Reform Temple of Forest Hills Rezoning

Environmental Assessment Statement

CEQR No.: 22DCP188Q

Prepared for:
Werber Management, Inc.

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

August 2, 2022

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ENVIRONMENTAL ASSESSMENT STATEMENT (EAS) SHORT FORM

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

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

Part I: GENERAL INFORMATION

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

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

2. *Project Name* Reform Temple of Forest Hills Rezoning

3. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
22DCP188Q	
ULURP REFERENCE NUMBER (if applicable)	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)
220274 ZMQ, N 220275 ZRQ	

4a. *Lead Agency Information*			**4b. *Applicant Information***		
NAME OF LEAD AGENCY			NAME OF APPLICANT		
New York City Department of City Planning			Werber Management		
NAME OF LEAD AGENCY CONTACT PERSON			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON		
Stephanie Shellooe, AICP, Director, Environmental Assessment and Review Division			Vivien Krieger, Esq., Cozen O'Connor		
ADDRESS 120 Broadway, 31st Floor			ADDRESS 277 Park Avenue		
CITY New York	STATE NY	ZIP 10271	CITY New York	STATE NY	ZIP 10172
TELEPHONE 212-720-3328	EMAIL sshellooe@planning.nyc.gov		TELEPHONE 212-883-2228	EMAIL vkreiger@cozen.com	

5. *Project Description*

The Applicant (Weber Management, Inc and the Reform Temple of Forest Hills ("RTFH")) is requesting a Zoning Map Amendment and Zoning Text Amendment (the "Proposed Actions") affecting the applicant-controlled property located at 71-11 112th Street (Block 2246, Lot 31) in the Forest Hills neighborhood of Queens Community District (CD) 6, as well as an approximately 12,500-sf portion of the adjacent property (Block 2246, Lot 41) which is not controlled by the Applicant. Collectively, the entirety of the Lot 31 and the portion of Lot 41 (Projected Development Sites 1 and 2, respectively) comprise the Project Area. The Project Area is bounded by 112th Street to the west, 71st Road to the south, and 71st Avenue to the north and extends to a depth of approximately 175 feet east of 112th Street.

This proposal seeks (i) a zoning map amendment to rezone the Project Area from the existing R1-2A district to an R7D zoning district, the boundary of which extends approximately 175 feet east from 112th Street; and (ii) a text amendment to Appendix F of the Zoning Resolution to add the Project Area as an MIH Area. The Proposed Actions would facilitate an approximately 162,535-gsf, ten-story, approximately 113-foot-tall (roof height) mixed-use development (the "Proposed Project") containing 153 dwelling units (DUs) – of which 115 to 107 DUs would be market rate and 38 to 46 DUs would be affordable rental units, pursuant to MIH Option 1 or 2 – as well as approximately 16,600 gsf of community facility uses and 66 accessory parking spaces (approximately 21,700 gsf) on the approximately 22,500-sf applicant-owned site. Lot 31 is the current site of the RTFH, a two-story, approximately 32-foot-tall (roof height), approximately 24,000-gsf community facility with a built FAR of 1.02. In the future with the Proposed Actions, the temple would reinhabit the proposed 16,600-gsf ground floor community facility space once construction is completed.

As noted above, the proposed rezoning area includes the approximately 12,500-sf northwest section of the adjacent Lot 41 which is owned by Touro College and is currently developed with an approximately 11,700-gsf portion of a larger, educational building and a 20-space parking lot. For CEQR analysis purposes, it is assumed that in the future with the Proposed Actions this existing building would remain in its existing condition while the parking lot could be redeveloped with a nine-story, approximately 115-foot-tall (roof height), approximately 23,800-gsf, mixed-use building containing approximately 20 DUs, of which approximately 5 to 6 would be affordable, as well as 1,800 sf of community facility use.

Project Location

BOROUGH Queens	COMMUNITY DISTRICT(S) 6	STREET ADDRESS 71-11 112th Street
TAX BLOCK(S) AND LOT(S) Block 2246, Lot 31 and p/o Lot 41		ZIP CODE 11375

DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS 112th Street to the west, 71st Avenue to the north, and 71st Road to the south

EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY R1-2A | ZONING SECTIONAL MAP NUMBER 14a

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 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.): 35,000 sf
Waterbody area (sq. ft) and type: n/a
Roads, buildings, and other paved surfaces (sq. ft.): 35,000 sf
Other, describe (sq. ft.): n/a

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): 164,635 gsf

NUMBER OF BUILDINGS: 2

GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): 162,535 gsf (Projected Development Site 1), 23,800 gsf (Projected Development Site 2)

HEIGHT OF EACH BUILDING (ft.): 113 ft (Projected Development Site 1), 115 ft (Projected Development Site 2)

NUMBER OF STORIES OF EACH BUILDING: 10 (Projected Development Site 1), 9 (Projected Development Site 2)

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: 22,500 sf (Projected Development Site 1)

The total square feet not owned or controlled by the applicant: 12,500 sf (Projected Development Site 2)

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: 35,00 sq. ft. (width x length) VOLUME OF DISTURBANCE: TBD cubic ft. (width x length x depth)

AREA OF PERMANENT DISTURBANCE: 35,000 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.)	146,235 gsf		30,100 gsf	
Type (*e.g.,* retail, office, school)	173 units		House of worship, classrooms	

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

If "yes," please specify: NUMBER OF ADDITIONAL RESIDENTS: 389 NUMBER OF ADDITIONAL WORKERS: 5

Provide a brief explanation of how these numbers were determined: Estimated residents assumes 100% occupancy of dwelling units and is based on the average household size of 2.25 persons per rental unit in Queens CD 6 (based on 2020 US Census data). RTFH currently employs roughly 25 workers, who will be retained. 3 employees/1,000 gsf was assumed for the additional Touro College community facility use.

