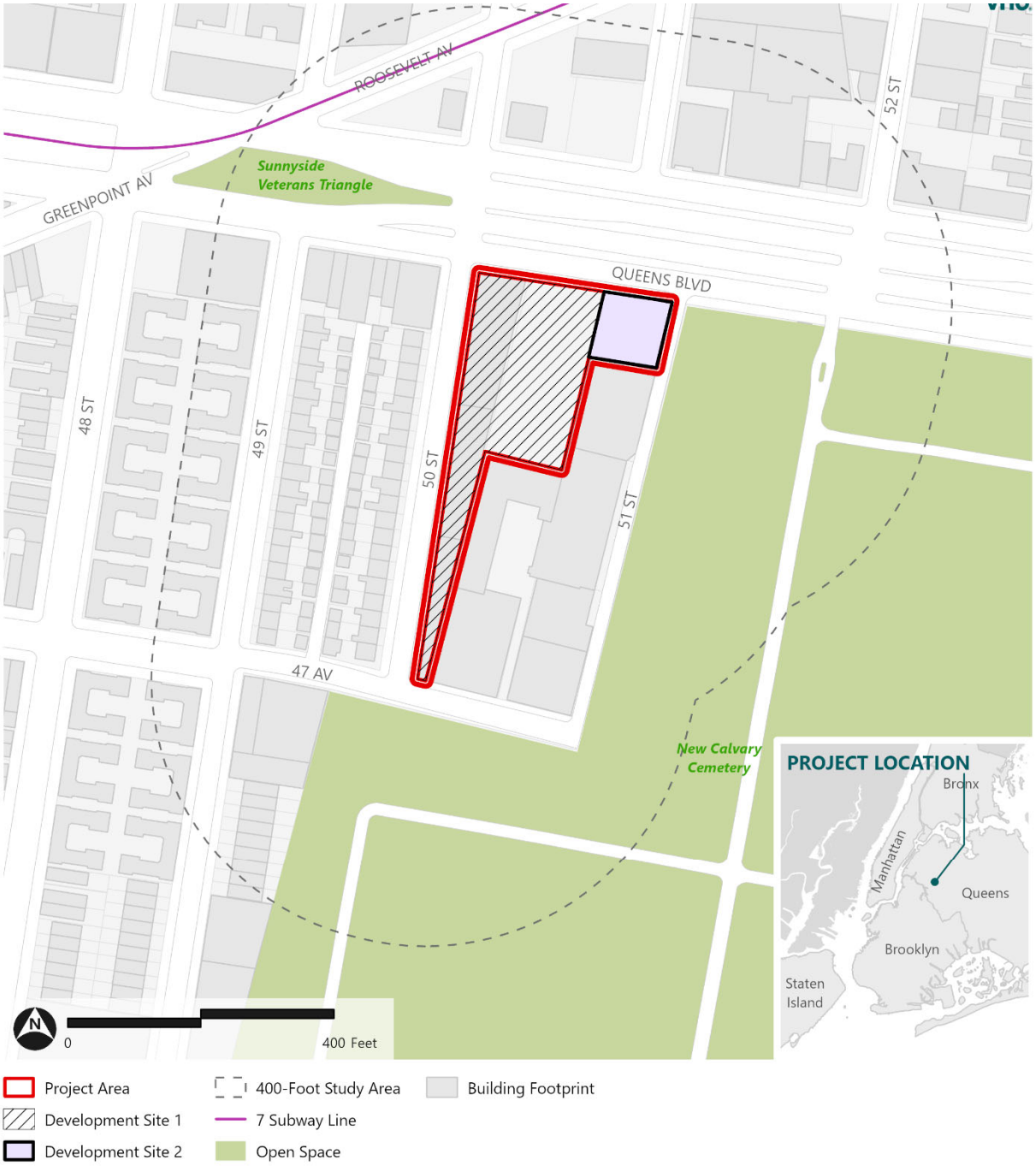
The above determination is based on information contained in this EAS, which finds that the proposed project:

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).

TITLE	LEAD AGENCY
NAME	DATE
SIGNATURE	

EAS Figures

Figure 1 Development Site Map



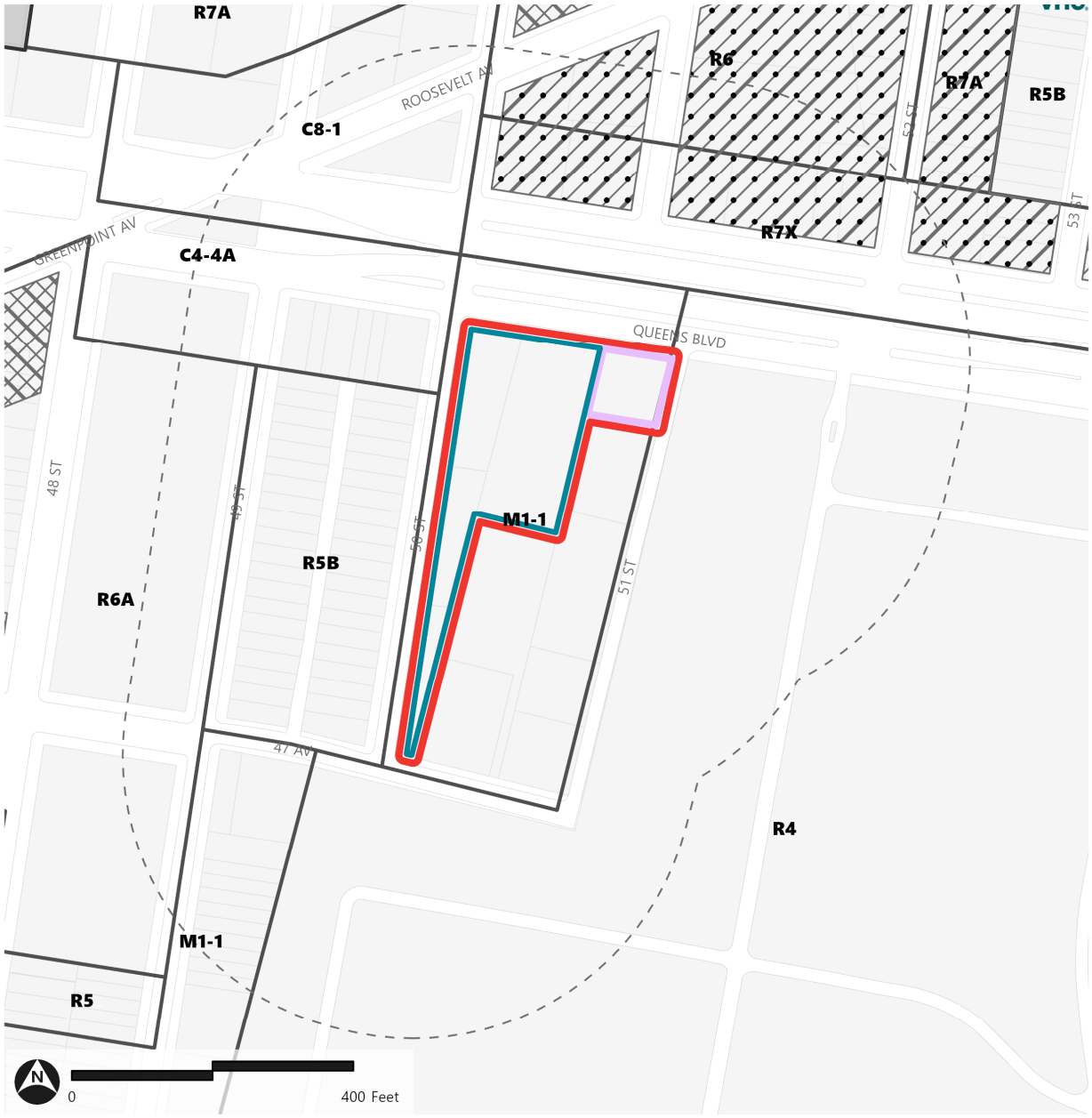
Source: DCP Map PLUTO

Figure 2 Tax Map



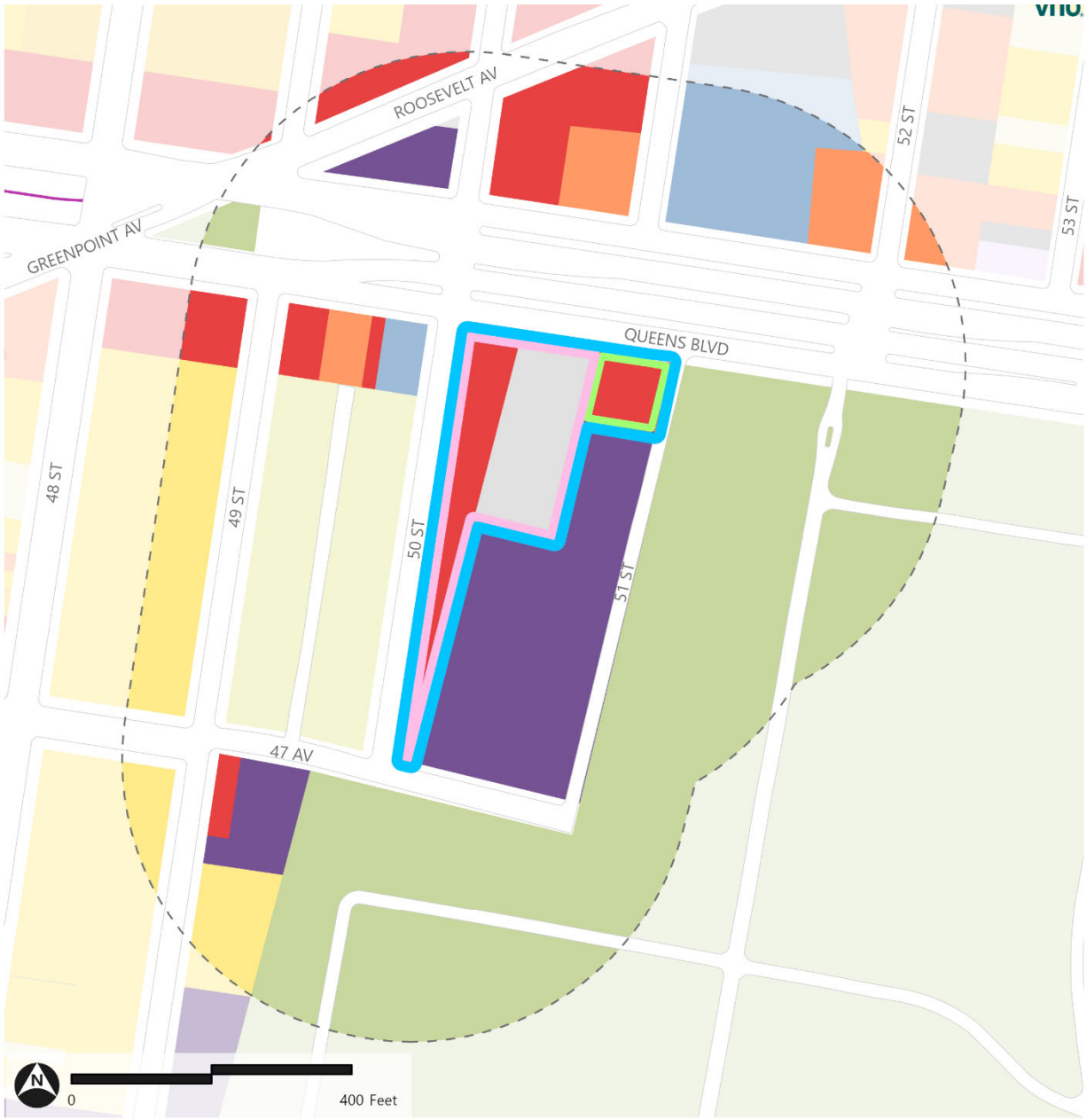
Source: DCP Map PLUTO

Figure 3 Existing Zoning Map



Source: DCP Map PLUTO

Figure 4 Land Use Map



Source: DCP Map PLUTO

Figure 5 Photo Key Map



Photo 1 Development Site, View 1



51st Street and Queens Boulevard, Looking Southwest
Photo Captured: 4/13/2023

Photo 2 Development Site, View 2



Queens Boulevard, Looking South
Photo Captured: 4/13/2023

Photo 3 Queens Boulevard



52nd Street and Queens Boulevard, Looking Southwest
Photo Captured: 4/13/2023

Photo 4 Development Site, View 3



47th Ave and 50th Street, Looking Northeast
Photo Captured: 4/13/2023

Photo 5 50th and Queens Boulevard, Looking Southeast



50th Street and Queens Boulevard, Looking Southeast
Photo Captured: 4/13/2023

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Part I: Project Description

This section provides descriptive information about the requested discretionary land use action(s) and the development project that could be facilitated by the requested actions. The purpose of this section is to convey project information relevant to the environmental review.

Introduction

The Applicant, 50-02 Woodside Development, LLC, is seeking a zoning map amendment and a zoning text amendment (collectively, the Proposed Actions) affecting Queens Block 2283, Lots 1, 12, 22, 36, and 43 (the Project Area). The Proposed Actions would facilitate the development of a mixed-use building of approximately 361,508 gross square feet (gsf) (the Proposed Project) on Applicant-owned Lots 1, 12, 22, and 36 (the Development Site, or Projected Development Site 1) at 50-02 Queens Boulevard in the Woodside neighborhood of Queens Community District 2. The Proposed Actions include a zoning map amendment to rezone the Project Area from M1-1 and R4 to R7X/C2-4 and R7A as well as a zoning text amendment to apply Mandatory Inclusionary Housing (MIH) to the Project Area.

The Proposed Project would include approximately 278,047 gsf (253,260 zoning square feet [zsf]) of residential space (or 257 units), 20,171 gsf (19,735 zsf) of commercial space, 4,308 gsf (4,308 zsf) of community facility (daycare) space, and 129 accessory parking spaces. The Proposed Project would meet the requirements of the MIH program and have a maximum height of 115 feet (excluding the bulkhead).

In addition to the Applicant-owned Projected Development Site 1, the Proposed Actions would also affect the non-Applicant-owned property at Lot 43 (Projected Development Site 2). In the future with the Proposed Actions, Projected Development Site 2 is expected to be redeveloped with a 14-story (145-foot-tall, excluding bulkhead) mixed-use building of approximately 74,944 gsf (63,783 zsf), containing approximately 63,089 gsf (60,555 zsf) of residential space (63 units), 3,228 gsf (3,228 zsf) of commercial space, and 24 accessory parking spaces.

Combined, the two projected development sites would introduce approximately 341,136 gsf of residential space (341 units, 80 to 96 of which would be affordable pursuant to MIH), 23,399 gsf of commercial space, 4,308 gsf of community facility (daycare) uses, and 153 accessory parking spaces (67,609 gsf), totaling 436,452 gsf of development.

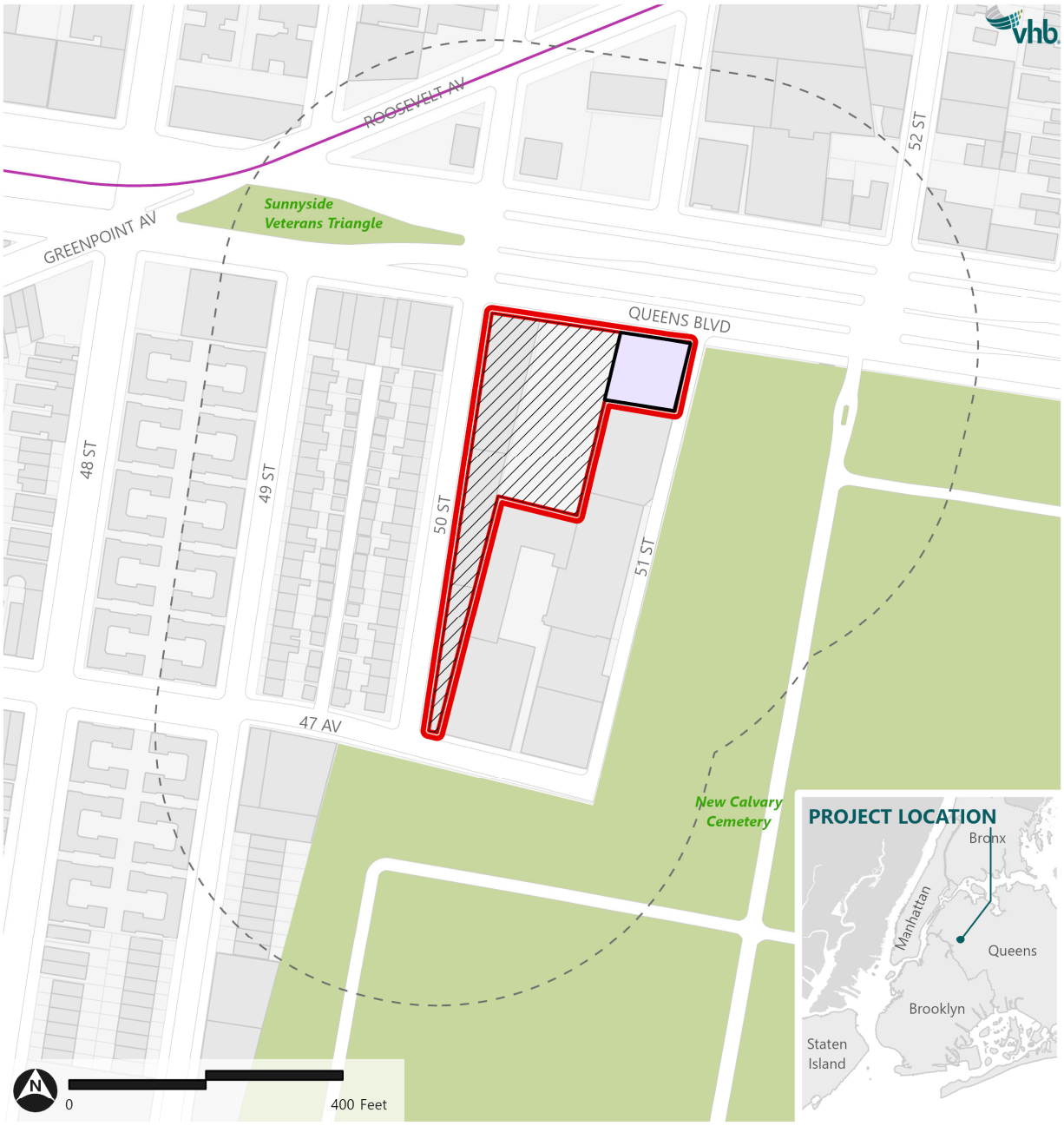
The New York City Department of City Planning (DCP) is the lead agency for purposes of environmental review.

Description of the Project Area

The Project Area encompasses Queens Block 2283, Lots 1, 12, 22, 36, and 43 in the Woodside neighborhood of Queens Community District 2. As described above, the Project Area includes all of Applicant-owned Projected Development Site 1 (i.e., Blocks 1, 12, 22, and 36) and all of non-Applicant-owned Lot 43. The Project Area is bounded by Queens Boulevard to the north, 51st Street to the east, 50th Street to the west, and 47th Avenue to the south and has a total lot area of approximately 70,095 square feet (sf) (see **Figure I-1**).

Lots 1, 12, and 22 are currently occupied with a one-story P.C. Richard & Son appliance and electronics store totaling approximately 24,908 gsf. Specifically, Lot 1 contains approximately 4,708 gsf; Lot 12 contains approximately 8,200 gsf; and Lot 22 contains approximately 12,000 gsf. An accessory surface parking lot for the P.C. Richard & Son store is located on Lot 36. It has an area of approximately 32,696 sf and accommodates approximately 90 parking spaces. Lot 43 is currently occupied with a Teachers Federal Credit Union; the three-story commercial building is approximately 16,703 gsf and has 10 accessory parking spaces.

Figure I-1 Site Location Map



Source: DCP Map PLUTO

Proposed Actions

The Applicant is seeking a zoning map amendment to rezone the Project Area from M1-1 and R4[1] to R7X/C2-4 (to a depth of 125 feet from Queens Boulevard and from the mid-line of 50th Street to the easternmost boundary of Lot 43, encompassing the full mapped width of 51st Street) and R7A (for the balance of the Project Area); and a zoning text amendment that would map the proposed R7X/C2-4 and R7A districts as an MIH Area by creating a new map for Queens Community District 2 in Appendix F of the New York City Zoning Resolution (ZR).

Proposed Project and With-Action Condition

The Applicant is seeking approval of the Proposed Actions to facilitate development of the Proposed Project. In the With-Action condition, Projected Development Site 1 would be redeveloped with an 11-story, 115-foot-tall, mixed-use building of approximately 361,508 gsf (277,303 zsf). The Proposed Project would contain approximately 278,047 gsf (253,260 zsf) of residential space, 20,171 gsf (19,735 zsf) of commercial space, 4,308 gsf (4,308 zsf) of community facility (daycare) space, and 129 accessory parking spaces. The ground floor commercial space would be occupied by the existing retail tenant at Projected Development Site 1 (P.C. Richard & Son). The ground floor community facility space would be occupied by a daycare, with additional space in the cellar and a landscaped outdoor play area on the southernmost portion of the site. Stories two through 11 would be occupied by 257 rental apartments, of which 64 to 77 would be affordable under MIH. Accessory parking will be provided at the ground floor and within the cellar and will be accessed via a new curb cut on 50th Street. A loading berth and area for P.C. Richard & Son will be accessed via a new curb cut on 51st Street.

Project Purpose and Need

The Development Site has remained M1-1 while all neighboring areas have seen rezonings to encourage and facilitate the development of new commercial and community facility uses and affordable housing. Similar to the neighboring properties that have been rezoned to allow mixed-use development, the Development Site has strong access to transit; it is roughly equidistant to the 46th Street and 52nd Street stops on the 7 train. The Development Site also fronts on Queens Boulevard, a wide street that serves a major corridor within the borough.

The proposed R7X district is consistent with the R7X established by the Maspeth-Woodside rezoning along Queens Boulevard east of the subject block and is appropriate in light of the width of Queens Boulevard and its proximity to the 365-acre Calvary Cemetery and the 7 train. The proposed R7A district is consistent with the R7A-equivalent districts created by the Sunnyside-Woodside rezoning west and northwest of the subject block. The lower-density R7A district is also more in line with the low-rise zoning (R5B) and built character of the block directly west of the subject block, where two-story, one- and two- family dwellings predominate.

The Proposed Actions would also map a Mandatory Inclusionary Housing area with MIH Option 1 coterminous with the proposed rezoning area, thereby requiring that a share of new housing

[1] While Lot 43 is zoned M1-1/R4, the R4 portion of the lot is mapped with an easement that is currently occupied by a segment of 51st Street and the continuation of the adjacent Calvary Cemetery.

constructed on Projected Development Site 1 be permanently affordable. The provision of affordable housing would help advance a City-wide initiative to generate 300,000 affordable homes by 2026, as detailed in the Housing New York 2.0 Plan.

Analysis Framework and Reasonable Worst-Case Development Scenario

For the purpose of the environmental analyses, the No-Action condition represents the future absent the Proposed Actions and serves as the baseline by which the Proposed Actions (or With-Action condition) are compared to determine the potential for significant environmental impacts. The difference between the No-Action and With-Action conditions represents the increment to be analyzed in the CEQR process.

Future No-Action Condition

No development is expected to occur on the Development Site absent the Proposed Actions and existing conditions would remain unchanged in the future No-Action condition. Within the Development Site, Lots 1, 12, and 22 are currently occupied with a one-story P.C. Richard & Son appliance and electronics store of approximately 24,908 gsf in total. Specifically, Lot 1 contains approximately 4,708 gsf; Lot 12 contains approximately 8,200 gsf; and Lot 22 contains approximately 12,000 gsf. An accessory surface parking lot for the P.C. Richard & Son store is located on Lot 36. It has an area of approximately 32,696 sf and accommodates approximately 90 parking spaces. Lot 43 is currently occupied with a Teachers Federal Credit Union; the three-story commercial building is approximately 16,703 gsf and has 10 accessory parking spaces.

Future With-Action Condition

As stated previously, in the future With-Action condition the Applicant is seeking a Zoning Map Amendment to rezone the Project Area from M1-1 and R4 to R7X/C2-4 and R7A and a Zoning Text Amendment to apply MIH to facilitate the Proposed Project.

The Proposed Project would consist of a 11-story, 115-foot-tall, mixed-use building with residential, commercial, and community facility uses. The ground floor commercial space would be occupied by the existing retail tenant on the Development Site (P.C. Richard & Son). The ground floor community facility space would be occupied by a daycare, with additional space in the cellar and a landscaped outdoor play area on the southernmost portion of Projected Development Site 1. Stories two through 11 would be occupied by 257 rental apartments, of which 64 to 77 are anticipated to be affordable under MIH. Accessory parking will be provided at the ground floor and within the cellar and will be accessed via two new curb cuts on 50th Street. No loading berths are required per zoning, and loading for the future P.C. Richard & Son would take place along Projected Development Site 1's 50th Street frontage via a side entrance door.

In addition, as described above, it is expected that Projected Development Site 2 would be redeveloped with a 14-story, 145-foot-tall, mixed-use building of approximately 74,944 gsf. It would contain approximately 63,089 gsf of residential space, 3,228 gsf of commercial space, and 24 accessory parking spaces. The ground floor commercial space at Projected Development Site 2 would be occupied by a local retail tenant. Stories two through 14 would be occupied by 63 rental

apartments, of which 16 to 19 units are anticipated to be affordable under MIH. Accessory parking will be provided at the ground floor and within the cellar and will be accessed via an existing curb cut along Queens Boulevard. Consistent with the Proposed Project, the residential uses at Projected Development Site 2 assume an average dwelling unit size of approximately 1,000 gross square feet.

Combined, both projected development sites would introduce approximately 341,136 gsf of residential uses (341 DUs; of which approximately 80 to 96 units would be affordable pursuant to MIH), 23,399 gsf of commercial uses, 4,308 gsf of community facility (daycare) uses, and 153 accessory parking spaces (67,609 gsf), for a total development of 436,452 gsf.

Increment for Analysis

Increment Table can be found in **Table I-1**.

Table I-1 Future No-Action and With-Action Comparison in GSF

	Existing Conditions	No-Action Condition	With-Action Condition	Increment
Commercial	41,611	41,611	23,399	-18,212
Community Facility	0	0	4,308	+4,308
Residential	0	0	341,136	+341,136
Units (Total)	0	0	341	+341
Units (Affordable)	0	0	80 - 96	+80 - 96
Total GSF	41,611	41,611	436,452	+394,841

Analysis (Build) Year

It is anticipated that the application review period and the Uniform Land Use Review Procedure (ULURP) will conclude in the third quarter of 2025; the Proposed Project would receive construction approvals in the first quarter of 2026; and the Proposed Project would conclude construction and become operational in the fourth quarter of 2027.

Public Review Process

The Proposed Actions described above is subject to public review under the Uniform Land Use Review Procedure (ULURP), Section 200 of the City Charter, as well as City Environmental Quality Review (CEQR) procedures.

The New York City Charter (the Charter) requires certain actions that are reviewed by the City Planning Commission (CPC) to comply with ULURP. ULURP is a standardized procedure whereby applications affecting the land use of the city would be publicly reviewed. The Charter also established mandated time frames within which application review must take place. Key participants in the ULURP process are the Department of City Planning (DCP) and the CPC, the local community board, the Manhattan Borough President, the City Council and the Mayor.

The New York City Department of City Planning (DCP) will serve as the lead agency for the purposes of environmental review.

Part II: Supplemental Analyses

Additional Technical Information for EAS Full Form

An analysis framework has been established to assess the potential for the Proposed Actions to result in significant adverse environmental impacts.

The EAS examines the potential for significant adverse impacts to result from the Proposed Actions. As described in **Part I: Project Description**, the Applicant is requesting a zoning map amendment and a zoning text amendment (the Proposed Actions) affecting Queens Block 2283, Lots 1, 12, 22, 36, and 43 (the Project Area). The proposed Project would facilitate the development of a mixed-use building of approximately 361,508 gross square feet (gsf) (the Proposed Project) on Applicant-owned Lots 1, 12, 22, and 36 (the Development Site, or Projected Development Site 1) at 50-02 Queens Boulevard in the Woodside neighborhood of Queens Community District 2.

The Proposed Project would include approximately 278,047 gsf (253,260 zoning square feet [zsf]) of residential space (or 257 units), 20,171 gsf (19,735 zsf) of commercial space, 4,308 gsf (4,308 zsf) of community facility (daycare) space, and 129 accessory parking spaces. The Proposed Project would meet the requirements of the MIH program and have a maximum height of 115 feet (excluding the bulkhead).

In addition to the Applicant-owned Projected Development Site 1, the Proposed Actions would also affect the non-Applicant-owned property at Lot 43 (Projected Development Site 2). In the future with the Proposed Actions, Projected Development Site 2 is expected to be redeveloped with a 14-story (145-foot-tall, excluding bulkhead) mixed-use building of approximately 74,944 gsf (63,783 zsf), containing approximately 63,089 gsf (60,555 zsf) of residential space (63 units), 3,228 gsf (3,228 zsf) of commercial space, and 24 accessory parking spaces.

Combined, the two projected development sites would introduce approximately 341,136 gsf of residential space (341 units, 80 to 96 of which would be affordable pursuant to MIH), 23,399 gsf of commercial space, 4,308 gsf of community facility (daycare) uses, and 153 accessory parking spaces (67,609 gsf), totaling 436,452 gsf of development.

Provided below are preliminary screening analyses, conducted based on guidelines presented in the *2021 CEQR Technical Manual* in order to determine whether further analysis of a given technical area is necessary to determine the potential for significant adverse impacts to the environment in that area.

Land Use, Zoning, and Public Policy

According to the *CEQR Technical Manual,* a land use analysis is warranted for projects that would affect land use or change zoning on a site. Because the Proposed Actions would include a zoning map amendment and a zoning text amendment, a land use, zoning, and public policy analysis is warranted. See **Section 2, Land Use, Zoning, and Public Policy**.

Socioeconomic Conditions

The socioeconomic character of an area includes its population, housing, and economic activity. Socioeconomic changes may occur when a project directly or indirectly changes any of these elements. Although socioeconomic changes may not result in impacts under CEQR, they are disclosed if they would affect land use patterns, low-income populations, the availability of goods and services, or economic investment in a way that changes the socioeconomic character of the area.

The following screening assessment considers threshold circumstances identified in the *2021 CEQR Technical Manual* and enumerated below that can lead to socioeconomic changes warranting further assessment.

- **Direct Residential Displacement:** *Would the project directly displace residential population to the extent that the socioeconomic character of the neighborhood would be substantially altered? Displacement of fewer than 500 residents would not typically be expected to alter the socioeconomic character of a neighborhood.*

  The Project Area does not contain any residential uses or population. Therefore, no analysis of direct residential displacement is warranted.

- **Direct Business Displacement:** *Would the project directly displace more than 100 employees, or would the project directly displace a business whose products or services are uniquely dependent on its location, are the subject of policies or plans aimed at its preservation or serve a population uniquely dependent on its services in its present location? If so, assessments of direct business displacement and indirect business displacement are appropriate.*

  The Project Area contains a P.C Richard & Son and a Teachers Federal Credit Union, both of which would be demolished and redeveloped under the Proposed Project. However, the P.C. Richard & Son would return to the Development Site and occupy the commercial space within the Proposed Project. The Proposed Project would also include new community facility space, which would be occupied by a daycare. The Proposed Actions would not directly displace more than 100 employees and further assessment of direct business displacement is not warranted.

- **Indirect Displacement due to Increased Rents:** *Would the project result in substantial new development that is markedly different from existing uses, development, and activities within the neighborhood? Residential development of 200 units or less or commercial development of 200,000 square feet (sf) or less would typically not result in significant socioeconomic impacts. For projects exceeding these thresholds, assessments of indirect residential displacement and indirect business displacement are appropriate.*

  The Proposed Actions would result in the introduction of more than 200 residential units; therefore, an assessment of potential indirect residential displacement is warranted.

  The Proposed Actions would not result in the addition of more than 200,000 sf of commercial space. Therefore, there is no potential for indirect business displacement, and further assessment is not warranted.

- **Indirect Business Displacement due to Retail Market Saturation:** *Would the project result in a total of 200,000 sf or more of retail on a single development site or 200,000 sf or more of region-serving retail across multiple sites?*

The Proposed Actions would not result in the addition of more than 200,000 sf of retail. Therefore an assessment of potential indirect business displacement due to retail market saturation is not warranted.

› **Adverse Effects on Specific Industries:** *Is the project expected to affect conditions within a specific industry? For example, a citywide regulatory change that would adversely affect the economic and operational conditions of certain types of businesses or processes may affect socioeconomic conditions in a neighborhood: (1) if a substantial number of residents or workers depend on the goods or services provided by the affected businesses; or (2) if it would result in the loss or substantial diminishment of a particularly important product or service within the city.*

The Proposed Actions would not be expected to affect conditions within a specific industry, affect a substantial number of workers or residents who depend on the goods or services provided by affected businesses, or result in the loss or substantial diminishment of a particularly important product or service within the City. Therefore, an assessment of adverse effects on specific industries is not warranted.

Based on the screening assessment presented above, the Proposed Actions warrant an analysis of indirect residential displacement (see **Section 3, Socioeconomic Conditions**) but do not warrant additional analysis for the potential for direct residential displacement, direct business displacement, indirect business displacement due to retail market saturation, or adverse effects on specific industries.

Community Facilities and Services

The *CEQR Technical Manual* states that a community facilities assessment is appropriate if a project would have a direct effect on a community facility (e.g., schools, childcare facilities, libraries, health care facilities, police, and fire protection services) or if it would have an indirect effect by introducing new populations that would overburden existing facilities. The *CEQR Technical Manual* further states that for public schools, libraries, and childcare centers, potential impacts depend on the size, income characteristics, and age distribution of the new population.

The Proposed Actions would not directly eliminate, displace, or alter public or publicly funded community facilities such as health care facilities, police stations, or fire stations. Therefore, the Proposed Actions do not warrant an analysis of direct effects on these community facilities.

The Proposed Actions do not have the potential to indirectly impact libraries, early childhood programs, health care facilities, or police and fire protection services. Analysis of police and fire protection services and health care facilities would be warranted if a project introduces a sizeable new neighborhood, which the Proposed Actions would not. Similarly, analysis of libraries would be warranted if a project in Queens introduces more than 663 total units, which the Proposed Actions would not.

Analysis of existing childcare centers would be warranted if a project in Queens introduced 139 units affordable to residents earning not more than 80 percent of the area median income (AMI) in Queens and therefore had the potential to introduce 20 or more eligible children under age six. Because the Proposed Actions are anticipated to introduce a maximum of 96 affordable units under MIH, further analysis of childcare centers is not warranted.

The Proposed Actions would introduce 130 elementary students, 43 intermediate school students, and 34 high school students. Because the Proposed Actions would introduce more than 50

elementary and intermediate school students, an assessment of elementary and intermediate public schools is warranted. See **Section 4, Community Facilities and Services**.

Open Space

Introduction

The *CEQR Technical Manual* recommends performing an open space assessment if a project would result in either a direct or indirect effect on open space.

A proposed action would have a direct effect on an open space if it causes the physical loss of public open space because of encroachment onto the space or displacement of the space; changes the use of an open space so that it no longer serves the same user population; limits public access to an open space; or results in increased noise or air pollutant emissions, odor, or shadows that would affect the usefulness of a public open space, whether on a permanent or temporary basis. A proposed project can also directly affect an open space by enhancing its design or increasing its accessibility to the public.

Indirect effects may occur when the population generated by a 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. The *CEQR Technical Manual* threshold for the preliminary assessment of indirect effects is whether the proposed actions would introduce more than 200 residents or 500 employees.

Direct Effects

The Proposed Actions would not result in a physical loss of public open space, affect the use of an open space so that it no longer serves the same user population, limit public access to an open space, cause increased noise or air pollutant emissions, odors, or shadows on public open space that would affect its usefulness, or involves the alienation or conversion of public parkland. Therefore, no analysis of direct effects to open space is warranted.

Indirect Effects

Because the Proposed Actions would introduce 815 residents, which is above the 200-resident threshold, an analysis of potential indirect effects on residential open space is warranted. See **Section 5, Open Space.** The Proposed Actions would not exceed the threshold to warrant an assessment of indirect effects on non-residential open space ratios.

Shadows

The *CEQR Technical Manual* requires a shadows assessment for actions that would result in new structures (or additions to existing structures) greater than 50 feet in height or located adjacent to, or across the street from, a sunlight-sensitive resource. Such resources include publicly accessible open spaces, sunlight-sensitive natural features, or historic resources with sun-sensitive features.

The Proposed Actions would result in the construction of a new buildings up to 145 feet in height (excluding the bulkhead) and located adjacent to a sunlight-sensitive resource. Therefore, a shadows assessment is warranted. See **Section 6, Shadows**.

Historic and Cultural Resources

According to the *CEQR Technical Manual,* a historic and cultural resources assessment is warranted if there is the potential to affect either archaeological or architectural resources. The manual further recommends that a historic resources assessment be prepared if an action would result in any of the following: in-ground disturbance; new construction, demolition, or significant physical alteration of any building, structure, or object; the change in scale, visual prominence, or visual context of any building, structure, or object or landscape feature; or the screening or elimination of publicly accessible views, even if no known historic resources are located nearby.

Archaeological resources are physical remains, usually subsurface, of the prehistoric, Native American, and historic periods—such as burials, foundations, artifacts, wells, and privies. Archaeological resources are considered only in those areas where new in-ground disturbance is likely to occur. The Proposed Actions involve demolition of existing buildings and new ground disturbance. The Project Area is not within an Area of Archaeological Sensitivity as defined by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP). In a February 2000, a Memorandum: Preliminary Assessment/Disturbance Record was issued for Queens Block 2283, Lots 1, 12, 22, and 36 in connection with a school siting proposal and concluded that further archaeological study or testing is not recommended (see **Appendix A**). Therefore, an assessment of archaeological resources is not warranted.

Architectural resources generally include historically important buildings, structures, objects, sites, and districts. Historic and cultural resources include designated New York City Landmarks (NYCLs) and Historic Districts; properties calendared for consideration as NYCLs by the New York City Landmarks Preservation Commission (LPC) or determined eligible for NYCL designation (NYCL-eligible); properties listed on the State and National Register of Historic Places (S/NR) or formally determined eligible for S/NR listing (S/NR-eligible), or properties contained within a S/NR listed or eligible district; properties recommended by the New York State Board for listing on the S/NR; National Historic Landmarks (NHLs); and potential historic resources (i.e., properties not identified by one of the programs listed above, but that appear to meet their eligibility requirements). The Project Area is not located within 400 feet of existing historic and cultural resources. Therefore, an assessment of architectural resources is not warranted.

Urban Design and Visual Resources

According to the methodologies of the *CEQR Technical Manual,* if a proposed action would result in physical changes to a project site beyond those allowable by existing zoning and which could be observed by a pedestrian from street level, a preliminary assessment of urban design and visual resources should be prepared.

Because the Proposed Actions would result in physical changes to the Project Area beyond those allowable by existing zoning and which could be observed by a pedestrian from street level, a preliminary assessment of urban design and visual resources is warranted. See **Section 7, Urban Design and Visual Resources**.

Hazardous Materials

According to the *CEQR Technical Manual,* a hazardous materials assessment is conducted when elevated levels of hazardous materials exist on a site; when an action would increase pathways to their exposure, either human or environmental; or when an action would introduce new activities or processes using hazardous materials, thereby increasing the risk of human or environmental exposure. Because the Proposed Actions would result in new in-ground disturbance, an assessment of hazardous materials is warranted. See **Section 8, Hazardous Materials**.

Transportation

According to the *CEQR Technical Manual,* detailed transportation analyses may be warranted if a proposed project results in 50 or more vehicle trips and/or 200 or more transit/pedestrian trips during a given peak hour. A screening analysis determined that the volume of peak hour vehicle trips in the future with the Proposed Actions would meet the Level 1 screening threshold in the weekday AM period and the Level 1 screening threshold for subway trips would be exceeded. Therefore, further analysis is warranted. See **Section 9, Transportation**.

Air Quality

Ambient air quality, or the quality of the surrounding air, may be affected by air pollutants produced by motor vehicles, referred to as "mobile sources"; by fixed facilities, usually referenced as "stationary sources"; or by a combination of both. Per the *CEQR Technical Manual*, an air quality assessment determines a project's effects on ambient air quality and the effects of ambient air quality on the project. A proposed project may potentially result in the following types of air quality impacts:

- Potential impacts from mobile sources introduced by a project
- Potential impacts from potential air pollutant sources introduced by a project, such as:
  - Emissions from a project's heating, ventilation, and air conditioning (HVAC) system
  - Emissions from a project's enclosed parking garage
  - Potential impacts on the proposed project from either manufacturing/processing facilities or large/major sources that are located near the project site

Because the Proposed Actions would introduce new mobile sources, the air quality assessment includes a screening analysis and a parking analysis. The air quality assessment also considers potential impacts on Projected Development Sites 1 and 2 from manufacturing/processing facilities or large/major sources that are located near the Project Area. See **Section 10, Air Quality.**

Noise

As discussed in the *CEQR Technical Manual*, a noise analysis is appropriate if a proposed action would generate mobile or stationary sources of noise or would introduce noise-sensitive receptors in an area with high ambient noise levels. Mobile sources include vehicular traffic and stationary sources include rooftop equipment such as emergency generators, cooling towers, and other mechanical equipment.

The Proposed Actions are not anticipated to introduce any substantial stationary source noise generators, such as unenclosed cooling or ventilation equipment, loudspeaker systems, stationary diesel engines, or other similar types of uses. The design and specifications for mechanical equipment—such as heating, ventilation, and air conditioning (HVAC) systems—would incorporate sufficient noise reduction to comply with applicable noise regulations and standards, including the standards contained in the revised New York City Noise Control Code. This will ensure that mechanical equipment does not result in any significant increases in noise levels, either by itself or cumulatively with other project noise sources.

As the Proposed Actions would introduce new noise-sensitive land uses, a noise analysis is warranted. See **Section 11, Noise.**

Construction

Construction impacts, although temporary, can include disruptive and noticeable effects resulting from an action. Determination of their significance and need for mitigation is generally based on the duration and magnitude of the impacts. Construction impacts are considered when construction activity could affect traffic conditions, archaeological resources, the integrity of historic resources, community noise levels, and area air quality conditions. In addition, because soils may be disturbed during construction, any action proposed for a site that has been found to have the potential to contain hazardous materials should also consider the potential construction impacts that could result from contamination.

A construction assessment is typically warranted for construction activities (a) lasting longer than two years; (b) located along an arterial highway or major thoroughfare; (c) involving the closing, narrowing, or otherwise impeding of traffic, transit, or pedestrian elements; (d) involving multiple buildings; (e) involving the operation of several pieces of diesel equipment in a single location; (f) resulting in the closure or disruption of a community facility service; (g) located within 400 feet of a historic or cultural resource; (h) disturbing a site containing or adjacent to a natural resources; and/or (i) occurring on multiple sites in the same geographic area.

Because construction associated with the Proposed Actions is expected to last fewer than 24 months, no further analysis is warranted. Construction activities would not involve operation of several pieces of diesel equipment in a single location. Further, construction activities would not result in the closure of a community facility or the disruption of its services, nor would it occur within 400 feet of a historic or cultural resource or on a site containing or adjacent to natural resources.

1

Introduction

As discussed in **Part II: Supplemental Analysis** of this Environmental Assessment Statement (EAS), several technical areas were identified for further analysis:

- Land Use, Zoning, and Public Policy
- Socioeconomic Conditions
- Community Facilities
- Open Space
- Shadows
- Urban Design and Visual Resources
- Hazardous Materials
- Transportation
- Air Quality
- Noise

Analysis of these areas follow in **Section 2** through **Section 11**.

2

Land Use, Zoning, and Public Policy

This section considers the potential for the Proposed Actions to result in significant adverse impacts to land use, zoning, and public policy. Per the *2021 CEQR Technical Manual*, this analysis evaluates the uses in the area that may be affected by the Proposed Actions and determines whether the Proposed Actions are compatible with land use, zoning, and public policy conditions, or may otherwise affect them. The analysis also considers the Proposed Actions compatibility with zoning regulations and other public policies applicable to the area.

Introduction

As described in **Part I: Project Description**, the Applicant is seeking a zoning map amendment and a zoning text amendment (the Proposed Actions) affecting Queens Block 2283, Lots 1, 12, 22, 36, and 43 (the Project Area). The Proposed Actions would facilitate the development of a mixed-use building of approximately 361,508 gross square feet (gsf) (the Proposed Project) on Lots 1, 12, 22, and 36 (the Development Site, or Projected Development Site 1) at 50-02 Queens Boulevard in the Woodside neighborhood of Queens Community District 2. The Proposed Project would include approximately 278,047 gsf of residential space (257 units), 20,171 gsf of commercial space, 4,308 gsf of community facility (daycare) space, and 129 accessory parking spaces. The Proposed Project would meet the requirements of the MIH program and have a maximum height of 115 feet (excluding the bulkhead).

In addition to the Applicant-owned Projected Development Site 1, the Proposed Actions would also affect the non-Applicant-owned property at Lot 43 (Projected Development Site 2). In the future with the Proposed Actions, Projected Development Site 2 is expected to be redeveloped with a 14-story (145-foot-tall, excluding bulkhead) mixed-use building of approximately 74,944 gsf, containing

approximately 63,089 gsf of residential space (63 units), 3,228 gsf of commercial space, and 24 accessory parking spaces.

Combined, the projected development sites would introduce approximately 341,136 gsf of residential space (341 units, 80 to 96 of which would be affordable pursuant to MIH), 23,399 gsf of commercial space, 4,308 gsf of community facility (daycare) space, and 153 accessory parking spaces (67,609 gsf), totaling 436,452 gsf of development.

According to the *CEQR Technical Manual*, an analysis of land use, zoning, and public policy is warranted for projects that would affect land use or zoning on a site. Because the Proposed Actions include a zoning map amendment and a zoning text amendment, an analysis of land use, zoning, and public policy is warranted.

Methodology

This analysis of land use, zoning, and public policy follows the guidelines set forth in the *CEQR Technical Manual* for a preliminary assessment (Section 320). According to the *CEQR Technical Manual*, a preliminary land use and zoning assessment:

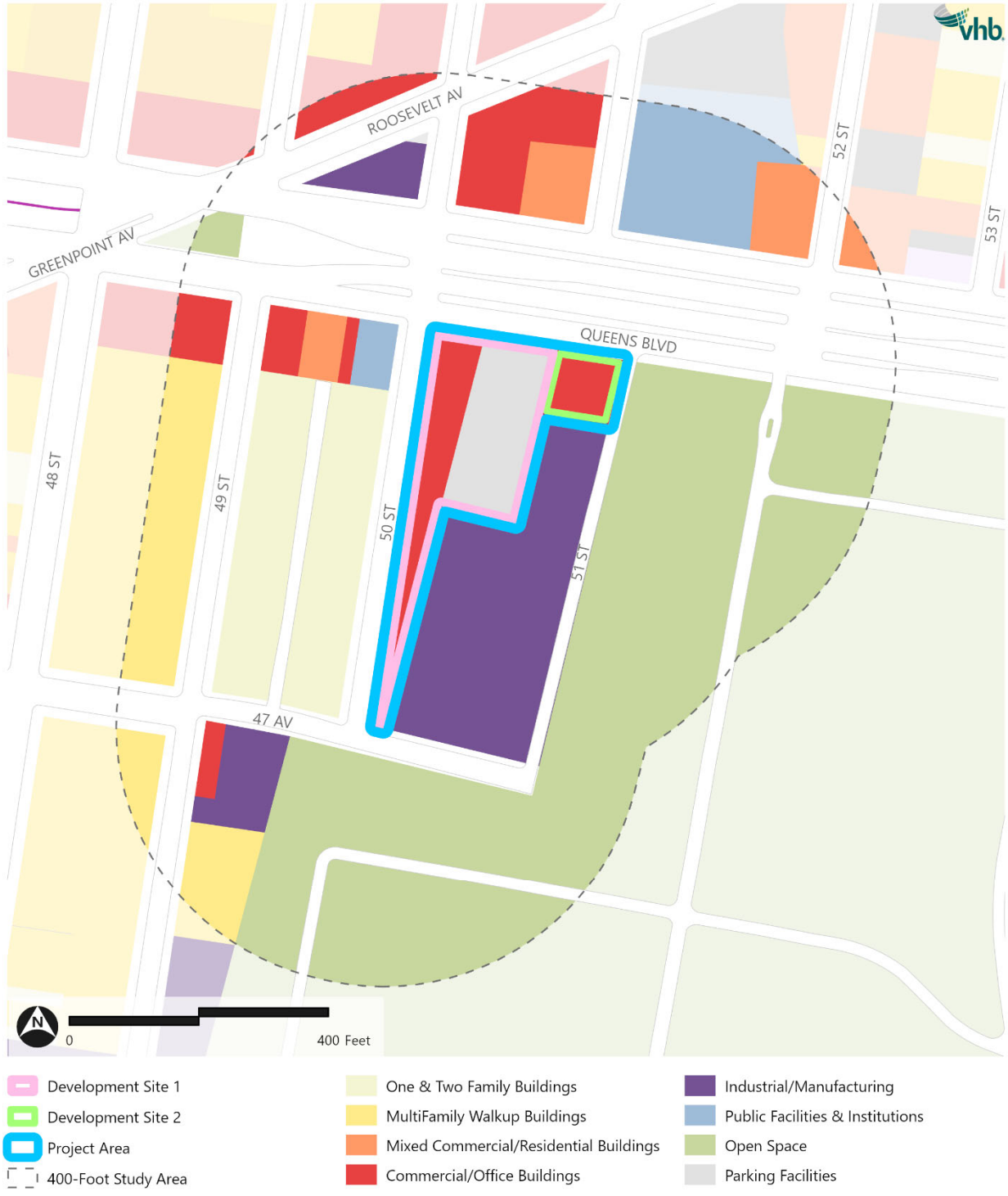
- Describes existing and future land uses and zoning information, and describes any changes in zoning that could cause changes in land use;
- Characterizes the land use development trends in the area surrounding the project site that might be affected by the proposed action; and
- Determines whether the Proposed Actions are compatible with those trends or may alter them.