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

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

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

9. *Analysis Year* CEQR Technical Manual Chapter 2

ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2025

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 22

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

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: **See "Attachment A, Project Description"**

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

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

Figure 1
Project Location

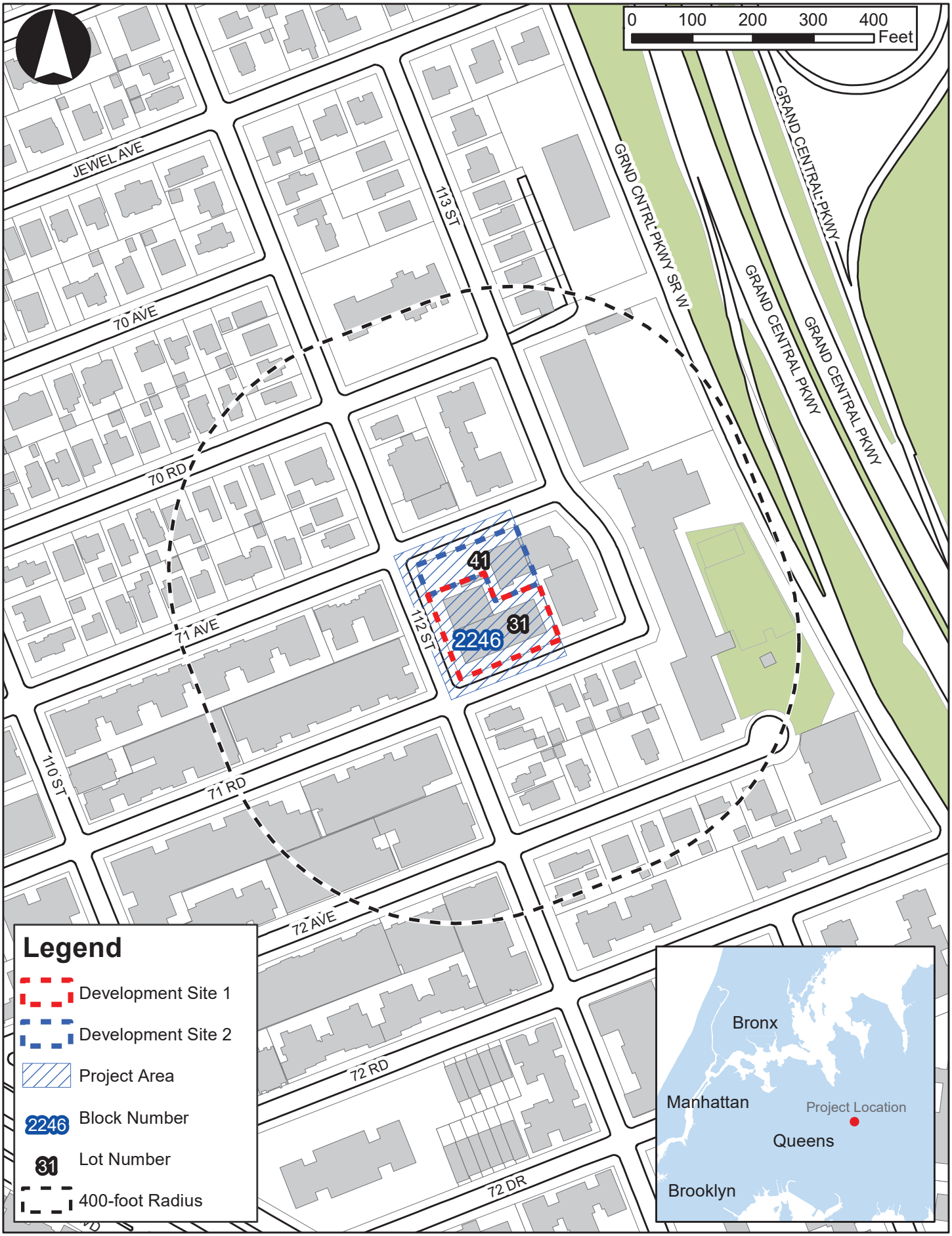
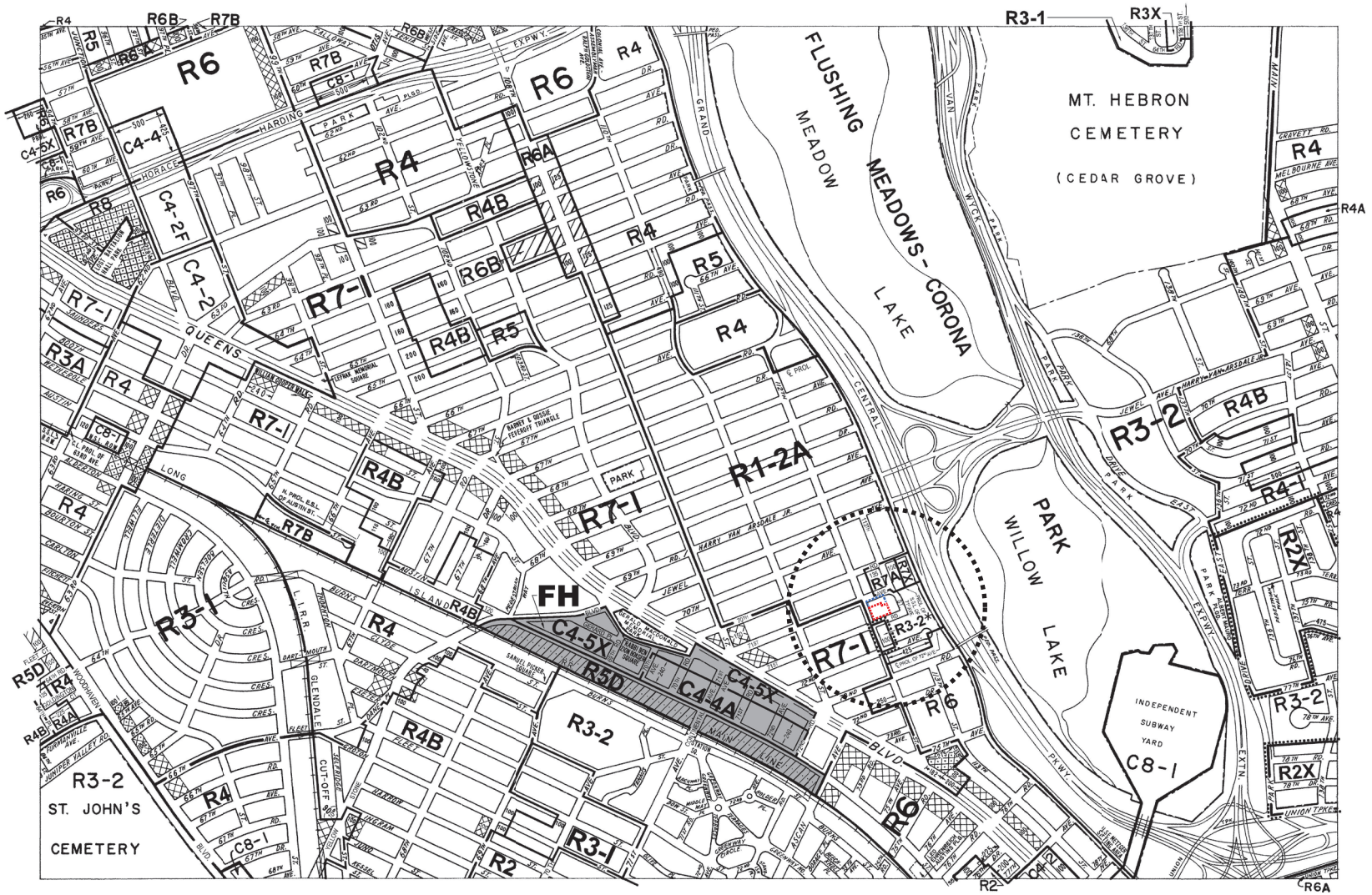


Figure 2
Zoning Map



ZONING MAP

THE NEW YORK CITY PLANNING COMMISSION

Major Zoning Classifications:

The number(s) and/or letter(s) that follows an **R**, **C** or **M** District designation indicates use, bulk and other controls as described in the text of the Zoning Resolution.

R – RESIDENTIAL DISTRICT

C – COMMERCIAL DISTRICT

M – MANUFACTURING DISTRICT

SPECIAL PURPOSE DISTRICT
The letter(s) within the shaded area designates the special purpose district as described in the text of the Zoning Resolution.

AREA(S) REZONED

Effective Date(s) of Rezoning:

*10-17-2019 C 190422 ZMQ
09-25-2019 C 190299 ZMQ

Special Requirements:

For a list of lots subject to CEQR environmental requirements, see APPENDIX C.

For a list of lots subject to "D" restrictive declarations, see APPENDIX D.

For Inclusionary Housing designated areas and Mandatory Inclusionary Housing areas on this map, see APPENDIX F.

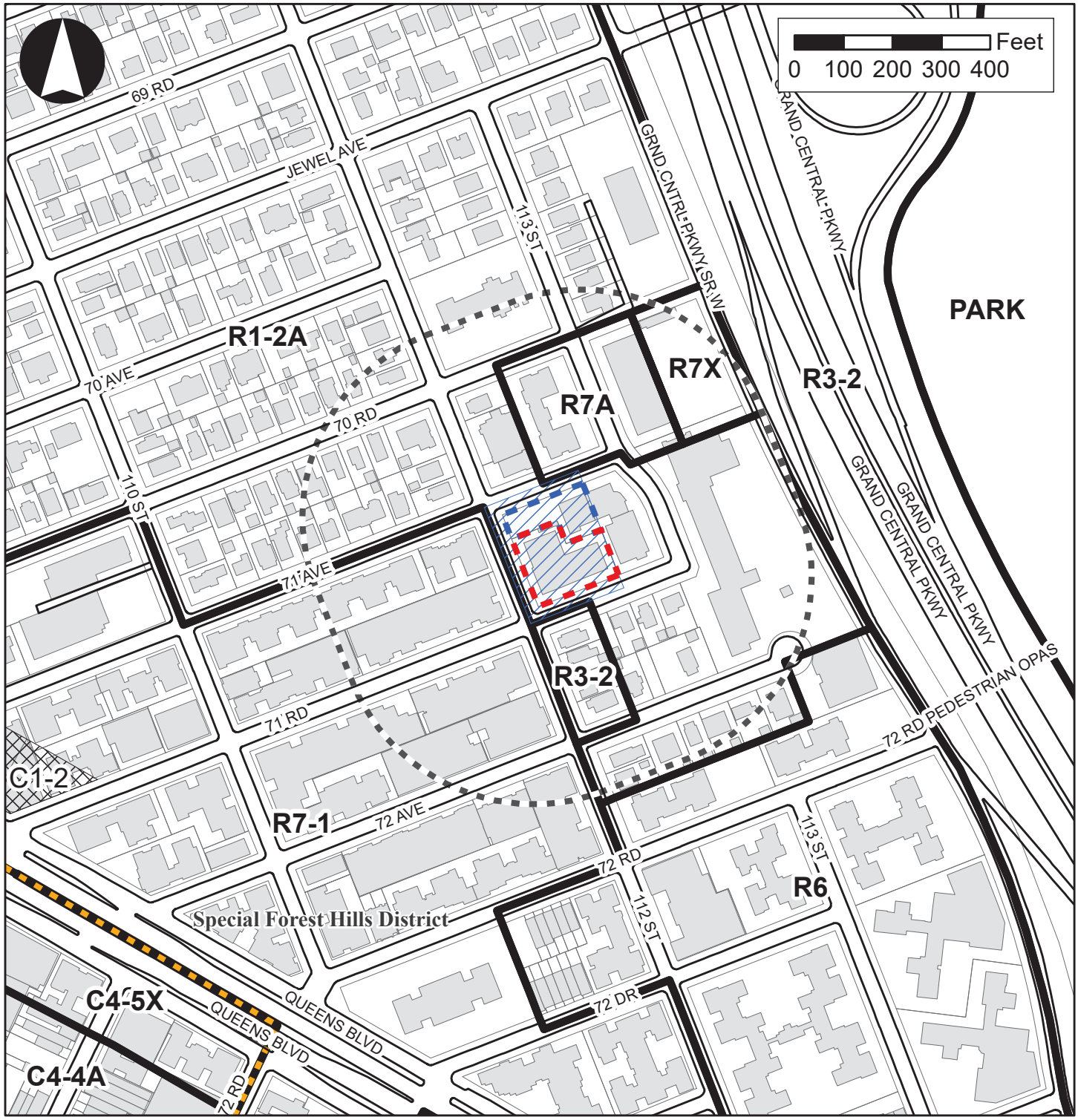
MAP KEY

9d	10b	10d