The following assessment method was used to determine the potential for the Proposed Actions to result in significant adverse impacts on land use, zoning, and public policy:

1. Establish a "study area," a geographic area surrounding the Development Site to determine how the Proposed Actions may affect the immediate surrounding area. For this assessment, a study area of 400 feet surrounding the Development Site was used.
2. Identify data sources, including any public policies (formal plans, published reports) to be used to describe the existing and No-Action conditions related to land use, zoning, and/or public policy.
3. Assess the Proposed Actions potential effects on land use, zoning and public policy to determine whether the Proposed Actions are consistent with or conflict with area land uses, zoning, or the identified policies.
    - If the Proposed Actions could conflict with the identified policies, a detailed assessment would be conducted; or
    - If the Proposed Actions are found to not conflict with the identified policies, no further assessment is needed.

The study area for this analysis is the area within 400-feet of the Development Site, which is generally bounded by Queens Boulevard and Roosevelt Avenue to the north, New Calvery Cathedral Cemetery to the east and the south, and 49th Street to the east (see **Figure 2-1**). This is the area in which the Proposed Actions would most likely have effects in terms of land use, zoning, and public policy.

Figure 2-1 Land Use Map



Source: DCP Map PLUTO

Assessment

Existing Conditions

Land Use

Project Area

The Project Area comprises approximately 70,095 sf and encompasses Queens Block 2283, Lots 1, 12, 22, 36, and 43. Lots 1, 12, and 22 are located on the western portion of the Project Area and are currently occupied with a one-story commercial building (P.C. Richard & Son) totaling approximately 24,908 gsf. An accessory surface parking lot for the P.C. Richard & Son is located on Lot 36 fronting Queens Boulevard. It has an area of approximately 32,696 sf and contains approximately 90 spaces. Lot 43, located at the corner of Queens Boulevard and 51st Street, is currently occupied with a three-story commercial office building (Teachers Federal Credit Union) of approximately 16,703 gsf.

Study Area

The Project Area is located within the Woodside neighborhood of Queens Community Board 2. The study area for this analysis is the area within 400-feet of the Project Area, which is generally bounded by Queens Boulevard and Roosevelt Avenue to the north, New Calvery Cathedral Cemetery to the east and the south, and 49th Street to the east. As shown in **Table 2-1**, the study area is characterized by predominately mixed-use, residential, commercial, and industrial uses in addition to some institution and open space uses.

Queens Boulevard, a major thoroughfare, provides east-west access through, and generally splits land uses in, the study area, with mixed-use and commercial to the north and residential to the south. More specifically, the portion of the study area located north of Queens Boulevard contains two large mixed-use buildings, with ground floor commercial space and residential units above, as well as a gas station, a large church (the Korean Presbyterian Church of Southern NY), and low-rise commercial buildings. The northwest corner of the study is traversed by Roosevelt Avenue, which is characterized by the elevated IRT Flushing Line, and also contains a portion of Sunnyside Veterans Triangle (Joe Sabba Park).

The portion of the study area located west of Project Area is predominately residential in use, except for the block frontages along Queens Boulevard, which contain a mix of mixed-use, commercial, and institution uses. The block directly adjacent to the Project Area, between 49th and 50th Streets, contains one- and two-family homes, whereas the blocks between 48th and 49th Streets contain multi-family residential buildings. The southwest corner of the study area, near the intersection of 47th Avenue and 49th Street contains commercial space, including a property management office, a dance studio, and industrial space.

The block on which the Project Area is located also contains industrial space, such as a construction equipment rental company. Directly to the east and south of the Project Area is New Calvary Cemetery, which is owned by the Roman Catholic Archdiocese of New York.

Table 2-1 Study Area Generalized Land Uses

Land Use	Number of Tax Lots[2]	Percentage of Total Lots (%)	Lot Area (sf)	Percentage of Total Lot Area (%)
One & Two Family Residential	40	45%	100,811	1.90%
Multifamily Walkup Residential	12	13%	173,124	3.26%
Mixed Commercial/Residential	7	8%	43,117	0.81%
Commercial and Office	14	16%	132,756	2.50%
Industrial/Manufacturing	9	10%	132,180	2.49%
Public Facilities and Institutions	3	3%	54,469	1.03%
Open Space	2	2%	4,635,729	87.38%
Parking Facilities	1	1%	32,696	0.62%
Vacant Land	1	1%	304	0.01%
Total	**89**	**100%[1]**	**5,305,186**	**100%[1]**

Source: Map PLUTO 21v3

[1] Numbers may not add up to 100% due to rounding

[2] All Lots intersecting the 400-foot radius study area were included in analysis

Zoning

Project Area

The Project Area is mapped with M1-1 and R4 zoning districts (see **Figure 2-2**) and all of the Project Area and study area are within a Transit Zone. M1 districts typically include light industrial uses, such as woodworking shops, repair shops, and wholesale service and storage facilities. Offices, hotels, and most retail uses are also permitted. The maximum manufacturing floor area ratio (FAR) for an M1-1 district is 1.0. M1-1 districts are also subject to parking requirements, generally one accessory parking space per 300 square feet.

R4 districts allow all types of housing at a floor area ratio (FAR) of 0.75. This zoning district usually produces buildings with three stories. One off-street parking space is required for each dwelling unit, however, parking requirements are lower for income-restricted housing units (IRHU) and are further modified within the Transit Zone.

Transit Zones are designated areas generally located within half a mile of a subway station, where car ownership rates are low. The intent behind these zones is to reduce the burden of parking requirements, thereby lowering the cost of affordable housing development and promoting the use of public transit. The Project Area is an approximately 0.2 mile walk from the 7 train at both the 46th St-Bliss Street station and the 52nd Street station.

Study Area

As shown in **Figure 2-2**, the study area contains a mix of residential, commercial, and manufacturing zoning districts. The portion of the study area with frontages on the north side of Queens Boulevard is zoned R7X with a C2-3 overlay. The remainder of the blocks to the north and northwest of the Project Area are zoned R6 with a C2-3 overlay. The northwestern portion of the study area is zoned C4-4A and C8-1, and the area to the west of the Project Area is zoned R5B and R6A. The southwestern portion of the study area and balance of the block on which the Project Area is located are zoned M1-1, and the area east of the Project Area is zoned R4 (described above).

R5B is a primarily three-story rowhouse district, but also permits detached and semi-detached buildings. The traditional quality of R5B districts is reflected in the district's height and setback as well as front yard and curb cut regulations that maintain the character of the neighborhood. The FAR in R5B districts is 1.35.

R6A is a contextual district where Quality Housing bulk regulations are mandatory and produce high lot coverage, six- to eight-story apartment buildings set at or near the street line. The FAR in R6A districts is 3.0, or 3.6 with inclusionary housing. Off-street parking is generally required for 50 percent of a building's dwelling units.

R6 districts are widely mapped in built-up, medium-density areas in Brooklyn, Queens, and the Bronx. The FAR ranges from 0.78 (for a single-story building) to 2.43 at a typical height of 13 stories. The open space ratio (OSR) ranges from 27.5 to 37.5, with taller buildings having more open space. Off-street parking is generally required for 70 percent of a building's dwelling units.

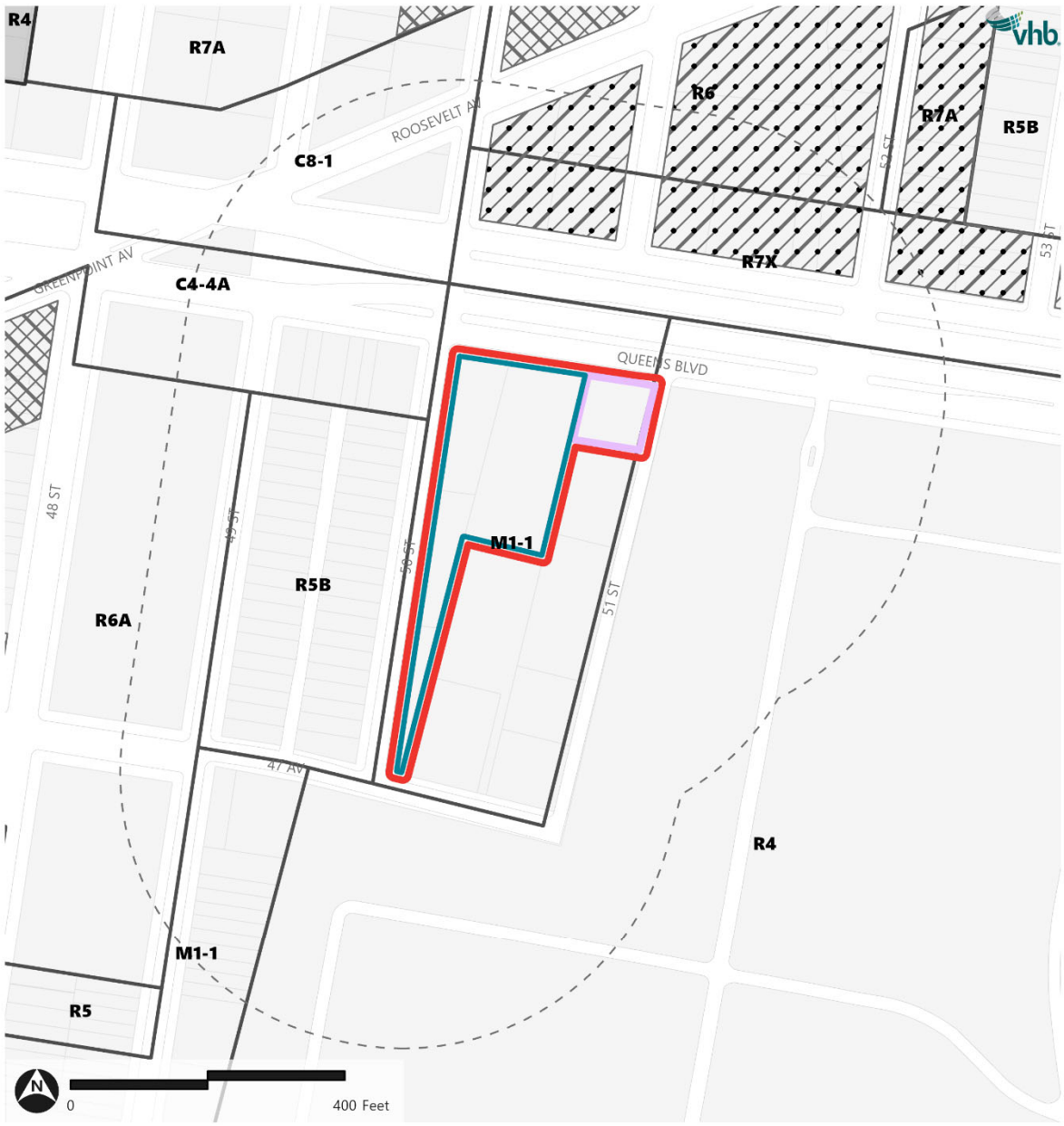
R7X districts are governed by contextual Quality Housing bulk regulations. The flexibility of the R7X regulations is exemplified by the 12- to 14-story apartment buildings in the R7X districts. The floor area ratio (FAR) in R7X districts is 5.0. Off-street parking is generally required for 50 percent 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.

A C2-3 overlay allows for a slightly wider range of retail uses and service shops that serve the immediate needs of surrounding residential communities. In these districts, residential bulk is governed by the residence district within which the overlay is mapped. A commercial floor area ratio (FAR) of 1.0 is permitted in C2-3 districts and overlaid in R1 to R5 residential districts while a FAR of 2.0 is permitted in C2-3 districts that are overlaid in R6 to R10 districts.

C4 districts are areas that permit larger commercial uses such as department stores and theaters. These retail uses serve larger regions outside of central business districts and generate more traffic than neighborhood shopping areas. C4-4A contextual commercial districts allow for a maximum floor area ratio (FAR) of 4.00 and residential uses are governed by the residential district equivalent R7A.

C8 districts, bridging commercial and manufacturing uses, provide for automotive and other heavy commercial services that often require large amounts of land. Typical uses are automobile showrooms and repair shops, warehouses, gas stations and car washes—although all commercial uses (except large, open amusements) as well as certain community facilities are permitted in C8 districts. The floor area ratio (FAR) in C8-1 districts is 1.0. One accessory parking space is required per 300 square feet.

Figure 2-2 Zoning Map



Source: DCP Map PLUTO

Public Policy

Housing New York 2.0

New York City first released the affordable housing plan, "Housing New York: A Five-Borough Ten-Year Plan," in May 2014 to create and preserve 200,000 high-quality, affordable homes over ten years. An updated version of the plan titled "Housing New York 2.0" was unveiled in November 2017, which commits to completing the initial goal of 200,000 affordable homes two years ahead of schedule, by 2022, and generating an additional 100,000 homes over the following four years.

PlaNYC/OneNYC 2050

In 2011, the Mayor's Office of Long-Term Planning and Sustainability released an update to PlaNYC: A Greener, Greater New York. PlaNYC represents a comprehensive and integrated approach to planning for New York City's future. It includes policies to address three key challenges that the City faces over the next twenty years: population growth; aging infrastructure; and global climate change. In the 2011 update, elements of the plan were organized into ten categories—housing and neighborhoods, parks and public space, brownfields, waterways, water supply, transportation, energy, air quality, solid waste, and climate change—with corresponding goals and initiatives for each category.

In April 2015, the Mayor's Office of Sustainability and the Mayor's Office of Recovery and Resiliency released OneNYC, a comprehensive plan for a sustainable and resilient city. OneNYC represents a reworking of the sustainability plan for the City, known as PlaNYC: A Greener, Greater New York, discussed above. Like PlaNYC, growth, sustainability, and resiliency remain at the core of OneNYC, but promoting economic equity is a guiding principle throughout the plan. OneNYC has since been updated to OneNYC 2050, which was released in 2019 and consists of eight goals and thirty initiatives.

The goals of the plan are:

- A Vibrant Democracy through empowering participation, welcoming immigrants, promoting justice and equal rights, and promoting democracy and civic innovation
- An Inclusive Economy through good paying jobs and job training, economic security through fair wages and benefits, and expanded decision-making power of workers and communities
- Thriving Neighborhoods through affordable housing, access to neighborhood open spaces and cultural resources, community safety, and place-based community planning
- Healthy Lives through high quality, accessible health care, addressing health and mental health needs of communities, making healthy lifestyles easier, and designing a healthy physical environment
- Equity and Excellence in Education through early childhood education, equity in K-12 opportunity, and increasing integration, diversity, and inclusion in NYC schools
- A Livable Climate through carbon neutrality and clean electricity, resilience, economic opportunities through climate action, and climate accountability and justice
- Efficient Mobility through modern mass transit, safe and accessible streets, reduced congestion and emissions, and regional and global connections

› Modern Infrastructure through investments in core physical infrastructure and hazard mitigation, digital infrastructure improvement, and best practices for asset maintenance and capital project delivery.

No-Action Condition

No development is expected to occur within the Project Area absent the Proposed Actions, and the existing conditions would remain unchanged in the future No-Action condition. Projected Development Site 1 is currently improved with a one-story P.C. Richard & Son appliance and electronics store of approximately 24,908 gsf and an accessory surface parking lot of approximately 32,696 sf with approximately 90 parking spaces. Projected Development Site 2 is currently improved with a three-story Teachers Federal Credit Union of approximately 16,703 gsf with 10 accessory parking spaces.

Land Use

In the future No-Action condition, existing uses within the Project Area and study area would be expected to remain unchanged. There are no new developments anticipated within the 400-foot study area under the No-Action condition.

Zoning

There are no anticipated zoning changes within the study area under the No-Action condition. The Project Area and study area would continue to be governed by the existing zoning regulations in the area, as described in the existing conditions section above.

Public Policy

In the future No-Action condition, there are no known public policy changes that are anticipated to affect the Project Area or study area.

With-Action Condition

The Proposed Actions, as detailed in **Part I: Project Description**, would facilitate the development of two projected development sites. Applicant-owned Projected Development Site 1 would be redeveloped with an 11-story, 115-foot-tall, mixed-use building of approximately 361,508 gsf (277,303 zsf). The Proposed Project would contain approximately 278,047 gsf (253,260 zsf) of residential space, 20,171 gsf (19,735 zsf) of commercial space, 4,308 gsf (4,308 zsf) of community facility (daycare) space, and 129 accessory parking spaces. Additionally, it is expected that non-Applicant-owned Projected Development Site 2 would be redeveloped with a 14-story, 145-foot-tall, mixed-use building of approximately 74,944 gsf. It would contain approximately 63,089 gsf of residential space, 3,228 gsf of commercial space, and 24 accessory parking spaces.

Combined, both projected development sites would introduce approximately 341,136 gsf of residential uses (341 DUs), of which approximately 80 to 96 units would be affordable pursuant to MIH), 23,399 gsf of commercial uses, 4,308 gsf of community facility (daycare) uses, and 153 accessory parking spaces (67,609 gsf), for a total development of 436,452 gsf.

Land Use

In the With-Action condition, development is assumed on both Projected Development Sites 1 and 2. The Applicant would redevelop Projected Development Site 1 with a new mixed-use building with residential, commercial, and community facility uses. Projected Development Site 1 would retain and expand the existing P.C. Richard & Son store in the ground floor commercial space. A ground floor community facility space would be introduced and occupied by a daycare, with additional space in the cellar and a landscaped outdoor play area on the southernmost portion of Projected Development Site 1. Projected Development Site 2 would also contain residential and ground floor retail uses. The Proposed Actions would introduce approximately 341 residential dwelling units in total between Projected Development Sites 1 and 2, including 80-96 affordable units pursuant to MIH. The Proposed Actions would be consistent with existing land uses in the study area, which is predominantly characterized by mixed-use, residential, and commercial uses as well as some institutional and open space uses. Thus, the Proposed Actions would not result in significant adverse impacts to land use.

Zoning

As detailed in **Part I: Project Description**, the Applicant is seeking a zoning map amendment and a zoning text amendment. The zoning map amendment would rezone the Project Area from M1-1 and R4 to R7X/C2-4 to a depth of 125 feet from Queens Boulevard, and from the mid-line of 50th Street to the easternmost boundary of Lot 43, encompassing the full mapped width of 51st Street. The zoning map amendment would rezone the balance of the Project Area to R7A. The zoning text amendment would apply MIH to the Project Area. The Proposed Actions would allow for the introduction of new residential and community facility uses within the Project Area and would ensure that residential development within the Project Area provides affordable housing in perpetuity.

The Proposed Actions would change the zoning designation of the Project Area from M-1 and R4 to R7X/C2-4 and R7A, which is more consistent with recent rezonings in neighboring areas to encourage and facilitate the development of new commercial and community facility uses and affordable housing. The proposed R7X zoning district is consistent with the R7X established by the Maspeth-Woodside rezoning along Queens Boulevard north of the Project Area and is appropriate in light of the width of Queens Boulevard and its proximity to both the New Calvary Cemetery and the F train. Additionally, the proposed R7A district is consistent with the R7A-equivalent districts created by the Sunnyside-Woodside rezoning west and northwest of the Project Area. The lower-density R7A district is also more in line with the low-rise zoning (R5B) and built character of the block directly west of the subject block, where two-story, one- and two- family dwellings predominate. Therefore, the Proposed Actions would not have a significant adverse impact on zoning.

Public Policy

Housing New York: A Five-Borough, Ten-Year Plan

The Proposed Actions would be consistent with the City's housing plan and would create 341 new residential units, of which 80 to 96 are anticipated to be affordable under MIH, thereby meeting a stated goal of the Housing New York 2.0 Plan as discussed above. Therefore, the Proposed Actions would be supportive of this public policy, and no significant adverse impacts would occur.

PlaNYC/OneNYC 2050

The Proposed Actions would also support some of the initiatives outlined in OneNYC 2050, as detailed below.

Goal 3: Thriving Neighborhoods

Initiative 9: Ensure all New Yorkers have access to safe, secure, and affordable housing

This goal is focused on fostering communities that have safe and affordable housing and are well-served by parks, cultural resources, and shared spaces. As noted, the Proposed Actions would create 341 new residential units, of which 80 to 96 units are anticipated to be affordable pursuant to MIH, in the Woodside neighborhood of Queens. As such, the Proposed Actions would support this initiative by expanding the City's affordable housing stock in a mixed-use neighborhood within a Walk-to-a-Park service area.

Conclusion

As described above, the Proposed Actions would facilitate the redevelopment of the Project Area with mixed-use buildings containing residential, commercial, and community facility uses. The Proposed Actions would be consistent with the land uses within the study area and with past rezonings in neighboring areas. In addition, the Proposed Actions would facilitate the expansion of an existing commercial use, while creating new residential space that includes permanently affordable housing units and new community facility space. By providing permanently affordable housing, the Proposed Actions would support the City's related goals and initiatives. Based on the foregoing, the Proposed Actions would not result in any significant adverse impacts to land use, zoning, or public policy.

3

Socioeconomic Conditions

This section considers the potential for the Proposed Actions to result in significant adverse impacts to the socioeconomic character of the surrounding area, which includes its population, housing, and economic activity.

Introduction

According to the *2021 CEQR Technical Manual*, an analysis of socioeconomic conditions may be necessary when a project would directly or indirectly change an area's socioeconomic character (population, housing, and economic activity); the assessment usually considers the socioeconomic conditions of area residents separately from those of area businesses, although projects may affect both in similar ways. An assessment of socioeconomic conditions is warranted when a project would result in:

- Direct displacement of residential population on a development site;
- Direct displacement of existing businesses or institutions on a development site;
- Indirect displacement of residential population in a study area;
- Indirect displacement of businesses or institutions in a study area;
- Indirect displacement of businesses due to retail market saturation; and
- Adverse effects on specific industries.

As described in **Part I: Project Description**, the Applicant is seeking a zoning map amendment and a zoning text amendment (the Proposed Actions) affecting Queens Block 2283, Lots 1, 12, 22, 36, and 43 (the Project Area). The Proposed Actions would facilitate the development of a mixed-use building of approximately 361,508 gross square feet (gsf) (the Proposed Project) on Lots 1, 12, 22, and 36 (the Development Site, or Projected Development Site 1) at 50-02 Queens Boulevard in the Woodside neighborhood of Queens Community District 2. The Proposed Project would include approximately

278,047 gsf of residential space (257 units), 20,171 gsf of commercial space, 4,308 gsf of community facility (daycare) space, and 129 accessory parking spaces. The Proposed Project would meet the requirements of the MIH program and have a maximum height of 115 feet (excluding the bulkhead).

In addition to the Applicant-owned Projected Development Site 1, the Proposed Actions would also affect the non-Applicant-owned property at Lot 43 (Projected Development Site 2). In the future with the Proposed Actions, Projected Development Site 2 is expected to be redeveloped with a 14-story (145-foot-tall, excluding bulkhead) mixed-use building of approximately 74,944 gsf, containing approximately 63,089 gsf of residential space (63 units), 3,228 gsf of commercial space, and 24 accessory parking spaces.

Combined, the projected development sites would introduce approximately 341,136 gsf of residential space (341 units, 80 to 96 of which would be affordable pursuant to MIH), 23,399 gsf of commercial space, 4,308 gsf of community facility (daycare) space, and 153 accessory parking spaces (67,609 gsf), totaling 436,452 gsf of development.

For the Proposed Project, a preliminary analysis of indirect residential displacement is warranted. As described in **Part II: Supplemental Analyses**, analyses of direct residential displacement, direct and indirect business displacement, and adverse effects on specific industries are not warranted.

Methodology

Under CEQR, the socioeconomic character of an area is defined by its population, housing and economic activities. The assessment of socioeconomic conditions usually distinguishes between the socioeconomic conditions of an area's residents and businesses. However, proposed action(s) may affect either or both segments in the same ways; they may directly displace residents or businesses, or they may alter one or more of the underlying forces that shape socioeconomic conditions in an area and thus may cause indirect displacement of residents or businesses.

Direct displacement is defined as the involuntary displacement of residents, businesses or institutions from the actual site of (or sites directly affected by) a proposed project. Indirect or secondary displacement is defined as the involuntary displacement of residents, businesses or employees in an area adjacent or close to a development site that results from changes in socioeconomic conditions created by a proposed project. Examples include rising rents in an area that result from a new concentration of higher-income housing introduced by a project, which ultimately could make existing housing unaffordable to lower income residents.

The objective of the analysis is to disclose whether any potential changes created by the proposed actions would have a significant adverse impact compared with what would happen in the future without the proposed actions (i.e., the No-Action condition).

Analysis Format

Following *CEQR Technical Manual* guidelines, the analysis begins with an initial screen that considers threshold circumstances identified in the *CEQR Technical Manual* that can lead to socioeconomic changes warranting further assessment. If the initial screen determines that further assessment is warranted, a preliminary assessment is then undertaken. The purpose of the preliminary assessment is to learn enough about the effects of the proposed actions to either rule out the possibility of significant adverse impacts or determine that a more detailed analysis is required to resolve the issue.

The analysis of the Proposed Actions is based on the reasonable worst-case development scenario (RWCDS) analysis that includes the Proposed Project on the Development Site (Projected Development Site 1), plus development on non-Applicant-owned Lot 43 (Projected Development Site 2), collectively the With-Action condition. The build year for the full build-out of the With-Action condition is 2027, which was examined to assess the potential impacts of the Proposed Actions. As discussed in **Part I: Project Description**, in the With-Action condition, Projected Development Site 1 located at 50-02 Queens Boulevard (Queens Block 2283, Lots 1, 12, 22, and 36) would contain 257 residential units, commercial space, community facility space, and parking. Of the 257 residential units, 64 to 77 are anticipated to be affordable under MIH. Projected Development Site 2 would be redeveloped with a 14-story (145-foot-tall, excluding bulkhead) mixed-use building containing 63 residential units (16 to 19 of which would be affordable pursuant to MIH), plus ground floor commercial space and accessory parking.

Combined, Projected Development Sites 1 and 2 would introduce approximately 341,136 gsf of residential uses (341 DUs, of which approximately 80 to 96 units would be affordable pursuant to MIH), 23,399 gsf of commercial uses, 4,308 gsf of community facility (daycare) uses, and 153 accessory parking spaces (67,609 gsf), for a total development of 436,452 gsf.

Indirect Residential Displacement Methodology

Per *CEQR Technical Manual* guidelines, a preliminary assessment of a project's potential to cause indirect residential displacement is necessary to determine whether the proposed project may either introduce a trend or accelerate a trend of changing socioeconomic conditions that may potentially displace a vulnerable population to the extent that the socioeconomic character of a neighborhood would change.

The first step of the preliminary analysis is to determine if the proposed project would add new population with higher average incomes compared to the average incomes of the existing populations and any new population expected to reside in the study area without the project. If the project would introduce a costlier type of housing compared to existing housing and the housing expected to be built in the future No-Action condition, then the new population may be expected to have higher incomes. If the expected average incomes of the new population would exceed the average incomes of the study area populations, then the next step of the analysis is conducted. This preliminary assessment follows the step-by-step preliminary assessment guidelines described in Section 322.1 of the *CEQR Technical Manual*.

Data Sources

Information used in the socioeconomic analysis includes data from the U.S. Census Bureau's 2010 and 2020 Decennial Census, as well as 2006-2010 American Community Survey (ACS) and 2018-2022 ACS, compiled through the NYC Population FactFinder. The 2018-2022 data reflects five-year averages of income distribution, mean income and median rent for the trailing 12 months in 2022 inflation-adjusted dollars. The mean income and median gross rent of each census tract were compiled by the NYC Population FactFinder.

Real estate property listing data was obtained from www.streeteasy.com. Area Median Income (AMI) for the New York City region was obtained from the U.S. Department of Housing and Urban Development (HUD).

Study Area Definition

The *CEQR Technical Manual* states that a quarter-mile socioeconomic study area is appropriate unless the project could increase the population by more than five percent as compared with the population expected to reside in a quarter-mile study area in the future No-Action condition.

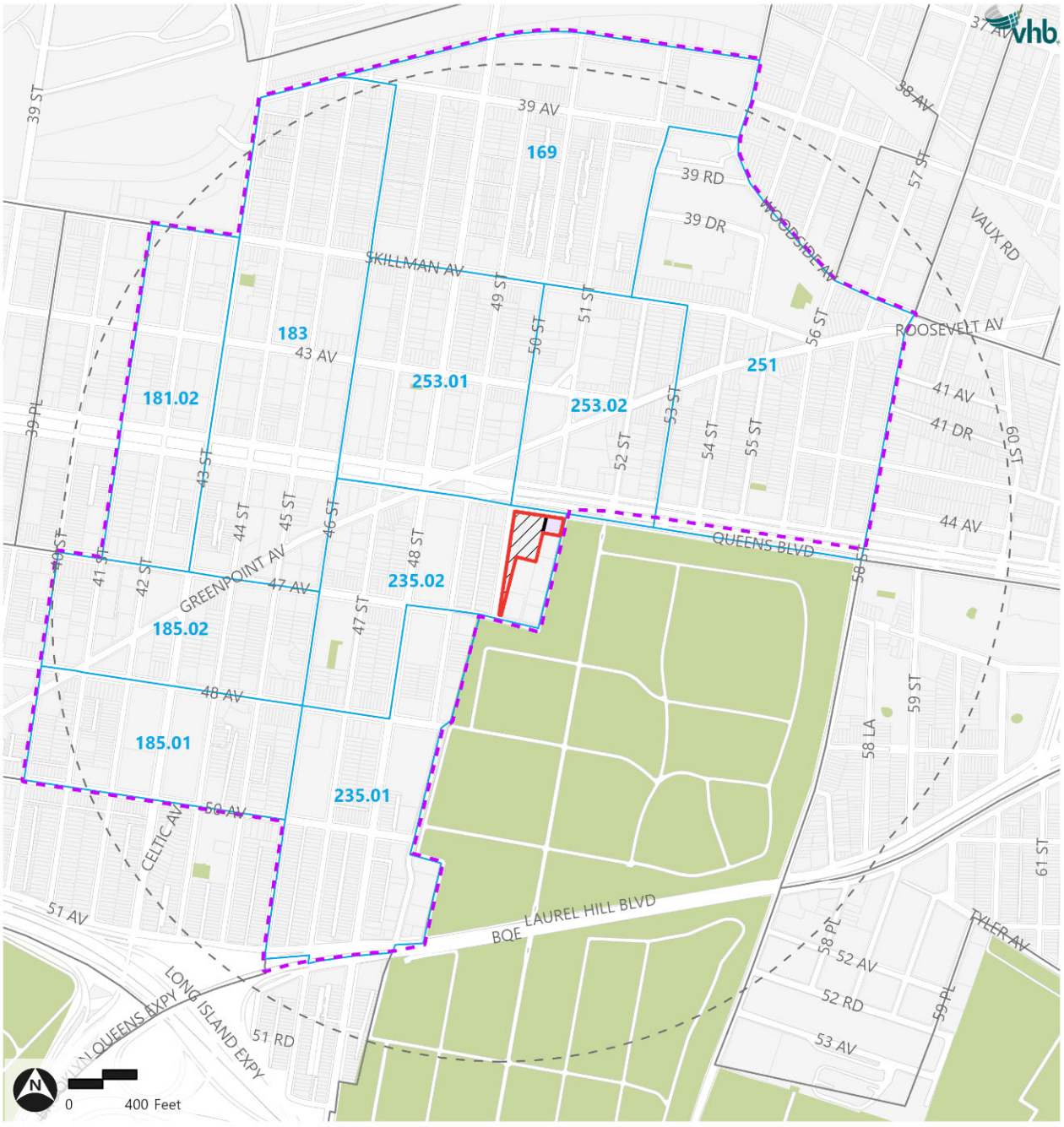
The Development Site is located within Queens Census Tract 235.02. A quarter-mile study area would also contain Queens Census Tracts 253.01 and 253.02.[1] Combined, these census tracts have a population of 10,896.[2] Three new residential development projects are anticipated in the quarter-mile study area under the future No-Action condition, resulting in the construction of 211 new residential units. Using an average household size of 2.39 people per household,[3] the new residential units would generate approximately 504 residents, for a total quarter-mile study area population of 11,400 in the No-Action condition. The Proposed Actions would increase the quarter-mile area population by an estimated 815 residents, resulting in a residential population increase of 7.1 percent. Per the *CEQR Technical Manual*, a project that would result in a relatively large increase in population may be expected to affect a larger study area; a half-mile study area is appropriate for projects that would increase population by five percent over the expected population in the No-Action condition. Therefore, a half-mile study area is appropriate for this analysis. The half-mile study area contains Queens Census Tracts 169, 181.02, 183, 185.01, 185.02, 235.01, 235.01, 251, 253.01, and 253.02 and a total population of 43,997 in the No-Action condition (including an anticipated three new residential developments in the half-mile study area), see **Figure 3-1**.

[1] Census tracts that contain at least 50% of their area within the quarter-mile radius were included in the study area analysis.

[2] 2020 Census compiled through NYC Population FactFinder.

[3] Based on the Average Household Size for the Sunnyside Neighborhood Tabulation Area of 2.39 (2020 Census).

Figure 3-1 Socioeconomic Study Area



Preliminary Assessment

Existing Conditions

The population of the half-mile study area slightly decreased from 44,207 to 43,393 between 2010 and 2020 (see **Table 3-1**). The population of Queens is currently 2.2 million and has increased 7.8 percent since 2010. The population of New York City is currently 8.8 million and has increased 7.7% since 2010.

Table 3-1 Area Population

Area	Population 2010	Population 2020	% Change
Study Area	44,207	43,493	-1.6%
Queens	2,230,722	2,405,464	7.8%
New York City	8,175,133	8,804,190	7.7%

Source: 2010 Census and 2020 Census

The number of households and housing units in the study area are currently 18,349 and 19,257, respectively, representing slight increases from 2010 by 1.9 percent and 0.8 percent, respectively (see **Table 3-2**). Queens and New York City showed 8.6 percent and 8.4 percent increases in the number of households, respectively, and both geographies showed a 7.3 percent increase in the number of housing units.

Table 3-2 Household and Housing Data

Area	2010 Households	2020 Households	% Change	2010 Housing Units	2020 Housing Units	% Change
Study Area	18,007	18,349	1.9%	19,107	19,257	0.8%
Queens	780,117	847,210	8.6%	835,127	896,333	7.3%
New York City	3,109,784	3,370,448	8.4%	3,371,062	3,618,635	7.3%

Source: 2010 Census and 2020 Census

The majority of occupied housing units in the study area are rental units (77.5 percent) rather than owned units (22.5 percent), see **Table 3-3**. The percentage of occupied rental units is less in Queens (59.8 percent) and New York City as a whole (69.0 percent).

Table 3-3 Housing Tenure

Area	% Vacant	% Renter Occupied Units	% Owner Occupied Units
Study Area	4.7%	77.5%	22.5%
Queens	9.2%	59.8%	40.2%
New York City	9.5%	69.0%	31.0%

Notes: % Vacant, as defined by the U.S. Census, includes vacant housing units for rent or sale, units that are occupied by persons who have a usual residence elsewhere, and vacant units held off the market

Source: 2020 Census

Median gross rent for the study area is $1,858, a 17.8 percent increase from 2010 ($1,577), see **Table 3-4**. Median gross rent in Queens is similarly $1,847, a 15.9 percent increase from 2010. Median gross rent for New York City is $1,714, an 18.6 percent increase from 2010. A review of current rental listings on www.streeteasy.com shows average rents of $2,000 for studios, $2,800 for one-bedroom units, $3,600 for two-bedroom units, and $4,000 for three-bedroom units.[4] There are no public housing developments in the study area.[5]

Table 3-4 Median Gross Rent

Area	Years 2006-2010	Years 2018-2022	Change	Percent Change
Study Area	$1,577	$1,858	$281	17.8%
Queens	$1,594	$1,847	$253	15.9%
New York City	$1,445	$1,714	$269	18.6%

Source: 2006-2010 American Community Survey (ACS) 5-year Estimate and 2018-2022 American Community Survey (ACS) 5-year Estimate

The average household income in the study area is $98,642, which is lower than the average incomes of Queens ($109,287) and New York City ($122,667), see **Table 3-5**. Average household income increased over all three geographies from 2010. Median household income in the study area was $72,102 in 2010 and is currently $79,248. The median household income of the study area is lower than the median income of Queens ($82,431) but higher than that of New York City ($76,607). That average household income is lower in the study area than the comparison geographies while median income is higher in New York City as a whole is partly explained in **Table 3-6**, which shows household income distribution. The highest category of incomes in the study area and in Queens is households earning $50,000 to $99,999 while the highest category of incomes in New York City is $150,000 and over.

Table 3-5 Average and Median Household Income

Area	2006-2010 Average Household Income	2018-2022 Average Household Income	Average Household Income Percent Change	2006-2010 Median Household Income	2018-2022 Median Household Income	Median Household Income Percent Change
Study Area	$84,044	$98,642	Increase[1]	$72,102	$79,248	-[2]
Queens	$94,732	$109,287	15.4%	$74,604	$82,431	10.5%
New York City	$105,106	$122,667	16.7%	$67,850	$76,607	12.9%

Source: 2006-2010 American Community Survey (ACS) 5-year Estimate and 2018-2022 American Community Survey (ACS) 5-year Estimate data.

Notes: Average, or mean household income, is defined as the aggregate household income divided by total households. Median Household income is calculated through linear interpolation by NYC Population FactFinder.

[1] The Margin of Error (MOE) of the difference between 2006-2010 ACS 5-year Estimates and 2018-2022 ACS 5-year Estimates is greater than one-third of the estimated difference but less than the difference itself; therefore, a direction of change, rather than a percentage of change, can be estimated with confidence.

[2] The Margin of Error (MOS) of the difference between 2006-2010 ACS 5-year Estimates and 2018-2022 ACS 5-year Estimates is greater than one-third of the estimated difference; therefore, change, cannot be estimated with confidence.

[4] www.streeteasy.com, accessed June 6, 2023

[5] https://www.nyc.gov/assets/nycha/downloads/pdf/nychamap.pdf, accessed June 6, 2023

Table 3-6 Household Income Distribution

Area	<$25,000	$25,000-$49,999	$50,000-$99,999	$100,000-$149,999	$150,000+
Study Area	12.5%	15.3%	34.1%	17.1%	21.0%
Queens	14.4%	16.0%	28.0%	18.4%	23.1%
New York City	20.0%	15.7%	24.4%	15.3%	24.6%

Source: 2018-2022 American Community Survey (ACS) 5-year Estimate

No-Action Condition

Under the No-Action condition, the Development Site would remain the same with commercial uses and parking. However, new residential development in the study area would result in an additional 211 residential units, which is estimated to increase the residential population by 504 for a total population of 43,997 persons in 2027 (see **Table 3-7**). Of the 211 new units, 13 units are expected to be affordable. The remaining 198 units are assumed to be rented at market-rate.

Table 3-7 No-Action Condition: No-Build Developments Estimated Population

Development Name/Location	Total Residential Units	Affordable Units	Estimated Residents[1]
45-07 45th Street	63	13	150.57
43-12 50 Street	61	-	145.79
43-15 52 Street	87	-	207.93
Total	**211**	**13**	**504**

Source: New York City Department of Buildings, YIMBY.com

Notes:

[1] Based on the Average Household Size for the Sunnyside Neighborhood Tabulation Area of 2.39 (2020 Census)

With-Action Condition

In the With-Action condition, Projected Development Site 1 and Projected Development Site 2 would contain a total of 341 residential units, commercial space, community facility space, and parking. Of the 341 residential units, 80 to 96 units would be affordable pursuant to MIH. For purposes of analysis, it is assumed that there would be 80 affordable units at 60 percent AMI. The levels of affordability are established by HUD and are subject to change. The 60 percent AMI income limit per HUD is $65,220 for a family of one, $74,580 for a family of two, $83,880 for a family of three, $93,180 for a family of four, and $100,620 for a family of five.[6] The median income for the study area is $79,248.

Using the average household size of 2.39 and weighing the AMI estimates listed above for a family size of between two and three, it is estimated that the average income of households occupying 80 affordable residential units at 60 percent AMI would be $78,477.

As described in the **Existing Conditions** section above, average market-rate listed rents for the study area range from $2,000 for a studio apartment to $4,000 for a three-bedroom apartment. The

[6] https://www.nyc.gov/site/hpd/services-and-information/area-median-income.page, accessed June 7, 2023. FY 2023 Income Limits Summary for New York, NY HUD Metro FMR Area.

market-rate unit mix for the Proposed Project is not yet known, however, for the purposes of this analysis, a unit mix is assumed based on the existing market-rate units in the area to include approximately 23 percent studios, 35 percent one-bedroom units, 32 percent two-bedroom units, and 10 percent three-bedroom units. In addition, the range of average incomes for the new tenants can be estimated by assuming that the new households would pay 30 percent of their income on housing. This ratio is based on the HUD definition of cost-burdened families which states that those paying more than 30 percent of their income on housing may have difficulty affording other necessities. Using these assumptions, it is estimated that households in the market-rate units would have average annual incomes ranging from $80,000 to $160,000 (see **Table 3-8**), or a weighted average of approximately $119,742 based on the assumed unit mix.

Table 3-8 Estimated Income for Market-Rate Units

Unit Type	Average Rent	Estimated Monthly Income	Estimated Average Annual Income
Studio	$2,000	$6,667	$80,000
1-Bedroom	$2,800	$9,333	$112,000
2-Bedroom	$3,600	$12,000	$144,000
3-Bedroom	$4,000	$13,333	$160,000

Notes: Average rent is based on rental listings as described in the Existing Conditions section. Estimated average monthly income and annual income assumes that the household pays 30 percent of income on rent.

Using a weighted average based on the anticipated number of affordable and market-rate units to be provided, the average income of households occupying the proposed residential units is estimated to be approximately $110,061. This is higher than the average household income for the study area of $98,642.

According to the *CEQR Technical Manual*, if a proposed project is expected to introduce new population with similar average incomes to the existing average income of the study area, then no further analysis is warranted, however, if the estimated income of the new population exceeds the average income of the study area population, then Step 2 of the analysis should be conducted.

Step 2 of the Indirect Residential Displacement Preliminary Analysis, per the *CEQR Technical Manual*, is to determine if the project's increase in population is large enough to affect real estate market conditions in the study area. In the With-Action condition, the Proposed Project would increase the study area population in the No-Action condition from 43,997 to 44,8122, a 1.8 percent increase. According to the *CEQR Technical Manual*, if the population increase is less than five percent within the study area, these conditions would not be expected to affect real estate market conditions and no further analysis is warranted.

Conclusion

This preliminary analysis finds that the Proposed Actions would not result in significant adverse impacts to the socioeconomic conditions of the study area. As detailed in **Part II: Supplemental Analyses**, the Proposed Actions would not result in the direct displacement of any residents or businesses or in adverse effects on specific industries or indirect business displacement.

With respect to potential indirect residential displacement, the Proposed Actions would spur development of both affordable and market-rate housing units. The estimated weighted average

incomes of the new population are expected to be higher than the average incomes of the study area populations. However, the estimated new population would represent an increase of approximately 1.8 percent which would not be expected to introduce or accelerate a trend that would potentially lead to the displacement of vulnerable populations or create a significant indirect residential displacement adverse impact. Therefore, no further analysis is warranted.

4

Community Facilities and Services

This section assesses the potential impacts of the Proposed Actions on community facilities and services. *The 2021 City Environmental Quality Review (CEQR) Technical Manual* defines community facilities as public or publicly funded facilities, including schools, libraries, childcare centers, health care facilities, and fire and police protection services.

Introduction

According to the *CEQR Technical Manual*, a community facilities assessment should be conducted if a project would directly or indirectly affect existing community facilities, including schools, libraries, publicly supported early childhood programs, health care facilities, and fire and police protection services. A project can affect community services when it physically displaces or alters a community facility. A project can also affect community services by causing a change in population that may affect the services delivered by a community facility, as might happen if an existing facility is already over-utilized or if a project is large enough to create a demand that could not be met by an existing facility.

As described in **Part I: Project Description**, the Applicant is requesting several actions (the Proposed Actions) to facilitate development of a mixed-use building of approximately 436,452 gross square feet (gsf) (the Proposed Project) at 50-02 Queens Boulevard in the Woodside neighborhood of Queens Community District 2 (Queens Block 2283, Lots 1, 12, 22, and 36, the Development Site or Projected Development Site 1). The Proposed Project would include approximately 278,047 gsf of residential space (or 257 units), 20,171 gsf of commercial space, and 4,308 gsf of community facility space.

In addition to the Applicant-owned Projected Development Site 1, the Proposed Actions would also affect the non-Applicant-owned property at Lot 43 (Projected Development Site 2). With approval of the Proposed Actions, Projected Development Site 2 is expected to be redeveloped with a 14-story

(145-foot-tall, excluding bulkhead) mixed-use building of approximately 74,944 gsf, containing approximately 63,089 gsf of residential space, 3,228 gsf of commercial space, and 24 accessory parking spaces.

Combined, the projected development sites would introduce approximately 341,136 gsf of residential uses, 23,399 gsf of commercial uses, 4,308 gsf of community facility (daycare) uses, and 153 accessory parking spaces (67,609 gsf), for a total development of 436,452 gsf.

Methodology

The *CEQR Technical Manual* provides thresholds to make an initial determination of whether detailed studies are necessary to determine potential indirect impacts on public schools, libraries, childcare centers, health care facilities, and fire and police protection services. CEQR App, an analysis tool developed by the New York City Department of City Planning (DCP), was also used to assess the need for detailed analysis. As stated previously, the Proposed Project would introduce 341 dwelling units, of which 80 to 96 are anticipated to be affordable pursuant to MIH.

As described in **Part II: Supplemental Analysis**, the Proposed Project would not directly displace a community facility, nor place a physical barrier to service delivery. Therefore, an analysis of direct effects is not warranted.

The Proposed Project does not have the potential to indirectly impact libraries, early childhood programs, health care facilities, or police and fire protection services. Analysis of police and fire protection services and health care facilities are triggered if a project introduces a sizeable new neighborhood, which the Proposed Project does not. Similarly, analysis of libraries is triggered if a project in Queens introduces more than 663 total units, which the Proposed Project does not.

Analysis of existing childcare centers would be warranted if a project in Queens introduced 139 units affordable to residents earning not more than 80 percent of the area median income (AMI) in Queens and therefore had the potential to introduce 20 or more eligible children under age six. Because the Proposed Project is anticipated to introduce a maximum of 96 affordable units under MIH, further analysis of childcare centers is not warranted.

As shown in **Table 4-1** below, the Proposed Project would introduce 130 primary students, 43 middle school students, and 34 high school students. Because the Proposed Actions would introduce more than 50 primary and middle school students, an assessment of primary and intermediate public schools is warranted.

Table 4-1 Residential Increment for Analysis

Land Use	Unit	Existing Condition	No-Action Condition	With-Action Condition	Increment
Residential	*Dwelling Units*	0	0	341	+341
	Affordable Units	0	0	80 - 96	+80 - 96
	Total Residential gsf	0	0	341,136	+341,136
Residents[1]		0	0	815	+815
Primary Students[2]		0	0	130	+130
Intermediate Students[2]		0	0	43	+43
High School Students[2]		0	0	34	+34

[1] The number of residents is based on an average household size of 2.39 for the Sunnyside Neighborhood Tabulation Area (NTA) (2017-2021 ACS Survey).

[2] The number of students generated is based on the 2019 School Multipliers provided by the SCA for Queens District 24. The multipliers assume 0.38 primary students per unit, 0.13 intermediate students per unit, and .050 high school students per unit.

Public Schools

In conformance with *CEQR Technical Manual* guidance, the public-school analysis uses the most recent New York City Department of Education (DOE) data on school capacity, enrollment, and utilization rates for primary and intermediate schools in the sub-district study area and the New York City School Construction Authority (SCA) projections of future enrollment to determine indirect effects on public schools (the 2021-2030 SCA Enrollment, Capacity, and Utilization Blue Book). Then the existing conditions of the public schools within the study area are examined by assessing their enrollment, target capacity, and available seats to understand the percent utilization for the study area.

Future conditions are then predicted based on SCA enrollment projections as well as data obtained from SCA Capital Planning Division on the number of new housing units and students expected at the sub-district and borough levels. The future utilization rate for school facilities is calculated by adding the estimated enrollment from proposed residential developments in the schools' study area to DOE's projected enrollment and then comparing that number with projected school capacity. DOE does not include charter school enrollment in its projections. DOE's enrollment projections for years 2021 through 2030, the most recent data currently available, is posted on the SCA.[1] The latest available enrollment projections to 2027 have been used in this analysis, and the allocation of students to Community School District (CSD) 24, Subdistrict 2 was done through data provided by DCP in May 2023. These enrollment projections are based on broad demographic trends and do not explicitly account for discrete new residential development projects expected to be completed within the study area. Therefore, the estimated student population from other new development projects expected to be completed within the study area have been obtained from the SCA Capital Planning Division and are added to the projected enrollment to ensure a more conservative prediction of future enrollment and utilization. In addition, any new school projects identified in the DOE Five-Year

[1] Consistent with CEQR methodology, the analysis focuses only on potential impacts on public schools operated by the DOE; private and parochial education facilities as well as charter schools are excluded from the analysis.

Capital Plan are included if construction has begun, or if deemed appropriate to include in the analysis by the lead agency and the SCA. This data together provides the analysis of the No-Action condition analysis.

The number of students that would be generated by a proposed project is estimated by Projected Public-School Ratios (i.e., the number of primary, intermediate, and high school students that would be generated by each residential unit) and assessed under the With-Action condition. The With-Action condition is assessed against the No-Action condition by calculating the change in utilization rates.

Study Area

According to the guidelines presented in the *CEQR Technical Manual*, the study area for the analysis of public primary and intermediate schools is the "subdistrict" (also known as "regions" or "school planning zones") in which the Proposed Project is located. The Project Area is in Community School District (CSD) 24, Subdistrict 2 (see **Table 4-2**).

Table 4-2 Public Primary and Intermediate Schools in the Study Area

Organization ID	School Name	School Type	Address
Q058	P.S. 58 - Queens	PS/IS	72-24 GRAND AVENUE
Q102	P.S./I.S. 102 - Queens	PS/IS	55-24 VAN HORN STREET
Q199	P.S. 199 and Annex-Queens	PS	39-20 48 AVENUE
Q229	P.S. 229 - Queens	PS	67-25 51 ROAD
Q343	THE WALTER MCCAFFREY CAMPUS - Queens	PS	45-45 42ND STREET
Q005	I.S. 5 - Queens	IS	50-40 JACOBUS STREET
Q073	I.S. 73 Queens and MiniSchool	IS	70-02 54 AVENUE
Q125	I.S. 125 - Queens	IS	46-02 47 AVENUE
Q560	The Children's Lab School	IS	47-07 30TH PLACE

Source: CEQR App, DOE

Data Sources

As discussed above, this analysis presents the most recent DOE data on school capacity, enrollment, and utilization rates for primary and intermediate schools and the SCA projections of future enrollment in the study area, as provided and guided by DCP and the CEQR App. The existing conditions analysis uses data provided in the DOE's *Utilization Profiles: Enrollment/Capacity/ Utilization, 2018- 2019 Edition*. Future conditions are predicted based on SCA enrollment and capacity projections for current schools and schools under construction as provided by the CEQR App. DOE's enrollment projections for years 2021-2030, the most recent data currently available, were provided by DCP through the CEQR App.

Impact Criteria

The effect of new students introduced by the Proposed Project on the capacity of schools within the study area is then evaluated. According to the *CEQR Technical Manual*, a significant adverse impact may occur if the Proposed Project would result in:

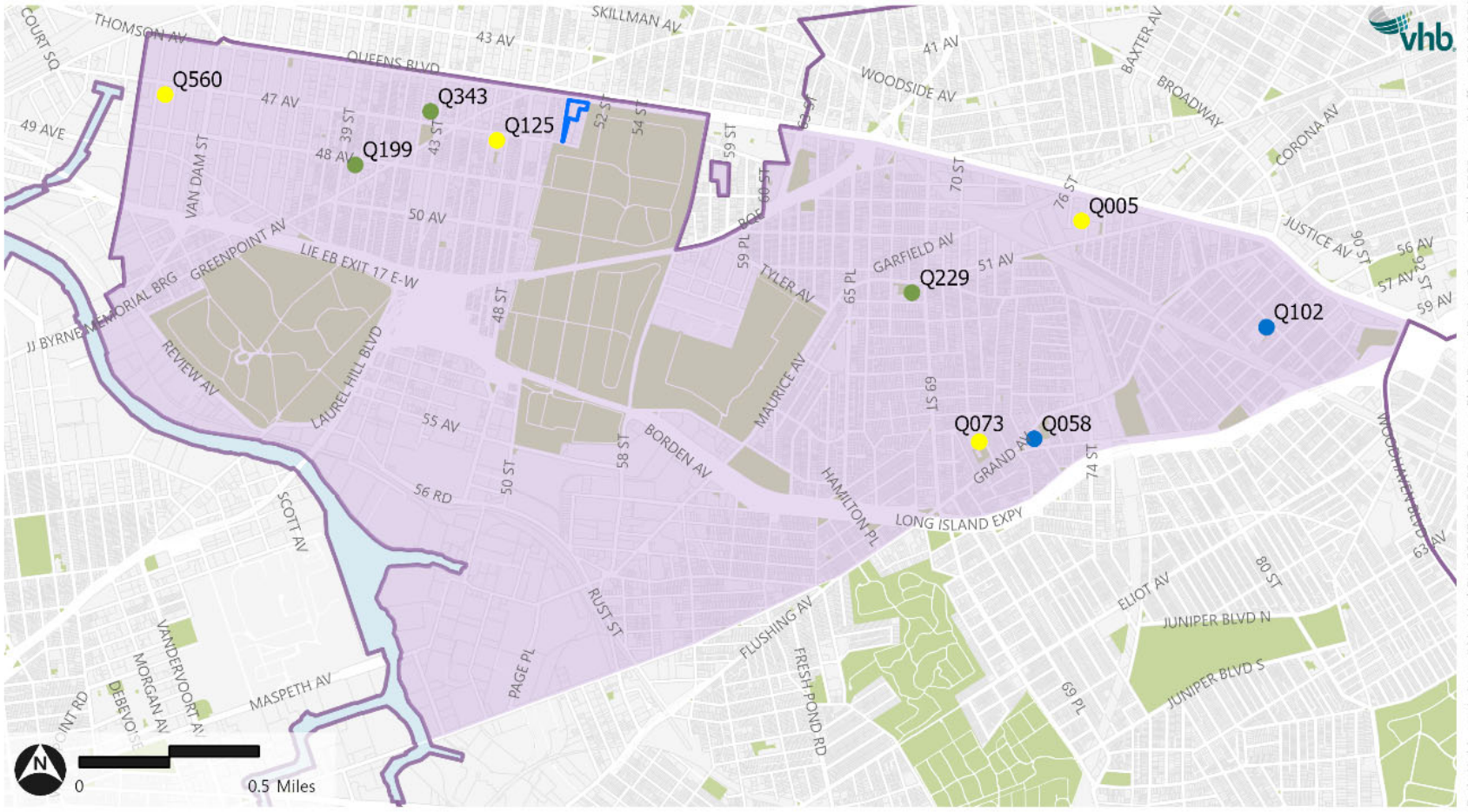
- A collective utilization rate that is equal to or greater than 100 percent in the future With-Action condition;
- 100 or more new primary or intermediate school students generated from the Proposed Project past the 100 percent utilization rate; and
- An increase of five percentage points or more in the utilization rate for high schools between the No-Action and With-Action conditions.

Preliminary Assessment

Existing Conditions

The Proposed Project is located in Community School District (CSD) 24, Subdistrict 2 in Queens. **Figure 4-1** shows the district boundaries and the corresponding public schools. As shown in **Table 4-3**, the subdistrict contains six primary schools with a total enrollment of 3,684 students and a shortfall of 14 seats, leading to a utilization rate of 100.4 percent. The subdistrict also contains seven intermediate schools with a total enrollment of 5,690 students and a current surplus of 452 seats, leading to a utilization rate of 92.6 percent.

Figure 4-1 Community School District 24, Subdistrict 2



Source: Source list here...can be 2 lines if needed with sources separated by commas or semi-colons.

Table 4-3 Public School Enrollment, Capacity, and Utilization for Existing Conditions, Community School District 24, Subdistrict 2

Org. ID	Bldg. ID	School Name	Address	Grades[1]	Enrollment	Target Capacity	Available Seats	Utilization
Primary Schools								
Q058	**Q058**	P.S. 58 - The School of Heroes	72-24 GRAND AVENUE	PK-6, SE	742	788	46	94%
Q102	**Q102**	P.S. 102 Bayview	55-24 VAN HORN STREET	PK-8, SE	767	657	-110	117%
Q199	**Q199**	P.S. 199 Maurice A. Fitzgerald	39-20 48 AVENUE	PK-5, SE	323	521	198	62%
Q199	**Q841**	P.S. 199 Maurice A. Fitzgerald Annex	48-25 37th Street	PK-5, SE	247	288	41	86%
Q229	**Q229**	P.S. 229 Emanuel Kaplan	67-25 51 ROAD	PK-5, SE	1158	1003	-155	115%
Q343	**Q313**	The Children's Lab School	45-45 42ND STREET	K-5, SE	447	413	-34	108%
				Study Area Total	3,684	3,670	(14)	100.4%
Intermediate Schools								
Q005	**Q005**	I.S. 5 - The Walter Crowley Intermediate School	50-40 JACOBUS STREET	6-8, SE	1,566	1,579	13	99%
Q058	**Q058**	P.S. 58 - The School of Heroes	72-24 GRAND AVENUE	PK-6, SE	86	91	5	94%
Q073	**Q073**	I.S. 73 - The Frank Sansivieri Intermediate School	70-02 54 AVENUE	6-8, SE	1,350	1,544	194	87%
Q073	**Q873**	I.S. 73 - The Frank Sansivieri Intermediate School-Minischool	70-02 54 AVENUE	6-8, SE	600	431	-169	139%
Q102	**Q102**	P.S. 102 Bayview	55-24 VAN HORN STREET	PK-8, SE	432	370	-62	117%
Q125	**Q125**	I.S. 125 Thom J. McCann Woodside	46-02 47 AVENUE	6-8, SE	1,500	1,950	450	77%
Q560	**Q891**	Robert F. Wagner, Jr. Secondary School for Arts and Technology	47-07 30TH PLACE	6-12, SE	156	177	21	88%
				Study Area Total	**5,690**	**6,143**	**452**	**92.6%**

Sources: LCGMS 2021, 2021-2022 Blue Book

Note:

[1] Only Enrollment and capacity data for relevant grades were included for each primary and intermediate school. Charter, citywide gifted and talented, D75 special education, and D79 alternative high school equivalency schools are not included in the analysis.

Future No-Action Condition

Enrollment Projections

Projected enrollment was determined for the future 2027 No-Action condition using SCA's *Enrollment Projections for the New York City Public Schools, 2021-22 to 2030-31*, which references DOE's projected New Housing Starts, as well as Panel for Educational Policy (PEP) proposals for changes in school utilization. SCA enrollment projections are available at the school district level; they focus on the natural growth of New York City's student population (through births and grade retention) and do not base projections on individual future residential developments planned for the subdistrict study area (No-Action development projects). DCP provided a proportion of this projection that would be allocated to each of the subdistricts. These proportions equate to approximately 3,021 primary students and 4,379 intermediate students that would be enrolled in the subdistrict in the future No-Action condition. These enrollment projections form the baseline projected enrollment in the future No-Action condition as "Projected 2027 Enrollment."

Additional increases in enrollment derived from the SCA's Projected New Housing Starts data are shown under "Students Introduced by No-Action Residential Development" in **Table 4-5**. For this analysis, proposed developments within Subdistrict 2 were accounted for in the No-Action condition for when not already included in SCA's Projected New Housing Starts.[2] See **Table 4-4** for the developments included in addition to the Projected New Housing Starts data and an estimate of how many primary and intermediate school-aged children they would generate. In total, these developments would generate an estimated 206 primary students and 68 intermediate students. With the addition of students expected from these No-Action developments and SCA's Projected New Housing Starts, No-Action enrollment would total 3,627 primary students and 4,578 intermediate students.

Table 4-4 No-Action Condition: Proposed Housing Developments

Project	Total Dwelling Units	Primary School Children*	Intermediate School Children*
45-07 45th St	63	24	8
46-09 69th St	295	113	37
46-10 70th St	183	70	23
Total	**541**	**206**	**68**

Notes:
Includes developments within CSD 24, Subdistrict 2 not included in the SCA Projected New Housing Starts as of June 2020.
* Generation rates of 0.38 primary students and 0.13 intermediate students per dwelling unit per the SCA 2019 School Multipliers

Projected Capacity Changes

Projected capacity changes were determined for the future 2027 No-Action condition described below using the Panel for Educational Policy (PEP) proposals for changes in school utilization—as provided by DCP and SCA Capacity Projects in Process, including the FY 2015-2019 and 2020-2024 Capital Plans. There is one projected capacity change to existing schools in the study area expected under the future No-Action condition. Within Subdistrict 2, a new primary school located at 69-02 Queens Boulevard, with a capacity of 451 seats, is anticipated to be completed in June 2026.

[2] As confirmed by DCP.

No-Action Utilization

As shown in **Table 4-5**, under the No-Action condition, primary schools in CSD 24, Subdistrict 2 would operate within capacity, with an 88.0 percent utilization rate and a surplus of 494 seats. Intermediate schools would operate within capacity, with a 74.5 percent utilization rate and a surplus of 1,564 seats.

Table 4-5 Projected Public School Enrollment, Capacity, and Utilization, No-Action Condition

Projected 2027 Enrollment	Students Introduced in No-Action Residential Development	Total No-Action Enrollment	Capacity	Available Seats	Utilization (%)
Primary Schools					
3,021	606	3,627	4,121	494	88.0%
Intermediate Schools					
4,379	199	4,578	6,143	1,564	74.5%

Source: SCA's Enrollment Projections for the New York City Public Schools, 2021-22 – 2030-31;

Future With-Action Condition

As detailed above, the Proposed Actions are anticipated to result in the development of 341 dwelling units, which would introduce approximately 130 primary students and 43 intermediate school students to the subdistrict.

As shown in **Table 4-6**, primary schools in CSD 24, Subdistrict 2 would continue to operate within capacity in the With-Action condition. The subdistrict primary schools would operate at 91.2 percent capacity with 364 available seats. The collective utilization rate of primary schools in the With-Action condition would increase by 3.2 percent from the No-Action condition.

Intermediate schools would also continue to operate within capacity. Under the With-Action condition, the subdistrict intermediate schools would operate at approximately 75.2 percent capacity with 1,521 available seats, a 0.7 percent increase in utilization over the No-Action condition. Both primary and secondary schools would operate below 100 percent utilization in the With-Action condition, and therefore there would be no significant adverse impact accounting for the anticipated addition of new students as a result of the Proposed Project.

Table 4-6 Projected Public School Enrollment, Capacity, and Utilization for With-Action Condition, School District 19, Subdistrict 3

Total No-Action Enrollment	Students Generated by Project	Total With-Action Enrollment	Projected Capacity	Available Seats	Utilization (%) with Project	Change in Utilization (%) from No Action
Primary Schools						
3,627	130	3,757	4,121	364	91.2%	3.2%
Intermediate Schools						
4,578	43	4,621	6,143	1,521	75.2%	0.7%

Source: CEQR App, SCA Enrollment Projections for New York City Public Schools by the Statistical Forecasting (2019-2028)

5

Open Space

This section assesses the potential impacts of the Proposed Actions on open space. The *2021 City Environmental Quality Review (CEQR) Technical Manual* defines open space as publicly or privately-owned land that is publicly accessible and available for leisure, play, or sport, or is set aside for the protection and/or enhancement of the natural environment.

Introduction

This section assesses the potential effects on open space that could result from the Proposed Actions. Open space is defined as publicly or privately owned land that is publicly accessible and operates, functions, or is available for leisure, play, or sport, or set aside for the protection and/or enhancement of the natural environment. Open space that is used for sports, exercise, or active play is classified as active, while open space that is used for relaxation, such as sitting or strolling, is classified as passive. According to the *CEQR Technical Manual*, an analysis of open space is conducted to determine whether a proposed action would have a direct impact resulting from the elimination or alteration of open space and/or an indirect impact resulting from overtaxing available open space.

As described in **Part I: Project Description**, the Applicant is seeking a zoning map amendment and a zoning text amendment (the Proposed Actions) affecting Queens Block 2283, Lots 1, 12, 22, 36, and 43 (the Project Area). The Proposed Actions would facilitate the development of a mixed-use building of approximately 361,508 gross square feet (gsf) (the Proposed Project) on Lots 1, 12, 22, and 36 (the Development Site, or Projected Development Site 1) at 50-02 Queens Boulevard in the Woodside neighborhood of Queens Community District 2. The Proposed Project would include approximately 278,047 gsf of residential space (257 units), 20,171 gsf of commercial space, 4,308 gsf of community facility (daycare) space, and 129 accessory parking spaces. The Proposed Project would meet the requirements of the MIH program and have a maximum height of 115 feet (excluding the bulkhead).

In addition to the Applicant-owned Projected Development Site 1, the Proposed Actions would also affect the non-Applicant-owned property at Lot 43 (Projected Development Site 2). In the future with

the Proposed Actions, Projected Development Site 2 is expected to be redeveloped with a 14-story (145-foot-tall, excluding bulkhead) mixed-use building of approximately 74,944 gsf, containing approximately 63,089 gsf of residential space (63 units), 3,228 gsf of commercial space, and 24 accessory parking spaces.

Combined, the projected development sites would introduce approximately 341,136 gsf of residential space (341 units, 80 to 96 of which would be affordable pursuant to MIH), 23,399 gsf of commercial space, 4,308 gsf of community facility (daycare) space, and 153 accessory parking spaces (67,609 gsf), totaling 436,452 gsf of development.

Compared to the No-Action condition, the With-Action condition would result in a net increase in the number of residents greater than CEQR thresholds. Therefore, in accordance with CEQR guidelines, this open space analysis of the Proposed Actions evaluates the change in residential population relative to the total amount of open space in the study area. The anticipated number of net new workers would not trigger a non-residential analysis.

Methodology

Per guidance in the *CEQR Technical Manual*, an open space analysis is generally conducted if a proposed project would introduce more than 200 new residents or 500 new employees to an area. The Proposed Project would introduce a new residential population of 815 residents, and thus a residential open space analysis is warranted. The anticipated number of workers introduced by the Proposed Project would not exceed 500. Therefore, a non-residential open space analysis is not required.

Direct Effects Analysis

Consistent with the *CEQR Technical Manual*, a direct effects analysis should be performed if a proposed project would directly affect open space conditions by causing the loss of public open space; changing the use of an open space so that it no longer serves the same user population; limiting public access to an open space; or increasing noise or air pollutant emissions, odor, or shadows that would temporarily or permanently affect the usefulness of a public open space. A proposed project can also directly affect an open space by enhancing its design or increasing its accessibility to the public.

The Proposed Actions would not result in a physical loss of public open space, affect the use of an open space so that it no longer serves the same user population, limit public access to an open space, nor cause increased noise or air pollutant emissions, odors, or shadows on public open space that would affect its usefulness. Therefore, no analysis of direct effects to open space is warranted.

Indirect Effects Analysis

An indirect effects analysis is performed where a proposed project could add sufficient population, either residents or non-residents, such that capacity of the open space to serve the population would be noticeably diminished. The threshold for such an analysis is whether the proposed project would introduce more than 200 residents or 500 workers to the area.

Compared to the future No-Action condition, the Proposed Project would result in a net increase of 815 residents and 124 workers. Therefore, following *CEQR Technical Manual* guidance, an indirect

residential open space analysis is required, with a study area encompassing an approximately half-mile radius around the Development Site. The purpose of the indirect effects analysis is to quantitatively assess the adequacy of open space in the study area for existing and potential future users based on an inventory of open space resources and the effect of the residential population increase anticipated with the Proposed Actions as well as any population increase in the No-Action condition due to other planned or proposed developments.

Specifically, an indirect effects analysis includes:

- Identification of the open space user groups: residents. To determine the number of residents to be included in the analysis, population data from the 2017-2021 American Community Survey 5-Year Estimates were compiled for census block groups within the study area.
- An inventory of all publicly accessible open spaces in the study area, using secondary sources supplemented with field surveys.
- A quantitative assessment of the open space ratio in the study area—calculated as the ratio of open space acreage to user population—compared to benchmarks established in the *CEQR Technical Manual*. These include the optimal ratio for resident populations, which is 2.0 acres of active open space per 1,000 residents and 0.5 acres of passive open space per 1,000 residents.
- An evaluation of qualitative factors affecting open space resources.

According to the *CEQR Technical Manual*, projects that may result in significant quantitative impacts on open space resources are typically further assessed in a qualitative assessment to determine the overall significance of the impact. Factors such as close proximity to substantial open space resources just outside of the study area and park condition and utilization are considered in the qualitative assessment.

Walk-to-a-Park Initiative

New York City, as part of the OneNYC 2050 Building a Strong and Fair City plan, has set a goal that 85 percent of New York City residents live within a walking distance of a park by 2030. To help the City reach this goal, the NYC Department of Parks and Recreation (NYC DPR) has a Walk-to-a-Park initiative that focuses on increasing access to parks and open space in areas of the city where residents live further than walking distance of a park. According to Walk-to-a-Park service area geographic data provided by the City, the Project Area does not overlap with any known walk gap areas (see **Figure 5-1**).

Open Space Study Area

According to the *CEQR Technical Manual*, the first step in an open space analysis is to define and map a study area for the open space inventory as well as the population using those open spaces within a specified distance of a project. The size of the study area is based on the distance a person may be reasonably assumed to walk to reach a local open space. Workers typically use passive open spaces within a quarter mile of their workplace, while residents use both passive and active open spaces and are more likely to travel farther—up to a half-mile from their places of residence—to reach open spaces. Because the Proposed Actions would not generate a net increase in workers above the 500-employee threshold compared to the future No-Action condition, only a residential study area was defined. The residential study area comprises the area within a half-mile distance from the Project Area.

Figure 5-1 "Walk to a Park" Service Area



Pursuant to the *CEQR Technical Manual*, the study area comprises all census tracts that have at least 50 percent of their area located within a half-mile radius of the Project Area. However, due to their irregular boundaries in this particular area of Queens, no census tracts met this threshold,. As such, census block groups were used in the analysis. Thirty-eight (38) census block groups in Queens County have at least 50 percent of their area located within a half-mile of the Development Site, as shown in **Figure 5-2**. New Calvary Cemetery is located directly southeast of the Development Site, of which almost nine acres are within the half-mile radius. The Cemetery is open to the public from 9 AM to 4:30 PM daily and includes passive walking paths and benches. Given the cemetery's close proximity to the Development Site, the portion of this resource that occurs north of the Brooklyn Queens Expressway was included in the quantitative assessment.

Next, open spaces within this study area are included in an open space inventory. Open space that is accessible to the public on a constant and regular basis for active and passive recreation, including for designated daily periods, is defined as "public" and analyzed under CEQR. Public open space may be under government or private jurisdiction and may include neighborhood and regional parks, public plazas, outdoor schoolyards, promenades, greenways, landscaped malls, housing complex grounds, nature preserves, gardens, church yards, cemeteries, and waterfront piers—given that they have recreational amenities and are available for use by the general public on a constant and regular basis.

Impact Assessment

The adequacy of open space in the study area is based on ratios of usable open space acreage to the study area populations (the open space ratios, or OSR). The *CEQR Technical Manual* outlines the following guidelines for residential assessments:

- The City attempts to achieve a ratio of 2.50 acres per 1,000 residents for large-scale proposals. Ideally, this would consist of 0.50 acres of passive open space and 2.00 acres of active open space per 1,000 residents. However, these goals are often not feasible for many areas of the City and they do not constitute an impact threshold. Rather, it is a benchmark that represents how well an area is served by its open space.
- A ratio that meets the Citywide Community District median ratio of 1.50 acres of open space per 1,000 residents is also recommended.

The determination of significant adverse impacts is based on how a project would change the open space ratios in a study area, as well as qualitative factors not reflected in the quantitative assessment. According to the *CEQR Technical Manual*, if a project would reduce an open space ratio and consequently result in overburdening existing facilities, or if it would substantially exacerbate an existing deficiency in open space, it may result in a significant impact on open space resources. A proposed project may result in a significant adverse impact under the following circumstances:

- There would be a direct displacement/alteration of existing open space within the study area that has a significant adverse effect on existing users, unless the proposed project would provide a comparable replacement (size, usability, and quality) within the study area (i.e., there is a net loss of publicly accessible open space).
- The project would reduce an open space ratio by more than the general guidelines for the open space percentage change guided in the *CEQR Technical Manual* and consequently result in overburdening existing facilities, or if it would substantially exacerbate an existing deficiency in open space. In areas that have been determined to be extremely lacking in open space, a reduction as small as one percent may be considered significant, warranting further analysis. See **Table 5-1** for the relevant impact thresholds for analysis.

Table 5-1 Percent 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%

*2.5 OSR is the planning goal in NYC, with optimal distribution goal of 2.0 Active OSR and 0.5 Passive OSR

As shown in the assessment below, the total open space ratio is 0.298 in the With-Action condition. According to **Table 5-1**, a percent change greater than 1 percent could signify a possible adverse open space impact. Therefore, a detailed assessment is warranted.

Detailed Assessment

Existing Conditions

Study Area Population

As shown in **Table 5-2**, based on the 2017-2021 5-year American Community Survey (ACS) data, the 38 census block groups in the open space study area contain a total residential population of 51,955. Residents aged between 20 and 64 make up the largest age cohort (approximately 67 percent) of the residential population in the half-mile residential study area. The next highest cohort is residents aged 65 years and over (approximately 15.9 percent). There is a higher percentage of residents aged between 20 and 64 in the study area as compared to Queens County (61.8 percent) and New York City (61.9 percent) as a whole. The higher percentage of residents aged between 20 and 64 in the study area is also evident when comparing the median age of the study area to that of Queens County and New York City. The study area's median age is 40.0 compared with 39.6 in Queens County and 37.3 in New York City. The study area median ages by census block group ranges from a low of 30.7 in Census Tract 183, Block Group 5 and to a high of 59 in Census Tract 169, Block Group 3. This demographic data for the residential open space study area suggests a need for facilities geared towards the recreational needs of adults, as the study area exhibits a high percentage of residents aged between 20 and 64. Therefore, there may be more demand for publicly accessible active open space in the residential study area because of a higher-than-average median age and percentage of adults as a portion of the population total. However, this is offset by the second-highest percentage of senior residents aged 65 years and older, who require access to passive recreational uses.

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 four years old or younger use traditional playgrounds that have play equipment for toddlers and preschool children. Children aged five through nine typically use traditional playgrounds, as well as grassy and hard-surfaced open spaces, which are important for activities such as ball playing, running, and skipping rope. Children

aged ten through 14 use playground equipment, court spaces, and sports fields. Teenagers' and young adults' needs tend toward court game facilities such as basketball and field sports. Adults between the ages of 20 and 64 continue to use court game facilities and fields for sports as well as more individualized recreation such as rollerblading, biking, and jogging, which require bike paths, promenades, and roadways. Adults also gather with families for picnicking, ad hoc active sports, and recreational activities in which all ages can participate. Senior citizens engage in active recreation such as tennis, gardening, and swimming as well as recreational activities that require passive facilities.

Table 5-2 Existing Population Age Distribution within the Study Area

Census Tract	Census Block Group	Total Res Population	Age Distribution												Median Age
			Under 5		5 to 9		10 to 14		15 to 19		20 to 64		65 and over		
			Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
169	1	1,742	170	9.8%	100	5.7%	66	3.8%	0	0.0%	1,205	69.2%	201	11.5%	38.6
	2	1,695	133	7.8%	16	0.9%	122	7.2%	186	11.0%	1,058	62.4%	180	10.6%	31.7
	3	1,065	0	0.0%	15	1.4%	24	2.3%	21	2.0%	660	62.0%	345	32.4%	59
	4	1,391	79	5.7%	10	0.7%	95	6.8%	49	3.5%	1,060	76.2%	98	7.0%	43.2
181.01	3	1,496	64	4.3%	25	1.7%	0	0.0%	26	1.7%	1,145	76.5%	236	15.8%	40.8
181.02	1	991	0	0.0%	11	1.1%	21	2.1%	28	2.8%	719	72.6%	212	21.4%	43.2
	2	950	51	5.4%	18	1.9%	52	5.5%	95	10.0%	708	74.5%	26	2.7%	37.4
	3	1,448	38	2.6%	191	13.2%	25	1.7%	37	2.6%	990	68.4%	167	11.5%	40.1
183	1	921	23	2.5%	70	7.6%	67	7.3%	22	2.4%	553	60.0%	186	20.2%	45.5
	2	1,181	193	16.3%	4	0.3%	50	4.2%	1	0.1%	710	60.1%	223	18.9%	39.3
	3	1,435	117	8.2%	56	3.9%	67	4.7%	49	3.4%	915	63.8%	231	16.1%	36.1
	4	1,429	71	5.0%	106	7.4%	113	7.9%	15	1.0%	904	63.3%	220	15.4%	41.6
	5	707	0	0.0%	39	5.5%	49	6.9%	0	0.0%	599	84.7%	20	2.8%	30.7
185.01	1	944	14	1.5%	30	3.2%	67	7.1%	0	0.0%	690	73.1%	143	15.1%	41.8
	2	1,443	25	1.7%	37	2.6%	32	2.2%	62	4.3%	1,031	71.4%	256	17.7%	41.9
	3	1,042	32	3.1%	13	1.2%	13	1.2%	16	1.5%	742	71.2%	226	21.7%	38.5
185.02	1	581	7	1.2%	20	3.4%	32	5.5%	15	2.6%	477	82.1%	30	5.2%	37.8
	2	1,515	93	6.1%	21	1.4%	26	1.7%	108	7.1%	974	64.3%	293	19.3%	44.3
	3	1,056	61	5.8%	42	4.0%	26	2.5%	19	1.8%	794	75.2%	114	10.8%	35.7
187	1	1,175	64	5.4%	12	1.0%	126	10.7%	60	5.1%	829	70.6%	84	7.1%	36.3
235.01	1	2,404	156	6.5%	253	10.5%	197	8.2%	79	3.3%	1,396	58.1%	323	13.4%	36.2
	2	1,978	170	8.6%	85	4.3%	72	3.6%	65	3.3%	1,299	65.7%	287	14.5%	30.8

Table 5-2 Existing Population Age Distribution within the Study Area

Census Tract	Census Block Group	Total Res Population	Age Distribution												Median Age
			Under 5		5 to 9		10 to 14		15 to 19		20 to 64		65 and over		
			Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
235.02	1	1,863	12	0.6%	83	4.5%	19	1.0%	44	2.4%	1,454	78.0%	251	13.5%	44.1
	2	1,022	52	5.1%	65	6.4%	74	7.2%	30	2.9%	739	72.3%	62	6.1%	30.8
245	1	1,966	148	7.5%	55	2.8%	68	3.5%	79	4.0%	1,034	52.6%	582	29.6%	54.5
	2	1,420	29	2.0%	40	2.8%	35	2.5%	0	0.0%	1,051	74.0%	265	18.7%	40.1
249	1	2,038	136	6.7%	17	0.8%	48	2.4%	26	1.3%	1,047	51.4%	764	37.5%	52.5
	2	1,175	63	5.4%	32	2.7%	56	4.8%	82	7.0%	838	71.3%	104	8.9%	35.1
251	1	2,002	92	4.6%	30	1.5%	31	1.5%	52	2.6%	1,235	61.7%	562	28.1%	50.5
	2	921	51	5.5%	44	4.8%	69	7.5%	57	6.2%	545	59.2%	155	16.8%	38.5
	3	2,239	88	3.9%	167	7.5%	50	2.2%	56	2.5%	1,719	76.8%	159	7.1%	39.8
	4	918	80	8.7%	44	4.8%	0	0.0%	30	3.3%	611	66.6%	153	16.7%	43.6
253.01	1	630	80	12.7%	19	3.0%	12	1.9%	19	3.0%	457	72.5%	43	6.8%	40.3
	2	1,243	29	2.3%	100	8.0%	37	3.0%	74	6.0%	826	66.5%	177	14.2%	42.4
	3	1,029	35	3.4%	0	0.0%	4	0.4%	48	4.7%	755	73.4%	187	18.2%	41.4
	4	1,483	47	3.2%	123	8.3%	135	9.1%	80	5.4%	800	53.9%	298	20.1%	36.9
253.02	1	2,326	291	12.5%	147	6.3%	80	3.4%	99	4.3%	1,420	61.0%	289	12.4%	35.6
	2	1,091	60	5.5%	26	2.4%	34	3.1%	16	1.5%	830	76.1%	125	11.5%	33.1
	Total	**51,955**	**2,854**	**5.5%**	**2,166**	**4.2%**	**2,094**	**4.0%**	**1,745**	**3.4%**	**34,819**	**67.0%**	**8,277**	**15.9%**	**40.0**
	Queens County Total	**2,393,104**	**143,651**	**6.0%**	**125,146**	**5.2%**	**138,360**	**5.8%**	**122,925**	**5.1%**	**1,479,209**	**61.8%**	**383,813**	**16.0%**	**39.6**
	NYC Total	**8,736,047**	**543,437**	**6.2%**	**483,578**	**5.5%**	**509,866**	**5.8%**	**470,639**	**5.4%**	**5,410,323**	**61.9%**	**1,318,204**	**15.1%**	**37.3**

Source: 2017-2021 ACS 5-year Estimates
Note: Percentages may not add up to 100 due to rounding

Study Area Open Space Resources

Open space that is accessible to the public on a constant and regular basis, including for designated daily periods, is defined as publicly accessible and is analyzed as such per *CEQR Technical Manual* guidelines. Publicly accessible open space may be under government or private jurisdiction and includes open space designated through regulatory approvals, such as public plazas. Private open space—that which is not publicly-accessible or is available only to limited users and is not available to the public on a constant and regular basis—is not included in CEQR-compliant quantitative open space analyses.

In addition to the distinction between public and private open spaces, individual spaces may also be classified as either active or passive, according to the types of activities for which the space is primarily used. Open space that is used for sports, exercise, or active play is classified as active and consists mainly of recreational facilities, while open space that is used for relaxation, such as a plaza, is classified as passive. Some types of open space facilities, such as esplanades, may be devoted to both active and passive uses.

In conducting the open space analysis for the Proposed Actions, publicly accessible open spaces within the study area were inventoried. The open space resources were identified by their location, owner, features, total acreage, and acreage of passive and active areas. The secondary sources for this analysis included land use and geographic PLUTO data at the tax lot level and additional data provided by NYC DPR. According to the *CEQR Technical Manual*, public open space does not include Greenstreets, malls without seating, or sidewalks. The condition of each open space resource was categorized as "Excellent," "Good," "Fair," or "Poor." A resource was considered in excellent condition if the space was clean and attractive, and all equipment was present and in a state of good repair. A good resource had minor problems such as litter or older but operative equipment. A fair or poor resource was one that was poorly maintained, had broken or missing equipment or lack of security, or other factors that would diminish the facility's attractiveness to potential users. Determinations were made subjectively, based on a visual assessment of the open space resources.

All of the publicly accessible open space resources that include passive and active open space within the study area are shown in **Figure 5-2** and listed in **Table 5-2**. The study area contains eight open space resources. These eight resources are a mix of neighborhood parks, playgrounds, plazas, and comprise 15.66 total acres of open space, of which approximately 6.50 is active and 9.18 is passive. Although located outside of the residential study area block groups, New Calvary Cemetery is located directly southeast of the Development Site and almost nine acres are within the study area. The Cemetery is open to the public from 9 AM to 4:30 PM daily and includes passive walking paths and benches. Given the cemetery's close proximity to the Development Site, the portion of this resource that occurs north of the Brooklyn Queens Expressway was included in the quantitative assessment. Most of the open spaces within the study area are in either good or excellent condition. Four have moderate utilization and four have high utilization.

It is important to consider that there are multiple open spaces within a half-mile of the Project Area that new residents generated by the Proposed Actions may visit but are excluded from the quantitative analysis because these resources are located outside of the open space study area. Torsney Playground is located within a half-mile of the Development Site, has dog- friendly areas, playgrounds, handball courts, and spray showers. Furthermore, there are smaller neighborhood parks to the east of the Development Site that would be accessible for use by residents. These resources are not considered in the quantitative open space analysis but are considered qualitatively due to their proximity to the Project Area.

Figure 5-2 Residential Open Space Study Area Map



Table 5-3 Existing Study Area Open Spaces

Map No.	Name	Owner/ Agency	Features and Amenities	Total Acres	Active (Acres)	Passive (Acres)	Condition/Utilization
O1	L/CPL Thomas P. Noonan Jr. Playground	NYC Parks	Handball courts, playgrounds, spray showers	1.05	0.53	0.53	Good/Moderate
O2	Sunnyside Veterans Triangle (Joe Sabba Park)	NYC Parks	Benches, trees, plantings	0.47	0	0.47	Excellent/Moderate
O3	John Vincent Daniels Jr. Square	NYC Parks	Benches, trees, plantings, walkways	0.25	0	0.25	Excellent/High
O4	Steinmann Triangle	NYC Parks	Benches, trees, plantings, walkways	0.21	0	0.21	Good/Moderate
O5	Sohncke Square	NYC Parks	Benches, trees, plantings	0.04	0	0.04	Good/High
O6	Doughboy Plaza	NYC Parks	Benches, trees, plantings, walkways, dog-friendly areas	1.71	0	1.71	Excellent/Moderate
O7	Windmuller Park/Lawrence Virgilio Playground	NYC Parks	Basketball courts, handball courts, fitness equipment, outdoor pools, dog-friendly areas, running tracks, spray showers, play equipment, seating	3.01	1.51	1.51	Good/High
O8	New Calvary Cemetery		Walking paths, seating, trees	8.92	4.46	4.46	Good/High
			Total	**15.66**	**6.50**[1]	**9.18**[1]	

Source: NYC Department of Parks and Recreation

[1] Numbers may not add up to the hundredths due to rounding

Adequacy of Open Spaces

The open space analysis focuses on open space that may be used by residential populations. Using *CEQR Technical Manual* guidelines, the adequacy of open space was first analyzed quantitatively by comparing the ratio of existing active and passive open space acreage in the study area per 1,000 residents with the CEQR benchmark of 2.0 acres of active open space and 0.5 acres of passive open space per 1,000 residents.

The existing residential population of the study area was estimated at 51,955 people. The residential study area currently has an overall open space ratio of 0.301 acres per 1,000 residents, which is well below the City's goal of 2.5 acres per 1,000 residents and average of 1.5 acres per 1,000 residents (see **Table 5-4**). The study area's residential active open space ratio is 0.125 acres per 1,000 residents, which is also below the City's guideline of 2.0 acres per 1,000 residents, and the residential passive open space ratio is 0.177 acres per 1,000 residents, which is below the City's guideline of 0.5 acres per 1,000 residents. Thus, based on the quantitative analysis, there is an existing deficiency in open space serving the residential population of the study area.

Table 5-4 Existing Conditions – Adequacy of Open Space Resources in Residential Half-Mile Study Area

Population	Open Space Acreage		Ratios*	DCP Guidelines
51,955	Active	6.50	0.125	2.00
	Passive	9.18	0.177	0.50
	Total	**15.66**	**0.301**	**2.50**

* Acres per 1,000 residents

No-Action Condition

As described in the **Methodology** section above, the No-Action condition accounts for population growth and changes expected to the inventory of open space resources.

Study Area Population

New development in the residential study area would result in an additional 211 residential units, which is estimated to increase the residential population by 504 for a total residential population of 52,459 persons in 2027. It is anticipated that the new population introduced to the study area would have an age distribution similar to that of existing conditions in the study area.

Table 5-5 No-Action Condition: No-Build Developments Estimated Population

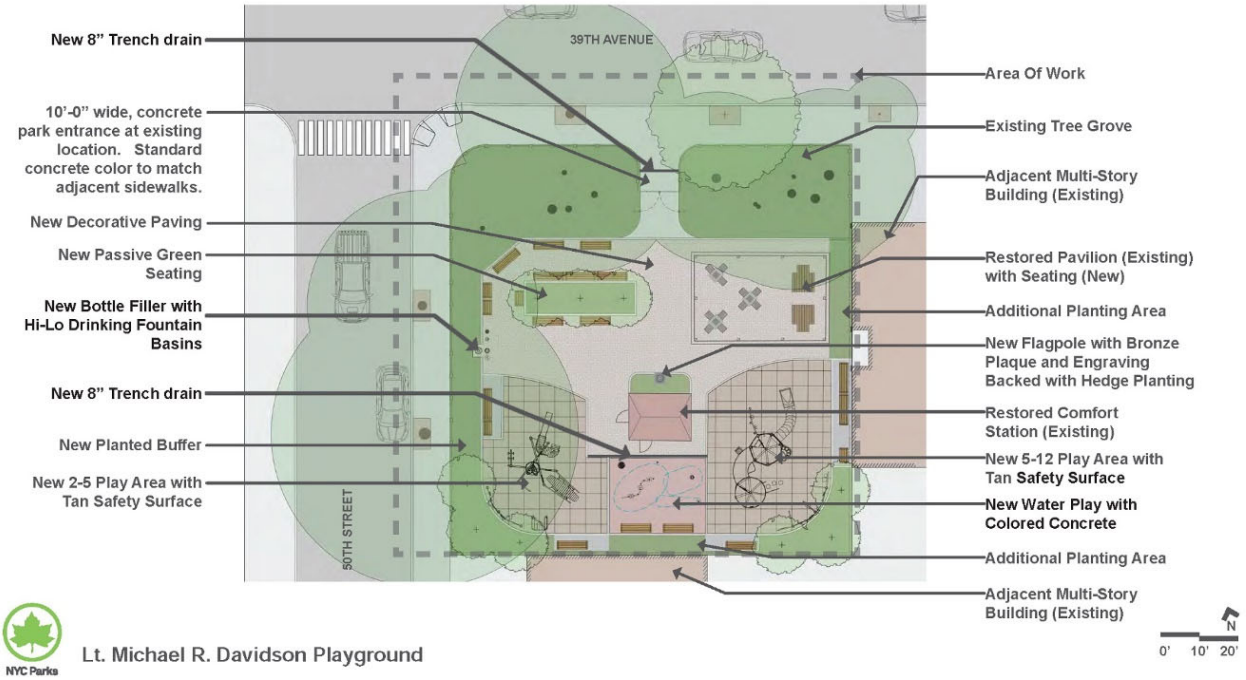
Development Name/Location	Total GSF	Residential Units	Estimated Residents[1]
45-07 45th Street	57,771	63	150.57
43-12 50 Street	6,754	61	145.79
43-15 52 Street	98,530	87	207.93
Total	**163,055**	**211**	**504**

Source: New York City Department of Buildings, YIMBY.com
Notes:
[1] Based on the Average Household Size for the Sunnyside Neighborhood Tabulation Area of 2.39 (2017-2021 American Community Survey)

Study Area Open Spaces

In the No-Action condition, there is one new confirmed open space planned within the study area, Lt. Michael R. Davidson Playground, that is expected to be constructed by the 2027 analysis year. The new playground would feature approximately 0.23 acres of open space consisting of walkways, seating, and play areas (see **Figure 5-3**). It would bring the total open space acreage within the study area to 15.89 acres, with 9.30 acres of active open space and 6.62 acres of passive open space.

Figure 5-3 Proposed No-Build Open Space



Source: NYC DPR

Adequacy of Open Spaces

In the No-Action condition, the open space ratios in the residential study area would increase but remain below the City's guidelines. The total open space ratio would increase to 0.303 acres per 1,000 residents. The active open space ratio would increase slightly while the passive open space

ratio would stay the same, as shown in **Table 5-6**. As in existing conditions, the active and passive open space ratios would remain well below the guidelines of 2.0 acres of active open space and 0.5 acres of passive open space per 1,000 residents (see **Table 5-6**).

Table 5-6 No-Action Condition – Adequacy of Open Space Resources in Residential Half-Mile Study Area

Population	Open Space Acreage		Ratios*	DCP Guidelines
52,459	Active	6.62	0.126	2.00
	Passive	9.30	0.177	0.50
	Total	**15.89**	**0.303**	**2.50**

*Acres per 1,000 residents

With-Action Condition

Study Area Population

In the With-Action condition, 341 units would be introduced to the Project Area, which is estimated to introduce approximately 815 residents and result in a total residential population of 53,274 in the half-mile study area. Given the proposed mix of residential unit sizes, the Proposed Actions would introduce residents in the form of families and non-families. Therefore, the residents introduced by the Proposed Actions would be expected to mirror the existing age distribution.

Adequacy of Open Spaces

Quantitative Assessment

Under the With-Action condition, the open space ratio for the residential population would decrease slightly from the No-Action condition open space ratio (see **Table 5-7**). The total open space ratio would be reduced to 0.298 acres per 1,000 residents in the With-Action condition. This is a 1.7 percent decrease in the overall open space ratio (and absolute decrease of 0.005 acres per 1,000 residents). The passive and active open space ratios would also be reduced slightly: to 0.174 and 0.124 acres per 1,000 residents, respectively. This would represent a 1.7 percent decrease for the passive open space ratio and a 1.6 percent decrease for the active open space ratio (and an absolute decrease of 0.003 and 0.002 acres per 1,000 residents, respectively).

Table 5-7 With-Action Condition – Adequacy of Open Space Resources in Residential Half-Mile Study Area

Population	Open Space Acreage		Ratios*	DCP Guidelines	Percent Change	Absolute Ratio Change*
53,274	Passive	9.30	0.174	2.00	-1.7	-0.003
	Active	6.62	0.124	0.50	-1.6	-0.002
	Total	**15.89**	**0.298**	**2.50**	**-1.7**	**-0.005**

Notes: Cells highlighted in orange exceed the percentage change in Open Space Ratio signifying a possible adverse open space impact per the CEQR Technical Manual and Table 5-1

* Acres per 1,000 people

Given this project's open space ratios, the thresholds for a possible indirect open space impact are shown in **Table 5-1** and are as follows:

- Total OSR of 0.50 or less: a change in 1 percent
- Active OSR of 0.01 to 0.40: a change in 1 percent
- Passive OSR of 0.11 to 0.20: a change in 2 percent

This area is well below the median open space ratio, and for total and active open space ratios, it has the potential to exceed the percent change that signifies a possible adverse open space impact. However, it is important to note that the Proposed Actions would have minimal effects on the open space ratio for residents in the study area, with an absolute change in the ratio of 0.005 acres per 1,000 residents overall.

Qualitative Assessment

The Proposed Project would include a 5,379-square-foot playground and garden associated with the proposed daycare facility as well as a 12,823-square-foot terrace on the 10th floor. In addition to the terrace, the Proposed Project is also anticipated to provide residential amenities, such as an indoor gym. These residential amenities coupled with dedicate playground and garden space for children attending the proposed daycare would lessen the increase in utilization of surrounding open spaces.

As shown in the existing conditions assessment, all of the open spaces located within the residential study area are in good or excellent condition, and half have moderate utilization. This suggests that the open spaces located within the residential study area have capacity to serve new residents generated by the Proposed Actions. In addition, a new open space would be created in the No-Action condition. As mentioned previously, given the proposed mix of residential units, the Proposed Project would introduce residents in the form of families and non-families. Therefore, new residents generated by the Proposed Project would be expected to mirror the existing age distribution and utilize the existing and proposed open spaces in a similar manner to existing conditions.

In addition, there are additional open space resources that are located within a half mile of the Project Area but are outside of the residential study area's selected census block groups. Considering the close proximity, future residents generated by the Proposed Actions and existing residents of the surrounding neighborhood would be reasonably expected to utilize these spaces. Nearby open space resources located outside of the open space study area include Torsney Playground, Big Bush Park, Nathan Weidenbaum Park, and Woodside Memorial Plaza as well as Sunnyside Gardens. Furthermore, the 104-acre New Calvary Cemetery is a larger open space resource that provides walking paths beyond the Brooklyn Queens Expressway and is a draw to residents of the surrounding neighborhoods given its size. All of these resources are not considered in the quantitative open space analysis (except for the portion of New Calvary Cemetery that occurs north of the Brooklyn Queens Expressway, which was included in the quantitative assessment) but are considered qualitatively due to their proximity to the Project Area and the likelihood that residents in the area utilize these spaces for their active and passive recreational needs.

Conclusion

Under the With-Action condition, the total open space ratio for the residential population would decrease by 1.7 percent compared to the No-Action condition open space ratio: 0.303 to 0.298 acres per 1,000 residents. The study area would continue to have open space ratios below the City

guideline of 2.50 acres per 1,000 residents and below the Citywide median of 1.50 acres per 1,000 residents. The passive and active open space ratios would also decrease by 1.7 percent and 1.6 percent respectively (see **Table 5-7**).

It is important to note, as described under existing conditions and the qualitative assessment, that there are multiple open spaces within a half-mile of the Project Area that are not included in the quantitative analysis.

The study area is well below the median open space ratio, and for total and active open space ratios, it has the potential to exceed the percent change that signifies a possible adverse open space impact. However, it is important to note that the Proposed Project would have minimal effects on the open space ratio for residents in the study area, with an absolute change in the ratio of up to 0.005 acres per 1,000 residents overall.

Additionally, the Proposed Project is located in an area where the existing open space resources are in good or excellent condition. In addition, the Proposed Project includes the provision of 0.42 acres of on-site open space resources that would serve residents introduced by the Proposed Project and children attending the proposed daycare. These spaces would reduce the burden on open spaces in the study area. Based on the foregoing, significant adverse impacts on open space resources are not anticipated.