13c	**14a**	14c
13d	14b	14d

ZONING MAP **14a**

NOTE: Zoning information as shown on this map is subject to change. For the most up-to-date zoning information for this map, visit the Zoning section of the Department of City Planning website: **www.nyc.gov/planning** or contact the Zoning Information Desk at (212) 720-3291.

Figure 3
Existing Zoning



Legend

- Development Site 1
- Development Site 2
- Project Area
- 400-foot Radius
- Existing Building
- M1 Zoning Districts
- Special Districts
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5

Source: DOITT, DCP

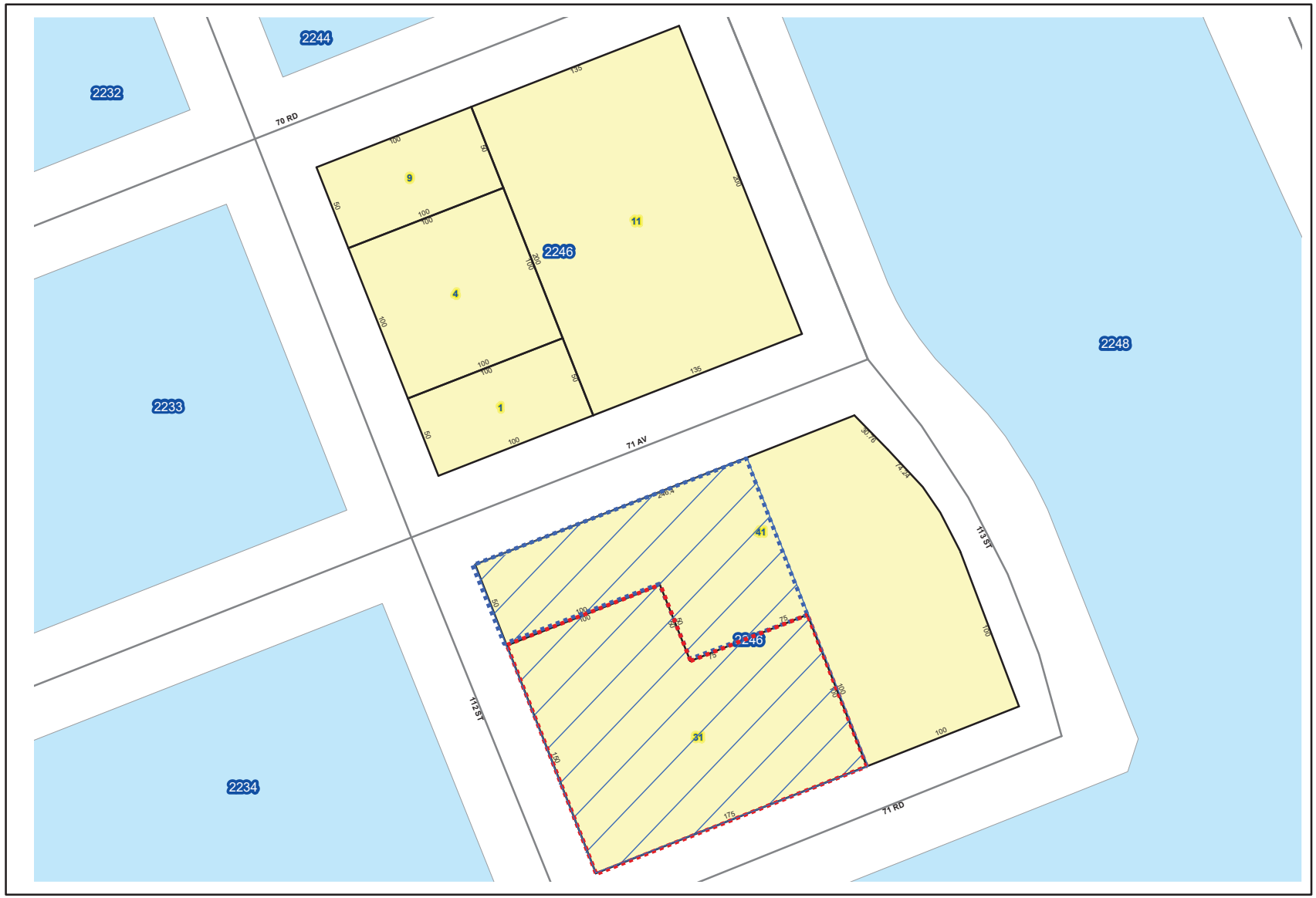
Figure 4
Tax Map

FINANCE NEW • YORK
MARTHA E. STARK
COMMISSIONER

NYC Digital Tax Map

Effective Date : 12-07-2008 23:15:37
End Date : Current

Queens Block: 2246



Legend

- Streets
- Miscellaneous Text
- Possession Hooks
- Boundary Lines
- Lot Face Possession Hooks
- Regular
- Underwater
- Tax Lot Polygon
- Condo Number
- Tax Block Polygon