6

Shadows

A shadow is defined in the *2021 CEQR Technical Manual* as the condition that results when a building or other built structure blocks the sunlight that would otherwise directly reach a certain area, space, or feature. The purpose of this section is to assess whether new structures may cast shadows on sunlight sensitive publicly accessible resources or other resources of concern such as natural resources, and to assess the significance of their impact.

Introduction

According to the *CEQR Technical Manual*, a shadows assessment is required for proposed actions that would result in new structures greater than 50 feet in height or located adjacent to, or across the street from, a sunlight-sensitive resource. Such resources include publicly accessible open spaces, important sunlight-sensitive natural features, or historic resources with sun-sensitive features. A significant adverse shadow impact occurs when the incremental shadow added by a proposed project falls on a sunlight-sensitive resource and substantially reduces or completely eliminates direct sunlight exposure, thereby significantly altering the public's use of the resource or threatening the viability of vegetation or other resources.

The Proposed Actions are expected to facilitate the construction of two new buildings that would exceed 50 feet in height. Therefore, further assessment is warranted.

Methodology

According to the *CEQR Technical Manual*, the longest shadow a structure will cast in New York City, except for periods close to dawn or dusk, is 4.3 times its height. In accordance with the *CEQR Technical Manual*, a preliminary screening assessment is conducted to ascertain whether shadows

resulting from a project could reach any sunlight-sensitive resource at any time of year; if the preliminary assessment indicates that, in the absence of intervening buildings, shadows from a project could reach sunlight-sensitive resources on any of the representative analysis days, a detailed analysis is typically warranted. The representative analysis days are December 21 (winter solstice), June 21 (summer solstice), March 21/September 21 (vernal/autumnal equinox), and May 6/August 6 (halfway between summer solstice and the equinoxes).

Sunlight-Sensitive Resources

The *CEQR Technical Manual* defines sunlight-sensitive resources as those resources that depend on sunlight or for which direct sunlight is necessary to maintain the resource's usability or architectural integrity. The following are considered to be sunlight-sensitive resources: [1]

- Public open space (e.g., parks, beaches, playgrounds, plazas, schoolyards, greenways, and landscaped medians with seating). Planted areas within unused portions of roadbeds that are part of the Greenstreets program are also considered sunlight-sensitive resources. The uses and vegetation in an open space establish its sensitivity to shadows. This sensitivity is assessed for both (1) warm-weather-dependent features like wading pools and sand boxes, or vegetation that could be affected by loss of sunlight during the growing season (i.e., March through October); and (2) features, such as benches, that could be affected by a loss of winter sunlight. Uses that rely on sunlight include passive uses, such as sitting or sunning; active uses, such as playfields or paved courts; and such activities as gardening, or children's wading pools and sprinklers. Where lawns are actively used, the turf requires extensive sunlight. Vegetation requiring direct sunlight includes the tree canopy, flowering plants, and plots in community gardens. Generally, four to six hours a day of sunlight, particularly in the growing season, is a minimum requirement for most vegetation.
- Features of historic architectural resources that depend on sunlight for their enjoyment by the public. Only the sunlight-sensitive features are considered, as opposed to the entire architectural resource. Sunlight-sensitive features include the following: design elements that are part of a recognized architectural style that depends on the contrast between light and dark (e.g., deep recesses or voids such as open galleries, arcades, recessed balconies, deep window reveals, and prominent rustication); elaborate, highly carved ornamentation; stained-glass windows; exterior building materials and color that depend on direct sunlight for visual character (e.g., the polychromy (multicolored) features found on Victorian Gothic Revival or Art Deco façades); historic landscapes, such as scenic landmarks including vegetation recognized as an historic feature of the landscape; and structural features for which the effect of direct sunlight is described as playing a significant role in the structure's importance as an historic landmark.
- Natural resources where the introduction of shadows could alter the resource's condition or microclimate. Such resources could include surface water bodies, wetlands, or designated resources such as coastal fish and wildlife habitats.

Preliminary Assessment

The preliminary screening assessment consists of three tiers of analysis:

[1] According to the *2021 CEQR Technical Manual*, City streets, sidewalks, and private open spaces (such as private residential front and back yards, stoops, and vacant lots) are not considered to be sunlight-sensitive resources.

- **Tier 1 Screening:** The first tier determines a simple radius around the proposed building representing the longest shadow that could be cast. If there are sunlight-sensitive resources within the radius, the analysis proceeds to the second tier;
- **Tier 2 Screening:** The second-tier analysis reduces the area that could be affected by project-generated shadows by accounting for a specific range of angles that can never receive shade in New York City due to the path of the sun in the northern hemisphere. According to the *CEQR Technical Manual*, shadows cannot be cast within New York City within 108 degrees from True North. Topographic lines are included to demonstrate the terrain of the area;
- **Tier 3 Screening:** If the second tier of analysis does not eliminate the possibility of new shadows on sunlight-sensitive resources, a third tier of screening analysis further refines the area that could be reached by new shadows by looking at specific representative days of the year and determining the maximum extent of shadow over the course of each representative day. For the Tier 3 screening, three-dimensional modeling software with the capacity to model shadows is used, and the maximum building envelope that could be achieved as a result of the proposed project is modeled and geo-located within the program. Terrain, which has been included in the Tier 1 and Tier 2 Screenings, is also incorporated into the model to account for how changes in elevation throughout the study area can influence shadows that could be cast by a proposed project. The representative days are December 21 (winter solstice), June 21 (summer solstice), March 21/September 21 (vernal/autumnal equinox), and May 6/August 6 (halfway between summer solstice and the equinoxes). The modeling software is also used to approximate times that shadows cast from the proposed project could enter and exit a resource.

Detailed Assessment

If the Tier 3 screening indicates that, in the absence of intervening buildings, shadows from a proposed project would reach a sunlight sensitive resource on any of the representative analysis days, a detailed shadow analysis would be warranted. Because existing buildings (or No-Action buildings) may already cast shadows on a sun-sensitive resource, a proposed project may not result in additional (incremental) shadows upon that resource. The detailed shadow analysis models a baseline condition (future No-Action) that is compared to the future condition resulting from the proposed project (future With-Action) to illustrate the shadows cast by the No-Action development and distinguish the additional (incremental) shadow cast by the project.

For the Proposed Project, a preliminary assessment (Tiers 1 through 3) was undertaken.

Determination of Significance

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

- Vegetation: a substantial reduction in sunlight available to a sunlight-sensitive feature of the resource to less than the minimum time necessary for its survival (when there was sufficient sunlight in the future without the project), or a reduction in direct sunlight exposure where the sensitive feature of the resource is already subject to substandard sunlight (i.e., less than the minimum time necessary for its survival).

- Historic and cultural resources: a substantial reduction in sunlight available for the enjoyment or appreciation of the sunlight-sensitive features of an historic or cultural resource.
- Open space utilization: a substantial reduction in the usability of open space as a result of increased shadow, with consideration given to anticipated new users and the open space's utilization rates throughout the affected time periods as well as to the inventory of available open space resources in the study area.
- For any sunlight-sensitive feature of a resource: complete elimination of all direct sunlight on the sunlight-sensitive feature of the resource, when the complete elimination results in substantial effects on the survival, enjoyment, or, in the case of open space or natural resources, the use of the resource.

In general, a significant adverse shadow impact occurs when the incremental shadow added by a proposed project falls on a sunlight-sensitive resource and substantially reduces or completely eliminates direct sunlight exposure, thereby significantly altering the public's use of the resource or threatening the viability of vegetation or other resources.

Preliminary Assessment

Tier 1 and 2 Screening

As discussed in **Part I: Project Description**, the Proposed Project would have a maximum height of 115 feet (excluding the bulkhead). In addition to the Applicant-owned Projected Development Site 1, the Proposed Actions would also affect the non-Applicant-owned property at Lot 43 (Projected Development Site 2), which is expected to be redeveloped with a 145-foot-tall, excluding bulkhead. Therefore, the maximum height would be 155 feet in height including the bulkhead. The Development Site is oriented roughly northeast to southwest along the Queens Boulevard street grid. The maximum screening radius is approximately 666.5 feet from the Development Site. The area that cannot be shaded by the Proposed Project was drawn from the southernmost point of the Proposed Development. **Table 6-1** and **Figure 6-1** shows the potential sunlight-sensitive resources identified in the Tier 1 and Tier 2 screening assessment. The figure also shows the current topographic elevation of the Development Site and surrounding area, which ranges from approximately 80 feet to 100 feet.

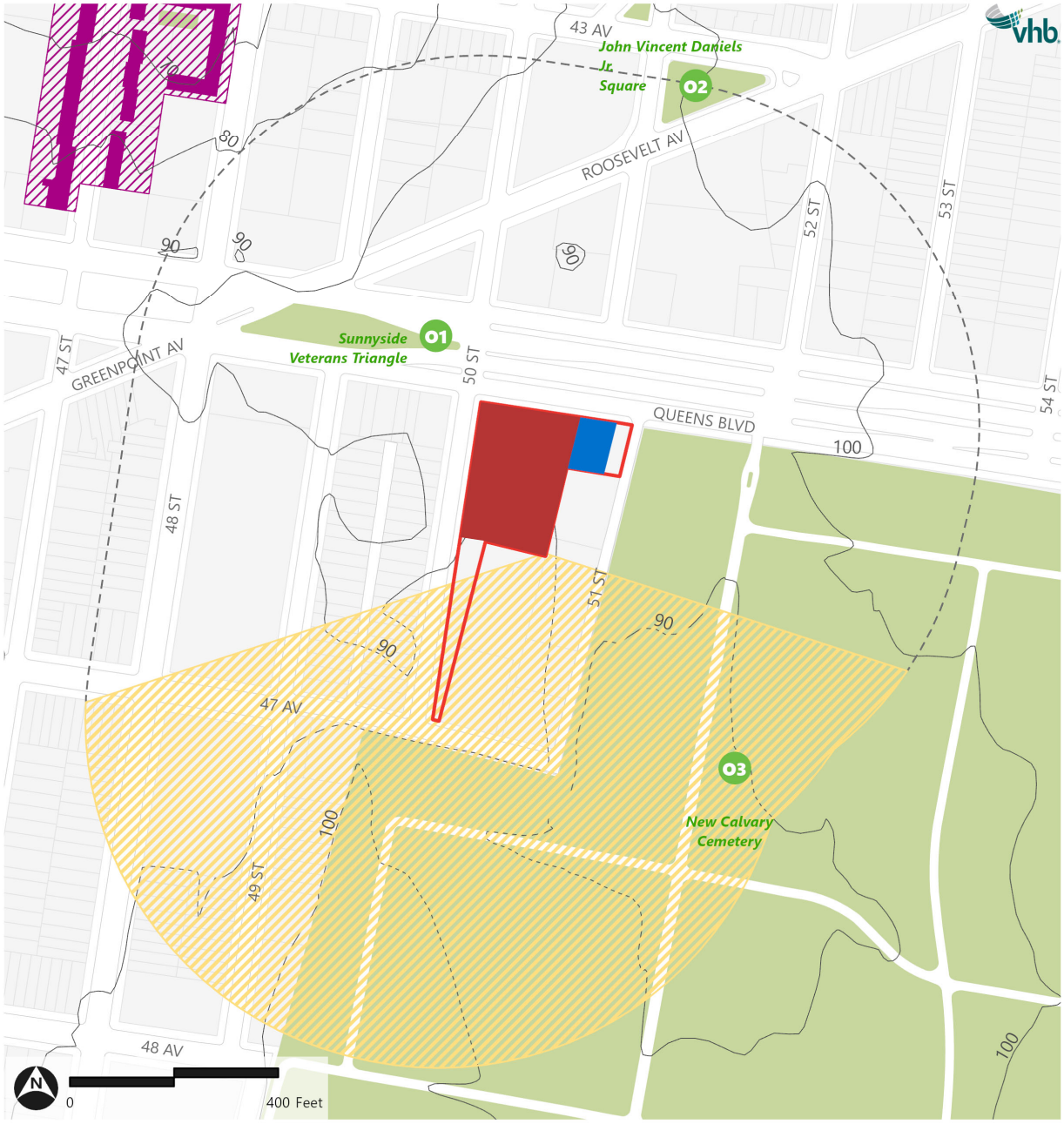
Three sunlight-sensitive open space resources are wholly or partially within an area that can be shadowed by the Proposed Project. These include: O1, Sunnyside Veterans Triangle; O2, John Vincent Daniels Jr. Square; and O3, New Calvary Cemetery.

Table 6-1 Sunlight-Sensitive Resources in the Study Area

Map ID	Resource Name	Potential Resource Summary	Sunlight-Sensitive Elements
Open Space			
O1	**Sunnyside Veterans Triangle (Joe Sabba Park)**	Benches, trees, plantings	Vegetation
O2	**John Vincent Daniels Jr. Square**	Benches, trees, plantings, walkways	Active recreation and vegetation
O3	**New Calvary Cemetery**	Privately-owned cemetery featuring public-accessible walking paths	Vegetation

Source: New York City Department of Parks and Recreation open space database, NYC Capital Planning Platform POPS map, New York Cultural Resource Information System, New York City Landmarks Preservation Commission map

Figure 6-1 Tier 1 and Tier 2 Screening



- Project Area
- Projected Development Site 1
- Projected Development Site 2
- Area of Potential Shadow
- Area that cannot be shaded by the Proposed Project
- 10' Elevation Contours
- O# Open Space
- Historic District
- Landmark

Tier 3 Screening Assessment

In accordance with the *CEQR Technical Manual*, a Tier 3 screening assessment was performed because the Tier 1 and Tier 2 assessments identified several sunlight-sensitive resources within ±108 degrees of True North and within the area of the longest shadow that would be cast by the Proposed Project.

The 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/August 6, the midpoints between the summer solstice and the equinoxes; and June 21, the summer solstice and the longest day of the year.

In accordance with the *CEQR Technical Manual*, a model of the buildings in the With-Action condition was developed in a three-dimensional computer program (ArcGIS Pro). The model was geolocated, and the surrounding terrain was imported into the model to account for differences in topography. As noted above, the Tier 3 shadow screening shows the shadows that would be cast as a result of the Proposed Project but does not account for existing buildings which may already cast shadows on the identified resources. See **Figure 6-2** through **Figure 6-5** below.

The Tier 3 screening indicates that in the absence of intervening structures, the Proposed Project would cast shadows on the Sunnyside Veterans Triangle (Sabba Park) (O1) and New Calvary Cemetery (O3).

Sunnyside Veterans Triangle (Joe Sabba Park) would experience project-generated shadows on the December 21st analysis day in the morning hours from approximately 8:51 AM to 11:00 AM. Although a significant portion of this open space resource would receive shading during this time, December is not considered the growing season per *CEQR Technical Manual* guidance and the viability of vegetation would not be threatened. Additionally, the shadows from the Proposed Project would not completely eliminate direct sunlight on this resource or significantly alter the public's use of the resource during the December analysis period. Therefore, significant adverse impacts are not anticipated, and a detailed analysis of this open space resource is not warranted.

New Calvary Cemetery would experience project-generated shadows on the March 21st/September 21st, May 6th/August 6th, and June 21st analysis days. Based on **Section 5, Open Space**, the New Calvary Cemetery is a privately-owned open space with publicly accessible walking paths. Community members do not recreate in the vegetated areas of this resource but rather walk along paved paths. The shadows from the Proposed Project would fall on a paved walking path on the May 6th/August 6th, and June 21st analysis days only; would be of short duration; and occur in the late afternoon. The viability of vegetation would not be threatened, sunlight would not be completely eliminated, and the public's use of the resource would not be significantly altered. Therefore, significant adverse impacts are not anticipated, and a detailed analysis of this open space resource is not warranted.

Figure 6-2 Tier 3 Screening December 21 Analysis Day

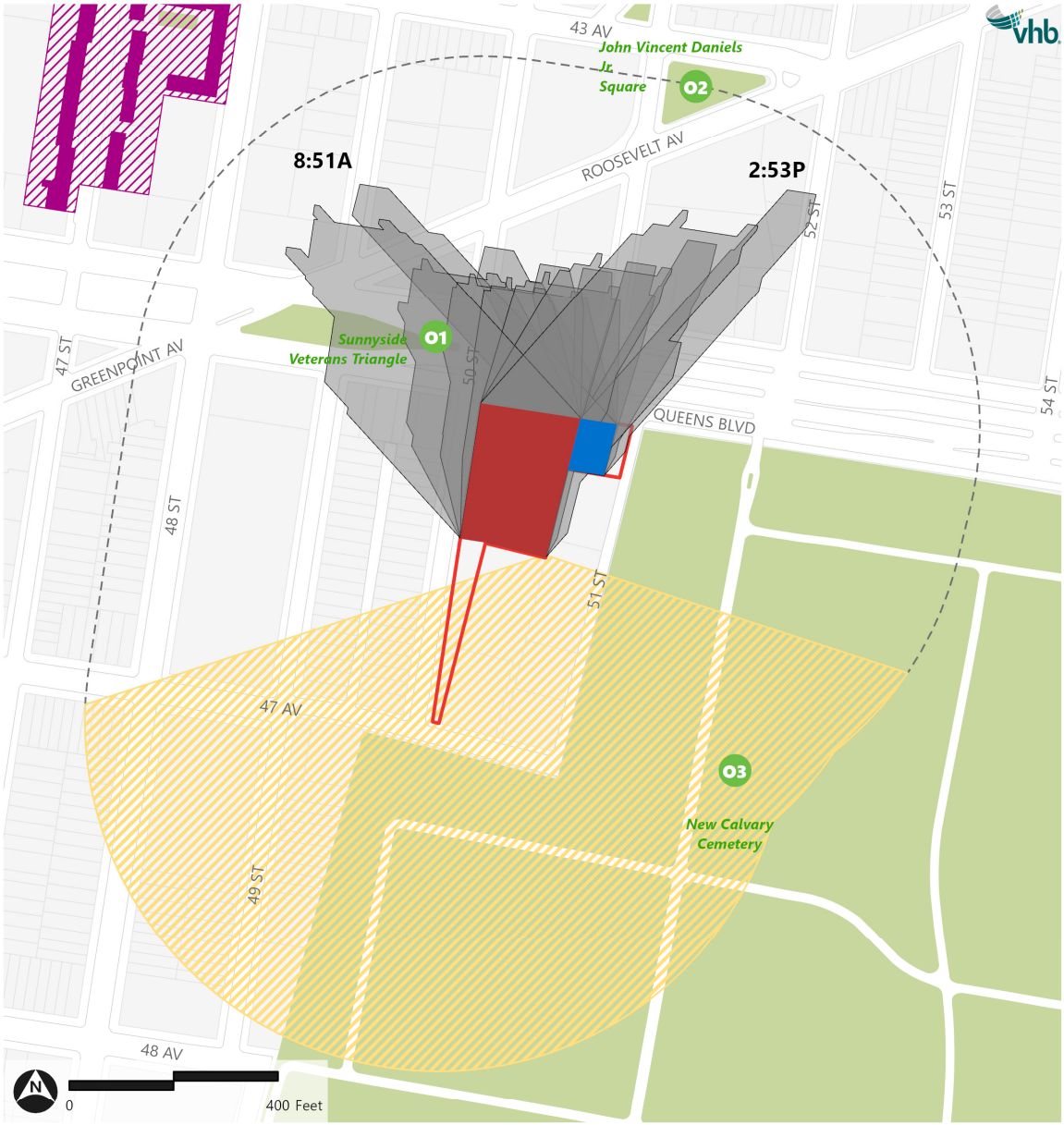


Figure 6-3 Tier 3 Screening March 21 / September 21 Analysis Day

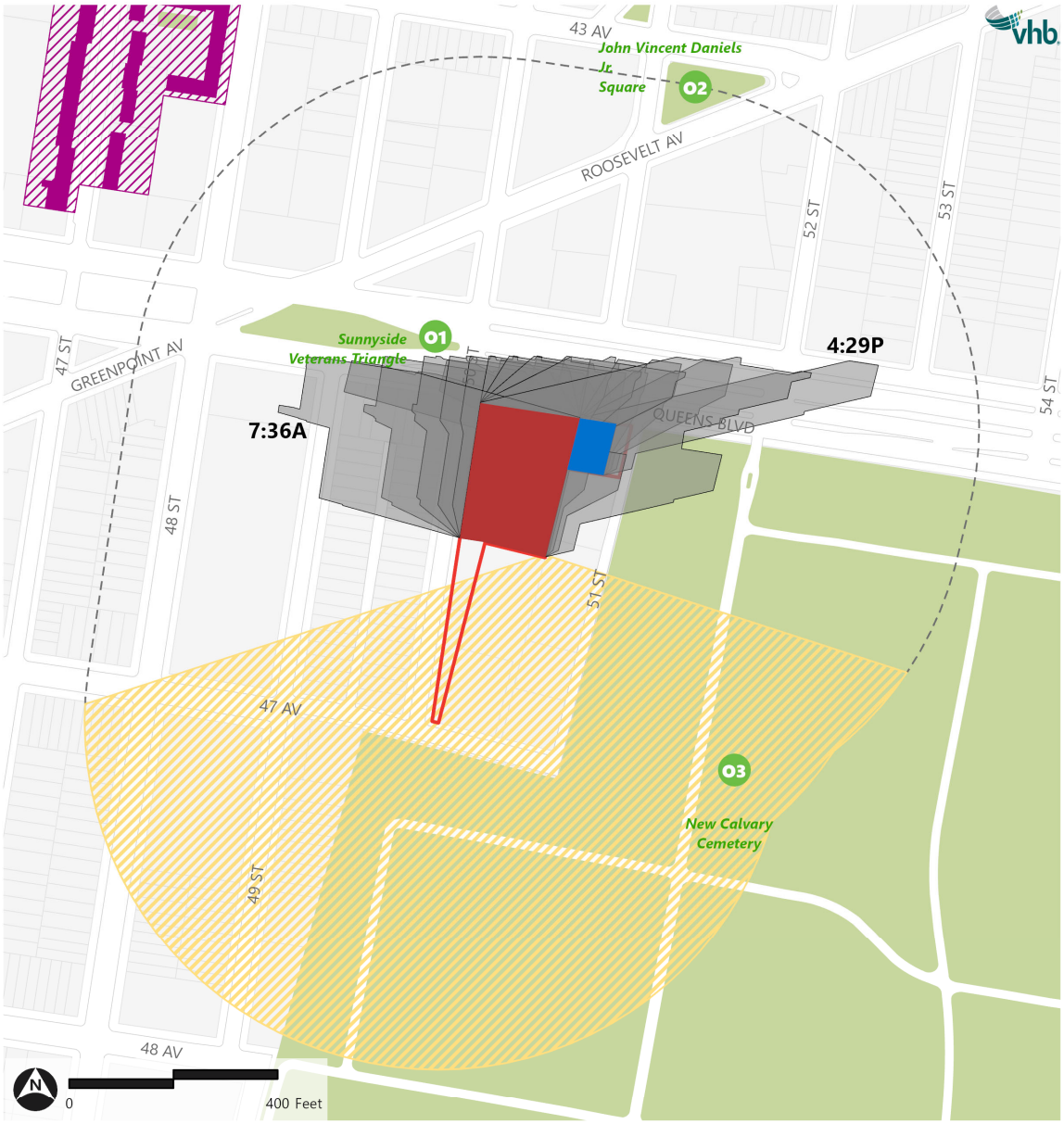


Figure 6-4 Tier 3 Screening May 6 / August 6 Analysis Day

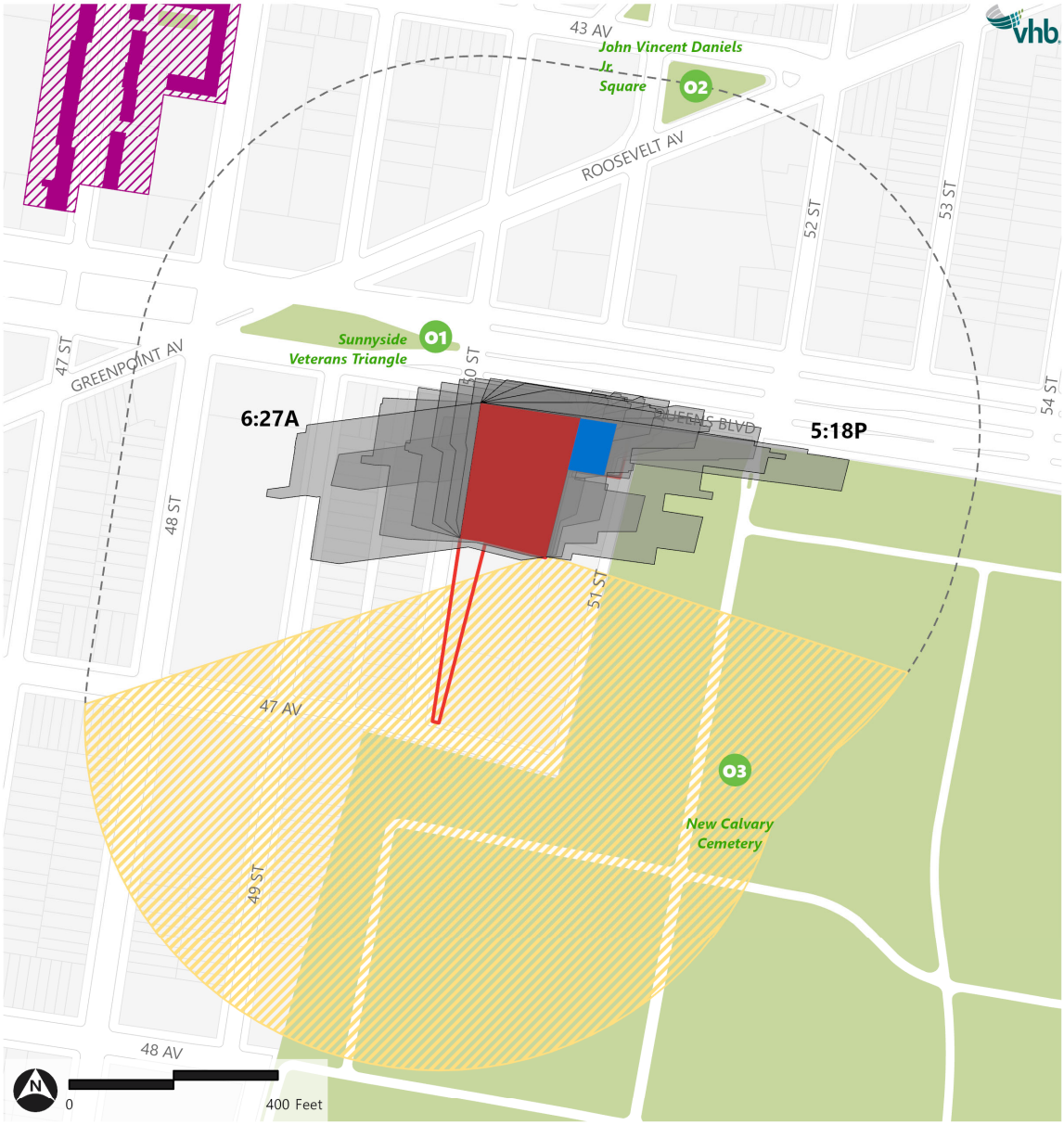
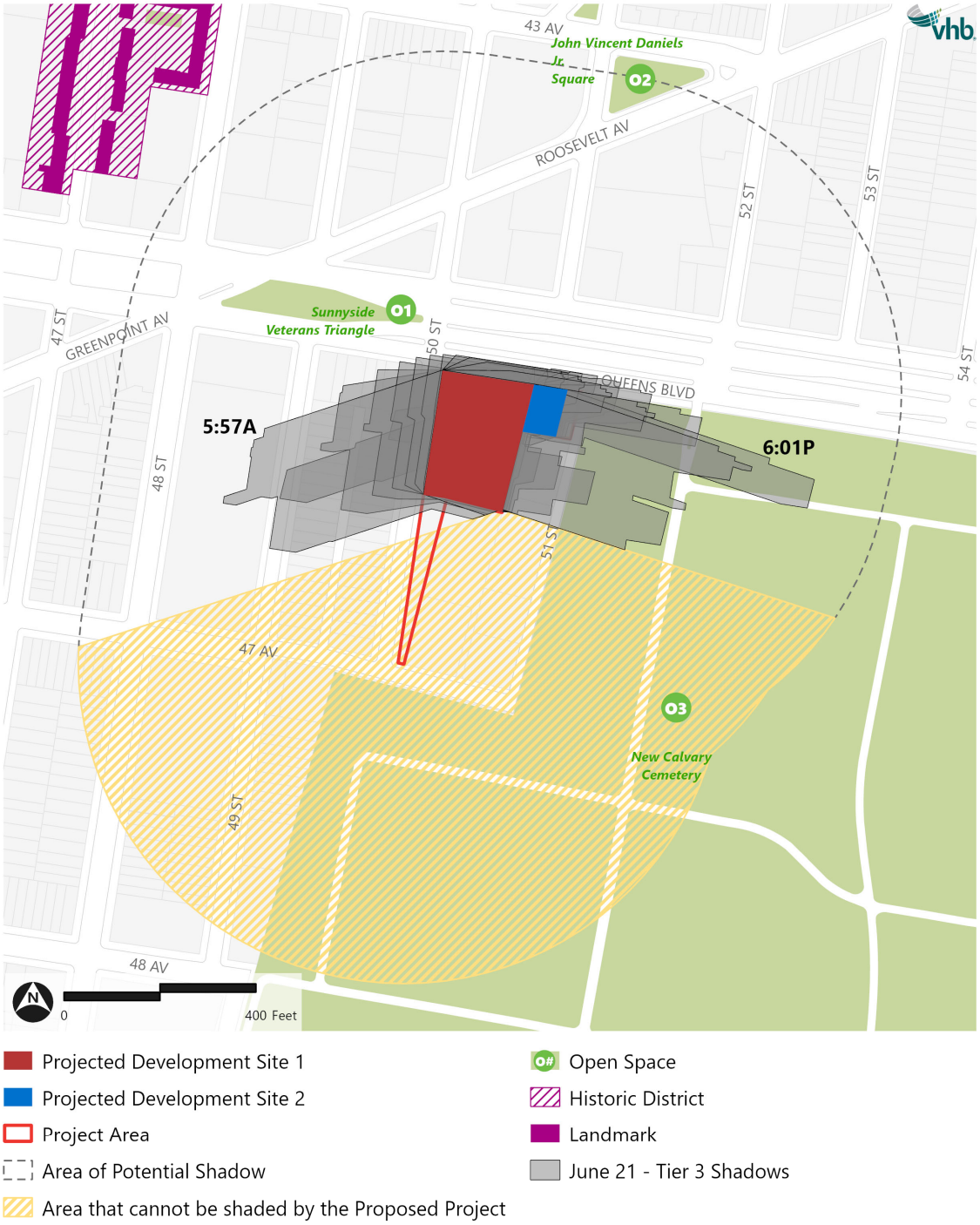


Figure 6-5 Tier 3 Screening June 21 Analysis Day



7

Urban Design and Visual Resources

An urban design assessment under CEQR considers whether and how a project may change the experience of a pedestrian in the study area. The assessment focuses on the components of a proposed project that may have the potential to alter the arrangement, appearance, and functionality of the built environment.

Introduction

Urban design is the totality of components that may affect a pedestrian's experience of public space. To determine if a proposed action has the potential to change the pedestrian experience, an urban design assessment under CEQR guidelines focuses on the components of a proposed action that may alter the arrangement, appearance, and functionality of the built environment from the pedestrian's perspective. In accordance with the *2021 CEQR Technical Manual*, a preliminary assessment of urban design 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 regulations.

A visual resource is the connection from the public realm to significant natural or built features, including views of the waterfront, public parks, landmark structures or districts, otherwise distinct buildings or groups of buildings, or natural resources.

As described in **Part I: Project Description**, the Applicant is seeking a zoning map amendment and a zoning text amendment (the Proposed Actions) affecting Queens Block 2283, Lots 1, 12, 22, 36, and 43 (the Project Area). The Proposed Actions would facilitate the development of a mixed-use building of approximately 361,508 gross square feet (gsf) (the Proposed Project) on Lots 1, 12, 22, and 36 (the Development Site, or Projected Development Site 1) at 50-02 Queens Boulevard in the Woodside neighborhood of Queens Community District 2. The Proposed Project would include approximately 278,047 gsf of residential space (257 units), 20,171 gsf of commercial space, 4,308 gsf of community

facility (daycare) space, and 129 accessory parking spaces. The Proposed Project would meet the requirements of the MIH program and have a maximum height of 115 feet (excluding the bulkhead).

In addition to the Applicant-owned Projected Development Site 1, the Proposed Actions would also affect the non-Applicant-owned property at Lot 43 (Projected Development Site 2). In the future with the Proposed Actions, Projected Development Site 2 is expected to be redeveloped with a 14-story (145-foot-tall, excluding bulkhead) mixed-use building of approximately 74,944 gsf, containing approximately 63,089 gsf of residential space (63 units), 3,228 gsf of commercial space, and 24 accessory parking spaces.

Combined, the projected development sites would introduce approximately 341,136 gsf of residential space (341 units, 80 to 96 of which would be affordable pursuant to MIH), 23,399 gsf of commercial space, 4,308 gsf of community facility (daycare) space, and 153 accessory parking spaces (67,609 gsf), totaling 436,452 gsf of development.

Because the Proposed Actions would result in physical changes to the Project Area beyond those allowable by existing zoning and which could be observed by a pedestrian from street level, a preliminary assessment of urban design and visual resources is warranted.

Methodology

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

- a concise narrative of the existing study area, and conditions under the future No-Action and With-Action conditions;
- an aerial photograph of the study area and ground-level photographs of the project site with immediate context;
- zoning and floor area calculations of the existing and future No-Action and With-Action conditions;
- building massing and building heights; and
- a three-dimensional representation of the future With-Action and No-Action condition streetscape.

If the preliminary assessment determines that a change to the pedestrian experience is minimal and unlikely to disturb the vitality, walkability or visual character of the study area, then no further assessment is necessary. However, if it shows that changes to the pedestrian environment and/or visual resources are significant enough to require greater explanation and further study, then a detailed analysis may be appropriate.

The following preliminary urban design and visual resources assessment follows these guidelines and provides a characterization of existing conditions, a description of urban design and visual resources under the future No-Action and With-Action conditions, and an analysis determining the extent to which physical changes resulting from the proposed actions would alter the pedestrian experience.

Study Area

The urban design and visual resources study area is typically defined as the area within 400 feet of the Project Area which, for the Proposed Actions, is generally bounded by Queens Boulevard and Roosevelt Avenue to the north, New Calvary Cemetery to the east and south, and 49th Street to the west. This is the area in which the Proposed Actions would be most likely to have effects in terms of urban design and visual resources. A field survey was conducted on April 13, 2023, to document existing conditions in the study area. Representative photographs of the study area are included in the discussion below; **Figure 7-1** provides a key map depicting the location and viewing direction from which each photograph was captured.

Figure 7-1 Study Area Photograph Location Map



Preliminary Assessment

Existing Conditions

Project Area

The Project Area is comprised of Lots 1, 12, 22, 36, and 43 on Queens Block 2283. The project block is bounded by Queens Boulevard to the north, 51st Street to the east, 50th Street to the west, and 47th Avenue to the south. The Project Area has a total area of approximately 70,095 square feet and 264 feet of frontage on Queens Boulevard, which is a major east-west thoroughfare in Queens connecting from the Queensboro Bridge to the Jamaica neighborhood. See the **Figure 7-1** for photos of the Project Area and study area.

Within Projected Development Site 1, Lots 1, 12, and 22 are currently occupied with a one-story P.C. Richard & Son commercial building that is approximately 19 feet in height. This building fronts Queens Boulevard and extends the length of 50th Street to 47th Avenue, creating an inactive street wall along 50th Street. An accessory surface parking lot for the P.C. Richard & Son is located directly east of the store, on Lot 36. It fronts Queens Boulevard and contains approximately 90 parking spaces.

Projected Development Site 2 is currently occupied by a three-story Teachers Federal Credit Union that is approximately 40 feet in height and is located at the corner of Queens Boulevard and 51st Street. The third floor of the building is set back from Queens Boulevard. The building contains rows of windows fronting Queens Boulevard and along 51st Street.

Study Area

As described above, the study area is generally bounded by Queens Boulevard and Roosevelt Avenue to the north, New Calvary Cemetery to the east and south, and 49th Street to the west.

Urban Design

The study area is generally characterized by regularly shaped blocks organized along a typical street grid. The one exception is Roosevelt Avenue, a southeast-northwest street that runs diagonally across the northwest portion of the study area, forming triangular blocks and lots to the north and west of the Project Area. Along Roosevelt Avenue is also the elevated IRT Flushing Line (see **Photo 7-1**).

Queens Boulevard, a major thoroughfare, provides east-west access through the study area and generally splits land uses in the study area, with mixed-use and commercial to the north and residential to the south. Street widths within the study area vary. Queens Boulevard is 200 feet wide while the local roadways range from 50 feet to 80 feet wide (i.e., 50th Street and Roosevelt Avenue). Generally, either side of the roadways within the study area are lined with concrete sidewalks interspersed with street trees and limited grassed areas. Parking is generally permitted on both sides of the secondary streets in the study area as well as along Queens Boulevard and, as such, parked cars typically line these roadways (see **Photo 7-2** through **Photo 7-4**)

Buildings within the study area exhibit a diverse assortment of shapes and forms, which closely correlate to land use. As discussed in **Section 2, Land Use, Zoning, and Public Policy,** land use

within the study area primarily includes mixed-use, residential, commercial, and industrial uses, as well as some institution and open space uses.

Residential uses are predominately located in the western portion of the study area, south of Queens Boulevard. Residential buildings vary between five-story, multi-family walk-ups and attached one- and two-family residences. The façade treatment for both types of residences is predominately brick. Attached houses typically consist of a row of houses along a block with setbacks for small front yards that are improved with patio areas or minimal lawn or landscaped areas. Fencing, typically metal or chain-link, often line the boundaries of the front yards (see **Photo 7-5** and **Photo 7-6**). Multi-family buildings are separated by narrow pathways that are closed off to the public. These buildings are similarly setback from the street with fencing and small landscaped areas in the front (see **Photo 7-7**).

Within the study area, commercial uses are generally found along Queens Boulevard and Roosevelt Avenue. Commercial buildings along these roadways are typically one- and two-story mixed-use or strictly commercial structures. Generally, these buildings have flat roofs and contain awnings, signage, and advertisements associated with the commercial uses on the ground floor. Ground floors also typically contain large windows and commercial displays (see **Photo 7-8**).

Within the study area on the northernmost side of Queens Boulevard are larger mixed-use commercial and residential buildings, including a nine-story mixed-use building was constructed in 2019 and faces the Project Area. Adjacent to this is the Korean Presbyterian Church of Southern New York, which is approximately 45 feet in height. To the east of the church are two mixed-use commercial and residential buildings, one of which was constructed in 2009 and is eight stories, and the other of which was constructed in 2015 and is seven stories (see **Photo 7-9**).

Industrial buildings are interspersed throughout the study area. Generally, industrial lots contain one- and two-story industrial warehouse and manufacturing buildings. These are primarily flat-roof brick and concrete buildings.

A large portion of the study area is the New Calvary Cemetery, located to the east and south of the Project Area. The perimeter of the cemetery is lined with stone walling and metal fencing. It is open to the public and has walking/running paths for active recreation, as well as benches and sitting areas used for passive recreation.

Visual Resources

As discussed above, a visual resource is the connection from the public realm to significant natural or built features, including views of the waterfront, public parks, landmark structures or districts, otherwise distinct buildings or groups of buildings, or natural resources.

As discussed in **Section 7, Historic and Cultural Resources**, the study area does not contain any designated historic resources. Similarly, the study area does not contain any views of the waterfront, public parks, landmark structures, or historic districts. Based on the above, the study area does not contain any visual resources of note, and further analysis of visual resources is not warranted.

No-Action Condition

As described in **Part I: Project Description**, absent the Proposed Actions (the future No-Action condition), no physical changes to the Project Area would be anticipated, and the Project Area would continue to operate under the existing conditions, as a P.C. Richard & Son, a surface parking lot, and a Teachers Federal Credit Union.

As discussed in **Section 2, Land Use, Zoning and Public Policy**, there are no anticipated developments within the study area expected to be completed by the 2027 analysis year.

Photo 7-1 7 Train at Roosevelt Ave



Photo 7-2 Queens Boulevard



Photo 7-3 49th Street



Photo 7-4 50th Street at Queens Boulevard



Photo 7-5 One- and Two-Family Attached Residential Buildings along 50th Street



Photo 7-6 One- and Two-Family Attached Residential Buildings along 49th Street



Photo 7-7 Multi-Family Elevator Buildings along 49th Street



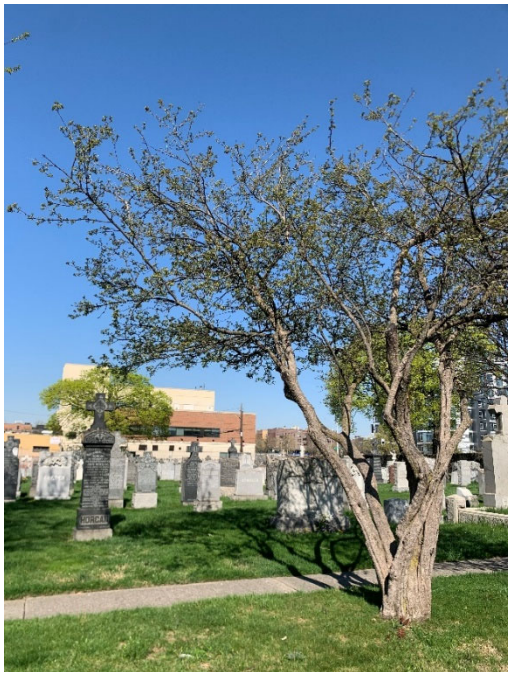
Photo 7-8 Mixed-Use Commercial and Residential Buildings on Queens Boulevard



Photo 7-9 New Development on Queens Boulevard



Photo 7-10 New Calvary Cemetery



With-Action Condition

As described in **Part I: Project Description**, in the future With-Action condition, Projected Development Site 1 would be redeveloped with a 361,508 mixed-use building with 278,047 gsf of residential space, 20,171 gsf of commercial space, 4,308 gsf of community facility (daycare) space, and 129 accessory parking spaces. Projected Development Site 1 would be 11 stories. The ground floor commercial space would be occupied by the existing retail tenant at Projected Development Site 1 (P.C. Richard & Son). The ground floor community facility space would be occupied by a daycare, with additional space in the cellar and a landscaped outdoor play area on the southernmost portion of site. Stories two through 11 would be occupied by 257 rental apartments, of which 64 to 77 would be affordable under MIH. Accessory parking will be provided at the ground floor and within the cellar and will be accessed via a new curb cut on 50th Street. A loading berth and area for P.C. Richard & Son will be accessed via a new curb cut on 51st Street. **Figure 7-2** through **Figure 7-4** provide comparative visualizations of the future With-Action condition.

It is expected that Projected Development Site 2 would be redeveloped into a mixed-use building standing 14 stories tall and reaching 145 feet, with a total area of approximately 74,944 gross square feet (gsf). This space would be divided into approximately 63,089 gsf for residential use, 3,228 gsf for commercial use, and include 24 accessory parking spaces. The ground floor commercial tenancy would be occupied by a local retail tenant. The second through fourteenth floors would be dedicated to 63 rental apartments, of which 16 to 19 units are anticipated to be affordable under MIH. The accessory parking would be located on the ground floor and in the cellar, accessible via an existing curb cut along Queens Boulevard. The residential units at Projected Development Site 2 are planned with an average size of approximately 1,000 gross square feet each, in line with the Proposed Project.

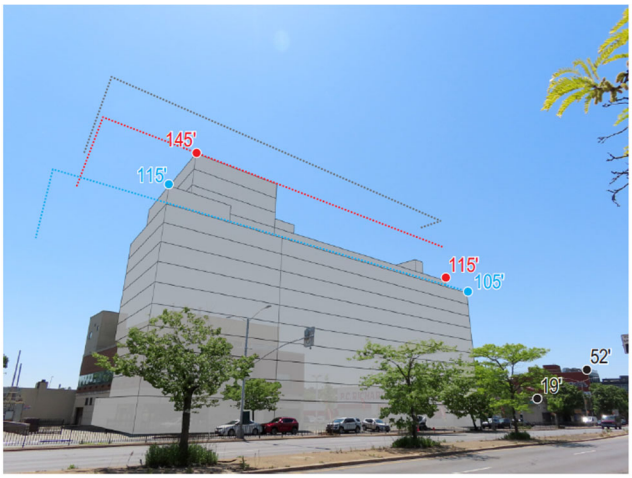
Together, both projected development sites are set to introduce approximately 341,136 gsf of residential space (comprising 341 dwelling units, with about 80 to 96 affordable under MIH), 23,399 gsf for commercial purposes, 4,308 gsf of community facility space intended for daycare, and 153 accessory parking spaces (covering 67,609 gsf), for a total development area of 436,452 gsf.

Figure 7-2 Building Massings: View From Queens Boulevard, Looking Southwest

No-Action



With-Action



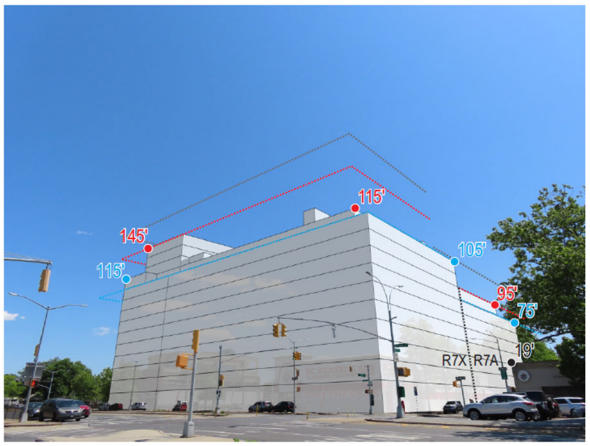
R7A Permitted Base Height (75')
R7X Permitted Base Height (105')
Proposed Base Height
R7A Permitted Building Height (95')
R7X Permitted Building Height (145')
Proposed Building Height
R7A Permitted Bulkhead Height (120')
R7X Permitted Bulkhead Height (170')
Proposed Bulkhead Height

Figure 7-3 Building Massings: View From Queens Boulevard, Looking Southeast

No-Action



With-Action



R7A Permitted Base Height (75')
R7X Permitted Base Height (105')
Proposed Base Height
R7A Permitted Building Height (95')
R7X Permitted Building Height (145')
Proposed Building Height
R7A Permitted Bulkhead Height (120')
R7X Permitted Bulkhead Height (170')
Proposed Bulkhead Height

Figure 7-4 Building Massings: View From 50th Street, Looking Northeast

No-Action



With-Action



R7A Permitted Base Height (75')
R7X Permitted Base Height (105')
Proposed Base Height
R7A Permitted Building Height (95')
R7X Permitted Building Height (145')
Proposed Building Height
R7A Permitted Bulkhead Height (120')
R7X Permitted Bulkhead Height (170')
Proposed Bulkhead Height

Urban Design

The With-Action condition would introduce two new multi-story, mixed-use buildings to the study area, facilitating a change in the visual character of the Project Area, with increased height and bulk. As detailed above, the Project Area is adjacent to the New Calvary Cemetery to the east, residential neighborhoods to the south and west, and is along a major thoroughfare to the north.

Although the Proposed Actions would introduce two buildings that are greater in height and bulk than surrounding buildings, as shown in **Figure 7-2** through **Figure 7-4**, it would also introduce elements that would enhance the pedestrian experience within the study area. Projected Development Site 1 would integrate ground floor retail along the Queens Boulevard frontage, replacing the existing surface parking lot. Similarly, Projected Development Site 2 would also include ground floor retail along Queens Boulevard, activating the streetscape. Together, these changes create a consistent retail presence along the full Queens Boulevard frontage, resulting in an active and cohesive street wall. Additionally, the With-Action condition for Projected Development Site 1 would introduce a landscaped outdoor play area on 50th Street, in place of a portion of the existing P.C. Richard & Son. Overall, these additions would enhance the pedestrian experience on the block.

The With-Action condition for both Projected Development Site 1 and 2 would build along the lot line, consistent with existing mixed-use and commercial development along Queens Boulevard. The Proposed Actions would facilitate the development of new buildings greater in height than neighboring buildings, at approximately 14-stories compared to the existing buildings that generally vary from one- to three-stories. However, a nine-story, mixed-use commercial and residential development was recently constructed directly across the street from the Project Area, fronting Queens Boulevard (50-17 Queens Boulevard). Additional mixed-use buildings of eight- and seven-stories are located northeast of the Project Area, fronting Queens Boulevard. The two 14-story

buildings analyzed in the With-Action condition would be setback from the lot line from floors 11 through 14, consistent with development in the immediate area.

Conclusion

Overall, the With-Action condition would be compatible with the urban design features of the study area and would be consistent with surrounding and emerging building forms and streetscape. The Proposed Actions would provide infill development on an existing surface parking lot, providing a more contiguous street wall, and a landscaped outdoor play area along 50th Street, providing a more vibrant streetscape for pedestrians. Therefore, the Proposed Actions would not result in a significant adverse impact on urban design and visual resources, and no further analysis is necessary.

8

Hazardous Materials

This section assesses whether the Proposed Project may increase the exposure of people or the environment to hazardous materials, and, if so, whether this increased exposure would result in potential significant public health or environmental impacts.

Introduction

A hazardous material is any substance that poses a threat to human health or the environment. Substances that can be of concern include, but are not limited to, heavy metals, volatile and semi-volatile organic compounds, methane, polychlorinated biphenyls (PCBs), and hazardous wastes (defined as substances that are chemically reactive, ignitable, corrosive, or toxic).

According to the *2021 CEQR Technical Manual*, the potential for significant impacts from hazardous materials can occur when:

- hazardous materials exist on a site;
- an action would increase pathways to their exposure; or
- an action would introduce new activities or processes using hazardous materials.

As indicated in the *CEQR Technical Manual*, the hazardous materials (E)-Designation is an institutional control that may be placed on a site to establish a hazardous materials review and approval framework. It provides a mechanism to ensure that testing for and remediation of hazardous materials, if necessary, are completed prior to future development of an affected site, thereby eliminating the potential for a hazardous materials impact. (E)-designated parcels are administered under the authority of the New York City Mayor's Office of Environmental Remediation (OER).

This section presents the findings of the hazardous materials assessment and identifies potential issues of concern with respect to workers, the community, and/or the environment during construction and after implementation of the Proposed Project.

Methodology

The potential for hazardous materials was evaluated based on the following documents:

› Phase I Environmental Site Assessment (ESA), dated June 6, 2023, prepared by VHB Engineering, Surveying, Landscape Architecture and Geology, P.C. (VHB).

A Phase I ESA was prepared on June 6, 2023, in accordance with ASTM Practice E1527-21, inclusive of the "All Appropriate Inquiry" requirement amended in the Federal Register on February 13, 2023. The United States Environmental Protection Agency (EPA) "All Appropriate Inquiry" requirement establishes specific regulatory requirements for conducting appropriate inquiries into the previous ownership, uses, and environmental conditions of a property for the purposes of qualifying for certain landowner liability protections under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

The goal of a Phase I ESA process is to identify "Recognized Environmental Conditions" (RECs), which means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. As stated in Practice E1527-21, there may be environmental issues or conditions at the site, which may be requested by the user to be addressed as part of the Phase I ESA, which are not covered within the Practice. These additional environmental issues (or non-scope considerations) could evaluate for the potential presence of radon, lead-based paint (LBP), asbestos-containing materials (ACM), wetlands, and mold and water damage. Additional environmental issues, or non-scope considerations, are typically characterized in a Phase I ESA as Business Environmental Risks (BERs), which are risks that can have a material environmental or environmentally driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated.

Per the ASTM Standard, a Phase I ESA reviews a variety of information sources, including current and historic Sanborn Fire Insurance Maps and aerial photographs; state and federal environmental regulatory databases identifying listed sites; and local environmental records.

As described in **Part I: Project Description**, the Applicant is requesting several actions (the Proposed Actions) to facilitate development of a mixed-use building of approximately 361,508 gross square feet (the Proposed Project) at 50-02 Queens Boulevard in the Woodside neighborhood of Queens Community District 2 (Queens Block 2283, Lots 1, 12, 22, and 36, the Development Site, or Projected Development Site 1). In addition to the Applicant-owned Projected Development Site 1, the Proposed Actions would also affect the non-Applicant-owned property at Lot 43 (Projected Development Site 2). Combined, the two Projected Development Sites would introduce approximately 341,136 gsf of residential space (or 341 units), 23,399 gsf of commercial space, 4,308 gsf of community facility space, and 153 accessory parking spaces.

The analysis provided below was performed for the Project Area to determine the potential for significant adverse impacts related to hazardous materials as a result of the Proposed Actions.

Preliminary Assessment

Existing Conditions

Phase I Environmental Site Assessment

The Phase I ESA dated June 6, 2023, was completed for the Project Area and included analyses as specified in the ASTM Method E1527-21. The goal of the Phase I ESA process is to identify Recognized Environmental Conditions (RECs), which means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property.

Per the current ASTM Standard, the Phase I ESA reviewed a variety of information sources, including current and historic Sanborn Fire Insurance Maps and aerial photographs; state and federal environmental regulatory databases identifying listed sites; and local environmental records. Based upon the findings of the Phase I ESA, the following RECs were identified for the Project Area:

- REC#1 – On-Site Spill of Petroleum Constituents (Spill #9805297). A portion of the Project Area (Lot 43, Projected Development Site 2) was historically operated as a gasoline filling station and automotive service station dating back to the 1960s. In May 1993, an unknown amount of gasoline, methyl-tert-butyl ether (MtBE), and benzene, toluene, ethylbenzene and xylene (BTEX) impacted groundwater at the subject property and was reported to the New York State Department of Environmental Conservation (NYSDEC). The release was assigned Spill #9805297. The spill is currently being remediated using a groundwater extraction and treatment system being managed by the former operator at 50-24 Queens Boulevard, Equilon Enterprises LLC d/b/a Shell Oil Products US. Notes in the Spill case records indicate possible off-site impacts due to a groundwater contaminant plume as well as on-site impacts to groundwater. The open spill case associated with the subject property represents a REC.
- REC#2 – On-Site Bulk Petroleum Storage and Closed-in-Place Underground Storage Tank (UST). Based on a review of environmental databases, as many as 22 tanks were formerly located at Projected Development Site 2 prior to their removal in the 2000s. Tank removal documentation was not obtained. Steven's Woodside Inc. was the retailer that occupied the building currently used by P.C. Richard & Son. Reportedly, a 2,000-gallon, #2 fuel oil underground storage tank (UST) was closed in place on October 1, 1999, at this portion of Projected Development Site 1. No spill files were identified in connection to this tank. However, there were no records of tank tightness or integrity testing or environmental data to suggest that the UST was in good condition prior to closure. Therefore, it is unknown whether a release of petroleum occurred from the former UST, which is considered a REC.
- REC#3 – Nearby History of Spills and Resource Conservation and Recovery Act (RCRA) Violations. Based on a review of environmental records, two listings located within 500 feet of the Project Area were identified that have the potential to impact the Projected Development Sites' environmental conditions as follows:
- The property that now operates as Sana Tech Printing at 45-14 51st Street is listed as the location of a NYSDEC Spill case. Spill case 1002811 was closed August 6, 2010, after a NYC government HazMat team responded to the already vacant location. Due to the lack of

information provided regarding this spill, the presumably upgradient spill is considered a concern in relation to the Project Area. Furthermore, RCRA violations were associated with Beyond Signs Inc., which generated ignitable waste, corrosive waste, lead, mercury, methyl ethyl ketone and spent nonhalogenated solvents as part of its operation.

- The property that now operates as SkyTrac at 50-05 47th Avenue is listed as the location of two NYSDEC Spill cases and RCRA violations. Handy Button Machine Co., which was involved in metal stamping, electroplating, plating, polishing, anodizing, and coloring was listed as a large and small quantity generator of hazardous waste in the past. It is unknown what types of hazardous waste were utilized, but the Environmental Protection Agency (EPA) also included this site in their per- and polyfluoroalkyl substances (PFAS) Enforcement and Compliance History Online (ECHO) list, as the company may have been handling PFAS in the metal coating industry.
- The corner of Queens Boulevard and 51st Street is listed as the location of a closed Spill case (#0305938) associated with the release of motor oil in the roadway. The case was closed September 26, 2003, however spill closure documentation regarding its remediation was unavailable for review during this Phase I ESA.
- The commercial property at 50-11 Queens Boulevard is listed as the location of closed Spill case (#1602145) that is associated with the release of an unknown amount of gasoline that affected soil and groundwater on the property. The case was closed on December 10, 2020, however spill closure documentation regarding its remediation was unavailable for review during this Phase I ESA.
- A Roy Rogers Restaurant formerly operated at an 50-01 Queens Boulevard. This address has a closed spill case (#9516592) associated with the release of an unknown amount of gasoline that affected soil on the property. The case was closed September 12, 2008, however spill closure documentation regarding its remediation was unavailable for review during this Phase I ESA.

Based on the findings noted as RECs #1, #2 and #3, there is the potential that volatile Chemical(s) of Concern could impact environmental conditions at the Proposed Development Sites. Based upon the findings of the Phase I ESA, the following Business Environmental Risk was identified for the Proposed Development Sites:

- Historical Fill. Based upon the soil classification and historical demolition of buildings on a portion of the Project Area, urban historical fill may be present beneath the subject property. Urban historical fill is commonly found throughout the New York City metropolitan area and can contain contaminants such as hazardous building materials (e.g., asbestos-containing materials), heavy metals and semi-volatile organic compounds. If required to be removed from the subject property, urban fill should be appropriately characterized prior to following appropriate transportation and disposal/recycling procedures.

Future No-Action Condition

In the future No-Action condition, no development is expected to occur on the Projected Development Sites and existing conditions would remain unchanged.

Notwithstanding the above, under the No-Action condition, regulatory requirements pertaining to the disturbance and handling of any LBP, ACM, and PCB-containing building materials, if any, would be followed as part of standard demolition and site redevelopment practices for the Projected Development Sites. Furthermore, regulatory requirements relating to any USTs, if encountered, would be followed including following proper registration and removal protocols in accordance NYSDEC

and New York City Fire Department (FDNY) procedures. However, an (E)-Designation would not be applied to the Projected Development Sites and regulatory oversight by OER would not be provided for the investigation and mitigation of potential subsurface contamination from on- and off-site sources.

Future With-Action Condition

The future With-Action condition would result in the construction of a 11-story, 115-foot-tall, mixed-use building with residential, commercial, and community facility uses. The ground floor commercial space would be occupied by the existing retail tenant on the Development Site (P.C. Richard & Son). The ground floor community facility space would be occupied by a daycare, with additional space in the cellar and a landscaped outdoor play area on the southernmost portion of Projected Development Site 1. In addition, it is expected that Projected Development Site 2 would be redeveloped with a 14-story, 145-foot-tall, mixed-use building.

Based upon a review of environmental documentation, potential on- and/or off-site sources of contamination were identified for the Projected Development Sites. Projected Development Site 1 currently contains a one-story P.C. Richard & Son appliance and electronics store and an accessory surface parking lot for the P.C. Richard & Son store. Projected Development Site 2 has a three-story commercial building occupied by Teachers Federal Credit Union. The buildings are still operational businesses with active uses and employees. Therefore, site constraints prevent adequately characterizing the subsurface while the buildings are still in-place with the active business use. To address these conditions during proposed future site redevelopment, the Proposed Actions would include an (E)-Designation for hazardous materials (E-###), which would be applied to the Development Site (Queens Block 2283, Lots 1, 12, 22, 36) and Projected Development Site 2 (Lot 43). Applying an (E)-Designation provides a mechanism for regulatory oversight for future remedial action as a pre-construction requirement that would reduce or eliminate the potential for future risk or exposure as it relates to hazardous materials to the maximum extent practicable. Compliance in association with the hazardous materials (E)-Designation on the Projected Development Sites would be conducted under the administration of OER.

The (E)-Designation process generally begins with the evaluation of RECs and/or areas of concern (AOCs) that may require additional investigation based upon the results of a Phase I ESA. Any potential RECs or AOCs identified would follow the (E)-Designation protocol for additional investigation and potential remedial action. (E)-Designation compliance will utilize information from the existing Phase I ESA for the Projected Development Sites to the maximum extent practicable.

The applicable text for the (E)-Designation (E-###) to be applied to Queens Block 2283, Lots 1, 12, 22, 36, and 43 would be as follows:

Task 1: Sampling Protocol

Prior to construction, the applicant submits to OER, for review and approval, a Phase II Investigation protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented.

No sampling should begin until written approval of a protocol is received from OER. The number and location of sample sites should be selected to adequately characterize the site, the specific source 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 the sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.

Task 2: Remediation Determination and Protocol

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

If remediation is indicated from the test results, a proposed Remedial Action Work Plan (RAWP) must be submitted to OER for review and approval. The applicant must complete such remediation as determined necessary by OER in accordance with the approved RAWP. The applicant should then provide proper documentation that remedial action has been satisfactorily completed.

An OER-approved construction-related Health and Safety Plan (CHASP) would be implemented during evacuation and construction and activities to protect workers and the community from potentially significant adverse impacts associated with contaminated soil and/or groundwater. This plan would be submitted to OER for review and approval prior to implementation.

In addition to the above, regulatory requirements relating to ACM, LBP and PCB-containing building materials would be followed as part of standard demolition and site redevelopment practices.

Conclusion

Based upon a review of environmental documentation, potential on- and/or off-site sources of subsurface contamination was identified for the Projected Development Sites. The Development Site and Projected Development Site 2 currently contain two commercial buildings. The buildings are still occupied by operational businesses with active uses and employees. Therefore, site constraints prevent adequately characterizing the subsurface while the buildings are still in-place with the active business uses. To address these conditions for any future redevelopment of the Projected Development Sites, the Proposed Actions would include an (E)-Designation for hazardous materials (E-###) which would be applied to the Project Area (Block 2283, Lots 1, 12, 22, 36, and 43). Applying an (E)-Designation provides a mechanism for regulatory oversight by OER as a pre-construction requirement that would reduce or eliminate the potential for future risk or exposure as it relates to hazardous materials to the maximum extent practicable. The implementation of the preventative and remedial measures required under the (E)-Designation would avoid the potential for significant adverse hazardous materials impacts to the subsurface due to the Proposed Actions through the development and implementation of an OER-approved RAWP and CHASP for the Site.

In addition, regulatory requirements pertaining to the disturbance and handling of any LBP, ACM, and PCB-containing building materials, if any, would be followed as part of standard demolition and site redevelopment practices on the Projected Development Sites. As such, implementation of the Proposed Actions would not result in significant adverse impacts related to hazardous materials.

9

Transportation

The objective of the transportation analyses is to determine whether a proposed action may have a potential significant impact on traffic operations and mobility, public transportation facilities and services, pedestrian elements and flow, safety of all roadway users (pedestrians, cyclists, and motorists), and on- and off-street parking.

Introduction

The Applicant, 50-02 Woodside Development, LLC, is seeking a zoning map amendment and a zoning text amendment (collectively, the Proposed Actions) affecting Queens Block 2283, Lots 1, 12, 22, 36, and 43 (the Project Area). The Proposed Actions would facilitate the development of a mixed-use building of approximately 361,508 gross square feet (gsf) (the Proposed Project) on Applicant-owned Lots 1, 12, 22, and 36 (the Development Site, or Projected Development Site 1) at 50-02 Queens Boulevard in the Woodside neighborhood of Queens Community District 2 (see **Figure 9-1**). The Project Area currently consists of a Teachers Federal Credit Union of approximately 16,703 gross square feet (gsf) and a P.C. Richard & Son appliance and electronics store of approximately 24,908 gsf. The ground floor commercial space in the new development would be occupied by the existing P.C. Richard & Son.

Table 9-1 provides a comparison table of the proposed change in uses between existing, No-Action, and With-Action conditions. Overall, the Proposed Actions would result in a decrease in local retail space of 13,475 gsf, a decrease in destination retail space of 4,737 gsf, an increase of 4,308 gsf of community facility space (a daycare); and an increase of 341,136 gsf of residential space, or approximately 341 dwelling units. On-site accessory parking would increase by 53 parking spaces from the existing 100 parking spaces.

Figure 9-1 Site Location Map



Source: DCP Map PLUTO

Table 9-1 Development Increment for Analysis (in GSF)

Land Use	Existing	No-Action	With-Action	Increment
Projected Development Site 1				
Commercial - Local Retail	---	---	---	---
Commercial - Destination Retail	*24,908*	*24,908*	20,171	*-4,737*
Community Facility	---	---	4,308	+4,308
Residential	--- *(0 units)*	--- *(0 units)*	278,047 *(278 units)*	+363,979 *(+278 units)*
Parking	32,696 *(90 spaces)*	32,696 *(90 spaces)*	58,982 *(129 spaces)*	+26,286 *(+39 spaces)*
Total GSF	24,908	24,908	361,508	+336,600
Projected Development Site 2				
Commercial - Local Retail	16,703	16,703	3,228	
Commercial - Destination Retail	---	---	---	---
Community Facility	---	---	---	---
Residential	--- *(0 units)*	--- *(0 units)*	63,089 *(63 units)*	+63,089 *(+63 units)*
Parking Spaces	0[1] *(10 spaces)*	0 *(10 spaces)*	8,627 *(24 spaces)*	+8,627 *(+14 spaces)*
Total GSF	16,703	16,703	74,944	+58,241
Total Development				
Commercial - Local Retail	16,703	16,703	3,228	-13,475
Commercial - Destination Retail	*24,908*	*24,908*	20,171	-4,737
Community Facility	---	---	4,308	+4,308
Residential	--- *(0 units)*	--- *(0 units)*	341,136 *(341 units)*	+341,136 *(+341 units)*
Parking Spaces	32,696 *(100 spaces)*	32,696 *(100 spaces)*	67,609 *(153 spaces)*	+34,913 *(+53 spaces)*
Total GSF	41,611	41,611	436,452	+394,841

Notes:
[1] Parking spaces at Projected Development Site 2 currently include unenclosed surface parking.

Methodology and Analytical Framework

According to the *2021 CEQR Technical Manual* procedures for transportation analysis, a two-tiered screening process is to be undertaken to determine whether a quantitative analysis is necessary. The first step, the Level 1 (Trip Generation) screening, determines whether the volume of peak hour person and vehicle trips generated by a proposed action would remain below the minimum thresholds for further study. These thresholds are:

- 50 peak hour vehicle trip ends;
- 200 peak hour subway/rail or bus transit riders;

- 50 peak hour Citywide Ferry Service (CWFS) ferry trips; and
- 200 peak hour pedestrian trips.

If a proposed action results in increments that would exceed any of these thresholds, a Level 2 (Trip Assignment) screening assessment is usually performed. Under this assessment, project-generated trips that exceed Level 1 thresholds are assigned to and from the proposed project's site through their respective networks (streets, bus and subway lines, sidewalks, etc.) based on expected origin-destination patterns and travel routes. This determines the volume of peak hour vehicle traffic that would be added per intersection, the volume of riders that would be added per subway line, bus route or CWFS route, and the walk trips that would be added per individual pedestrian network element (crosswalk, corner reservoir area, etc.). If the Level 2 screening assessment determines that any specific traffic location, transit line, station element, CWFS route or pedestrian network element would experience an increase of trips beyond the above thresholds for any peak hour, then a detailed analysis is typically warranted for that period.

Level 1 (Trip Generation) Screening Assessment

The travel demand factors used to calculate the projected number of trips were obtained primarily from the *CEQR Technical Manual*, American Association of State Highway and Transportation Officials (AASHTO) Census Transportation Planning Products (CTPP) journey–to-work (JTW) and reverse journey-to-work (RJTW) data, previously approved environmental assessment and impact statements, and survey data provided by New York City Department of Transportation (NYCDOT). **Table 9-2** provides the travel demand assumptions used for the weekday AM, midday, PM, and Saturday peak hours.

Table 9-2 Travel Demand Characteristics

Rates	Residential	Local Retail	Daycare (Staff)	Daycare (Children)	Daycare (Parents)	Destination Retail
Person Trip Gen Rate (Weekday/Saturday)	8.18/9.08[1] per Dwelling Unit	329.0/358.0[1] per 1,000 sf	6.0/---[1] per 1,000 sf	22.0/---[1] per 1,000 sf	44.0/---[1] per 1,000 sf	78.2/92.5[1] per 1,000 sf
Linked Trip Credit	---	5% (all periods)	---			
Temporal Distribution						
Weekday AM	9.3%[1]	5.0%[1]	25.0%[1]	25.0%[1]	25.0%[1]	3.0%[1]
Weekday Midday	5.6%[1]	8.0%[1]	2.5%[1]	0.0%[1]	0.0%[1]	9.0%[1]
Weekday PM	8.5%[1]	11.0%[1]	25.0%[1]	25.0%[1]	25.0%[1]	9.0%[1]
Saturday Peak	8.4%[1]	12.0%[1]	---[1]	---[1]	---[1]	11.0%[1]
Modal Split (All Periods)						
Auto	20.4%[2]	11.0%[4]	45.9%[5]	20.4%[2]	---%[8]	45.9%[3,5]
Taxi	0.8%[2]	0.0%[4]	1.6%[5]	0.8%[2]	---%[8]	1.6%[3,5]
Bus	4.2%[2]	3.0%[4]	10.0%[5]	4.2%[2]	4.2%[8]	10.0%[3,5]
Subway	67.4%[2]	4.0%[4]	31.8%[5]	67.4%[2]	67.4%[8]	31.8%[3,5]
Walk	7.2%[2]	82.0%[4]	10.7%[5]	7.2%[2]	7.2%[8]	10.3%[3,5]
Vehicle Occupancy (Weekday/Saturday)						
Auto	1.11/1.11[2]	1.50[4]/1.60[3]	1.09/1.09[5]	1.00/1.00[7]	---	2.05/2.49[3]
Taxi	1.39/1.39[3]	2.00/2.00[4]	1.09/1.09[5]	1.00/1.00[7]	---	2.05/2.49[3]
Directional Split (In/Out)						
Weekday AM	22%/78%[1]	53%/47%[1]	100%/0%[1]	100%/0%[1]	50%/50%[1]	63%/37%[1]
Weekday Midday	50%/50%[1]	50%/50%[1]	50%/50%[1]	---[1]	---[1]	53%/47%[1]
Weekday PM	63%/37%[1]	50%/50%[1]	0%/100%[1]	0%/100%[1]	50%/50%[1]	49%/51%[1]
Saturday Peak	51%/49%[1]	50%/50%[1]	---[1]	---[1]	---[1]	52%/48%[1]
Delivery Trip Gen Rate (Weekday/Saturday)						
	0.06/0.02[1] per 1,000 sf	0.35/0.04[1] per 1,000 sf	---	0.07/0.00[6] per 1,000 sf	---	0.35/0.04[3] per 1,000 sf
Delivery Temporal Distribution						
Weekday AM	12%[1]	8%[1]	---	9.6%[6]	---	8%[3]
Weekday Midday	9%[1]	11%[1]	---	11%[6]	---	11%[3]
Weekday PM	2%[1]	2%[1]	---	1%[6]	---	2%[3]
Saturday Peak	9%[1]	11%[1]	---	0%[6]	---	11%[3]
Directional Split (In/Out) - 50%/50%						

[1] *2021 CEQR Technical Manual*

[2] AASHTO CTPP JTW 5-year (2015-2019) data for Queens Census Tracts 169, 183, 185.01, 185.02, 187, 229, 235, 251, 253.01 and 253.02

[3] 2019 *Kissena Center Rezoning EAS*

[4] NYCDOT survey of local retail use in Queens transit zones

[5] American Community Survey RJTW 5-year (2012-2016) data for Queens Census Tracts 169, 183, 185.01, 185.02, 187, 229, 235, 251, 253.01 and 253.02

[6] 2016 *East New York Rezoning FEIS*

[7] Assumes one child per chaperoning parent

[8] Reflects non-vehicle traveling parents chaperoning their child. Auto and taxi pick-up and drop-off are accounted for in the daycare children vehicle trip projections.

Residential

For the residential use, trip generation rates and temporal and directional distributions were based on data from the *CEQR Technical Manual***.** The trip generation rates used were 8.18 daily person trips per DU for weekday and 9.08 daily person trips per DU for Saturday. Temporal distributions of 9.3 percent, 5.6 percent, 8.5 percent, and 8.4 percent were used for the weekday AM, midday, PM, and Saturday peak hours, respectively. For the directional distributions, the following were assumed: 22 percent "in" for the weekday AM peak hour, 50 percent "in" for the weekday midday peak hour, 63 percent "in" for the weekday PM peak hour, and 51 percent "in" for the Saturday peak hour. Modal splits of 20.4 percent by auto, 0.8 percent by taxi, 4.2 percent by bus, 67.4 percent by subway, and 7.2 percent by walk for all peak hours were used based on 2015-2019 AASHTO CTPP JTW data. For all peak hours, the auto occupancy rate of 1.11, based on the AASHTO CTPP JTW data, and a taxi occupancy rate of 1.39, based on the *Kissena Center Rezoning EAS*, were used.

For delivery trips, trip generation rates of 0.06 and 0.02 daily delivery trips per DU for weekday and Saturday, respectively, and temporal distributions of 12 percent, 9 percent, 2 percent, and 9 percent for the weekday AM, midday and PM, and Saturday peak hours, respectively, were obtained from the *CEQR Technical Manual*.

Local Retail

For the local retail use, trip generation rates and temporal and directional distributions were based on data from the *CEQR Technical Manual***.** The trip generation rates used were 329.0 daily person trips per 1,000 sf for weekday and 358.0 daily person trips per 1,000 sf for Saturday; a 5 percent linked trip credit was applied to account for internal site trip linkages and pass-by trips. For the temporal distributions, 5.0 percent, 8.0 percent, 11.0 percent, and 12.0 percent were used for the weekday AM, midday, PM, and Saturday peak hours, respectively. For the directional distributions, 53 percent "in" for the weekday AM peak hour, and 50 percent "in" for the weekday midday, weekday PM, and Saturday peak hours were used. Modal splits of 11 percent by auto, 3 percent by bus, 4 percent by subway, and 82 percent by walk for all peak hours were assumed based on NYCDOT's survey of local retail use in Queens transit zones. For the weekday periods (AM, midday and PM peak hours), the auto vehicle and taxi occupancy rates of 1.50 and 2.00, respectively, were used based on the NYCDOT survey data. For Saturday, the auto vehicle and taxi occupancy rates of 1.60 and 2.00, respectively, were based on the *Kissena Center Rezoning EAS* and NYCDOT survey data, respectively.

For delivery trips, trip generation rates of 0.35 and 0.04 daily delivery trips per 1,000 sf for weekday and Saturday, respectively, and temporal distributions of 8 percent, 11 percent, 2 percent, and 11 percent for the weekday AM, midday and PM, and Saturday peak hours, respectively, were obtained from the *CEQR Technical Manual*.

Daycare

The travel demand forecast for the daycare use is broken out between staff members, attending children, and parents traveling with their children. The following summarizes the assumptions applied to each group; the daycare use is not expected to generate trips on Saturdays.

Staff

For daycare staff, trip generation rates, and temporal and directional distributions, were based on data from the *CEQR Technical Manual***.** The trip generation rates used were 6 daily person trips per

1,000 sf for weekday. For the temporal distributions, 25.0 percent was used for the weekday AM and PM peak hours, and 2.5 percent for the weekday midday peak hour. For directional distributions, 100 percent "in" for the weekday AM peak hour, 50 percent "in" for the weekday midday, and zero percent "in" for the weekday PM were used. Modal splits of 45.9 percent by auto, 1.6 by taxi, 10.0 percent by bus, 31.8 percent by subway, and 10.7 percent by walk for all peak hours were assumed and based on 2012-2016 AASHTO CTPP RJTW data. An auto vehicle and taxi occupancy rate of 1.09 was applied based on RJTW data.

Children

For daycare trips made by children, trip generation rates, and temporal and directional distributions, were based on data from the *CEQR Technical Manual***.** The trip generation rate used was 22 daily person trips per 1,000 sf for weekday. For the temporal distributions, 25 percent was used for the weekday AM and PM peak hours, and zero percent for the weekday midday peak hour. For the directional distributions, 100 percent "in" for the weekday AM peak hour, 50 percent "in" for the weekday midday, and zero percent "in" for the weekday PM was used. Modal splits of 20.4 percent by auto, 0.8 by taxi, 4.2 percent by bus, 67.4 percent by subway, and 7.2 percent by walk for all peak hours were based on the 2015-2019 AASHTO CTPP JTW data. Auto vehicle and taxi occupancy rates of 1.0 were used for all peak hours as it was conservatively assumed that such trips by children do not involve carpooling (i.e., assumes one child per chaperoning parent).

For delivery trips, trip generation rate of 0.07 daily delivery trips per 1,000 sf for weekday, and temporal distributions of 9.6 percent, 11 percent, and 1 percent for the weekday AM, midday and PM peak hours, respectively, were assumed and obtained from the *2016 East New York Rezoning FEIS*. No delivery trips were assumed on Saturdays.

Parents

The travel demand forecast for daycare also reflects parents picking up and dropping off their child but not by car or taxi. The trip generation rates; and temporal and directional distributions, were based on data from the *CEQR Technical Manual*. The trip generation rates used were 44 daily person trips per 1,000 sf for weekday; approximately 21.2 percent of these trips would be auto or taxi pick-up/drop-off trips and were accounted for in the daycare children projections. For the temporal distributions, 25 percent was used for the weekday AM and PM; and zero percent for the weekday midday peak hour. For the directional distributions, 50 percent "in" was used for all periods. Modal splits of 5.3 percent by bus, 85.5 percent by subway, and 9.1 percent by walk for all peak hours were based on the 2015-2019 AASHTO CTPP JTW data adjusted to reflect the proportion between non-driving modes.

Destination Retail

For the destination retail use, trip generation rates and temporal and directional distributions were based on data from the *CEQR Technical Manual*. The trip generation rates used were 78.2 daily person trips per 1,000 sf for weekday and 92.5 daily person trips per 1,000 sf for Saturday. For the temporal distributions, 3 percent, 9 percent, 9 percent, and 11 percent were used for the weekday AM, midday and PM, and Saturday peak hours, respectively. For the directional distributions, 63 percent "in" for the weekday AM peak hour, and 53 percent "in" for the weekday midday, 49 percent "in" for the weekday PM peak hour, and 52 percent "in" for the Saturday peak hour were used. Similar to the *Kissena Center Rezoning EAS*, modal split assumptions were based on the 2012-2016

AASHTO CTPP RJTW data; modal splits used were 45.9 percent by auto, 1.6 by taxi, 10.0 percent by bus, 31.8 percent by subway, and 10.7 percent by walk for all peak hours analyzed. Vehicle occupancy rates were based on the *Kissena Center Rezoning EAS*. For the weekday periods (AM, midday and PM peak hours), a vehicle occupancy rate of 2.05h was used for autos and taxis. For the Saturday peak hour, a rate of 2.49 was used for both autos and taxis.

For delivery trips, trip generation rates of 0.35 and 0.04 daily delivery trips per 1,000 sf for weekday and Saturday, respectively, were obtained from the *CEQR Technical Manual*. The temporal distributions used were 8 percent, 11 percent, 2 percent, and 11 percent for the weekday AM, midday, PM, and Saturday peak hours, respectively and were based on the *Kissena Center Rezoning EAS*.

Level 1 Screening Results

The number of person trips projected under the No-Action (future without the Proposed Developments) and With-Action (future with the Proposed Developments) conditions are provided in **Table 9-3**. The overall net increment (With-Action minus No-Action) generated as a result of the Proposed Actions is also presented in **Table 9-3.**

Table 9-3 Trip Generation Summary – Person Trips

	AM Peak Hour			Midday Peak Hour			PM Peak Hour			Saturday Peak Hour		
Mode	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
No-Action												
Auto	32	23	55	66	61	127	71	73	144	87	83	170
Taxi	1	0	1	1	1	2	1	1	2	2	2	4
Bus	8	6	14	15	14	29	18	18	36	27	26	53
Subway	18	12	30	38	34	72	38	39	77	66	63	129
Walk	117	103	220	181	179	360	244	244	488	290	289	579
Total	**176**	**144**	**320**	**301**	**289**	**590**	**372**	**375**	**747**	**472**	**463**	**935**
With-Action												
Auto	36	53	89	55	51	106	69	65	134	81	76	157
Taxi	0	1	1	2	2	4	2	2	4	3	3	6
Bus	9	13	22	13	12	25	16	16	32	20	18	38
Subway	82	159	241	79	76	155	141	118	259	129	122	251
Walk	34	38	72	47	46	93	66	64	130	74	72	146
Total	**161**	**264**	**425**	**196**	**187**	**383**	**294**	**265**	**559**	**307**	**291**	**598**
Net Increment												
Auto	4	30	34	-11	-10	-21	-2	-8	-10	-6	-7	-13
Taxi	-1	1	0	1	1	2	1	1	2	1	1	2
Bus	1	7	8	-2	-2	-4	-2	-2	-4	-7	-8	-15
Subway	64	147	211	41	42	83	103	79	182	63	59	122
Walk	-83	-65	-148	-134	-133	-267	-178	-180	-358	-216	-217	-433
Total	**-15**	**120**	**105**	**-105**	**-102**	**-207**	**-78**	**-110**	**-188**	**-165**	**-172**	**-337**

Transit and Pedestrians

As shown in **Table 9-3**, the Proposed Actions are projected to generate the following number of peak hour transit and pedestrian trips (net increments):

- During the weekday AM peak hour, the Proposed Actions would generate an increase of 8 bus trips, 211 subway trips, and 71 pedestrian trips (a decrease of 148 walk-only trips plus an increase of 219 transit trips [bus and subway]).
- During the weekday midday peak hour, the Proposed Actions would generate a decrease of 4 bus trips, an increase of 83 subway trips, and a decrease of 188 pedestrian trips (a decrease of 267 walk-only trips plus an increase of 79 transit trips).
- During the weekday PM peak hour, the Proposed Actions would generate a decrease of 4 bus trips, an increase of 182 subway trips, and a decrease of 180 pedestrian trips (a decrease of 358 walk-only trips plus an increase of 178 transit trips).
- During the Saturday peak hour, the Proposed Actions would generate a decrease of 15 bus trips, an increase of 122 subway trips, and a decrease 326 pedestrian trips (a decrease of 433 walk-only plus an increase of 107 transit trips).

The Proposed Actions would not be expected to generate ferry trips. As the number of peak hour bus and pedestrian trips are not expected to exceed the *CEQR Technical Manual* Level 1 screening thresholds of 50 bus trips and 200 pedestrian trips, a Level 2 trip assignment is not needed for these modes. However, the Proposed Actions would generate subway trips exceeding the 200-subway trip threshold in at least one hour, therefore a Level 2 trip assignment is needed to determine if further quantitative analysis is warranted for subway.

Traffic and Parking

Table 9-4 presents the No-Action and With-Action volumes and the net incremental peak hour vehicular volumes ("ins" plus "outs") projected to be generated by the Proposed Actions. These volumes include trips via autos, taxis (balanced assuming no overlap between inbound and outbound trips for this area per *CEQR Technical Manual* guidelines), and commercial delivery vehicles. The hourly vehicle trips generated by the Proposed Actions (the increment) would be 48 vehicles per hour (vph) during the weekday AM peak hour, 4 vph in the weekday midday peak hour, 21 vph in the weekday PM peak hour, and 17 vph in the Saturday peak hour. The volume of vehicle trips projected to be generated by the Proposed Actions would not meet or exceed the Level 1 50-vehicle-trip threshold for any peak hour. Therefore, a Level 2 trip assignment is not necessary and further traffic and parking analysis is not warranted per *CEQR Technical Manual* guidelines.

Table 9-4 Trip Generation Summary – Vehicle Trips

	AM Peak Hour			Midday Peak Hour			PM Peak Hour			Saturday Peak Hour		
Mode	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
No-Action												
Auto	18	14	32	36	34	70	40	41	81	41	39	80
Taxi	0	0	0	0	0	0	0	0	0	2	2	4
Delivery	0	0	0	0	0	0	0	0	0	0	0	0
Total	**18**	**14**	**32**	**36**	**34**	**70**	**40**	**41**	**81**	**43**	**41**	**84**
With-Action												
Auto	27	49	76	35	33	68	53	45	98	48	45	93
Taxi	1	1	2	2	2	4	2	2	4	4	4	8
Delivery	1	1	2	1	1	2	0	0	0	0	0	0
Total	**29**	**51**	**80**	**38**	**36**	**74**	**55**	**47**	**102**	**52**	**49**	**101**
Net Increment												
Auto	9	35	44	-1	-1	-2	13	4	17	7	6	13
Taxi	1	1	2	2	2	4	2	2	4	2	2	4
Delivery	1	1	2	1	1	2	0	0	0	0	0	0
Total	**11**	**37**	**48**	**2**	**2**	**4**	**15**	**6**	**21**	**9**	**8**	**17**

Level 2 Screening Assessment

As shown above in the **Level 1 Screening Results** section, a Level 2 screening assessment is not needed for vehicular traffic, ferry, bus, nor pedestrians as the Proposed Actions would generate no ferry trips, and a maximum of 48, 8 and 71 vehicle, bus and pedestrian trips, respectively. These volumes are below the Level 1 screening thresholds of 50 vehicles, 50 ferry riders, 50 bus riders, and 200 pedestrians.

However, the net increase in the number of new subway trips (211 subway trips) would exceed the Level 1 screening thresholds during the weekday AM peak hour. The discussion below describes how subway rider trips are expected to traverse the street network and access subway facilities.

Subway

The project is located approximately equidistant to two stations served by the 7 Subway Line: the 46th Street-Bliss Street Station on Queens Boulevard is west of the project site and the 52nd Street Station is to the east on Roosevelt Avenue (see **Figure 9-1**). Both stations are located approximately three blocks from the Project Area. Therefore, it is likely that subway trips would be distributed to each station.

As discussed in the **Level 1 Screening Results** section, project-generated increases in subway trips would peak at 211 trips ("in" plus "out") during the weekday AM peak hour. The Level 1 screening threshold would be modestly exceeded by 11 trips. However, as it can be expected that subway trips

would be distributed between the two stations, it is unlikely there would be a concentration of subway trips that would exceed the 200-subway-trip threshold at a particular subway station. Therefore, as exceedances of the Level 2 screening threshold are not expected, a detailed subway station analysis is not warranted and there would be no potential for significant adverse subway impacts.

Conclusion

The transportation screening analysis concluded that the number of vehicular, ferry, bus, and pedestrian trips generated by the Proposed Actions would not exceed *CEQR Technical Manual* Level 1 screening thresholds. While the Level 1 screening threshold for subway trips would be exceeded, an assessment of the distribution of subway trips determined that no station is expected to exceed the Level 2 screening threshold. As a result, no detailed transportation analysis is warranted and the potential for significant adverse transportation impacts as a result of the Proposed Actions is not expected.

10

Air Quality

Ambient air quality, or the quality of the surrounding air, may be affected by air pollutants produced by motor vehicles, referred to as "mobile sources"; by fixed facilities, usually referenced as "stationary sources"; or by a combination of both. Under CEQR, an air quality assessment determines both a proposed project's effects on ambient air quality as well as the effects of ambient air quality on the project.

Introduction

The Proposed Actions would facilitate construction of the Proposed Project on Projected Development Site 1, which would include an 11-story, 115-foot-tall (with 10-foot-tall bulkhead) building containing residential, commercial, and community facility uses. The Proposed Project would contain approximately 361,508 gsf of mixed-use space, including 129 accessory parking spaces. The ground floor commercial space would be occupied by the existing retail tenant at the Development Site (P.C. Richard & Son). The ground floor community facility space would be occupied by a daycare, with additional space in the cellar and a landscaped outdoor play area on the southernmost portion of Projected Development Site 1.

In addition to the Applicant-owned Projected Development Site 1, the Proposed Actions would also affect the non-Applicant-owned property at Lot 43 (Projected Development Site 2). In the future with the Proposed Actions, Projected Development Site 2 is expected to be redeveloped with a 14-story (145-foot-tall, excluding bulkhead) mixed-use building of approximately 74,944 gsf, containing approximately 63,089 gsf of residential space (63 units), 3,228 gsf of commercial space, and 24 accessory parking spaces.

The air quality analysis for this project will analyze potential impacts from Projected Development Sites 1 and 2 and impacts of the surrounding existing sources on Projected Development Sites 1 and 2. The key issues are whether there are the potential impacts for:

- Emissions from the project-generated vehicular travel to significantly impact air quality near affected intersections;
- Emissions from the parking garage to significantly affect air quality on sidewalks near the parking entrance;
- Emissions from the HVAC systems of the Proposed Project to significantly impact existing sensitive receptors, as well as the adjacent Projected Development Site 2;
- Emissions from the large/major sources to impact Projected Development Sites 1 and 2;
- Emissions from industrial and manufacturing facilities to impact Projected Development Sites 1 and 2.

Air Quality Standards

Ambient air quality is affected by air pollutants produced by both motor vehicles and stationary sources. Emissions from motor vehicles are referred to as mobile source emissions, while emissions from fixed facilities are referred to as stationary source emissions. Ambient concentrations of CO are predominantly influenced by mobile source emissions. Particulate matter (PM), volatile organic compounds (VOCs), and nitrogen oxides (nitric oxide (NO) and nitrogen dioxide (NO_2), collectively referred to as NO_x) are emitted from both mobile and stationary sources. Fine PM is also formed when emissions of NO_x, sulfur oxides (SO_x), ammonia, organic compounds, and other gases react or condense in the atmosphere. Emissions of sulfur dioxide (SO_2) are associated mainly with stationary sources, and some sources utilizing non-road diesel such as large international marine engines. On-road diesel vehicles currently contribute very little to SO_2 emissions since the sulfur content of on-road diesel fuel, which is federally regulated, is extremely low. Ozone is formed in the atmosphere by complex photochemical processes that include NO_x and VOCs.

In accordance with the requirements of the Clean Air Act (CAA), as amended 1990, the U.S. Environmental Protection Agency (EPA) has promulgated National Ambient Air Quality Standards (NAAQS) (40 CFR part 50) for pollutants considered harmful to public health and the environment. The Clean Air Act established two types of national air quality standards. Primary standards set limits to protect public health, including the health of sensitive populations such as sick, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings.

The EPA Office of Air Quality Planning and Standards (OAQPS) has set NAAQS for six principal pollutants, which are called "criteria" pollutants. These six pollutants are ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide (SO_2), particulate matter less than 10 microns in aerodynamic diameter (PM_{10}) and less than 2.5 microns in aerodynamic diameter ($PM_{2.5}$), and lead (Pb). These standards are reviewed from time to time and may be revised.

The State of New York has adopted similar standards as those set by the EPA, with the exception of sulfur dioxide, particulates, fluorides, and hydrogen sulfide. The NAAQS are presented in **Table 10-1**.

Table 10-1 National Ambient Air Quality Standards

Pollutant	Primary/ Secondary	Averaging Level	Level	Form
Carbon Monoxide (CO)	Primary	8 hours	9 ppm	Not to be exceeded more than once per year
		1 hour	35 ppm	
Lead (Pb)	Primary and secondary	Rolling 3-month average	0.15 µg/m^3 (1)	Not to be exceeded
Nitrogen Dioxide (NO_2)	Primary	1 hour	100 ppb	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years
	Primary and secondary	1 year	53 ppb (2)	Annual mean
Ozone (O_3)	Primary and secondary	8 hours	0.070 ppm (3)	Annual fourth-highest daily maximum concentration, averaged over 3 years
Particulate Matter ($PM_{2.5}$)	Primary	1 year	9.0 µg/m^3	Annual mean, averaged over 3 years
	Secondary	1 year	15.0 µg/m^3	Annual mean, averaged over 3 years
	Primary and secondary	24 hours	35 µg/m^3	98th percentile, averaged over 3 years
Particulate Matter (PM_{10})	Primary and secondary	24 hours	150 µg/m^3	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide (SO_2)	Primary	1 hour	75 ppb(4)	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
	Secondary	3 hours	0.5 ppm	Not to be exceeded more than once per year

Notes:

[1] In areas designated nonattainment for the Pb standards prior to the promulgation of the current (2008) standards, and for which implementation plans to attain or maintain the current (2008) standards have not been submitted and approved, the previous standards (1.5 µg/m3 as a calendar quarter average) also remain in effect.

[2] The level of the annual NO_2 standard is 0.053 ppm. It is shown here in terms of ppb for the purposes of clearer comparison to the 1-hour standard level.

[3] Final rule signed October 1, 2015, and effective December 28, 2015. The previous (2008) O3 standards additionally remain in effect in some areas. Revocation of the previous (2008) O3 standards and transitioning to the current (2015) standards will be addressed in the implementation rule for the current standards.

[4] The previous SO_2 standards (0.14 ppm 24-hour and 0.03 ppm annual) will additionally remain in effect in certain areas: (1) any area for which it is not yet 1 year since the effective date of designation under the current (2010) standards, and (2)any area for which an implementation plan providing for attainment of the current (2010) standard has not been submitted and approved and which is designated nonattainment under the previous SO2 standards or is not meeting the requirements of a SIP call under the previous SO2 standards (40 CFR 50.4(3)). A SIP call is a USEPA action requiring a state to resubmit all or part of its State Implementation Plan to demonstrate attainment of the required NAAQS.

Source: EPA NAAQS Table, https://www.epa.gov/criteria-air-pollutants/naaqs-table, Last updated on February 7, 2024

In addition to criteria pollutants, there are other toxic air pollutants not included by the EPA in the list of principal pollutants. Non-criteria pollutants are emitted by a wide range of man-made and naturally occurring sources. These pollutants are sometimes referred to as hazardous air pollutants (HAP) and, when emitted from mobile sources, as Mobile Source Air Toxics (MSATs). No federal ambient air quality standards have been promulgated for toxic air pollutants. However, EPA and New

York State Department of Environmental Conservation (NYSDEC) have issued guidelines that establish acceptable ambient levels for these pollutants based on human exposure.

Regulatory Context

The 1990 CAA with Amendments resulted in states being divided into attainment and non-attainment areas, with classifications based upon the severity of their air quality problems. Air quality control regions are classified and divided into one of three categories: attainment, unclassified, or non-attainment depending upon air quality data and ambient concentrations of pollutants. Attainment areas are regions where ambient concentrations of a pollutant are below the respective NAAQS; non-attainment areas are those where concentrations exceed the NAAQS. Maintenance areas are former non-attainment that achieved attainment. An unclassified area is a region where data are insufficient to make a determination and is generally considered as an attainment area for administrative purposes. A single area can be in attainment of the standards for some pollutants while being in non-attainment for others. When an area is designated as non-attainment by EPA, the state is required to submit a State Implementation Plan (SIP) which outlines the plan to achieve conformity with the NAAQS and the following plan for maintaining the attainment status.

Queens County is designated as a severe non-attainment area for the 2008 8-hour ozone standard and a moderate non-attainment area for the 2015 8-hour ozone standard. Both designations are part of a larger New York-Northern New Jersey-Long Island, NY-NJ-CT non-attainment areas. The county has been designated as a CO maintenance area on May 20, 2002, and as a $PM_{2.5}$ maintenance area for the 2006 24-hour $PM_{2.5}$ standard on April 18, 2014. Queens County is in attainment for all other criteria pollutants (PM_{10}, Pb, NO_2, and SO_2).

Pollutants of Concern

Air pollution is of concern because of its demonstrated effects on human health. Of special concern are the respiratory effects of the pollutants and their potential toxic effects, as described below.

Carbon monoxide (CO) is a colorless and odorless gas that is a product of incomplete combustion. Carbon monoxide is absorbed by the lungs and reacts with hemoglobin to reduce the oxygen carrying capacity of the blood. At low concentrations, CO has been shown to aggravate the symptoms of cardiovascular disease. It can cause headaches, nausea, and at sustained high concentration levels, can lead to coma and death.

Particulate matter is made up of small solid particles and liquid droplets. PM_{10} refers to particulate matter with a nominal aerodynamic diameter of 10 micrometers or less, and $PM_{2.5}$ refers to particulate matter with an aerodynamic diameter of 2.5 micrometers or less. Particulates can enter the body through the respiratory system. Particulates over 10 micrometers in size are generally captured in the nose and throat and are readily expelled from the body. Particulates smaller than 10 micrometers, and especially particles smaller than 2.5 micrometers, can reach the air ducts (bronchi) and the air sacs (alveoli) in the lungs. Particulates are associated with increased incidence of respiratory diseases, cardiopulmonary disease, and cancer.

Non-criteria pollutants may be of concern in addition to the criteria pollutants discussed above. Non-criteria pollutants are emitted by a wide range of man-made and naturally occurring sources.

Emissions of non-criteria pollutants from industrial sources are regulated by the United States Environmental Protection Agency (EPA), however, there are no NAAQS for the air toxics.

New York State Department of Environmental Conservation (NYSDEC) has issued standards for certain non-criteria compounds, including beryllium, gaseous fluorides, and hydrogen sulfide. NYSDEC has also developed guidance document DAR-1 (February 2021), which contains a compilation of annual and short term (1-hour) guideline concentration thresholds for these compounds. The NYSDEC's DAR-1 guidance thresholds represent ambient levels that are considered safe for public exposure. EPA has also developed guidelines for assessing exposure to non-criteria pollutants. These exposure guidelines are used in health risk assessments to determine the potential effects to the public.

Impact Criteria

The predicted concentrations of pollutants of concern associated with a proposed project are compared with either the National Ambient Air Quality Standards (NAAQS) for criteria air pollutants or ambient guideline concentrations for non-criteria pollutants. In general, if a project would cause the standards for any pollutant to be exceeded, it would likely result in a significant adverse air quality impact. In addition, the City's de minimis criteria are also used to determine significance of impacts for CO and $PM_{2.5}$.

The NYSDEC DAR-1 guidance document presents guideline concentrations in micrograms per cubic meter (µg/m3) for the one-hour (SGC) and annual average time (AGC) periods for various air toxic compounds.[1] In order to evaluate residual risk of non-carcinogenic toxic air emissions, hazard index is calculated based on annual exposure limits. If the combined ratio of pollutant concentration divided by its annual exposure threshold for each of the toxic pollutants is found to be less than 2.0, according to DAR-1, the residual risk is deemed acceptable. In addition, the potential cancer risk associated with each carcinogenic pollutant, as well as the total cancer risk of the releases of all the carcinogenic toxic pollutants combined, can be estimated. If the total incremental cancer risk of all the carcinogenic toxic pollutants combined is less than ten-in-one million, the residual risk is deemed acceptable.