Development Site 1
Development Site 2
Project Area

Feet
0 5 10 20 30 40

Figure 5
Existing Land Use

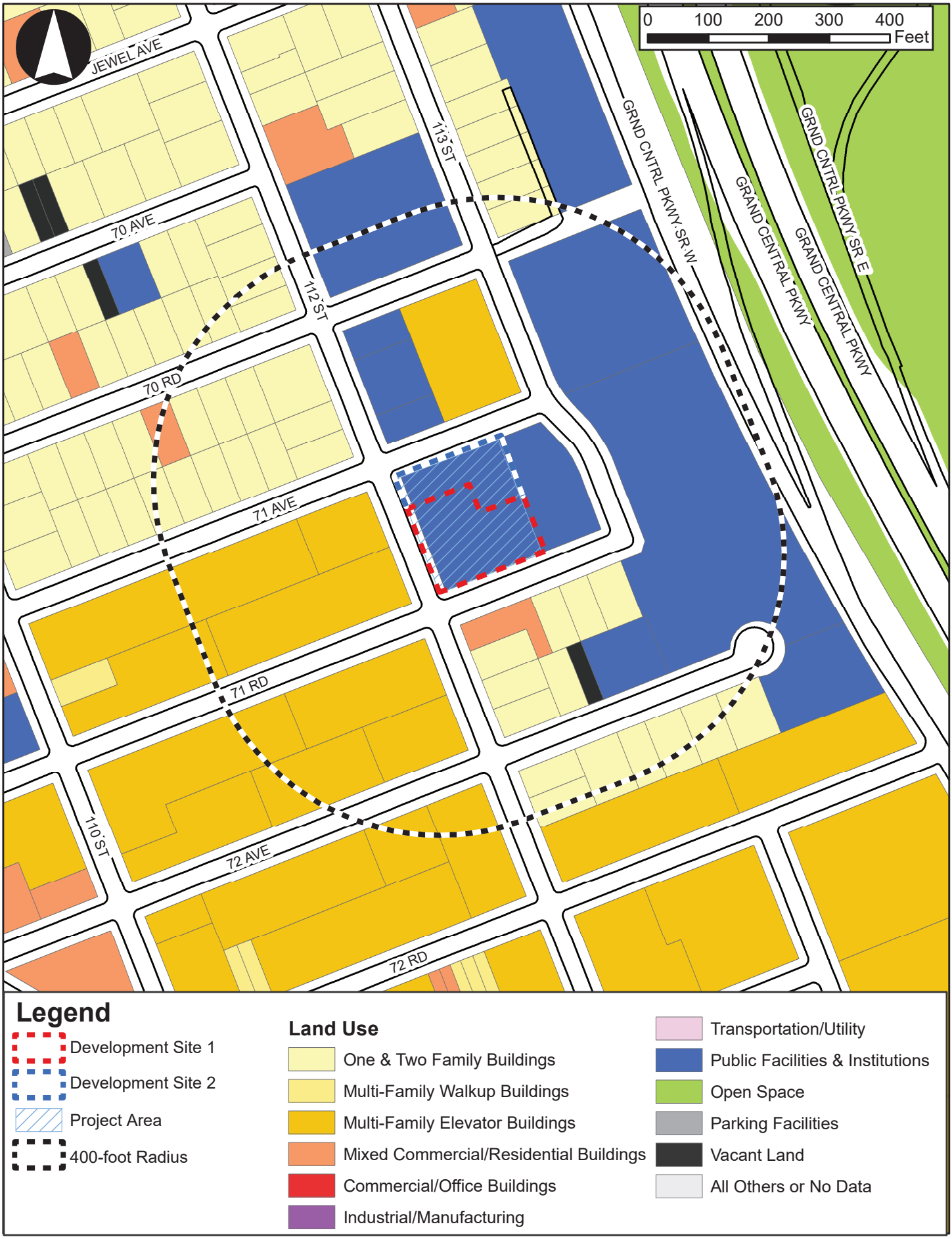
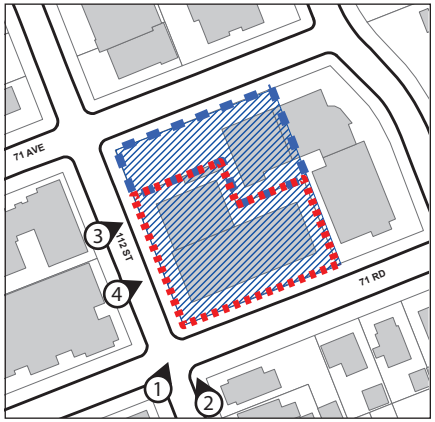


Figure 6a
Site Photos - Taken 09/23/2021

V1 - Looking northeast at the Project Area from 112th Street and 71st Road



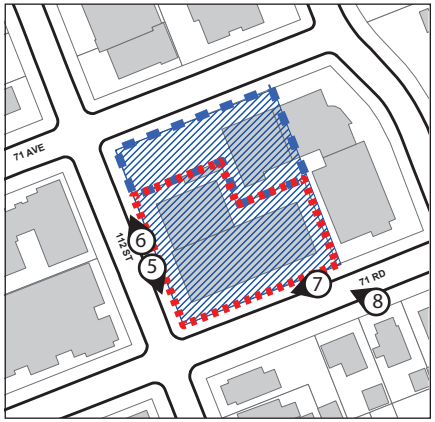
V2 - Looking northwest at the Project Area from 112th Street and 71st Road