$PM_{2.5}$ *de Minimis* Criteria

New York City uses *de minimis* criteria to determine a project's potential to result in a significant adverse $PM_{2.5}$ impact under CEQR. The *de minimis* criteria are as follows:

- Predicted increase of more than half the difference between the background concentration and the 24-hour standard;
- Annual average $PM_{2.5}$ concentration increments which are predicted to be greater than 0.1 $\mu g/m^3$ at ground level on a neighborhood scale (i.e., the annual increase in concentration representing the average over an area of approximately 1 square kilometer, centered on the location where the maximum ground-level impact is predicted for stationary sources; or at a distance from a roadway corridor similar to the minimum distance defined for locating neighborhood scale monitoring stations); or
- Annual average $PM_{2.5}$ concentration increments which are predicted to be greater than 0.3 $\mu g/m^3$ at a discrete receptor location (elevated or ground level).

[1] NYSDEC DAR-1 - http://www.dec.ny.gov/docs/air_pdf/dar1.pdf.

Background Concentrations

Background concentrations are ambient pollution levels associated with existing stationary, mobile, and other area emission sources. The latest three years of monitoring data (2020 to 2022) from the representative monitoring stations were used to develop background concentrations for all pollutants. All concentrations were collected at the Queens College monitoring station located at 65-30 Kissena Boulevard. These concentrations were estimated using the form of the NAAQS (see the "Form" column in **Table 10-1** for more information).

Table 10-2 Background Concentrations

Pollutant	Averaging Time	Monitoring Location	Background Concentration
Carbon Monoxide	1-Hour	Queens College	2.1 ppm
	8-Hour		1.6 ppm
Nitrogen Dioxide	1-Hour	Queens College	51 ppb
	Annual		13.7 ppb
Particulate Matter (PM_{10})	24-Hour	Queens College	37 µg/m^3
Particulate Matter ($PM_{2.5}$)	24-Hour	Queens College	20.0 µg/m^3
	Annual		7.9 µg/m^3
Sulfur Dioxide	1-Hour	Queens College	6 ppb

The CEQR *de minimis* 24-hour threshold based on the Queens College $PM_{2.5}$ observations was estimated to be 7.5 µg/m^3.

Methodology

Mobile Sources

Mobile Source Screening Analysis

A screening analysis of mobile source emissions of Carbon Monoxide (CO) and Particulate Matter (PM) on ambient pollutant levels in the study area was conducted per *2021 CEQR Technical Manual* guidance. For the project's study area, as described in Chapter 17, Sections 210 and 311 of the *CEQR Technical Manual*, the threshold for conducting an analysis of CO emissions corresponds to 170 project-generated vehicles at a given intersection in the peak hour. The need for conducting an analysis of PM emissions is based on road type and the number of project-generated peak hour heavy-duty diesel vehicles (or its equivalency in vehicular $PM_{2.5}$ emissions) as determined using the worksheet provided on page 17-12 of the *CEQR Technical Manual* (autos are assumed to be LDGT1).

Parking Facilities

Under the With-Action condition, the Proposed Project will have a three-level parking garage. The cellar will be used for residential and commercial parking, while the first and the second floor will be used only for residential parking. The above grade parking areas will be smaller than the cellar. The parking will be accessible through one entrance and exit from 50th Street.

The potential for air quality impacts will be estimated from the cellar parking, which is mechanically ventilated with exhaust located above the garage entrance, and from the above grade parking, which is naturally ventilated through the side openings. The impacts from mechanical and natural ventilation on the 50th Street sidewalks will be assessed using procedures described in sections 311.2 and 321.2 in Chapter 17 of the *CEQR Technical Manual* and as detailed in the Appendix to this chapter.

Stationary Sources

Industrial Source Analysis

As described in Section 220 and Section 321 in Chapter 17 of the *CEQR Technical* Manual, an air quality assessment is required to evaluate the potential impacts of air toxics emissions from ventilation exhaust systems of manufacturing or processing facilities within a 400-foot radius of a project site when a project would result in new sensitive uses (particularly residences, schools, hospitals, or parks). If any sources are identified, a screening analysis is performed based on Table 17-3 in Chapter 17 of the *CEQR Technical Manual*. The screening table provides the maximum 1-hour, 8-hour, 24-hour and annual average modeled values based on a generic emission rate of 1 gram per second of a pollutant from a 20-foot-tall point source for the distances between 30 feet and 400 feet from the receptor of same height. Potential impacts predicted from the industrial source of concern based on the screen table are compared with the short-term guideline concentrations (SGCs) and annual guideline concentration (AGCs) recommended in NYSDEC's DAR-1 AGC/SGC Tables. If a proposed project fails the above screening analysis, or the screening analysis methodology is not applicable to the project, further refined analysis using EPA's AERSCREEN and/or AERMOD model is warranted to determine any potential for significant adverse impacts.

Large or Major Source Analysis

As described in Section 220 and Section 321 in Chapter 17 of the *CEQR Technical Manual*, an air quality assessment is required to evaluate the potential impacts of emissions from a large or major emission source within a 1,000-foot radius of a project site. Major sources are identified as those sources located at Title V facilities that require Prevention of Significant Deterioration permits. Large sources are identified as sources located at facilities that require a State Facility Permit. A detailed analysis is usually performed for such sources, if any are identified, to determine any potential for significant adverse impact.

No large or major sources were identified within a 1,000 feet radius of the Development Site. Therefore, no analysis for such sources is needed.

Individual HVAC Systems

The following stepped analysis procedure is used to determine the potential for emissions from the HVAC systems of individual development sites to result in stationary source pollutants that would significantly impact existing land uses (project-on-existing impacts) and other development sites (project-on-project impacts):

- Impacts would be initially analyzed using the HVAC nomograph screening procedures described in the *CEQR Technical Manual* assuming the use of No. 2 fuel oil.
- If the nomograph screening result fails with the use of No. 2 fuel oil, HVAC screening procedures will be used assuming a cleaner burning fuel (natural gas), and an air quality (E)-designation

would be proposed for the site, providing the fuel type restriction that would be required to avoid a significant adverse air quality impact.

- If the *CEQR Technical Manual* nomograph screening result fails with natural gas, a more detailed analysis will be conducted utilizing the USEPA's AERMOD dispersion model.
- If the detailed AERMOD analysis result fails with the use of natural gas, additional refined analysis and further stack restrictions (i.e., stack setback) would be required to avoid a significant adverse air quality impact. An air quality (E)-designation would be proposed for the site in this Environmental Assessment Statement (EAS), providing the fuel type stack set back distance.

Nomograph Screening Analysis

The *CEQR Technical Manual* HVAC nomograph screening analysis determines development size threshold below which an action would not result in a significant adverse impact. To evaluate potential for significant adverse impacts, the screening analysis considers fuel type, the maximum development size, and the HVAC systems exhaust stack height. Based on the distance from the development site to the nearest building of similar or greater height, if the maximum development size is greater than the threshold size determined by screening, there is the potential for significant air quality impacts, and a refined dispersion modeling analysis would be required. Otherwise, the source passes the screening analysis, and no further analysis is required.

It is assumed that No. 2 fuel oil or natural gas would be used in Projected Development Site 1's HVAC systems, and that exhaust stacks would be located three feet above roof height (as per the *CEQR Technical Manual*). Since Projected Development Site 1 did not pass the screening analysis assuming use of No.2 fuel oil or natural gas, a refined modeling analysis was performed. For refined modeling analysis assuming natural gas, the primary pollutant of concern is NO_2 and $PM_{2.5}$.

Refined Dispersion Analysis

Projected Development Site 1 was further analyzed using a refined dispersion model, the USEPA AERMOD dispersion model. AERMOD is a state-of-the-art dispersion model, applicable to rural and urban areas, flat and complex terrain, surface and elevated releases, and multiple sources (including point, area, and volume sources). AERMOD is a steady-state plume model that incorporates current concepts about flow and dispersion in complex terrain, including updated treatments of the boundary layer theory, understanding of turbulence and dispersion, and includes handling of terrain interactions. The AERMOD model calculates pollutant concentrations from one or more points (e.g., exhaust stacks), based on hourly meteorological data, and has the capability to calculate pollutant concentrations at locations where the plume from the exhaust stack is affected by the aerodynamic wakes and eddies (downwash) produced by nearby structures. The analyses of potential impacts from exhaust stacks were made assuming stack tip downwash, urban dispersion and surface roughness length, and elimination of calms. AERMOD can be run with and without building downwash (the downwash option accounts for the effects on plume dispersion created by the structure the stack is located on, and other nearby structures).

For the refined analysis, the exhaust stacks for the heat and hot water systems were assumed to be located at the edge of the development massing closest to the receptor, unless the source and receptor were immediately adjacent to each other. In these cases, the stack was assumed to be located at an initial distance of ten feet from the nearest receptor.

A refined dispersion modeling analysis was performed for $PM_{2.5}$ and NO_2. The analysis was performed using calculated emission rates for natural gas. If a source could not meet the NAAQS or $PM_{2.5}$ *de minimis* criteria using the initial heating and hot water system stack assumptions, further restrictive measures were considered—including increasing the minimum stack setback distance until the source met the respective criteria.

Receptor Placement

Discrete receptors (i.e., locations at which concentrations are calculated) were modeled along Projected Development Site 2 building façades to represent potentially sensitive locations such as operable windows and intake vents. Receptors were placed at elevated locations on all façades and at multiple elevations on buildings, to identify maximum pollutant concentrations.

Emission Estimates and Stack Parameters

Fuel consumption estimates were calculated based on procedures outlined in the *CEQR Technical Manual*. The Air Quality Appendix of the *CEQR Technical Manual* includes building energy consumption factors that can be used to estimate annual fuel consumption based on a development site's total floor area and use. Natural gas consumption factors of 52.8 cubic feet/square feet-year and 45.3 cubic feet/square feet-year were used for residential developments and commercial developments, respectively. Residential fuel consumption factors were used for mixed-use developments as they are more conservative. The development sites' total floor area was based on the RWCDS assumptions. Short-term factors were determined by using peak hourly fuel consumption estimates for heating and hot water systems. Emission factors from the natural gas combustion sections of the USEPA's AP–42[2] were used to calculate NO_2 and $PM_{2.5}$ emission rates for the projected development sites' HVAC systems.

One-hour average NO_2 concentrations associated with the projected development sites' hot water systems were estimated using AERMOD model's Plume Volume Molar Ratio Method (PVMRM) module to analyze chemical transformation within the model. The PVMRM module incorporates hourly background ozone concentrations to estimate NO_x transformation within the source plume. Ozone concentrations were taken from the NYSDEC IS 52 monitoring station, which has complete five years of hourly data available (2017–2021). An initial NO_2 to NO_x ratio of ten percent at the source exhaust stack was assumed, which is considered representative for boilers.

The methodology used to determine compliance with the 1-hour NO_2 NAAQS was based on adding the monitored background to modeled concentrations from the proposed sources as follows: hourly modeled concentrations from proposed sources were first added to the seasonal hourly background monitored concentrations; then the highest combined daily one-hour NO_2 concentration was determined at each receptor location, and the 98th percentile daily one-hour maximum concentration for each modeled year was calculated within the AERMOD model; finally, the 98th percentile concentrations were averaged over the latest five years. This methodology is referenced in the USEPA modeling guidance[3] and is recognized by the city.

[2] https://www.epa.gov/sites/production/files/2020-09/documents/1.4_natural_gas_combustion.pdf

[3] Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-Hour NO2 National Ambient Air Quality Standard, USEPA, March 1, 2011.

Background Concentrations

To estimate the maximum expected pollutant concentration at a given location (receptor), the predicted impacts must be added to a background value that accounts for existing pollutant concentrations from other sources that are not directly accounted for in the model (see Table 10-2, "Background Pollutant Concentrations"). To develop background levels, concentrations measured at the most representative NYSDEC ambient monitoring station over the latest available three-year period (2020–2022) were used for annual NO_2 background concentrations.

$PM_{2.5}$ annual average impacts are assessed on an incremental basis and compared with the $PM_{2.5}$ *de minimis* criteria, without considering the annual background. The $PM_{2.5}$ 24-hour average background concentration of 20.0 µg/m^3 (based on the 2020 to 2022 average of 98th percentile concentrations measured at the Queens College monitoring station) was used to establish the *de minimis* value for the 24-hour increment, consistent with the guidance provided in the *CEQR Technical Manual*.

Assessment

Mobile Sources

Screening Analysis

A mobile source intersection screening analysis was conducted using the *CEQR Technical Manual*. In **Transportation, Section 9**, several conditions were analyzed, including the Weekday AM, MD, PM and Saturday MD peak hours. The highest generated traffic was predicted for the Weekday AM peak hour at the intersection of Queens Boulevard and 50th Street. Queens Boulevard is a principal arterial and 50th Street is a local roadway, based on the New York State Department of Transportation Functional Class Viewer. During the Weekday AM peak hour, this intersection would have 26 vehicles passing through it, 25 of which are autos or taxis and 1 of which is a delivery truck. The autos and taxis were conservatively assumed to be vehicle type LDGT1, and the delivery truck was conservatively assumed to be HDDV8A for the equivalent truck calculation. Using the worksheet provided on page 17-12 of the *CEQR Technical Manual*, the Proposed Actions would result in 10 equivalent heavy-duty diesel vehicles (HDDV): 9 equivalent trucks on the local road and 1 equivalent truck on the arterial road.

Based on the percentage of incremental trips at Queens Boulevard and 50th Street and their respective screen values (23 and 12 equivalent HDDVs as per the CEQR guidance), the weighted screen values for the intersection of Queens Boulevard and 50th Street would be approximately 15 HDDV equivalent trips. The Proposed Actions would result in 10 HDDV equivalent trips, and thus, the intersection passes the screening for $PM_{2.5}$. Therefore, a detailed mobile source intersection analysis for $PM_{2.5}$ and PM_{10} is not warranted. Furthermore, because the Proposed Actions would generate far less than 170 peak hour trips, a detail mobile analysis for CO is not warranted. Therefore, the Proposed Actions would not result in significant adverse air quality impacts from mobile sources.

Parking Analysis

The air quality impacts from the parking garage at the Development Site included analysis of the mechanically ventilated underground parking and the two levels of the above grade parking that would be naturally ventilated. Impacts from both types of garages were estimated using the *CEQR*

Technical Manual Appendix approach. The highest impact was estimated using the highest inbound and outbound trips. The hour with the highest vehicle volumes was considered to represent the hour of the highest emissions for the short-term analysis. The 24-hour and annual impacts were conservatively assessed using the one-hour ins and outs instead of a 24-hour or annual average trips. The highest generated trips were predicted on Saturday between 3 and 4 PM and were associated mostly with the P.C. Richard & Son, which would occupy the new commercial space within the Proposed Project.

Impacts of emissions from the mechanically ventilated cellar were assessed at the near and far sidewalks at the entrance of the garage at 50th Street. Cars in the naturally ventilated above grade levels were assumed to move through the cellar level to the exit. Impact from emissions of the trip in above grade parking and other vehicular emissions at these two levels were also estimated at the near and far sidewalk. Emissions from the cars on 50th Street were added to assess the cumulative impact from all garage levels at both locations.

Table 10-3 through **Table 10-5** present the results of the parking analysis. The results indicate that concentrations at the near and far sidewalks of 50th Street would be below the applicable NAAQS and CEQR *de minimis* values. As a result, there would be no potential for parking emissions from the proposed garage to have significant adverse impacts on the air quality levels.

Table 10-3 Highest 24-Hour $PM_{2.5}$ Impact from Parking Facility ($\mu g/m^3$)

Location	Time period	Nat. Ventilated	Mech. Ventilated	Total Impact	CEQR *de minimis*
Near Sidewalk	24 Hours	0.012	0.25	0.262	7.5
	Annual	0.002	0.050	0.052	0.3
Far Sidewalk	24 Hours	0.014	0.23	0.247	7.5
	Annual	0.003	0.047	0.050	0.3

Table 10-4 Highest 8-Hour CO Concentrations from Parking Facility (ppm)

	Near Sidewalk		Far Sidewalk	
CO Concentration	1-Hour	8-Hour	1-Hour	8-Hour
Nat. Ventilated	0.1	0.07	0.1	0.07
Mech. Ventilated	0.17	0.12	0.16	0.11
Total Impact	0.27	0.19	0.26	0.18
Background	2.1	1.6	2.1	1.6
Total	**2.37**	**1.79**	**2.36**	**1.78**
NAAQS	35	9	35	9
CEQR *de minimis*		3.7		3.7

Table 10-5 Highest PM_{10} Concentration from Parking Facility ($\mu g/m^3$)

24-Hour PM_{10} Concentration	Near Sidewalk	Far Sidewalk
Nat. Ventilated	0.05	0.05
Mech. Ventilated	0.94	0.89
Total Impact	0.99	0.94
Background	37	37
Total	**37.99**	**37.94**
NAAQS	150	150

Industrial Source Analysis

To assess potential air quality impacts on the Proposed Project from existing industrial sources that emit toxic air contaminants, an investigation of existing land uses within a 400-foot radius of the Development Site was conducted to identify potential sources and determine if there are active permits associated with those sources.

As a first step, land use maps were reviewed to identify surrounding land uses that could have NYCDEP-issued industrial permits (i.e., sites classified as Industrial/Manufacturing, Transportation/Utility, or Public Facilities/Institutions). **Table 10-6** lists these potential land uses.

Table 10-6 Industrial Sources within 400 Feet of the Project Block

Address	Block	Lot	Land Use[1]	Lot Owner Name	DEP CATS
45-40 51st St	2283	54	Industrial/ Manufacturing	So Accurate Group	PB002007; PB002207; PW003420; PB032501; PB032601; PB082003; PB082903

Source: NYCDEP's Clean Air Tracking System (NYCDEP CATS). https://a826-web01.nyc.gov/DEP.BoilerInformationExt/

The facility located on Queens Block 2283, Lot 54 is a precious-metal refinery that has several registrations. All other permits for industrial sites that have been registered with the NYC DEP have been either cancelled or expired. The facilities with the expired permits, Samito Furniture Finishing and Handy Button Machine Co., do not exist, while other facilities have expired boiler registrations.

The facility located on Queens Block 2283, Lot 54 has seven registrations, most of them for the hoods for the refinery processes. The air toxic screening analysis follows the *CEQR Technical Manual* guidance. Several compounds mentioned in the registrations had neither SGC nor AGC values assigned. These compounds were not included in the table below but are presented in the backup calculations. The air toxic concentrations were estimated at the closest edge of the proposed building residential floors.

Table 10-7 Results of Industrial Source Analysis

Chemical Name	CAS	Total Short-term Concentration (µg/m³)	SGC (µg/m³)	Total Annual Concentration (µg/m³)	AGC (µg/m³)
Hydrochloric Acid	07647-01-0	2.12	2,100	0.217	20
Nitric Acid	07697-37-2	1.88	86	0.176	12.3
Caustic Mist (Sodium Hydroxide)	01310-73-2	9.09	200	0.08	-
Lead	07439-92-1	-	-	0.025	0.038
Lead Oxide	1309-60-0	-	-	0.008	0.044

Note: The NAAQS for lead was converted into the AGC following the procedure described in 2021 DAR-1 guidance.

The results of the air toxic analysis indicate that concentrations of all pollutants were below the respective short term and annual guidance levels. Because pollutants exhausted from the refinery process are not carcinogenic, no cancer risk assessment was conducted. The hazard index estimated for the Proposed Project was below 2, the acceptable hazard index for non-criteria non-carcinogen air contaminants. As such, no significant adverse air quality impacts or health risk are anticipated from the facility located on Queens Block 2283, Lot 54.

Table 10-8 Hazard Index Assessment

Chemical Name	CAS	DAR1 Classification	Hazard quotient
Hydrochloric Acid	07647-01-0	Medium toxicity	0.011
Nitric Acid	07697-37-2	Medium toxicity	0.014
Caustic Mist (Sodium Hydroxide)	01310-73-2	-	-
Lead	07439-92-1	High toxicity	0.658
Lead Oxide	1309-60-0	High toxicity	0.189
Hazard Index			**0.873**

Individual Heat and Hot Water Systems

Refined Dispersion Analysis

As indicated above, Projected Development Site 1 required a refined modeling analysis to determine the potential for significant air quality impacts on Projected Development Site 2. The results of the refined modeling analysis determined the following:

› If the fuel type is restricted to natural gas only, and the heating and hot water system stack is set back from the building edge to address $PM_{2.5}$ and NO_2 emissions, no significant adverse impacts are predicted at Projected Development Site 1.

Table 10-9 presents the maximum predicted concentration from the heating and hot water systems of Projected Development Site 1. As shown in the table, all predicted pollutant concentrations are less than the applicable impact criteria. Therefore, there would be no potential for significant adverse air quality impacts from the proposed developments' heating and hot water system.

Table 10-9 Maximum Modeled Pollutant Concentrations Project-on-Project (µg/m³)

Pollutant	Averaging Period	Maximum Modeled Impact (µg/m³)	Background (µg/m³)	Total Concentration (µg/m³)	NAAQS/CEQR (µg/m³)
NO_2	1-hour	(1)	-	187.2	188 (2)
	Annual	29.0	25.7	54.7	100 (2)
$PM_{2.5}$	24-hour	3.7	20.0	23.7	35 (2)/7.5 (3)
	Annual	7.9	0.15	8.05	9.0 (2)/0.3 (3)

Note: (1) The 1-hour NO_2 concentration presented represents the maximum of the total 98th percentile 1-hour NO_2 concentration predicted at any receptor using seasonal-hourly background concentrations.
(2) NAAQS
(3) $PM_{2.5}$ *de minimis* criteria—24-hour average, not to exceed more than half the difference between the background concentration and the 24-hour standard of 35 µg/m³.

To preclude the potential for significant adverse air quality impacts on Projected Development Site 1 from heat and hot water emissions, an (E)-Designation (E-XXX) would be mapped as part of the Proposed Actions for Projected Development Site 1. The designation (detailed further below) would specify the various restrictions, such as type of fuel to be used, the distance that the vent stack on the building roof must be from its lot line.

Conclusion

The mobile source screening analysis indicated that the increment of project-generated vehicle trips would be below the CEQR CO and PM impact thresholds. Thus, there would be no potential for adverse air quality impacts from mobile sources at intersections. The Proposed Project's parking garage has no potential to adversely impact air quality levels, nor are the HVAC systems from Projected Development Sites 1 and 2 expected to create any local air quality impacts.

The industrial source analysis indicated that there would be no potential for significant adverse impacts or health risks from surrounding industrial sources on Projected Development Sites 1 and 2. Lastly, no large or major sources were identified within a 1,000-foot radius of the Project Area, and thus there would be no potential for significant adverse impacts from large or major sources on Projected Development Sites 1 and 2. As a result, the Proposed Actions would not result in any significant adverse air quality impacts.

(E)-Designation Requirements

Heating And Hot Water System (E)-Designations

As detailed above, a refined analysis was performed utilizing the AERMOD dispersion model for Projected Development Site 1. To preclude the potential for significant adverse air quality impacts on Projected Development Site 1 from heating and hot water system emissions, an (E)-Designation would be incorporated into Projected Development Site 1. The descriptions and requirements of the proposed (E)-Designations for the site with respect to heating and hot water systems are as presented in **Table 10-10,** below:

Table 10-10 Heating and Hot Water System Restrictions

Development Site	Block	Lot	Proposed (E)-Designation
1	2283	1, 12, 22, 36	Any new residential and/or commercial development must exclusively use natural gas for heating and hot water systems, and ensure that the heating and hot water system stack(s) is located at least 144 feet away from the east lot line facing Projected Development Site 2 (Block 2283, Lot 43) to the east to avoid any potential significant adverse air quality impacts.

11

Noise

The goal of this section is to determine whether the Proposed Actions would increase noise exposure at existing sensitive receptors and whether new receptors would be introduced into an acceptable ambient noise environment.

Introduction

As described in **Part I: Project Description**, the Applicant is seeking a zoning map amendment and a zoning text amendment (the Proposed Actions) affecting Queens Block 2283, Lots 1, 12, 22, 36, and 43 (the Project Area). The Proposed Actions would facilitate the development of a mixed-use building of approximately 361,508 gross square feet (gsf) (the Proposed Project) on Lots 1, 12, 22, and 36 (the Development Site, or Projected Development Site 1) at 50-02 Queens Boulevard in the Woodside neighborhood of Queens Community District 2. The Proposed Project would include approximately 278,047 gsf of residential space (257 units), 20,171 gsf of commercial space, 4,308 gsf of community facility (daycare) space, and 129 accessory parking spaces. The Proposed Project would meet the requirements of the MIH program and have a maximum height of 115 feet (excluding the bulkhead).

In addition to the Applicant-owned Projected Development Site 1, the Proposed Actions would also affect the non-Applicant-owned property at Lot 43 (Projected Development Site 2). In the future with the Proposed Actions, Projected Development Site 2 is expected to be redeveloped with a 14-story (145-foot-tall, excluding bulkhead) mixed-use building of approximately 74,944 gsf, containing approximately 63,089 gsf of residential space (63 units), 3,228 gsf of commercial space, and 24 accessory parking spaces.

Combined, the projected development sites would introduce approximately 341,136 gsf of residential space (341 units, 80 to 96 of which would be affordable pursuant to MIH), 23,399 gsf of commercial space, 4,308 gsf of community facility (daycare) space, and 153 accessory parking spaces (67,609 gsf), totaling 436,452 gsf of development.

Because the Proposed Actions would introduce new noise-sensitive receptors to the Project Area, a noise assessment is required under CEQR to determine if:

- The Proposed Actions would significantly increase sound levels from mobile and stationary sources at existing noise receptors adjacent to the Project Area, including residential, commercial, and institutional land uses; and,
- New noise receptors introduced within the Project Area would be in an acceptable ambient sound level environment.

Mobile sources include vehicular traffic; stationary sources include rooftop equipment such as emergency generators, cooling towers, and other mechanical equipment. The noise assessment includes the following:

- Background on metrics used to describe noise;
- The methodology and criteria used to assess potential impacts;
- An assessment of the potential for the Proposed Actions to significantly affect existing receptors due to the introduction of new mobile or stationary sources; and
- An evaluation of the ambient sound levels at new receptor locations.

Noise Background

Noise is defined as unwanted or excessive sound. Sound becomes unwanted when it interferes with normal activities such as sleep, work, or recreation. How people perceive sound depends on several measurable physical characteristics. These factors include:

- **Level:** Sound level is based on the amplitude of sound pressure fluctuations and is often equated to perceived loudness.
- **Frequency:** Sounds are comprised of acoustic energy distributed over a variety of frequencies. Acoustic frequencies, commonly referred to as tone or pitch, are typically measured in Hertz (Hz). Pure tones have energy concentrated in a narrow frequency range and can be more audible to humans than broadband sounds. Sound levels are most often measured on a logarithmic scale of decibels (dB). The decibel scale compresses the audible acoustic pressure levels which can vary from the threshold of hearing (0 dB) to the threshold of pain (120 dB). Because sound levels are measured in dB, the addition of two sound levels is not linear. Adding two equal sound levels results in a 3 dB increase in the overall level. Research indicates the following general relationships between sound level and human perception:
  - A 3-dB increase is a doubling of acoustic energy and is the threshold of perceptibility to the average person.
  - A 10-dB increase is a tenfold increase in acoustic energy and is perceived as a doubling in loudness to the average person.

Audible sound is composed of acoustic energy over a range of frequencies typically from 20 to 20,000 Hz. The human ear does not perceive sound levels at each frequency as equally loud. To compensate for this phenomenon in perception, a frequency filter known as A-weighting (dBA) is used to evaluate environmental noise levels. **Table 11-1** presents a list of common outdoor and indoor sound levels.

Table 11-1 Common Indoor and Outdoor Sound Levels

Outdoor Sound Levels	Sound Pressure μPa		Sound Level dBA	Indoor Sound Levels
	6,324,555	-	110	Rock Band at 5 m
Jet Over-Flight at 300 m		-	105	
	2,000,000	-	100	Inside New York Subway Train
Gas Lawn Mower at 1 m		-	95	
	632,456	-	90	Food Blender at 1 m
Diesel Truck at 15 m		-	85	
Noisy Urban Area—Daytime	200,000	-	80	Garbage Disposal at 1 m
		-	75	Shouting at 1 m
Gas Lawn Mower at 30 m	63,246	-	70	Vacuum Cleaner at 3 m
Suburban Commercial Area		-	65	Normal Speech at 1 m
	20,000	-	60	
Quiet Urban Area—Daytime		-	55	Quiet Conversation at 1 m
	6,325	-	50	Dishwasher Next Room
Quiet Urban Area—Nighttime		-	45	
	2,000	-	40	Empty Theater or Library
Quiet Suburb—Nighttime		-	35	
	632	-	30	Quiet Bedroom at Night
Quiet Rural Area—Nighttime		-	25	Empty Concert Hall
Rustling Leaves	200	-	20	
		-	15	Broadcast and Recording Studios
	63	-	10	
		-	5	
Reference Pressure Level	20	-	0	Threshold of Hearing

μPA: MicroPascals describe pressure. The pressure level is what sound level monitors measure.
dBA: A-weighted decibels describe pressure logarithmically with respect to 20 μPa (the reference pressure level).
Source: Highway Noise Fundamentals, Federal Highway Administration, September 1980.

Because sound levels change over time, a variety of sound level metrics can be used to describe environmental noise. The following is a list of sound level descriptors that are used in the noise analysis:

- L_{10} is the sound level that is exceeded for 10 percent of a given time period. Therefore, it represents the higher end of the range of sound levels. The unit is commonly used in the *2021 CEQR Technical Manual* to evaluate acceptable thresholds for noise exposure for new receptors that would be introduced by a proposed development.
- L_{eq} is the continuous equivalent A-weighted sound level. The L_{eq} is a single value that contains the same sound energy as the actual fluctuating sound levels over a given period of time. Therefore, the L_{eq} considers how loud noise events are during the period, how long they last, and how many times they occur. L_{eq} is commonly used to describe environmental noise and relates well to human annoyance. In accordance with the *CEQR Technical Manual*, the L_{eq} sound level is

used to assess the potential for significant increases in noise due to a proposed development at existing receptors in the study area.

› L_{dn} is the day-night average A-weighted sound level. Similar to L_{eq}, L_{dn} accounts for how loud noise events are and how long they last. The L_{dn} accounts for how many noise events occur over a 24-hour period and applies a 10-decibel penalty to events occurring from 10:00 PM to 7:00 AM due to the greater sensitivity to noise occurring at night.

Assessment Methodology

This noise analysis considers two receptor types when evaluating noise for a proposed development: existing and new receptor(s). Since the Proposed Actions would introduce new community facility and residential uses, these are considered "new receptors."

The analysis also considers "existing receptors" which are the current noise-sensitive uses, such as residential and commercial properties surrounding the Project Area. The following describes the results of the noise assessment for these two types of receptors.

Noise Assessment for Existing Receptors

Noise impact at existing nearby sensitive receptors is assessed according to the relative increase between No-Action and With-Action sound levels, expressed in terms of the L_{eq} sound level, in accordance with the *CEQR Technical Manual*. If mobile or stationary sources associated with the Proposed Actions would increase L_{eq} sound levels by 3 dB or more and absolute levels would exceed 65 dBA L_{eq}, the Proposed Actions would cause a significant adverse impact. Additionally, if No-Action condition noise levels are 60 dBA L_{eq} or less, a 5-dB increase would be considered a significant adverse noise impact.

Mobile Sources

The dominant noise source in the area is the elevated 7 train approximately 350 feet northwest of the project site. Since the subway schedule and frequency are not expected to change significantly, the noise level from the subway is anticipated to remain the same. Therefore, the Proposed Actions would not cause a significant adverse mobile source noise impact.

Stationary Sources

The Proposed Actions are not anticipated to introduce any substantial stationary source noise generators, such as unenclosed cooling or ventilation equipment, loudspeaker systems, stationary diesel engines, car washes, or other similar types of uses. The project heating, ventilation, and air conditioning equipment would incorporate sufficient noise reduction to comply with applicable noise regulations and standards, including the standards contained in the revised New York City Noise Control Code. This would ensure that mechanical equipment does not result in any significant increases in noise levels by itself or cumulatively with other project noise sources.

Since an outdoor play area is proposed on the southernmost portion of Projected Development Site 1, a playground noise analysis was conducted to assess the noise impact from the proposed play area to the existing residential use across the street, the proposed residential use at Projected Development Site 1, and the projected residential uses on Projected Development Site 2. According to the

Appendix: Noise of the *CEQR Technical Manual*, the recommended playground boundary noise level for a childhood center is 71.5 dBA (L_{eq}), and the noise levels can be expected to decrease by the following values at the specified distances from the playground: 4.8 dBA at 20 feet, 6.8 dBA at 30 feet, and 9.1 dBA at 40 feet. The general rule of a 6 dBA drop-off per doubling of distance from the playground boundary for all distances between 40 and 300 feet. The measured distance from the proposed play area to the existing residential use is approximately 55 feet, therefore the noise level from the proposed play area at the existing residential use would be 59.6 dBA.

Noise Assessment for New Receptors

With-Action noise conditions at new sensitive receptors that would be introduced by the Proposed Actions are evaluated according to absolute exterior sound level. The noise exposure guidelines for acceptable ambient conditions depend on the type of land use; for residential buildings, the goal is to maintain interior noise levels of 45 dBA or lower. With-Action exterior sound levels are evaluated to determine if receptors would be in an acceptable ambient sound level environment. It is generally assumed that without specific information on a building's window and wall construction, the outdoor-to-indoor noise reduction of the building is 25 decibels. Therefore, exterior ambient sound levels exceeding 70 dBA at residential receptors (which would equate to an interior noise level of 45 dBA) are considered to be Marginally Unacceptable and the need to provide window/wall sound attenuation that is sufficient to reduce interior sound levels to acceptable levels must be considered.

Since the Proposed Actions would introduce residential uses to the Project Area, the highest L_{10} sound level is used to evaluate the acceptability of the proposed on-site use with the noise environment.

Noise Exposure Guidelines

The *CEQR Technical Manual* provides noise exposure guidelines for assessing ambient noise conditions at new residential and community facility receptors, as shown in **Table 11-2**.

Existing Sound Levels

Noise monitoring was conducted around the perimeter of the Project Area at four locations from March 16 to March 17, 2023, in accordance with the *CEQR Technical Manual*. The locations of the three short-term measurement sites and one long-term measurement site are shown in **Figure 11-1**. Noise monitors were placed with a minimum of five feet between the microphone and nearby reflecting surfaces. With the existing train approximately 350 feet northwest of the Project Area, subway noise dominates the overall noise environment in this area. Therefore, a sound meter was placed on the rooftop of the P.C. Richard & Son for more than 24 hours to conduct a long-term noise measurement, per *CEQR Technical Manual* guidance. Additionally, 20-minute noise measurements were conducted during morning peak periods (7:00 – 9:00 AM), midday period (12:00 – 2:00 PM), and evening peak period (4:00 – 6:00 PM). Measurements were conducted using Type I sound level meters, which were calibrated by a laboratory following procedures traceable to the National Institute of Standards and Technology, and field-calibrated at the start and end of each measurement.

As shown in **Table 11-3**, measured L_{10} levels ranged from 61.2 dBA to 71.5 dBA, and the existing L_{dn} level at the rooftop of P.C. Richard & Son is 73.7 dBA. Hourly noise levels were shown in **Figure 11-2.**

Figure 11-1 Ambient Noise Measurement Locations

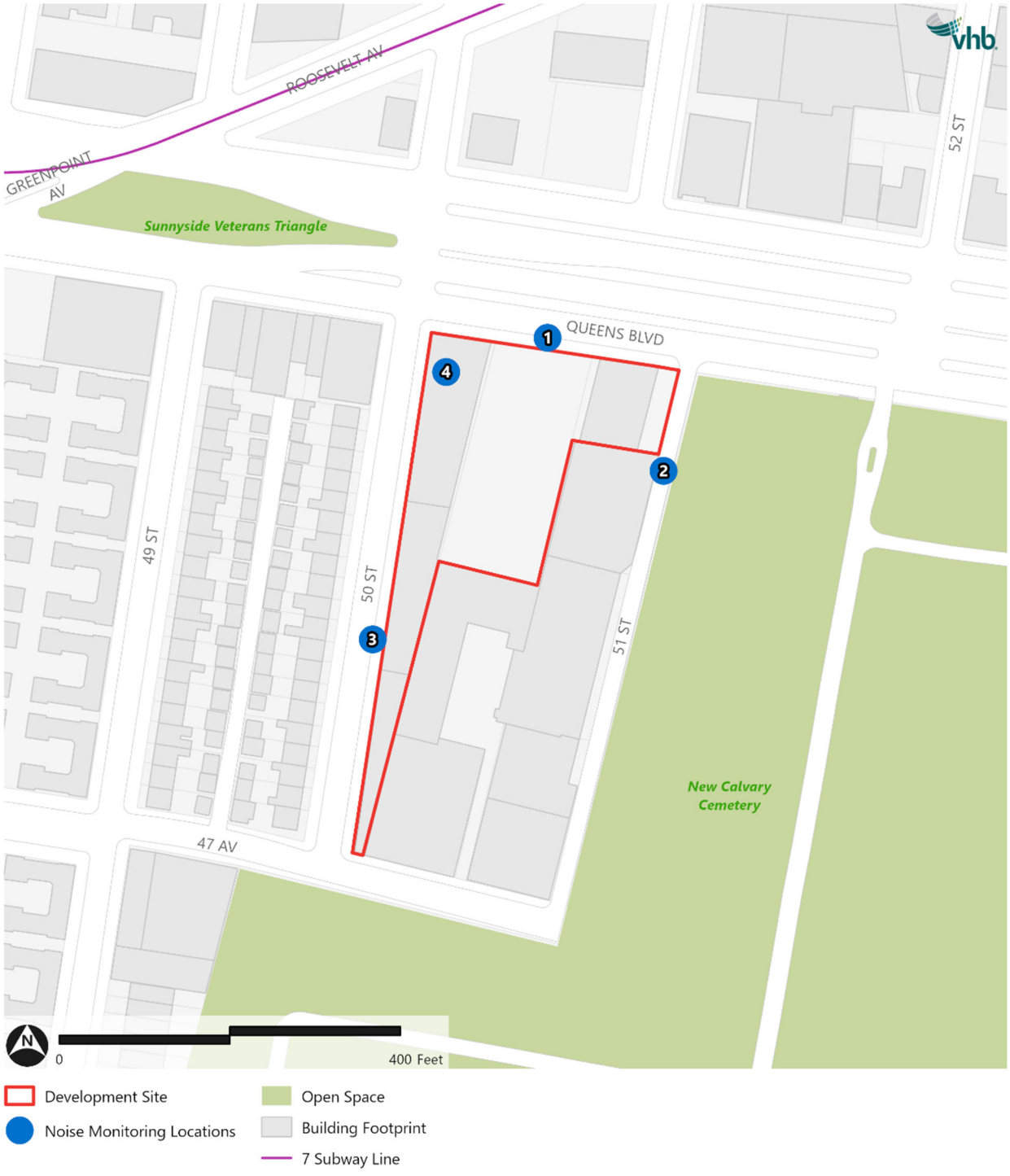


Table 11-2 Noise Exposure Guidelines for Use in City Environmental Impact Review

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	Airport[3] Exposure
1.Outdoor area requiring serenity and quiet[2]		L10 ≤ 55 dBA							
2. Hospital, Nursing Home		L10 ≤ 55 dBA		55 <L10≤ 65 dBA		65<L10≤80 dBA		L10>80dBA	
3. Residence, residential hotel or motel	7 am to 10 pm	L10 ≤ 65dBA		65 <L10≤ 70 dBA		70<L10≤80 dBA		L10>80dBA	
	10 pm to 7 am	L10 ≤ 55dBA		55 <L10≤ 70 dBA		70<L10≤80 dBA		L10>80dBA	
4. School, museum, library, courthouse of worship, transient hotel or motel, public meeting room, auditorium, out- patient public health facility		Same as Residential Day (7 AM-10 PM)	Ldn ≤ 60 dBA	Same as Residential Day (7 AM-10 PM)	60 dBA < Ldn ≤ 65 dBA	Same as Residential Day (7 AM- 10 PM)	65 dBA < Ldn ≤ 75 dBA	Same as Residential Day (7 AM –10 PM)	75 dBA ≤ Ldn
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	

Source: Table 19-2, *2021 CEQR Technical Manual*.

(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.

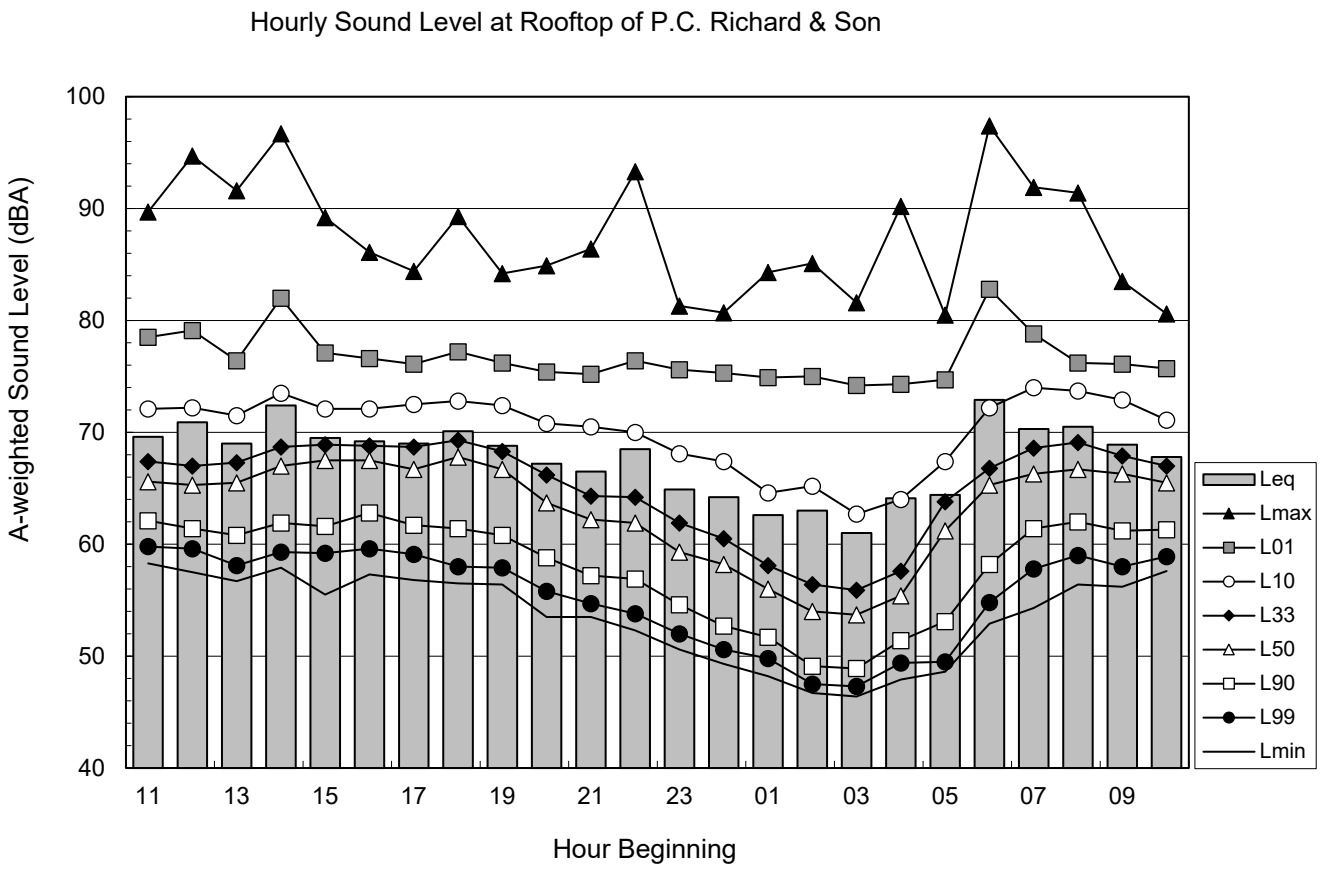
[3] One may use the FAA-approved DNL contours supplied by the Port Authority of New York and New Jersey (PANYNJ), or the noise contours may be computed from the federally approved Aviation Environmental Design Tool (AEDT) Computer Model using flight data supplied by the PANYNJ.

[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 11-3 Existing Ambient Sound Level Measurements

#	Monitoring Location	Period	Duration	L_{eq}	L_{min}	L_{max}	L_{10}	L_{50}	L_{90}
1	Queens Blvd between 50th St and 51st St	Morning	20 mins	68.7	57.5	82.6	71.5	66.4	60.1
		Midday	20 mins	69.1	56.1	91.5	70.8	63.9	59.2
		Evening	20 mins	67.3	57.5	80.8	70.9	65.0	61.0
2	51st Street	Morning	20 mins	60.0	52.4	75.6	61.7	57.3	54.8
		Midday	20 mins	61.4	49.8	79.8	61.9	55.5	52.1
		Evening	20 mins	58.8	48.3	73.4	61.2	55.6	52.3
3	45-28 50th Street	Morning	20 mins	62.2	50.7	77.4	66.3	57.9	53.3
		Midday	20 mins	65.9	49.1	90.3	66.9	57.9	52.8
		Evening	20 mins	62.5	49.9	76.4	65.8	59.0	52.7
4	Rooftop of P.C. Richard & Son	Ldn	24-hr				**73.7**		

Figure 11-2 Hourly Sound Levels at Rooftop of P.C. Richard & Son



Acceptability Assessment

The *CEQR Technical Manual* provides noise exposure guidelines for assessing ambient sound levels, as shown in **Table 11-4**. Based on these noise exposure guidelines, noise impact has been assessed to determine the level of acceptability for new sensitive receptors at the Project Area.

According to the noise exposure guidelines in the *CEQR Technical Manual*, existing L_{dn} sound levels at Location 4 (Rooftop of P.C. Richard & Son) is 73.7 dBA and are **Marginally Unacceptable**. The existing L_{10} sound levels at Location 2 (51st Street) are below 70 dBA and are **Acceptable**. The existing L_{10} sound levels at Location 3 (45-28 50th Street) are also below 70 dBA and are **Acceptable**.

As shown in **Figure 11-3**, a play area is proposed at east side of 50th Street. As calculated above in the Stationary Source Section, the noise level from the play area at the closest existing residential use would be 48.0 dBA. The highest existing L_{eq} measured at L3 (45-28 50th Street) is 67.8 dBA. The future with-action noise levels at the existing residential use would be 66.0 dBA. Therefore, there would be no impact from the proposed play area on the existing residential use. However, the noise level (L_{10}) at the residential use of the Proposed Project (at Projected Development Site 1) would be 73.6 dBA.

Based on the finding of **Marginally Unacceptable** sound levels, sufficient outdoor-to-indoor sound attenuation of the window/wall must be specified to provide acceptable sound attenuation for interior spaces at the Project Area.

Table 11-4 Required Attenuation Values to Achieve Acceptable Interior Noise Levels

	Marginally Unacceptable				Clearly Unacceptable
Vehicular Traffic	$70<L_{10}\leq73$	$73<L_{10}\leq76$	$76<L_{10}\leq78$	$78<L_{10}\leq80$	$80<L_{10}$
Train	$65<L_{dn}\leq68$	$68<L_{dn}\leq71$	$71<L_{dn}\leq73$	$73<L_{dn}\leq75$	$75<L_{10}$
Attenuation	(I) 28 dBA	(II) 31 dBA	(III) 33 dBA	(IV) 35 dBA	See note [B]

Notes:

[A] The above composite window-wall attenuation values are for residential dwellings and community facility development. Commercial office spaces and meeting rooms would be 5 dBA less in each category. All of the above categories require a closed window situation and hence an alternate means of ventilation.

[B] The required attenuation value is the difference between L_{build} and $L_{interior}$, using the appropriate noise descriptor

Where: L_{build} is the projected noise level under the build condition rounded up to the whole number

$L_{interior}$ is the designed interior noise level (45 dB(A) for vehicular noise, 40 dB(A) for aircraft and train noise)

Source: New York City Department of Environmental Protection (*2021 CEQR Technical Manual*, Table 19-3)

The composite outdoor-to-indoor transmission classification (OITC) value of the window-wall structure is used to determine the necessary sound attenuation. Sound attenuation measures would be achieved through construction materials and techniques with sufficient OITC-rated windows and walls. Since the measured L_{dn} sound level is between 73 and 75 dBA, the minimum composite window/wall attenuation required is 35 dBA. This requirement would apply to the northern and western facades of the building. Due to the noise generated by the proposed daycare facility, the sound level (L_{10}) at south façade would be 73.6 dBA, which is between 73 and 76 dBA, the minimum composite window/wall attenuation required is 31 dBA. This requirement would apply to the southern facades of the building. As the eastern façade of the proposed building would not have a direct line of sight to the subway, and the measured sound level (L_{10}) is below 70 dBA, there is no requirements for enhanced window/wall attenuation for the eastern façade.

To implement this attenuation requirement, an (E)-Designation (E-###) for noise would be applied to the projected development sites specifying the appropriate amount of window/wall attenuation and the need for alternate means of ventilation. The text for the (E)-Designation (E-###) would be as follows:

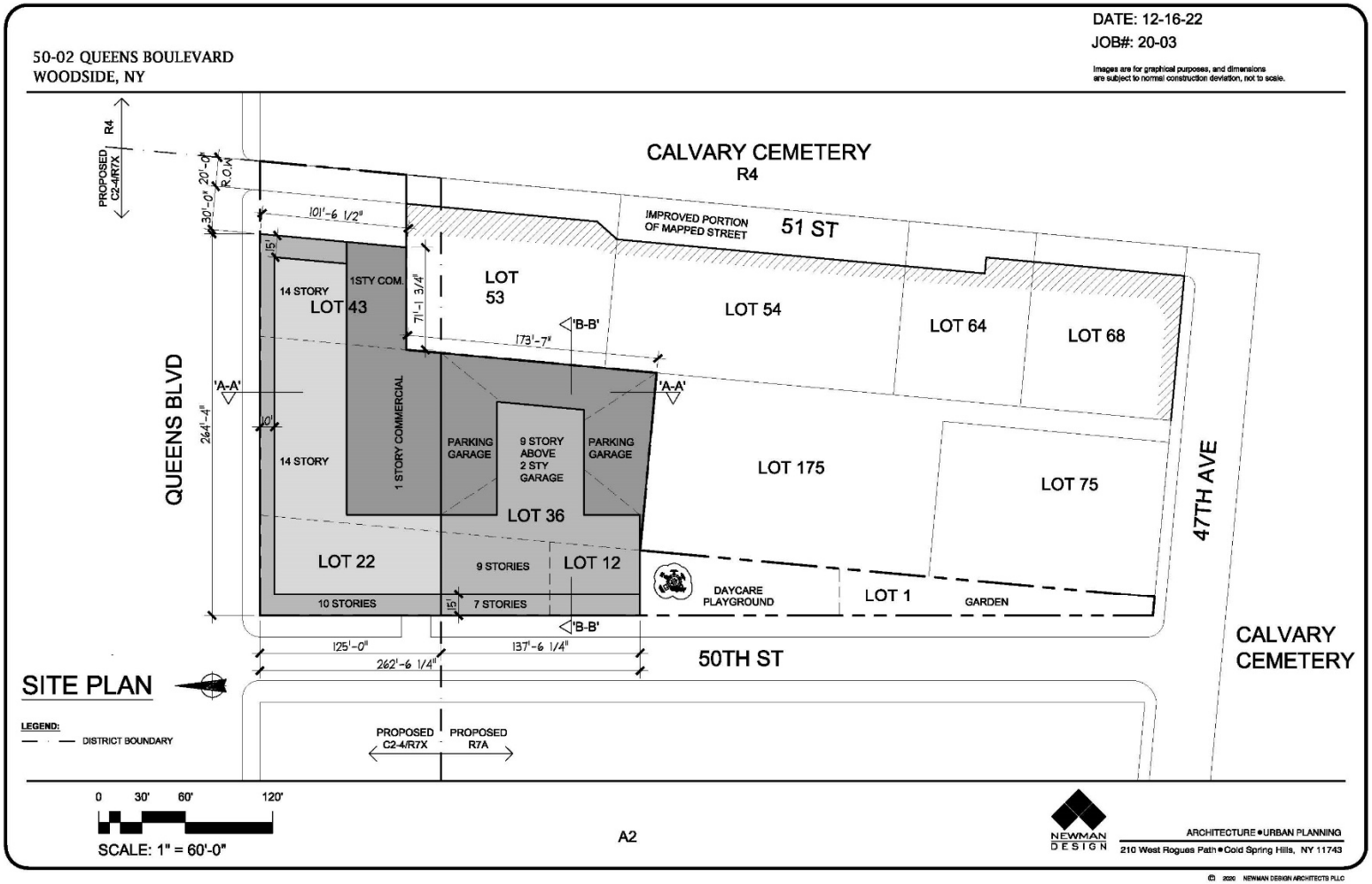
Projected Development Site 1 (Block 2283, Lot 1, 12, 22, 36)

In order to ensure an acceptable interior noise environment, future residential/community facility uses must provide a closed-window condition with a minimum of 35 dBA window/wall attenuation on the facade facing Queens Boulevard and 50th Street to maintain an interior noise level (L_{dn}) not greater than 40 dBA for residential and community facility uses; future residential/community facility uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on the facade facing 47th Avenue to maintain an interior noise level (L_{10}) not greater than 45 dBA for residential and community facility uses. 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, well-sealed air conditioners, package-terminal air conditioners, or central air conditioning.

Projected Development Site 2 (Block 2283, Lot 43)

In order to ensure an acceptable interior noise environment, future residential/community facility uses must provide a closed-window condition with a minimum of 35 dBA window/wall attenuation on the facade facing Queens Boulevard to maintain an interior noise level (L_{dn}) not greater than 40 dBA for residential and community facility uses. 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, well-sealed air conditioners, package-terminal air conditioners, or central air conditioning.

Figure 11-3 Site Plan



Conclusion

A noise assessment was conducted to determine whether the Proposed Actions would significantly increase sound levels from mobile and stationary sources at existing noise receptors on the Project Area, and if new noise receptors that would be introduced by the Proposed Actions would be in an acceptable ambient sound level environment.

The dominant noise source in the area is the elevated 7 train approximately 350 feet northwest of the Project Area. Since the subway schedule is not expected to change significantly, the noise level from the subway is anticipated to remain the same. Therefore, the Proposed Actions would not result in a significant adverse mobile source noise impact, and the existing noise measurement results are representative of the With-Action mobile source noise conditions.

The Proposed Actions are not anticipated to include any substantial stationary source noise generators. The design and specifications for the building's mechanical equipment would incorporate sufficient noise reduction devices that would comply with applicable noise regulations and standards, including the standards contained in the revised New York City Noise Control Code.

Noise monitoring was conducted at four locations in accordance with the *CEQR Technical Manual*. Based on measured L_{dn} sound levels of 73.7 dBA at Location 4, a composite outdoor-to-indoor window/wall sound attenuation of 35 dBA or more is required for the facades of Projected Development Sites 1 and 2 that would face Queens Blvd and/or 50th Street to obtain acceptable interior noise conditions for residential and community facility uses. Based on the calculated L_{10} sound level of 73.6 dBA at Location 3 with the development of a play area designated to the daycare, a composite outdoor-to-indoor window/wall sound attenuation of 31 dBA or more is required for Projected Development Site 1's facades facing 47th Avenue to obtain acceptable interior noise conditions for residential and community facility uses, as illustrated in **Figure 11-4**. Additionally, alternate means of ventilation, such as well-sealed air conditioners, package-terminal air conditioners, or central air conditioning, is required.

Figure 11-4 Recommended E-Designation



Appendix A: Preliminary Assessment/ Disturbance Record

AR - NY SHPO Archaeological Report

DIGITAL ARCHIVE DOCUMENTATION

NY SHPO SHELVING REFERENCE

ID #	County	Report Number
405	QUEENS	56

PR Number	ELECTRONIC VERSION	STATUS	Page Count
00PR0672	☐	Scan Off-Site	

Report Title

MEMORANDUM: PRELIMINARY ASSESSMENT/DISTURBANCE RECORD, INTERMEDIATE SCHOOL 1000, SUNNYSIDE, QUEENS, BLOCK 2283, LOTS 1, 12, 22 AND 36

Report Type 1A **Author** HISTORICAL PERSPECTIVES

Month	Year	Date	Survey Sponsor
2	2000	2/1/2000	NYC SCA (FED/STATE/SEQRA/CEQRA/CLG SUBGRANT/OTHE

Survey Acreage (IB ONLY) | Survey Square Footage | Underwater Survey Area - Acres

Stripped Area - SqFt (II and III ONLY) | Surface Exam Area(Acres)

MULTIPLE COUNTIES CROSS REFERENCE:

County 1		Report 1		County 3		Report 3	
County 2		Report 2		County 4		Report 4	

MINOR CIVIL DIVISION

County	Town 1	Town 2	Town 3	Town 4
QUEENS	QUEENS			

REVIEW

Number of Archaeological Sites Identified

Number of Architectural Sites Identified

Log Month	Log Year	Log Date	Date Reviewed

UNIQUE SITE NUMBER(S) REPORTED : IA, IB, II AND III SURVEY

Site 1 #	Site Type 1	Quad 1	Site 8 #	Site Type 8	Quad 8
Site 2 #	Site Type 2	Quad 2	Site 9 #	Site Type 9	Quad 9
Site 3 #	Site Type 3	Quad 3	Site 10 #	Site Type 10	Quad 10
Site 4 #	Site Type 4	Quad 4	Site 11 #	Site Type 11	Quad 11
Site 5 #	Site Type 5	Quad 5	Site 12 #	Site Type 12	Quad 12
Site 6 #	Site Type 6	Quad 6	Site 13 #	Site Type 13	Quad 13
Site 7 #	Site Type 7	Quad 7	Site 14 #	Site Type 14	Quad 14

DIGITAL FILE NAME | BOX | LOCATION | BAR CODE

HISTORICAL PERSPECTIVES INC.

#56 ID 405

Feb. 2000

MEMORANDUM: Preliminary Assessment/Disturbance Record
Intermediate School 1000, Sunnyside, Queens
Block 2283 Lots 1, 12, 22 and 36

INTRODUCTION

The following memo provides a summary of preliminary historical and archaeological research on the proposed I.S. 1000 site, conducted by Historical Perspectives, Inc.

The proposed school site is in the Sunnyside section of the Borough of Queens, near the northeast corner of New Calvary Cemetery (55 feet south and 120 feet east of the project lots). The irregular, P-shaped site is on the western half of Block 2283, and includes Lot 1, at the northeast corner of 47th Avenue and 50th Street; Lot 12, along the east side of 50th Street; Lot 22, at the southeast corner of 50th Street and Queens Boulevard; and Lot 36 along the south side of Queens Boulevard. (Figure 2)

Historical Perspectives, Inc. has undertaken this Preliminary Assessment of the proposed I.S. 1000 site in order to: 1) identify archaeological resources; 2) examine the construction history of the project site in order to estimate the probability that any potential resources might have survived and remain on the site undisturbed; and 3) determine whether additional research, in the form of a Phase 1A study, is necessary.

ENVIRONMENTAL SETTING

Prior to 19th- and 20th-century development, historical maps show the project vicinity as part of an extensive elevated area of hills and ridges interspersed with small valleys or hollows, which later became the present neighborhoods of Sunnyside, Woodside, and the sites of the Sunnyside Railroad Yards, Calvary and New Calvary Cemeteries. This area is practically isolated from adjoining sections of Queens and Kings by tidal salt marshes drained by the Newtown Creek estuary and its tributaries, Dutch Kills and Maspeth Creek (Taylor and Skinner 1781). Although the elevated area was surrounded by marsh and creek, the project lots themselves were somewhat remote from these water sources. The distance from the project lots to the nearest marsh and water course is approximately 4,000-5,000 feet to the southwest, the location of a tributary of Newtown Creek, which flowed southward from the former Laurel Hill neighborhood, now buried beneath the southern part of the Brooklyn Queens Expressway and the Harry S. Truman Expressway interchange (USCGS 1874; Conner 1852). A segment of Maspeth Creek ran as close as a mile south southeast of the project site, in the vicinity of present 55th Drive and Maurice Avenue (Beers 1873:52; Sidney 1849).

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The project site lay along the northwestern slope of a large hill which presently reaches an elevation of over 130 feet, about 2,300 feet east of the project site. (Figure. 1) A 1911 topographic map shows the project lots between two arms of the hill. Elevations on the lots were between 80 and 90 feet above sea level, with an area above 90 feet at the extreme southern tip of Lot 1, at the intersection of 50th Street and 47th Avenue. Elevations increase to the north, south and east of the project lots (Queens 1911:3).

Current Conditions

On the present USGS topographic map (Figure 1), the project site lies between the 90- and 100-foot contour lines. Comparing this with the 1911 contour map, this suggests the addition of between zero and about 10 feet of fill on the project lots, with the thickness of the fill overmantle generally increasing as one proceeds northward to Queens Boulevard (Queens 1911:3).

Soil borings[1] conducted on Queens Boulevard, along the north side of the project site, support this scenario, recording between 5 and 10 feet of fill (B8, B9 and B10) in the present Queens Boulevard roadbed between 49th and 51st Streets. The fill layer disappears east of 51st Street, where the 1911 elevations rise to above 100 feet, equalling the current elevations (Queens 1911:3). (Figure 1)

The presence of a retaining wall along the north side of New Calvary Cemetery, on the south side of 47th Street opposite Lot 1 (Photo 4), also supports the hypothesis that the amount of fill decreases or disappears completely on the southern part of Lot 1. The wall supports the higher elevations in the cemetery, which would have sloped downward gradually northward across 47th Avenue and onto the project site. Subsequent to 1911, the hill slopes were cut down to form a flat roadbed for the future 47th Avenue, requiring the erection of the retaining wall to protect the pre-existing cemetery plots.

A site inspection was conducted and photographic record made on 1/27/00. (Photos 1-6) Except for Lot 36, which is used as a parking lot for the project site buildings, project lots 1, 12 and 22 are completely covered by the 1-story Stevens appliance store and warehouse. Little topographical variation is visible, except in the paved parking lot, which slopes faintly downward from Queens Boulevard toward the south, and is slightly elevated along the center north/south axis, along which the two free-standing parking lot lamps are located.

PREHISTORIC PERIOD

Nineteenth- and 20th-century archaeological research and excavation has identified six prehistoric archaeological sites, more than one and up to two miles from the project lots. These are inventoried in the site files of the New York State Museum (NYSM) and the New York State Office of Parks, Recreation and Historic Preservation (OPRHP). In an attempt to describe more accurately the generalized locations provided by the NYSM, the information is supplemented by other archaeological and historical sources, and the sites are listed in order of increasing distance from the project site (Bolton 1972; 1922; 1920; Parker 1920; Grumet 1981).

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[1]Soil Borings for Capital Project No. S.E. 76, Combined Sewer in Queens Boulevard, 1967. File no. 0647. City of New York Department of Public Works, Division of Engineering Services, Subsurface Exploration Section.

NYSM#4536 (ACP Quns 13): Archaeologists Arthur C. Parker and Reginald P. Bolton both suggest the present Maspeth neighborhood, along present Maspeth Creek, approximately 1.25 miles south of the study area, as the location of a village. Several incidents between the Dutch and Native Americans occurred here during the Governor Kieft War (1643-1645), and a wigwam was recorded at Maspeth Kills in 1669 (Grumet 1981). According to historian James Riker, writing in c.1852, the Indians' "rude implements," chiefly "stone axes and arrowheads, and arrows of reed" were still to be found (Riker 1852).

NYSM#4538, ACP Quns no # refers to a village site in Long Island City, Queens. The location provided by the NYSM is centered on the intersection of 40th Avenue and 28th Street. Parker's published map appears to show the village somewhat farther north, approximately centered on 35th Avenue and Crescent Street (Parker 1920), which would place it 1.4 miles northwest of the project lots.

NYSM#4537, ACP Quns 14 identifies a burial site in Long Island City, Queens. Parker places this burial on Crescent Street, but does not provide the cross street. His map seems to put it northeast of the village site (NYSM#4538 from the previous paragraph) on or northeast of Broadway, which would mean that it was at least 1.4 miles northeast of the project lots (Parker 1920). Bolton reports human burials (note the plural), "near Crescent Street," although his map siting is the same as Parker's (Bolton 1972). The locations and comments provided by the NYSM suggest two or more burials, centered on Crescent Street and 34th Avenue.

NYSM #3613, ACP Kings no # is a site in Greenpoint, Kings County, at the mouth of Newtown Creek. Archaeologist Arthur C. Parker reported "traces of occupation" there (Parker 1920). It lies approximately 1.5 miles west southwest of the study area, on the Kings County shore of Newtown Creek.

OPRHP #A081-01-0100 "Sunwick" was described by Bolton, who reported that Sunwick (also Sunwicks or Sunswicks) was a "native station" which yielded shell deposits and a few artifacts. Sunwick was in Ravenswood Park, and although the original Ravenswood Park lay roughly between 38th and 43rd Avenues from 11th to 21st Streets, roughly 1.5 miles west of the project site (Whitney 1876), the site description better conforms to the location pinpointed by the New York State Museum at present Rainey Park, along the East River Shore, about 2 miles northwest of the study parcel (Bolton 1922; Grumet 1981).

Recorded place names, or toponyms, can also be an indication of a Native American presence or absence in an area. The nearest is Canapaukah, the Indian name for Dutch Kills, which formerly flowed within about a mile to the northwest of the project lots (Grumet 1981:4-5,71). As discussed in the environmental overview, the project site was part of a much larger area isolated by surrounding marsh and creek systems. No Native American trails are recorded nearby. The nearest known trail approximated present Flushing Avenue, about 1.5 miles southwest of the project site. Separated from the project lots not only by distance, but by Maspeth Creek and marshes, the trail was not used to access the project site vicinity, but to skirt the swamps and link other areas of northern Queens with Kings County.

Indian settlement patterns show a marked preference for sheltered, elevated sites close to wetland features, a source of fresh water and a major waterway. The importance of the proximity to these resources is evident from the locations of the inventoried prehistoric sites, which are clustered in the elevated areas near the extensive marshes along Newtown and Maspeth Creeks and Dutch Kills. In contrast, there are no inventoried sites in the vicinity of the project lots. As described in the environmental overview, the nearest of the attractive natural resources was more than 4,000 feet south of the project site. Although the project site was in a well-drained, elevated location, it was ***too*** well drained – fresh water was not readily available. In 1879, the sinking of an artesian well in New Calvary Cemetery, adjacent to the project site on the east, necessitated drilling to a depth of 606 feet, an operation beyond prehistoric technology (Munsell 1882:379).

HISTORICAL PERIOD

The present Sunnyside neighborhood, including the project lots, is a remnant of the larger Sunnyside village, a scattered settlement of farmhouses, most of which were purchased and levelled by the Pennsylvania Railroad to build its Sunnyside Railroad Yard (about 0.5 miles northwest of the project site), which opened in 1910. The project lots lie about 120 feet west and 55 feet north of New Calvary Cemetery, chartered in 1853, an extension of the Roman Catholic Calvary Cemetery (about 3,400 feet to the southwest), whose presence apparently encouraged the development of transportation to, and businesses in the area, catering to cemetery visitors and patrons (Munsell 1882:379). Residential and business development was greatly spurred by the opening of the Queensboro Bridge in 1909, connected to the rest of the borough by Queens Boulevard, which runs along the northern side of the project lots (Jackson 1995:1143)

Building History

As late as 1903, the project lots contained no structures, and 47th Avenue and 50th Street had not yet been laid out (Wolverton 1891:30; Hyde 1903).

Lot 1 (corner of 47th Avenue and 50th Street)

The southern side of this trapezoidal lot has a 13-foot frontage on 47th Avenue, widening to 33 feet on its north side along Lot 12. There is a 216-foot frontage on 50th Street on the west and 219 feet to the east. (Figure 2) Historical maps and building files show no structures on Lot 1 prior to 1924, when the block and lot index records a new building permit. Unfortunately, the permit itself is missing (New Building 2411/1924; Hyde 1915:10). Later permits and the 1929 atlas show a 1-story brick garage, storage and office covering the entire lot. No cellar is recorded, therefore this building must be assumed to have foundations no deeper than a standard four feet (Alteration 2073/1945; Hyde 1929:1). This building is still present on Lot 1. (Photo 6)

Lot 12

This trapezoidal lot (formerly part of Lot 1) lies directly north of present Lot 1, with a 200-frontage on 50th Street. Historical maps show no structures on Lot 12 until 1929 (Hyde 1915:10; 1929:1). No

building records from this lot were available, and the block and lot index card lists no permits prior to 1932. The 1929 map shows a 1-story brick building covering the entire lot, which appears to be the same structure present today, although now described as concrete block. (Figure 2; Photo 5) No cellar is recorded, therefore this building must be assumed to have foundations no deeper than a standard four feet.

Lot 22

The first structure on Lot 22 (formerly Lot 32) was a three-story, woodframe hotel, built at the corner of Queens Boulevard and 50th Street in 1913. The hotel, owned by Ida Clare, had a store on the first floor, and ten bedrooms, as well as indoor toilets and bathtubs. An underground sewer pipe exited the rear (south side) of the building, connecting to a private sewer line along 50th (Fitting) Street. Foundations of the 20' by 65' building extended 8 feet below street level, and the lot dimensions were 40' by 100', smaller than at present, with a 40-foot frontage on Queens Boulevard and the 100-foot frontage on 50th Street (New Building 279/1913). (Figure 3)

In 1914, a 1-story, L-shaped shed and garage were added to the east and south sides of the hotel. These additions had foundations extending 6 feet below the then current surface. With the original hotel, the enlarged structure occupied an area of 96 feet by 40 feet at the northeast corner of the present lot (Alteration 6/1914). (Figure 3)

By 1929, the hotel and sheds had been removed, and a 1-story brick building had been built on the entire current Lot 22 – an area with a 70-foot frontage on Queens Boulevard, and a 200-foot frontage on 50th Street (Hyde 1929:1). The block-and-lot permit index records a new building permit in 1924, which probably refers to this structure. The permit was not available (NB 2411/1924). A later permit describes the structure as a brick "showroom and garage" (Alt 1401/1943). No cellar is recorded, therefore this building must be assumed to have foundations no deeper than a standard four feet. The current real estate atlas records a concrete block building of the same configuration. (Figure 2; Photos 2 and 3)

Lot 36

Lot 36 formerly ran the entire north/south length of Block 2283, with 123-foot frontages on both Queens Boulevard and 47th Avenue. At present only the northern 265 feet are part of the lot.

The larger lot was "Louis Ruhe's Animal Park," which was established after 1903 (Hyde 1903). (Figure 3) Building permits date as early as 1905. According to a 1930 permit, the establishment raised animals and birds "for zoological gardens and circuses etc." (NB 3386/1930).

The earliest recorded buildings on the lot were two barns built in 1905, which from their configurations and dimensions were both south of present Lot 36, and therefore outside the project site. One barn was 27' by 100' (NB60/1905) and the other, 2-story, 46' by 34' (NB1900/1905). (Figure 3) These buildings were oriented to a private road which ran along the eastern lot line of the larger Lot 36, from Queens Boulevard south to the not-yet-built 47th Avenue.

The 1915 atlas shows three structures in the present Lot 36, two small 1-story buildings at the northeast corner of the lot, along Queens Boulevard, and a larger barn, approximately 45' by 25', near the present southern lot line. (Figure 3). By 1929, only one of the smaller buildings along Queens Boulevard was still extant. Another small frame building had been erected at the southwestern corner of the lot, between 1915 and 1929 (Hyde 1929:1). Building files record two other structures built in 1930, an addition to the bird house, south of the project lots (Alt. 2811/1930), and a showroom for the sale of the animals, 36' by 12', with 4-foot foundations. That building is not specifically located on the larger lot (NB 3386/1930).

Present Lot 36 has been paved and is used as a parking lot, with a pair of electric lights/light poles along the center of the lot's north/south axis. From observations made during the site inspection, the parking lot does not appear to have any sort of drainage/storm sewer system. (Photos 1 and 2)

CONCLUSIONS

Disturbance

Subsurface disturbance from historical period construction is recorded on all the project lots. Building files indicate disturbance of at least 4 feet below the present ground surface on all parts of Lots 1, 12 and 22. Lot 36, now used as a parking lot, has experienced scattered disturbance, whose depth and/or exact location is difficult to pinpoint, but in no case does it seem to penetrate more than 4 feet below the present ground surface. Deeper or more severe disturbance is recorded in the northwestern part of Lot 22, on the site of the former hotel, which had foundations 8 feet deep, and its surrounding garage and shed with 6-foot foundations.

Prior to the abovementioned disturbances, as indicated by soil borings on Queens Boulevard and a comparison of the 1911 and current USGS topographic maps, a layer of fill ranging in thickness from zero to 10 feet, was deposited on the project block. The filling probably preceded building construction and was related to the final construction and regulation of the surrounding streets, particularly Queens Boulevard. The fill overmantle could have protected shallowly-buried (less than 4 feet below the predevelopment ground surface) potential archaeological resources from construction disturbance, particularly on Lots 12 and 36, northern Lot 1, and the shallowly-disturbed sections of Lot 22, the areas in which the fill overmantle would have been thickest.

Prehistoric Sensitivity

Because prehistoric sites are generally only shallowly-buried, i.e., within 3 to 4 feet of the predevelopment surface, they are often adversely impacted by subsequent construction. As was noted above, the project site has experienced disturbance of at least four feet below the ***present*** ground surface in all areas of Lots 1, 12 and 22, and only scattered disturbance on Lot 36, which also can not be pinpointed. However, these parts of the project site there is no recorded historical disturbance which would have penetrated the protective fill layer believed to overlay the ***predevelopment*** ground surface .

In two locations, potential prehistoric sensitivity would have been destroyed or seriously impacted by construction episodes. These areas are: the northwestern corner of Lot 22, where building foundations extended from 6 to 8 feet below the surface; and the southern part of Lot 1, where although recorded foundations extend only 4 feet below the present ground surface, there would also have been little or no fill to protect any potential prehistoric archaeological remains present.

From what is known of prehistoric settlement patterns on Long Island, most archaeological sites are found in sheltered, elevated locations close to wetland features, sources of fresh water, and particularly in coastal environments. Based on these criteria, the project site is unlikely to be a location exploited by prehistoric man for a village, campsite or raw material processing center. Part of a large region isolated from the rest of Queens and Kings Counties by the extensive Newtown Creek and marsh system, the topography of the study parcel was well-drained and elevated, but there was no source of fresh water, and the nearest marsh/creek resources were at least 4,000 feet away, over a challenging terrain of hills and valleys.

The lack of inventoried prehistoric archaeological sites, native toponyms and trails in this isolated region, and their presence adjacent to marshes outside the project area vicinity, suggests that although prehistoric man may have been familiar with the vicinity of the project area, far more favorable locations existed for settlement and other types of occupation. Although Indians may have crossed and recrossed the site in the course of seasonal migration or hunting and gathering expeditions, it is unlikely that such use would provide the archaeologist with anything more than a few stray, out-of-context artifacts. Therefore, due to the low prehistoric potential, further research and study concerning prehistoric archaeological resources is NOT RECOMMENDED.

Historical Sensitivity - Hotel

Documented residential occupation on the project lots is confined to Lot 22, where a hotel was built in 1913. Privy and well shafts, which are often filled with contemporary refuse related to the dwellings and their occupants, can provide important stratified cultural deposits for the archaeologist and frequently provide the best remains recovered on sites.

However, as discussed above in the "Building History" section, an examination of building records and permits shows that the hotel was constructed with indoor running water and toilets, making the excavation of shaft features unnecessary. Given the presence of indoor plumbing on Lot 22 it is unlikely that privies, wells or cisterns would have been present.

Although the foundations or sections of the foundations of the hotel may still exist beneath the Stevens appliance store on Lot 22, because of the late period of occupation, post-1913, and the lack of related shaft features on the project site, their archaeological significance is highly questionable. Therefore, further archaeological study or testing is NOT RECOMMENDED.

Historical Sensitivity – Animal Park

As described in the Building History section, Lot 36 was part of the much larger Ruhe animal park property, where animals were raised commercially for zoos and circuses, beginning between 1903 and

1905. According to maps and building records, the vast majority of the structures were in the southern portion of the property, outside the project site. Only four sheds can be assigned to present Lot 36

Expected remains from the project site would consist of non-diagnostic early-20th-century artifacts, as well as potential animal bone deposits. Nothing of significance would be learned from further archaeological study of Lot 36 which could not be determined through written records. Also, the potential remains on the project site represent only about one third of the property of the Ruhe establishment, and none of its major buildings. Even if the Ruhe remains were of archaeological significance, Lot 36 would be a poor source of data for studying the animal park, since it would be completely lacking in archaeological information concerning the rest of the complex.

Due to the late period of the occupation and the lack of archaeological significance of the Ruhe animal park remains which would be expected on Lot 36, further archaeological study or testing is NOT RECOMMENDED. However, it is recommended that as a function of a construction management policy, the building contractor/excavation crew be made aware of the potential presence of animal bone on the site, as well as its lack of archaeological significance.

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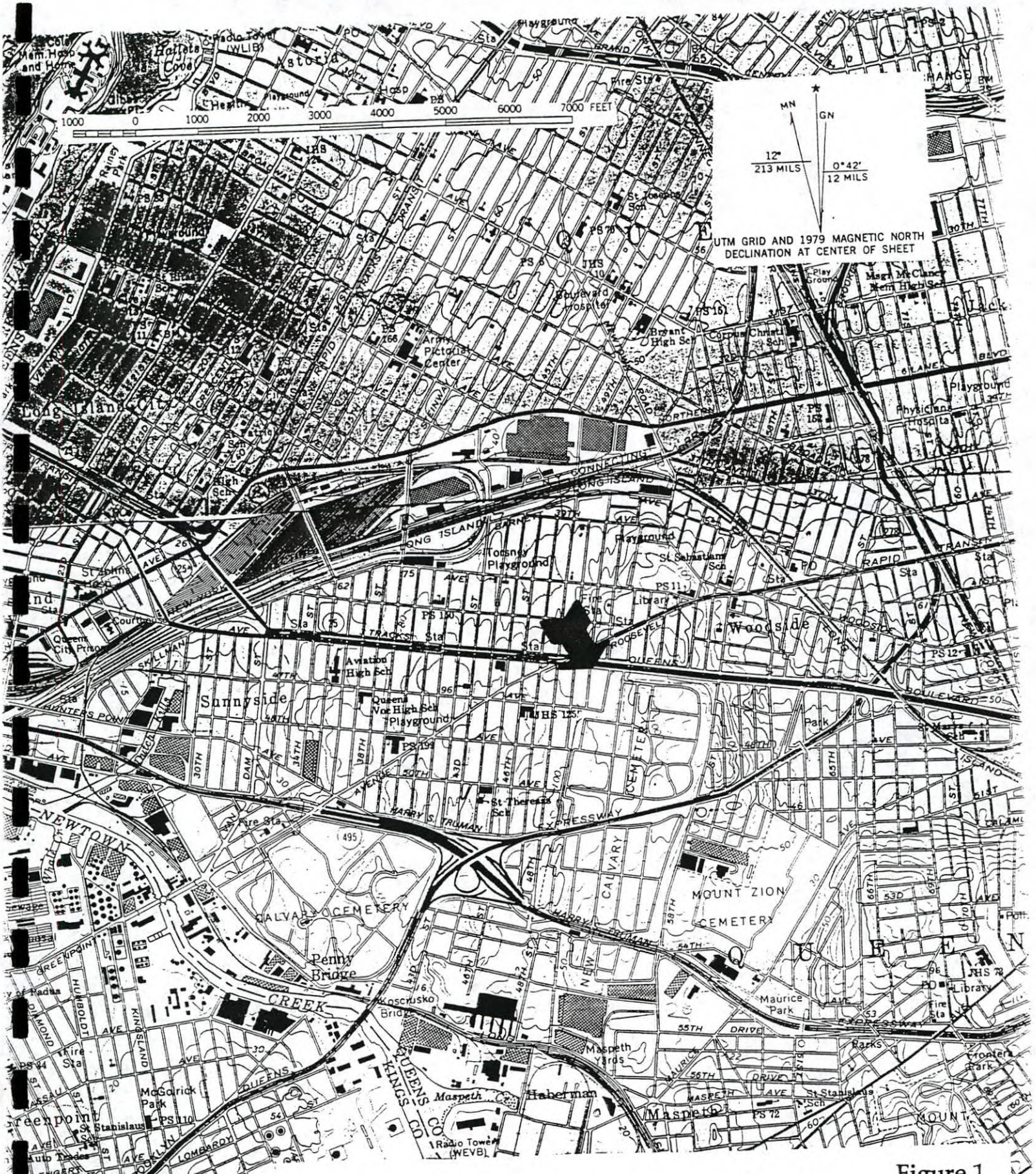


Figure 1

Project Site Location – Current U.S.G.S. Topographic Map

Central Park and Brooklyn Quads

Arrow indicates project site

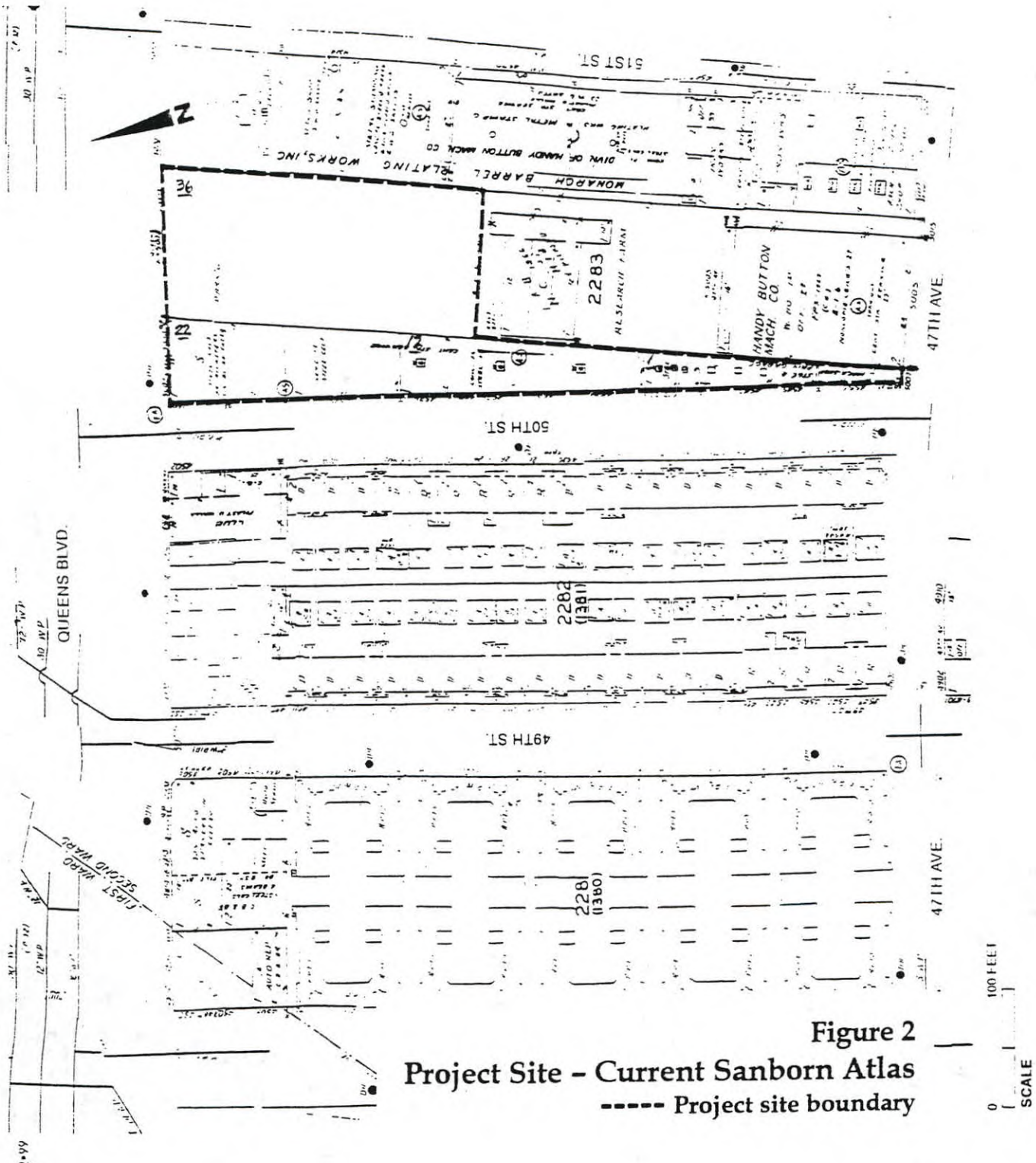


Figure 2

Project Site – Current Sanborn Atlas

----- Project site boundary

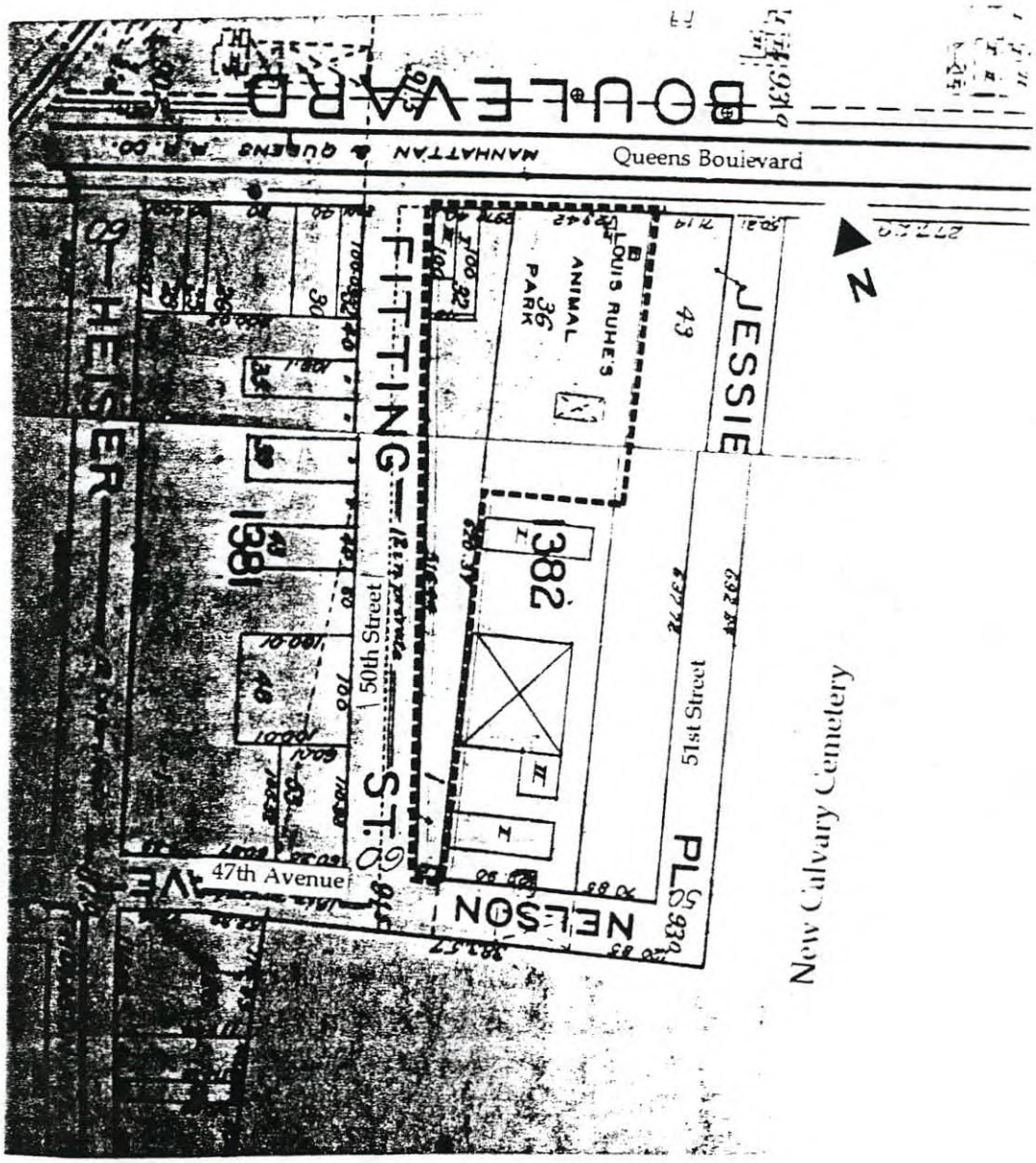


Figure 3
Hyde, *Atlas of the Borough of Queens*, 1915
---- Project site boundary



Photo 1: View north from the southern edge of the project site on Lot 36, looking toward Queens Boulevard. Lot 22 of the project site with the Stevens appliance store is at the left. The mound at the center foreground is snow.

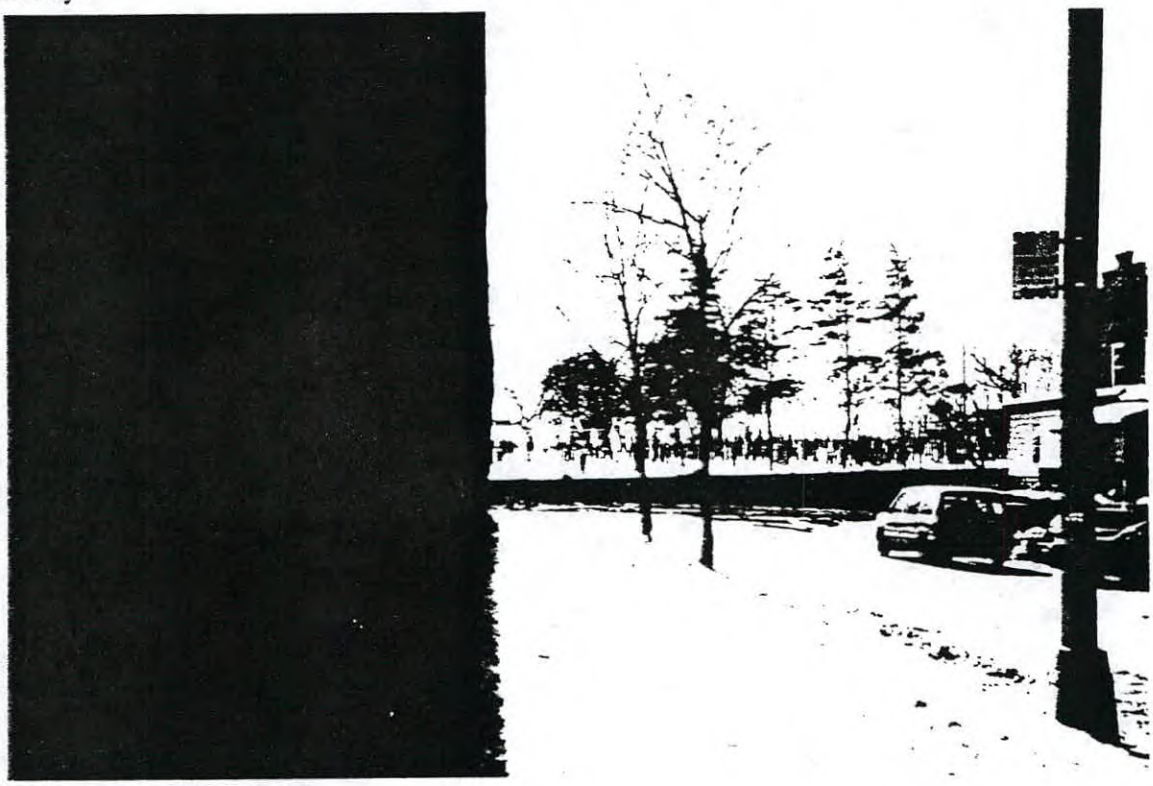
Photo 2: Looking toward the east from the center of the Queens Boulevard and 50th Street intersection. Queens Boulevard is at the left. Stevens appliance store on Lot 22, and the parking lot on Lot 36 are part of the project site. Shell gas station is outside project lots. New Calvary Cemetery is visible in the distance.





Photo 3: View to the southeast of the northwest corner of Queens Boulevard (left) and 50th Street (right). Stevens appliance store is on Lot 22.

Photo 4: Looking south along the east side of 50th Street, midway between Queens Boulevard and 47th Avenue. Project site Lot 12 is at left (east), and New Calvary Cemetery is in the distance, along the south side of 47th Avenue. Note the retaining wall along the cemetery/avenue boundary.



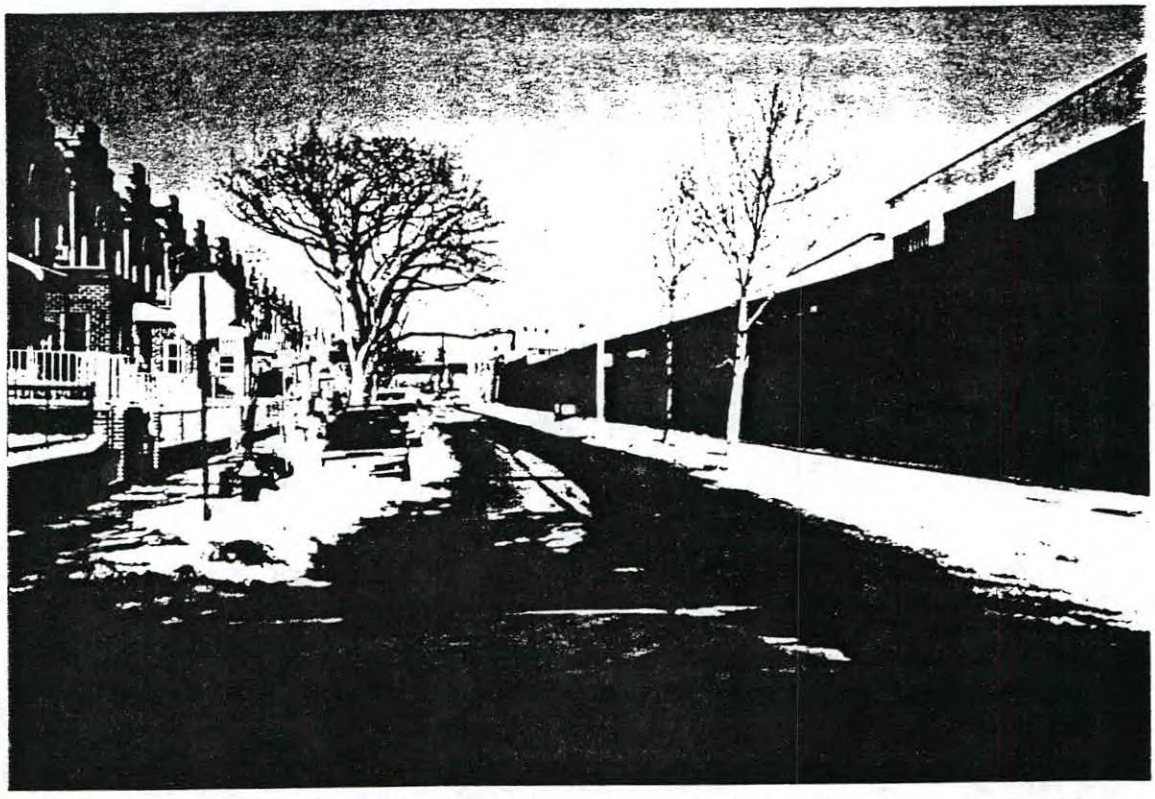
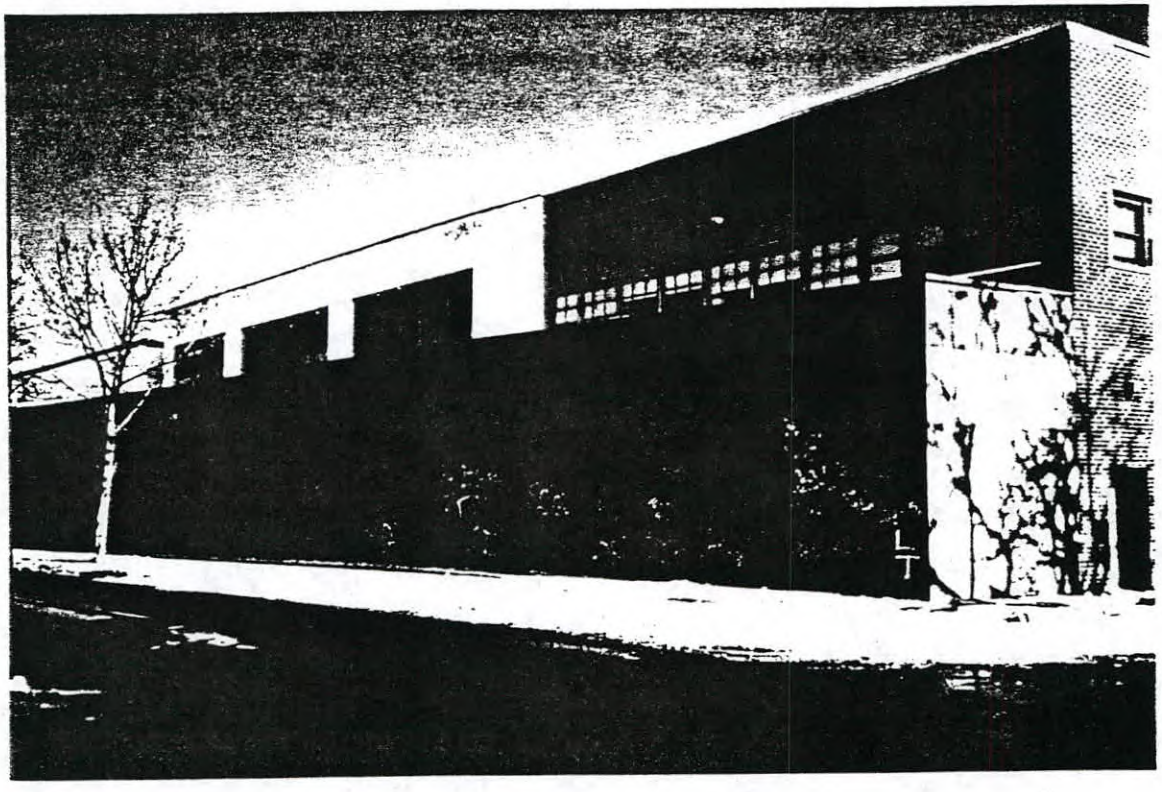


Photo 5: View northward along 50th Street, from the south side of 47th Avenue. Single-story, dark grey building with the red stripe at right (east) occupies project Lots 1, 12 and 22. Queens Boulevard is in the distance.