V3 - Looking northeast at the Project Area from 112th Street

V4 - Looking northeast at the Project Area from 112th Street

Figure 6b
Site Photos - Taken 09/23/2021

V5 - Looking southeast from Lot 31 towards 112th Street and 71st Road



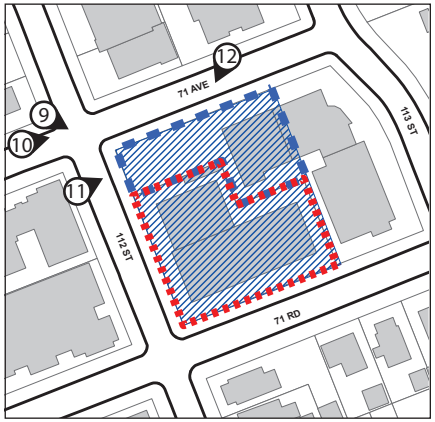
V6 - Looking northwest from Lot 31 towards 112th Street and 71st Avenue

V7 - Looking southwest at the Project Area along 71st Road

V8 - Looking northwest at the Project Area from 71st Road

Figure 6c
Site Photos - Taken 09/23/2021

V9 - Looking southeast at the Project Area from 112th Street and 71st Avenue



V10 - Looking northeast at the Project Area from 112th Street and 71st Avenue

V11 - Looking northeast at the Project Area from 112th Street

V12 - Looking southwest at the Project Area from 71st Avenue

Part II: TECHNICAL ANALYSIS

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

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

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

	YES	NO
(a) Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; that is listed or eligible for listing on the New York State or National Register of Historic Places; or that is within a designated or eligible New York City, New York State or National Register Historic District? (See the GIS System for Archaeology and National Register to confirm)	☐	☒
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	☒	☐
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting information on whether the proposed project would potentially affect any architectural or archeological resources. **See Attachment B, "Supplemental Screening"**		
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**: Site formerly contained a fuel storage tank, the status of which could not be confirmed. See Attachment K, "Hazardous Materials" for details.**	☒	☐
(j) Based on the Phase I Assessment, is a Phase II Investigation needed?	☒	☐
10. *WATER AND SEWER INFRASTRUCTURE*: CEQR Technical Manual Chapter 13		
(a) Would the project result in water demand of more than one million gallons per day?	☐	☒
(b) If the proposed project located in a combined sewer area, would it result in at least 1,000 residential units or 250,000 square feet or more of commercial space in Manhattan, or at least 400 residential units or 150,000 square feet or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens?	☐	☒
(c) If the proposed project located in a separately sewered area, would it result in the same or greater development than the amounts listed in Table 13-1 in Chapter 13?	☒	☐
(d) Would the proposed project involve development on a site that is 5 acres or larger where the amount of impervious surface would increase?	☐	☒
(e) If the project is located within the Jamaica Bay Watershed or in certain specific drainage areas, including Bronx River, Coney Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, or Westchester Creek, would it involve development on a site that is 1 acre or larger where the amount of impervious surface would increase?	☐	☒
(f) Would the proposed project be located in an area that is partially sewered or currently unsewered?	☐	☒

	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): 7,938		
○ 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): 23,565,385 BTUs		
(b) Would the proposed project affect the transmission or generation of energy?	☐	☒
13. *TRANSPORTATION*: CEQR Technical Manual Chapter 16		
(a) Would the proposed project exceed any threshold identified in Table 16-1 in Chapter 16?	☐	☒
(b) If "yes," conduct the screening analyses, attach appropriate back up data as needed for each stage and answer the following questions:		
○ Would the proposed project result in 50 or more Passenger Car Equivalents (PCEs) per project peak hour?	☐	☒
If "yes," would the proposed project result in 50 or more vehicle trips per project peak hour at any given intersection? ***It should be noted that the lead agency may require further analysis of intersections of concern even when a project generates fewer than 50 vehicles in the peak hour. See Subsection 313 of Chapter 16 for more information.*	☐	☒
○ Would the proposed project result in more than 200 subway/rail, bus trips, or 50 Citywide Ferry Service ferry trips per project peak hour?	☐	☒
If "yes," would the proposed project result, per project peak hour, in 50 or more bus trips on a single line (in one direction), 200 subway/rail trips per station or line, or 25 or more Citywide Ferry Service ferry trips on a single route (in one direction), or 50 or more passengers at a Citywide Ferry Service landing?	☐	☒
○ Would the proposed project result in more than 200 pedestrian trips per project peak hour?	☐	☒
If "yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, or bus stop, or Citywide Ferry Service landing?	☐	☒
14. *AIR QUALITY*: CEQR Technical Manual Chapter 17		
(a) *Mobile Sources*: Would the proposed project result in the conditions outlined in Section 210 in Chapter 17?	☐	☒
(b) *Stationary Sources*: Would the proposed project result in the conditions outlined in Section 220 in Chapter 17?	☒	☐
○ If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in Chapter 17? (Attach graph as needed) **See "Attachment H, Air Quality"**	☒	☐
(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		

	YES	NO
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality; Hazardous Materials; Noise?	☒	☐
(b) If "yes," explain why an assessment of public health is or is not warranted based on the guidance in Chapter 20, "Public Health." Attach a preliminary analysis, if necessary. **See "Attachment B: Supplemental Screening"**		
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. **See "Attachment B: Supplemental Screening"**		
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. **See "Attachment B: Supplemental Screening"**		

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
Philip Habib, P.E.	August 2, 2022

SIGNATURE

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

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

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

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

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

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

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

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

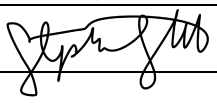
☐ **Positive Declaration**: If the lead agency has determined that the project may have a significant impact on the environment, and if a Conditional Negative Declaration is not appropriate, then the lead agency issues a *Positive Declaration* and prepares a draft Scope of Work for the Environmental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

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

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

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

TITLE	LEAD AGENCY
Director, Environmental Assessment and Review Division	City Planning Commission
NAME	DATE
Stephanie Shellooe, AICP	August 19, 2022

SIGNATURE 

NEGATIVE DECLARATION

Statement of No Significant Effect

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

Reasons Supporting this Determination

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

Land Use, Zoning, and Public Policy

A detailed analysis of land use, zoning, and public policy is included in the EAS. The Applicant, Weber Management, Inc and the Reform Temple of Forest Hills, is seeking a zoning map amendment to rezone Queens Block 2246, Lot 31 and p/o Lot 41 (the "affected area") from an R1-2A zoning district to an R7D zoning district, and a zoning text amendment to Zoning Resolution Appendix F: Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing (MIH) Areas, to establish an MIH area coterminous with the affected area (collectively, the "proposed actions") in the Forest Hills neighborhood of Queens Community District 6. The proposed actions would facilitate the development of a 10-story (and cellar), 113-foot-tall, 162,535-gross square foot (gsf) mixed-use development (the "proposed project") containing 153 dwelling units (DUs), of which 38 to 46 would be affordable pursuant to MIH, 16,600 gsf of community facility uses, and 66 accessory parking spaces on the Applicant-owned property located at 71-11 112th Street (Lot 31, "Projected Development Site 1"). The reasonable worst-case development scenario (RWCDS) assumes that the proposed actions also would facilitate the redevelopment of a portion of Lot 41 ("Projected Development Site 2") with a 9-story, 115-foot-tall (roof height), 23,800-gsf, mixed-use building containing approximately 20 DUs, of which 5 to 6 would be affordable pursuant to MIH, and 1,800 sf of community facility use. The proposed actions would create new housing development opportunities, including affordable housing, in an area where strong demand for housing exists on underutilized land formerly reserved exclusive for community facility use. The proposed actions would introduce new mixed residential and community facility development in an area with existing residential and community facility uses. Although the proposed actions would result in a change in land use at the projected development sites, this change would not be incompatible with existing local land use trends. The proposed R7D district and MIH designation would permit an increase in density within the affected area, which would be compatible with adjacent R7A, R7-1 and R7X zoning districts. The proposed actions would not conflict with relevant public policies and would support the goals of Housing New York through the provision of affordable housing, and through the MIH area designation. The analysis concludes that no significant adverse impacts related to land use, zoning and public policy are not expected to occur as a result of the proposed actions and no further analysis is required.

Open Space

A detailed analysis related to indirect residential effects on open space is included in the EAS. Under the With-Action scenario, the total open space ratio in the study area would decrease by 1.64 percent, from 0.105 acres per 1,000 residents under the No-Action scenario to 0.103 under the With-Action scenario. While the Proposed Actions would exceed guidelines detailed in the 2021 CEQR Technical Manual, actions that may result in quantitative impacts on open space can be further evaluated using qualitative assessment approach to determine the overall significance of the impact. The qualitative assessment found that the quality, usage (moderate) and number of study area open spaces, combined with the availability of open space resources located within 0.5 mile of the affected area but outside of the open space (census tract) study area, would help to ameliorate the open space shortfall in the future With-Action conditions. Resources outside of the open study area include Flushing Meadows-Corona Park, a large regional park that is accessible from both north and south of the affected area. In addition, the proposed actions would not have a direct effect on any study area open spaces due to construction or operation nor would the proposed actions result in the imposition of noise, air pollutant emissions, odors, or new shadows on public open spaces that may alter usability. The analysis concludes that the proposed actions would not result in a significant adverse open space impact, and no further analysis is required.

Urban Design and Visual Resources

A detailed analysis related to urban design and visual resources is included in the EAS. Under the RWCDS, the proposed actions would facilitate the incremental development of 173 DUs and 66 parking spaces across the two projected development sites, and a net reduction of approximately 5,600 gsf of community facility space. Projected Development Site 1 would be redeveloped with the proposed project: a 10-story (and cellar), 162,535 gsf mixed-use building with a total of 153 DUs, 16,600 gsf of community facility use and 66 accessory parking spaces in a below-grade parking garage that would be accessible via an existing curb cut on 112th Street. The existing parking lot on Projected Development Site 2 would be redeveloped with a 9-story, 23,800-gsf mixed-use building containing 20 DUs and 1,800 sf of community facility use. The proposed buildings would have base heights of 95 feet, with 15-foot setback before reaching roof heights of 113 and 115 feet, respectively. Community facility use (RFTC) would occupy the ground floor of Projected Development Site 1 and is anticipated to occupy the ground floor of Projected Development Site 2. In the With-Action scenario the streetscape would be activated with new residential uses, street trees would be planted along the affected area's street frontages, and surface parking lots would be replaced with mixed-use buildings, improving the adjacent streetscape and the pedestrian experience because views would no longer be devoted to street-level auto-oriented uses. The RWCDS buildings would enhance the pedestrian environment with new pedestrian-oriented buildings and would enliven the primary study area with new residents and visitors. Although the proposed actions would introduce additional building height and bulk, comparative massing diagrams depicting the possible development with and without the proposed actions demonstrate that the development with the proposed actions would not be incompatible with the scale and character of development within the surrounding area. In addition, the proposed actions would not result in significant adverse impacts on visual resources. Therefore, the analysis concludes that the proposed actions would not result in significant adverse impacts related to urban design or visual resources, and no further analysis is required.