Photo 6: Looking northeast from the intersection of 47th Avenue (right) and 50th Street (left). Project Lot 1 is occupied by the windowless, single-story building. The two-story structures are outside project site.



A. INTRODUCTION

DRAFT

This chapter assesses the potential of the project to affect significant archaeological and historic resources on the project site and historic resources within the land use study area (the area bounded by Queens Boulevard to the north, New Calvary Cemetery to the east, 48th Avenue to the south, and 47th Street to the west). Within the study area, historic resources considered comprise officially recognized historic resources—properties listed on the State or National Registers of Historic Places (S/NR), or determined eligible for such listing; New York City Landmarks (NYCLs) and Historic Districts, and properties determined to be eligible for landmark status. A photographic inventory of the project site and its environs is included in Chapter 4, "Urban Design and Visual Resources."

B. BACKGROUND HISTORY

The neighborhood of Sunnyside, located just east of Long Island City in northwestern Queens, is named for a roadhouse built on Jackson Avenue for visitors to the Fashion Race Course in Corona during the 1850's and 1860's. The first recorded mention of "Sunnyside" is in reference to a station on the Long Island and Flushing Rail Road line in 1875. A small hamlet was built on several subdivided farms between Northern and Queens Boulevards in the 1880's and 1890's.

The original village was evicted for the construction of the Pennsylvania Railroad's (PRR) Sunnyside Yard from 1908 to 1910. Having recently bought the Long Island Rail Road, built Hudson River and East River tunnels, and electrified its trains, the PRR needed a service yard for its new Pennsylvania Station on Manhattan and its Long Island operations. Today's Sunnyside neighborhood lies entirely south of this expansive rail facility and is bounded to the east by Calvary Cemetery and 51st Street, to the south by the Long Island Expressway, and to the west by Van Dam Street.

The railroad's tunnels opened under the East River in 1910. This brought most of Queens within commuting distance of Manhattan. The opening of the Queensboro Bridge in 1909 also provided access to Queens by car and trolley. To accommodate the increasing traffic, a new road system was built, and Queens Boulevard was designed to be the main highway. In 1915 all street names in Queens were changed to a uniform numbering system.

Interborough Rapid Transit (IRT) extended elevated lines to Corona (now the No. 7 train) along Queens Boulevard in 1917, further stimulating development in Long Island City and along the Queens Boulevard corridor. Factories and warehouses gradually located in nearby Long Island City and in the area south of Sunnyside Yards, particularly during World War I and immediately afterward during the strong economy of the 1920's. The new plants attracted great numbers of workers into the area that previously had been nearly void of settlement.

Sunnyside is notable for its Sunnyside Gardens development, a 77-acre enclave that lies to the north of Queens Boulevard and is bounded by 39th Avenue to the north, 51st Street to the east,

and 43rd Street to the west. This development of 1,400 attached single and multi-family dwellings was the first planned "garden city" community in the United States and is still considered an outstanding example of urban planning.

Today, the nearby area remains concentrated with manufacturing and industrial uses, while Sunnyside itself boasts a large and stable residential building fabric anchored by the No. 7 train, which neatly bisects the area. Sunnyside's predominant character is defined by its brick apartment buildings built mainly from the 1920's through the 1940's.

C. EXISTING CONDITIONS

ARCHAEOLOGICAL RESOURCES

A preliminary assessment/disturbance record of the project site was conducted by Historical Perspectives in January 2000. The report documents the site's potential to yield significant archaeological resources. The conclusions of the report are summarized below.

Prehistoric Potential and Sensitivity

Settlement pattern data of the prehistoric culture periods show a strong correlation between habitation/processing sites and a freshwater source, the confluence of two water courses, proximity to a major waterway, a marsh resource, and/or well-drained elevated land. A review of documents and historic maps shows that potential prehistoric resources would have been destroyed or seriously affected by previous construction activity in two locations: the northwestern corner of Lot 22 (at the intersection of Queens Boulevard and 50th Street) and the southern part of Lot 1 (47th Avenue and 50th Street). The remainder of the site is believed to retain a layer of fill that was laid at the turn of the century, before any construction on the project site had commenced. While this layer of fill, ranging in thickness from zero to 10 feet, would have protected any on-site prehistoric resources, it is unlikely that the project site would have been a location exploited by prehistoric man for village or camp sites. The lack of nearby inventoried prehistoric archaeological sites, trails, or water sources suggests that the site was at best a place to pass through rather than a location for settlement or other types of occupation, and is thus considered to have a low prehistoric archaeological potential.

Historic Potential and Sensitivity

Dwellings, including associated outbuildings and yards, have the potential to contain resources that may furnish information about past ways of life, settlement patterns, socioeconomic status, ethnicity and consumer choice issues. The archaeological resources preserved in privies, cisterns or wells frequently provide the best domestic remains recovered on urban sites. Documented residential occupation on the project site is confined to a hotel built in 1913 on the northwest corner of Lot 22. An examination of building records and permits shows that the 3-story woodframe hotel was constructed with indoor running water and toilets, therefore making excavation of shaft features unnecessary. In 1914, a 1-story, L-shaped shed and garage were added to the east and south sides of the hotel; both would not have required the construction of household facilities. The existing 1-story structure was built on all of Lots 22, 12, and 1 by 1929.

Lot 36 was part of the much larger Louis Ruhe's Animal Park property, where animals were raised commercially for zoos and circuses beginning between 1903 and 1905. The vast majority of animal park structures were located in the southern portion of the block, outside of the project

site. Only four sheds were located on present Lot 36. Expected remains from the project site would consist of non-diagnostic early-20th-century artifacts and potential animal bone deposits. These artifacts would be a poor source of archaeological data for studying the Animal Park since it would be completely lacking in archaeological information concerning the larger part of the complex to the south.

Although the foundations or sections of the foundations of the hotel may still exist beneath the present 1-story commercial building on Lot 22, because of the late period of occupation and the lack of related shaft features on the project site, their archaeological significance is low. Likewise, the late period of occupation of Ruhe's Animal Park on Lot 36 and the limited remains likely to be found also makes their archaeological significance low. The project site as a whole is thus considered to have a low historic archaeological potential.

Disturbance

Subsurface disturbance from historical period construction, as noted above, is recorded on all the project lots. Lots 1, 12, and 22 have been disturbed at least 4 feet below the present ground surface. Lot 36 (now the parking lot) has experienced scattered disturbance that in no case is likely to have penetrated more than 4 feet below the present ground surface. Deeper disturbance is recorded in the northwestern part of Lot 22 as the former hotel had foundations 8 feet deep, and its surrounding garage and shed had 6-foot foundations. The predevelopment ground surface was augmented in the first decade of the 20th century by a layer of fill ranging in thickness from zero to 10 feet, with the thickest layer of overmantle closest to Queens Boulevard. This fill could have protected shallowly buried potential archaeological resources from construction disturbance, particularly on Lots 12 and 36, northern Lot 1, and the shallowly disturbed areas of Lot 22.

HISTORIC RESOURCES

PROJECT SITE

The project site contains no historic resources. The site is occupied by a vacant, single-story appliance store and a parking lot. The existing structure is a 1970's remodeling of a circa 1924 brick commercial structure and retains no exterior historical features. The existing building occupies the western wedge-shaped section of the project site, and the parking lot occupies the eastern section adjacent to Queens Boulevard.

STUDY AREA

There are no known NYCL's or S/NR listings in the study area. Directly to the west of the project site, across 50th Street, is a row of 2-story 1920's Dutch Revival rowhouses. Identical rowhouses are found on the east side of 49th Street to the east. The remainder of the study area south and west of the project site is marked by residential and commercial buildings constructed from the 1920's to the 1940's. None of these have been designated or found eligible as historic resources. To the east of the project site is New Calvary Cemetery, one of several large cemeteries in western Queens.

Immediately to the north of the project site, extending along Queens Boulevard to the east and Roosevelt Avenue to the northwest, runs the elevated No. 7 subway train. Built privately by IRT in 1917 and since 1953 incorporated into the New York State MTA, the line was designated as one of sixteen National Millennium Trails in June 1999 because of its central role in the growth

and connection of immigrant neighborhoods in Queens. The Millennium Trails initiative is part of the White House Millennium Council's efforts to stimulate national and local activities that honor the past. Designation as a National Millennium Trail is an exclusively honorary action and has no implications for federal, state, municipal, or private actions involving the subway line or any nearby property. Neither the No. 7 subway train nor its nearby 46th Street (Bliss Street) station are New York City Landmarks, and neither have been found eligible for S/NR listing.

The nearest historic resource to the site is the Sunnyside Gardens housing development, a suburban garden city enclave completed in 1928 by Clarence Stein and Henry Wright of the City Housing Corporation, a private suburban housing developer. The neighborhood is roughly bounded by Queens Boulevard, 43rd and 52nd Streets, and Barnett and Skillman Avenues. Generally considered the first deployment of the suburban "garden" apartment concept, Sunnyside Gardens was the prototype for similar developments in other sections of Queens and across the country. Sunnyside Gardens is on the State and National Registers of Historic Places but is not a NYCL.

Since all designated historic resources are outside of the historic resources study area, no further discussion of historic resources is warranted.

D. THE FUTURE WITHOUT THE PROPOSED PROJECT

ARCHAEOLOGICAL RESOURCES

In the future without the proposed project, there are no other projects planned that could be expected to disturb archaeological resources that may exist on the site. The existing building and parking lot would remain extant and any existing resources would remain undisturbed.

E. PROBABLE IMPACTS OF THE PROPOSED PROJECT

Because the project site has a low potential for yielding buried prehistoric or historic cultural materials, it is unlikely that potentially valuable archaeological resources could be disturbed or destroyed if the project were constructed. The above analysis of the site's potential to yield significant archaeological resources would be submitted to the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) for review by the State Historic Preservation Officer (SHPO) under the State Historic Preservation Act. Should they be required, measures to ensure that no significant archaeological resources are adversely affected by the proposed project would be established in coordination with SHPO. However, it is likely that SHPO would not require any further work regarding archaeological resources. ❖

DRAFT

A. INTRODUCTION

This chapter describes the existing urban design and visual characteristics of the study area, including building types, heights, and materials. It also assesses the visual compatibility of the proposed project within this context. Figure 4-1 contains a key to the locations of the photographs, and Figures 4-2 through 4-9 present views of the site and the study area.

B. EXISTING CONDITIONS

PROJECT SITE

The project site contains a vacant retail/appliance store building known as Stevens Audio Video Appliances and an asphalt paved parking lot with frontage on Queens Boulevard to the north and 50th Street to the west (see Figure 4-1). As shown in Figure 4-2, the 1-story steel and masonry building is a 1920's building of painted grey and red concrete. The Queens Boulevard facade retains some of the original aluminum trim (see Photograph 3 of Figure 4-3). A paved parking lot with access from Queens Boulevard is located on the east side of the building and is surrounded by a chain link fence (see Photograph 4 of Figure 4-3). Wide sidewalks in need of repair surround the building on its north and west sides. As illustrated in Figure 4-4, the building features a long, unbroken facade on the 50th Street side, and a very short facade on the south side facing 47th Avenue.

STUDY AREA

Immediately surrounding the project site, the area comprises a variety of uses, including industrial/auto-related, residential, open space, and commercial. Directly east and south of the project site on the same block are 1- to 2-story industrial buildings and warehouses with loading facilities facing 51st Street and 47th Avenue. The manufacturing and automotive businesses include the 2-story, concrete and glass Edmar Janitorial supplies, a 1-story brick building containing T & T Van Lines, and a 1-story Shell filling station facing Queens Boulevard. 51st Street serves as a parking and loading lane, and ends in a dead end at Queens Boulevard. The east side of 51st Street borders Calvary Cemetery, a large open space surrounded by chain-link and black rod-iron fencing (see Figure 4-5). On 47th Avenue across the street from the industrial buildings, the cemetery grounds rise steeply from east to west. A stone wall runs along this avenue from 50th Street until the ground meets the roof line of the commercial and industrial buildings facing 49th Street.

Figure 4-6, Photograph 9 shows the 2-story brick rowhouses on the west side of 50th Street, facing the project site. An alley separates them from a set of identical rowhouses on the east side of 49th Street. The pre-war residences have small front lawns surrounded by chain-link fencing. Other features of the houses and the block include parapated gable roof lines, wide sidewalks, and street trees. To the west of these rowhouses and between 48th and 49th Streets, are the study

area's bulkiest buildings—5-story pre-war brick buildings featuring streetwalls and low archways that lead to courtyards that connect the buildings (see Photograph 10 of Figure 4-6). These quiet inner courtyard spaces contain trees, grassy areas, and statuary. The block north of 47th Avenue features five of these buildings, and the block south of 47th Avenue contains three of the same buildings.

South of the project site, the study area contains primarily low-rise, light industrial uses, most of which are concentrated along the borders of New Calvary Cemetery. The industrial buildings, found south of 47th Avenue on 49th Street and along 48th Avenue, are 1- to 2-story structures made of brick or concrete (see Photograph 11 of Figure 4-7). Interspersed with the industrial uses on the east side of 49th Street are a set of 3-story brick row houses of more recent construction than those across from the project site (see Photograph 12 of Figure 4-7). These residences have single-car garages on the ground floor, driveways, and chain link fences in front. A similar set of row houses is found on the west side of 49th Street closer to 48th Avenue, and another around the corner, on 48th Street just north of 48th Avenue.

West of the industrial uses and row houses that border New Calvary Cemetery is dominated by low- to medium-rise residential and commercial uses (see Figure 4-8). North of 48th Avenue on 48th Street, the block is lined with brick row houses and 3- to 5-story apartment buildings, sidewalks, and street trees. Most of these buildings have no setbacks, and instead have small side yards enclosed with rod-iron or chain-link fencing. The blocks between 47th and 49th Streets and north of 47th Avenue toward Queens Boulevard are lined with brick apartment buildings and low-rise brick commercial buildings. The residential buildings are simple and similar in design and vary in height from 2 to 5 stories.

Low-rise commercial areas are concentrated along 47th Avenue in the center of the study area and along Greenpoint Avenue and Queens Boulevard in the northern part of the study area (see Photograph 15 on Figure 4-9). Several low-scale auto-related businesses exist in the study area and are concentrated primarily along Queens Boulevard (see Photograph 16, Figure 4-9). With the exception of businesses on Queens Boulevard, the retail stores cater to neighborhood needs in size and scale, and are primarily located on the ground floors of 2- to 5-story apartment buildings. The diagonally-running Greenpoint Avenue interrupts the street grid in the northwest section of the study area. A busy pedestrian, traffic, and retail center exists where Greenpoint Avenue, Queens Boulevard, and 47th Street intersect.

Throughout the study area, most of the streets allow on-street parking on one or both sides. These on-street parking spaces in the area are heavily used as there is relatively little off-street parking for the heavily residential neighborhood.

C. THE FUTURE WITHOUT THE PROJECT

In the future without the project, it is assumed that the buildings on the project site would remain in their current condition and no additions or new structures would be built. No changes in the immediately surrounding area or the study area are expected that would affect the urban design character of the community.

D. PROBABLE IMPACTS OF THE PROPOSED PROJECT

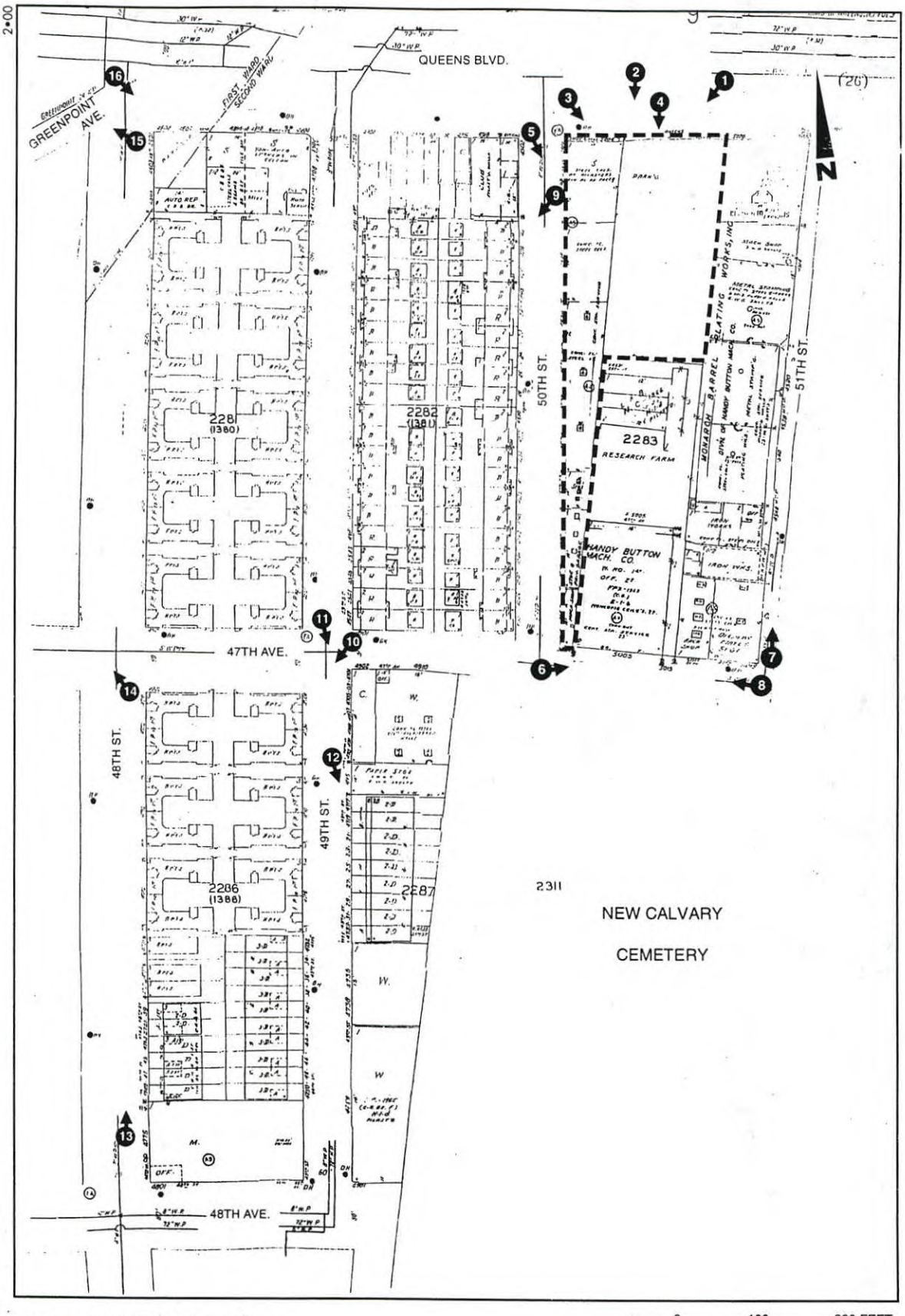
PROJECT SITE

In the future with the project, it is expected that the existing Stevens retail building on the site would be demolished and replaced with a new school building. Although design plans have not been finalized, it is assumed that the school would consist of a C-shaped building that would contain a playground area in a courtyard facing 50th Street. It is assumed that a pick-up and drop-off point would also be located on Queens Boulevard. The project would visually modify the project site by constructing a new school building, increasing activity, and eliminating some existing underutilized land. Landscaping would be planted around the entrances to the school.

The new building would have approximately 250 feet of frontage along 50th Street and approximately 140 feet along Queens Boulevard. The building would contain approximately 138,700 gross square feet (gsf) of area and would be 4 stories tall. The building entrance would be on Queens Boulevard. The entire site would be secured with fencing.

STUDY AREA

The new school building would be a different yet compatible use with the surrounding residential and industrial neighborhood. The building would be visible from surrounding local streets. However, it is expected to visually improve the visual character of the site by replacing a vacant building and surface parking lot with the construction of a new intermediate school. The creation of a new school on the site would not dominate the urban design character of the neighborhood because of the existing larger commercial and light manufacturing buildings along Queens Boulevard. In addition, the activity of the school and the change from strictly private uses of the site to one that serves the surrounding neighborhood would have a positive effect through the creation of an attractive and functional community facility. Therefore, no significant impacts to urban design and visual resources in the area are anticipated as a result of the proposed project. ❖



Project Site Boundary

Photograph Reference Number and View Direction

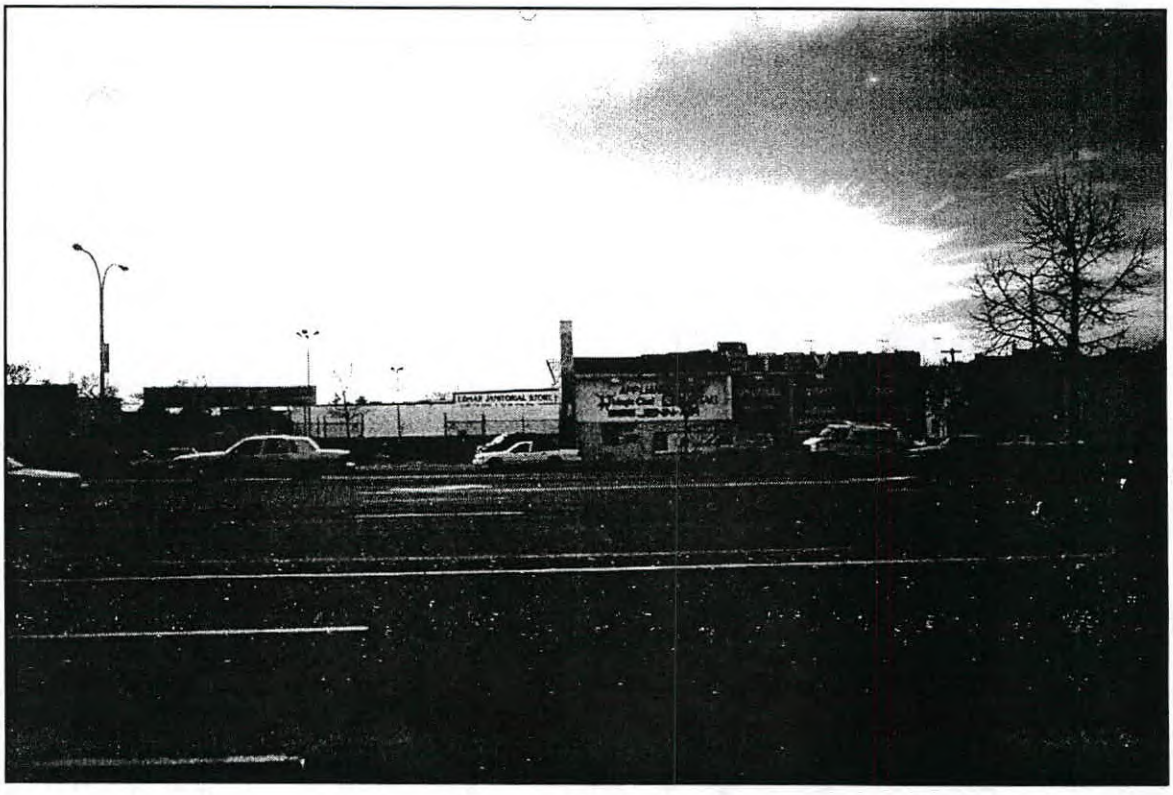
0 100 200 FEET

SCALE

Figure 4-1
Key to Photographs
I.S. 1000 • Sunnyside, Queens

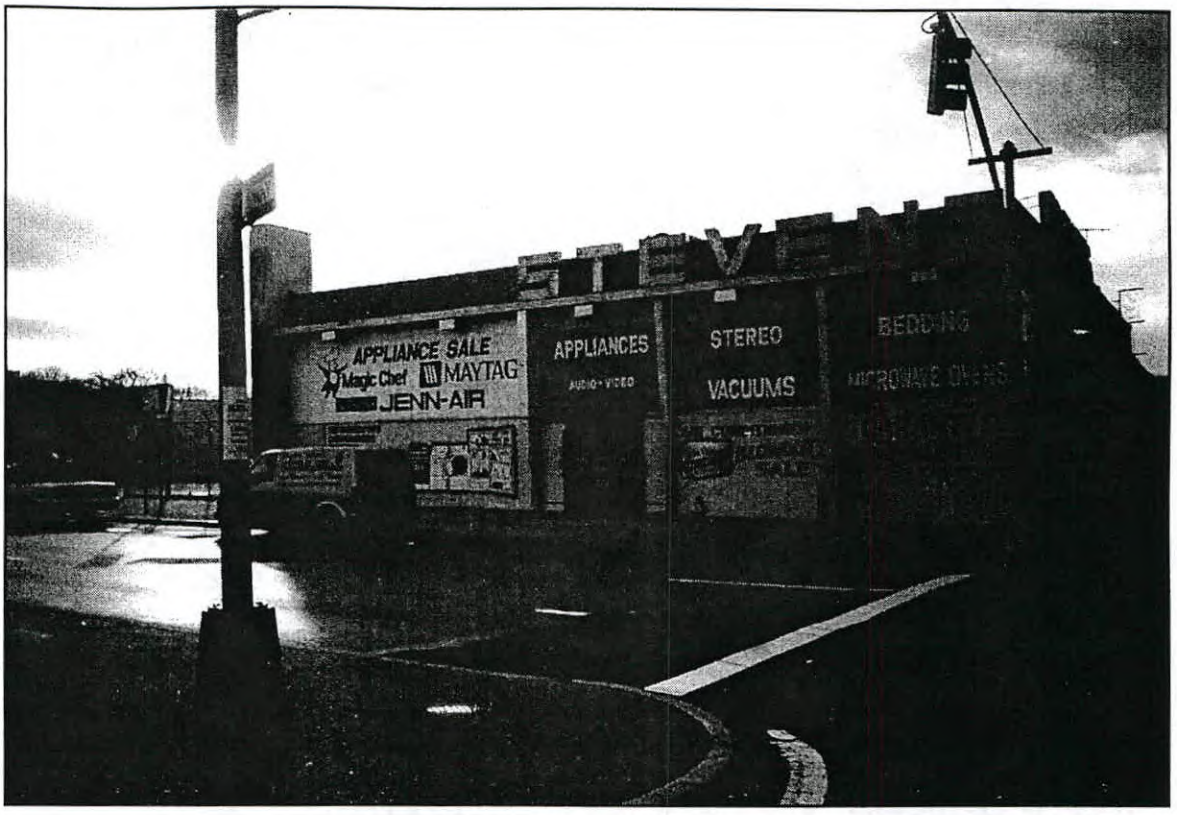


View of site from across Queens Boulevard **1**



North side of site from across Queens Boulevard **2**

Figure 4-2
Views of Project Site
I.S. 1000 • Sunnyside, Queens

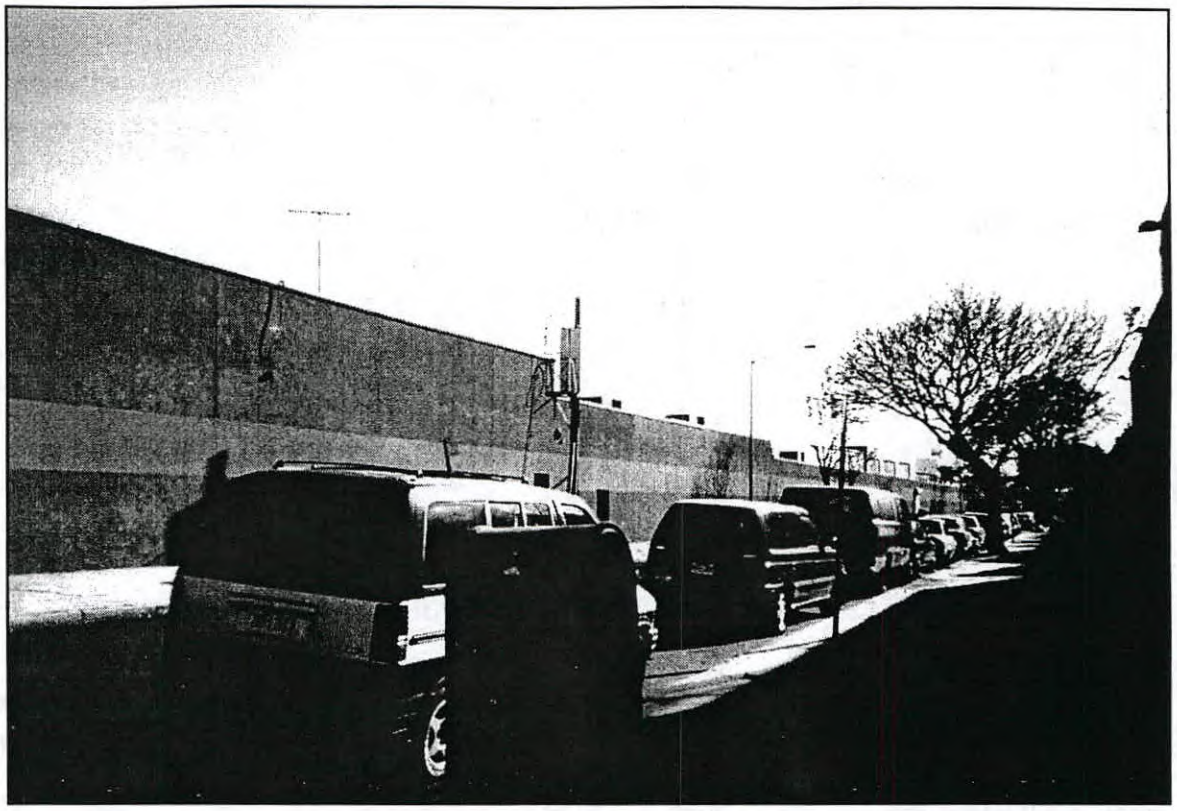


North side of commercial building; parking lot is located to the left **3**

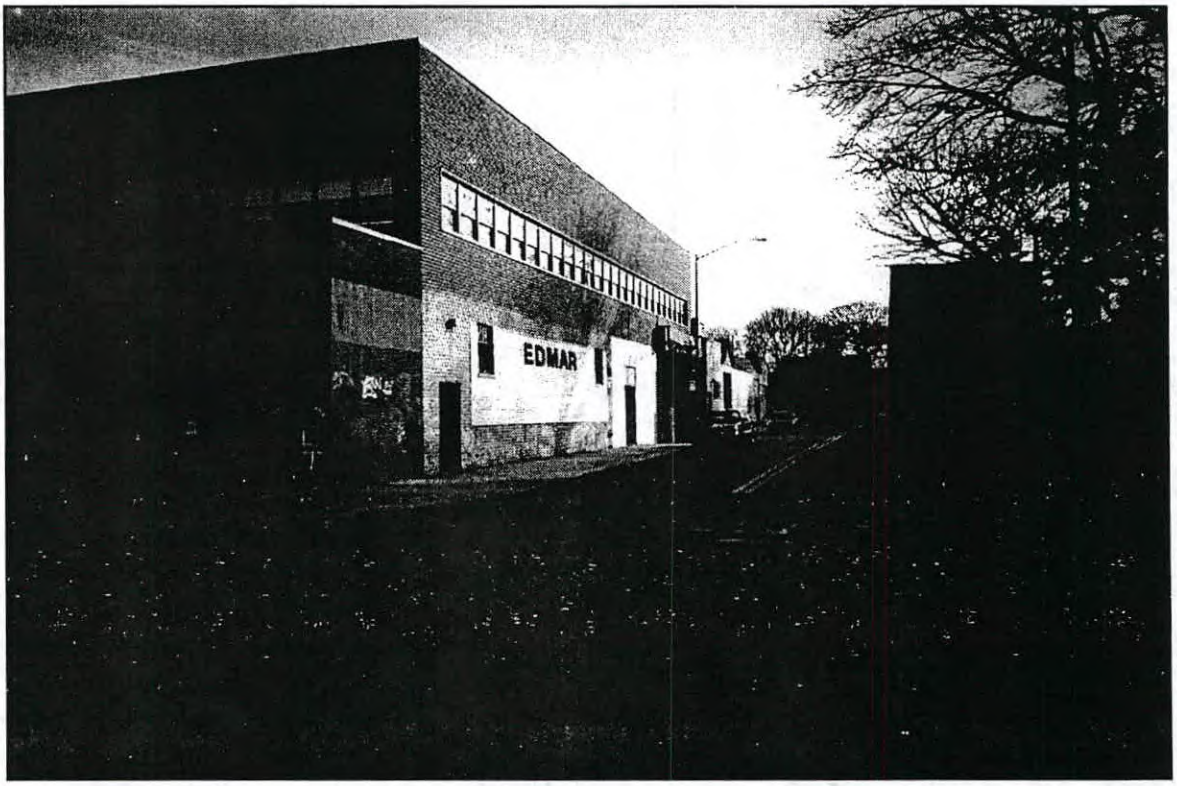


Existing surface parking lot with entrance onto Queens Boulevard **4**

Figure 4-3
Views of Project Site
I.S. 1000 • Sunnyside, Queens

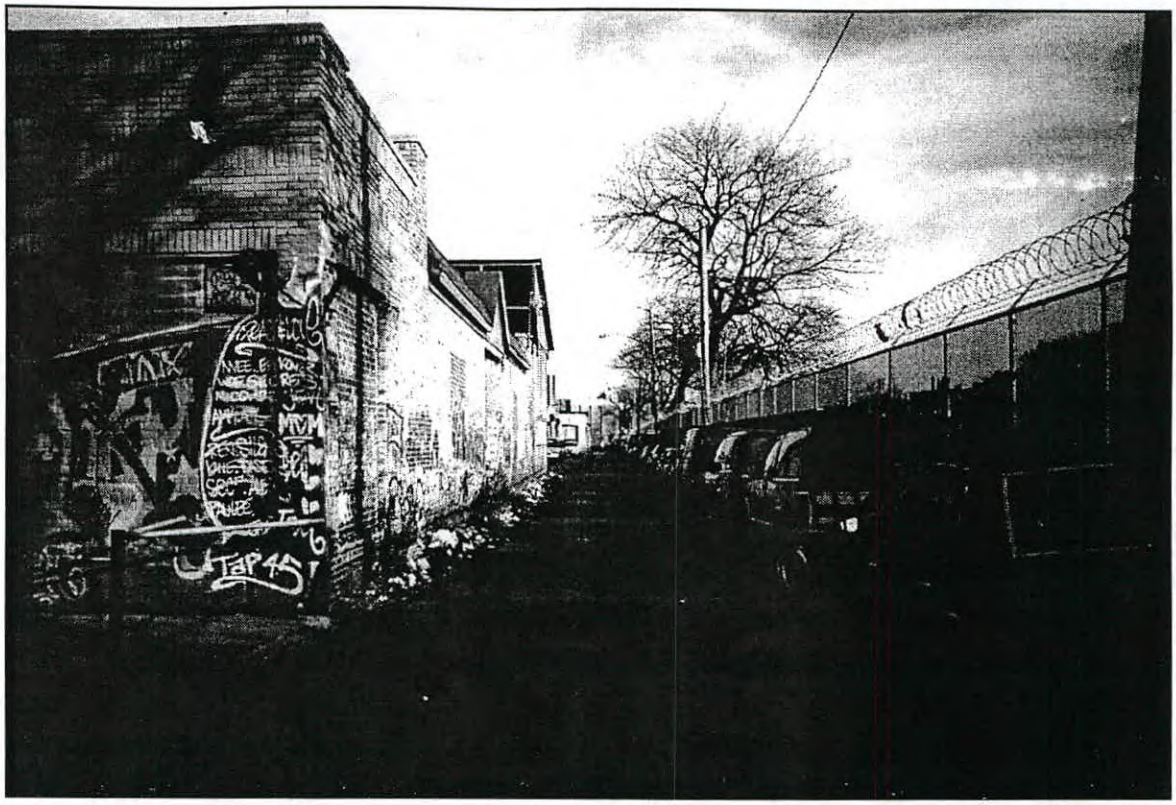


Western side of Stevens building facing 50th Street **5**



Southern side of existing building abutting Edmar building to the east **6**

Figure 4-4
Views of Project Site
I.S. 1000 • Sunnyside, Queens



View north on 51st Street toward Queens Boulevard **7**

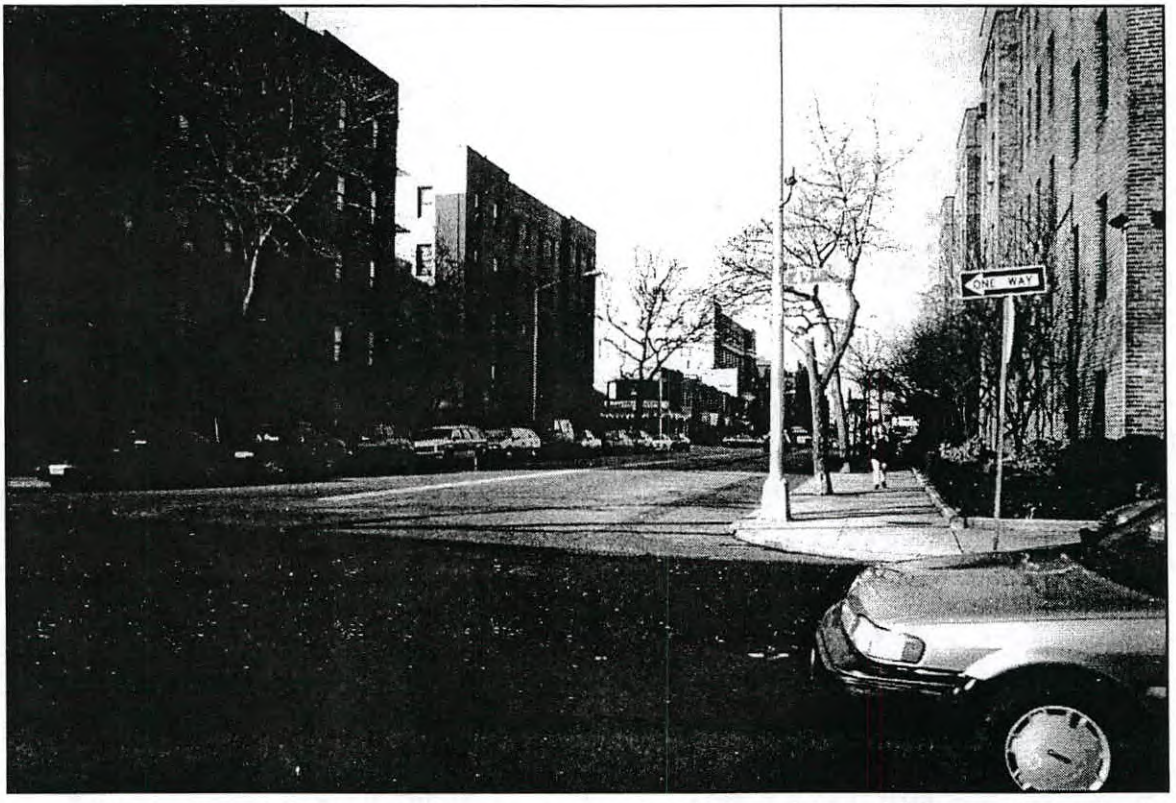


View looking west on 47th Avenue. New Calvary Cemetery is on the left, project site is to the right **8**

Figure 4-5
Views of the Study Area
I.S. 1000 • Sunnyside, Queens

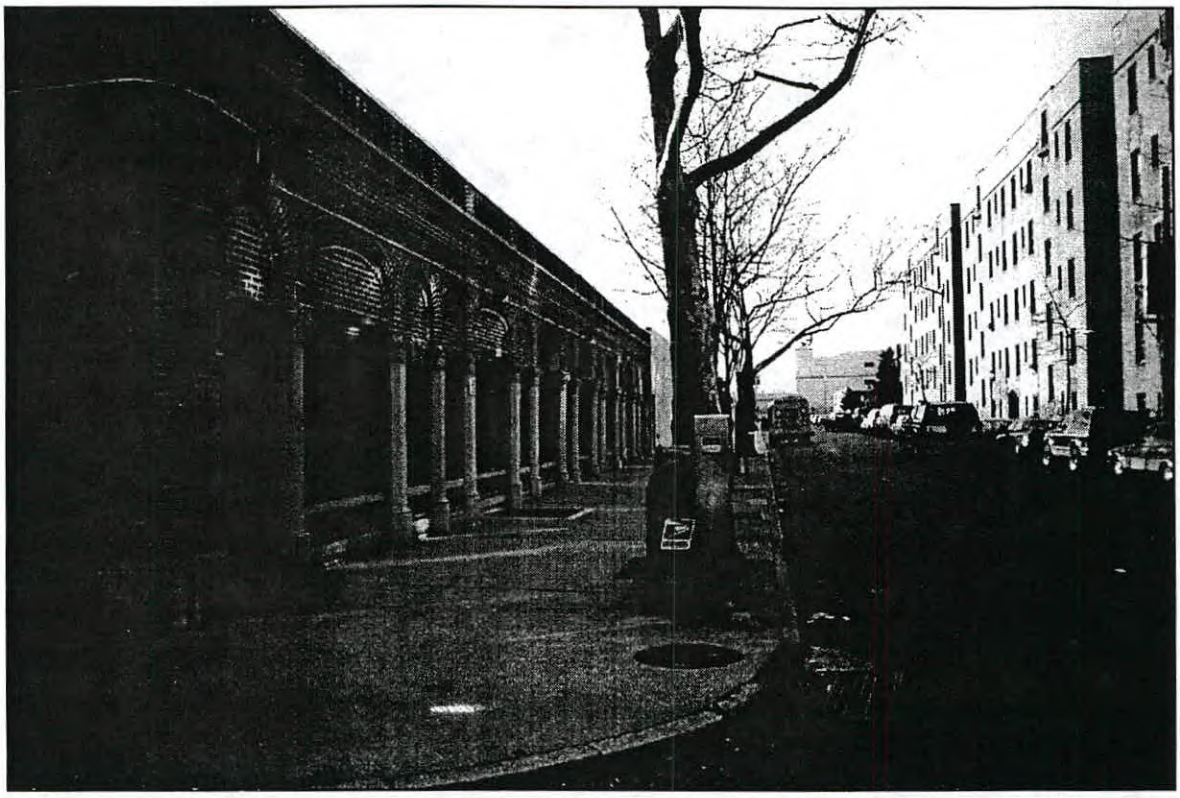


Rowhouses on 50th Avenue facing the western project site boundary **9**



View west on 47th Avenue of 5-story apartment buildings and ground-floor retail beyond **10**

Figure 4-6
Views of the Study Area
I.S. 1000 • Sunnyside, Queens

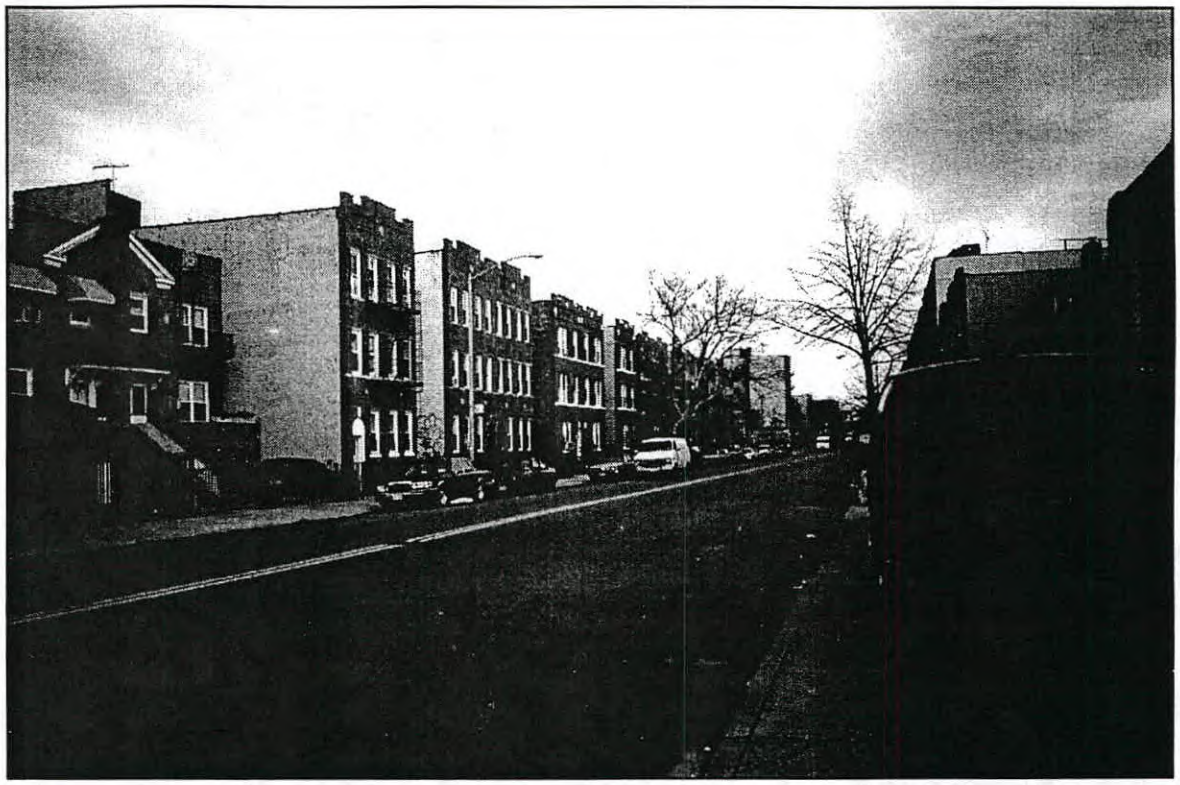


View south on 49th Street from 47th Avenue, showing commerical and industrial buildings on the left **11**



Three-story rowhouses on 49th Street, south of the project site **12**

Figure 4-7
Views of the Study Area
I.S. 1000 • Sunnyside, Queens



Typical apartment buildings in the study area shown looking north on 48th Street **13**

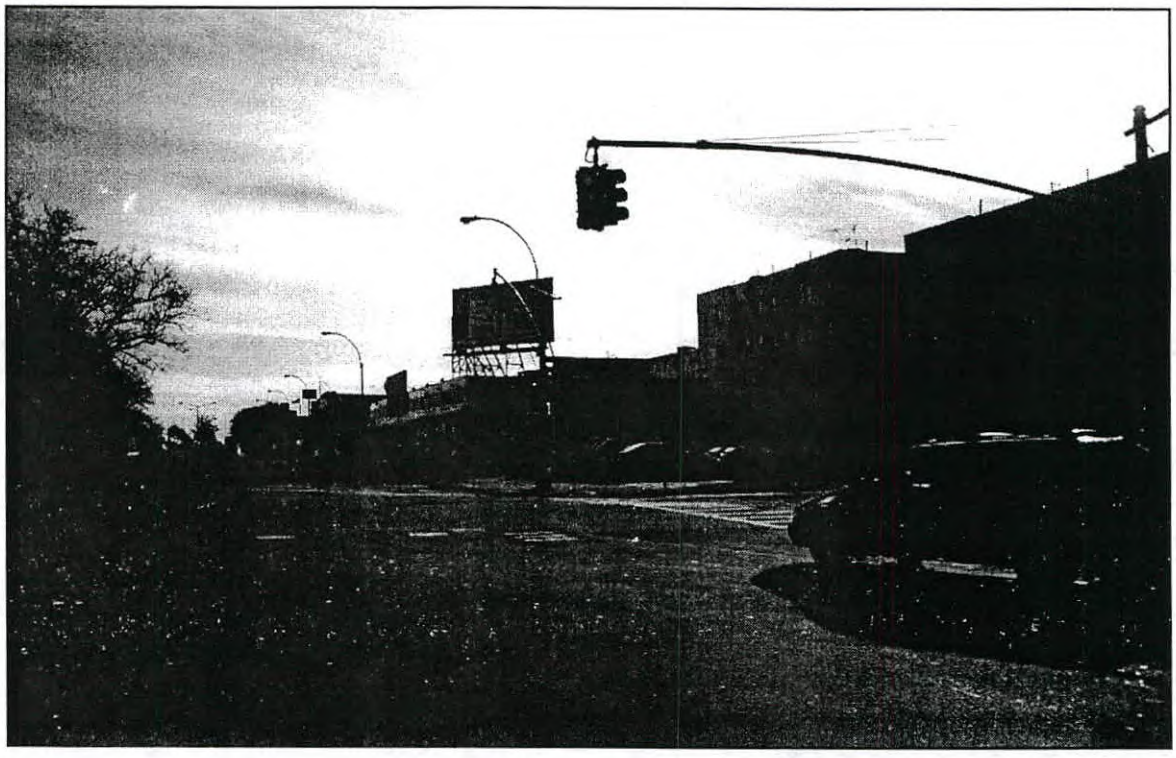


View looking northwest at corner of 48th Street and 47th Avenue showing residential and commercial buildings **14**

Figure 4-8
Views of the Study Area
I.S. 1000 • Sunnyside, Queens



Greenpoint Avenue at 48th Street, a busy neighborhood retail area **15**



Automotive uses are common on Queens Boulevard, such as this one between 48th and 49th Streets **16**

Figure 4-9
Views of the Study Area
I.S. 1000 • Sunnyside, Queens