Water and Sewer Infrastructure

A detailed analysis related to water and sewer infrastructure is included in the EAS. The RWCDS development facilitated by the proposed actions would result in an increase in water demand and in the amount of sewage generated. While sanitary flow in the affected area would increase, the increment represents 0.27 percent of the daily flow at the Bower Bay Water Pollution Control Plant (WPCP) and would not affect the plant's treatment efficiency or compromise its ability to properly treat wastewater before discharge. The RWCDS development would result in an increase in hard surface area relative to the No-Action scenario, and a corresponding increase in stormwater flow and runoff. However, as the affected area is well-served by sewer infrastructure, it is anticipated that the sewer infrastructure would have the capacity to accommodate

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SEQRA Classification: Unlisted

the additional flows. In addition, development under the RWCDS would require sanitary and stormwater source control best management practices (BMPs) to reduce stormwater runoff volumes to the sewer system as part of the DEP site connection approval process. Therefore, the analysis concludes that the proposed actions would not result in significant adverse impacts related to water and sewer infrastructure, and no further analysis is required.

Hazardous Materials and Air Quality

An (E) designation (E-685) related to hazardous materials and air quality would be established as part of the approval of the proposed actions. Refer to "Determination of Significance Appendix: (E) designation" for the applicable (E) designation requirements. The hazardous materials and air quality analyses conclude that with the (E) designation in place, the proposed actions would not result in a significant adverse impact related to hazardous materials or air quality.

No other significant effects upon the environment that would require the preparation of a Draft Environmental Impact Statement are foreseeable. This Negative Declaration has been prepared in accordance with Article 8 of the New York State Environmental Conservation Law (SEQRA). Should you have any questions pertaining to this Negative Declaration, you may contact Stacey Barron at +1 212-720-3419.

TITLE	LEAD AGENCY
Director, Environmental Assessment and Review Division	Department of City Planning on behalf of the City Planning Commission 120 Broadway, 31st Fl. New York, NY 10271 | 212.720.3328
NAME Stephanie Shellooe, AICP	DATE August 19, 2022
SIGNATURE	
TITLE Vice Chair, City Planning Commission	
NAME Kenneth Knuckles	DATE August 22, 2022
SIGNATURE	

Project Name: Reform Temple of Forest Hills Rezoning
CEQR # 22DCP188Q
SEQRA Classification: Unlisted

Determination of Significance Appendix

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

Development Site	Borough	Block and Lot
Projected Development Site 1	Queens	Block 2246, Lot 31
Projected Development Site 2	Queens	Block 2246, Lot 41

(E) Designation Requirements

To ensure that the proposed actions would not result in significant adverse impacts related to hazardous materials and air quality, an (E) designation (**E-685**) would be established as part of approval of the proposed actions on **Projected Development Sites 1 and 2** as described below:

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

Hazardous Materials

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

Task 1-Sampling Protocol

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

Task 2-Remediation Determination and Protocol

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

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

A construction-related health and safety plan should be submitted to OER and would be implemented during excavation and construction activities to protect workers and the community from potentially significant adverse

impacts associated with contaminated soil, groundwater and/or soil vapor. This plan would be submitted to OER prior to implementation

Air Quality

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

Projected Development Site 1: *To avoid any potential significant adverse air quality impacts, any new residential or community facility development on Block 2246, Lot 31 must use natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) systems and hot water equipment and must ensure that the hot water equipment and HVAC stack is located on the bulkhead resulting in a stack height that is at least 138 feet above grade.*

Projected Development Site 2: *To avoid any potential significant adverse air quality impacts, any new residential or community facility development on Block 2246, Lot 41 must use natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) systems and hot water equipment and must ensure that the hot water equipment and HVAC stack is located on the bulkhead resulting in a stack height that is at least 138 feet above grade.*

ATTACHMENT A

PROJECT DESCRIPTION

I. INTRODUCTION

The Applicant, Werber Management, Inc. and the Reform Temple of Forest Hills ("RTFH"), is seeking a zoning map amendment and a zoning text amendment (collectively, "the Proposed Actions") affecting the Applicant-owned property located at 71-11 112th Street (Block 2246, Lot 31) in the Forest Hills neighborhood of Queens Community District (CD) 6 (see **Figure A-1**).

The Proposed Actions would facilitate a proposal by the Applicant to develop a new approximately 162,535-gross-square-foot (gsf), ten-story, approximately 113-foot-tall (roof height) mixed-use development (the "Proposed Project") on the Applicant-owned Lot 31's approximately 22,500 square feet (sf) of lot area. The Proposed Project would comprise approximately 153 dwelling units (DUs) within approximately 124,235 gsf of residential floor area (of which 38 to 46 DUs would be affordable pursuant to Mandatory Inclusionary Housing (MIH) option 1 or 2), as well as approximately 16,600 gsf of community facility space and approximately 21,700 gsf of accessory, below grade parking (approximately 66 spaces). The entrances to the residential space and the parking garage would both be along 112th Street while the entrance to the community facility space would be along 71st Road. The anticipated Build Year is 2025.

The proposed zoning map amendment would rezone Lot 31 ("Projected Development Site 1") and one additional, adjacent site not under the control of the Applicant (Block 2246, Lot 41; "Projected Development Site 2"). Together, these lots comprise approximately 35,000 sf (the "Project Area"). As such, for CEQR analysis purposes it is assumed that Lot 41 could be redeveloped with an approximately 23,800-gsf, nine-story, approximately 115-foot-tall (roof height), mixed-use building containing approximately 20 DUs, of which approximately 5 to 6 would be affordable, as well as 1,800 sf of community facility use as a result of the Proposed Actions. The entrances to both the residential and community facility spaces are assumed to be along 71st Avenue.

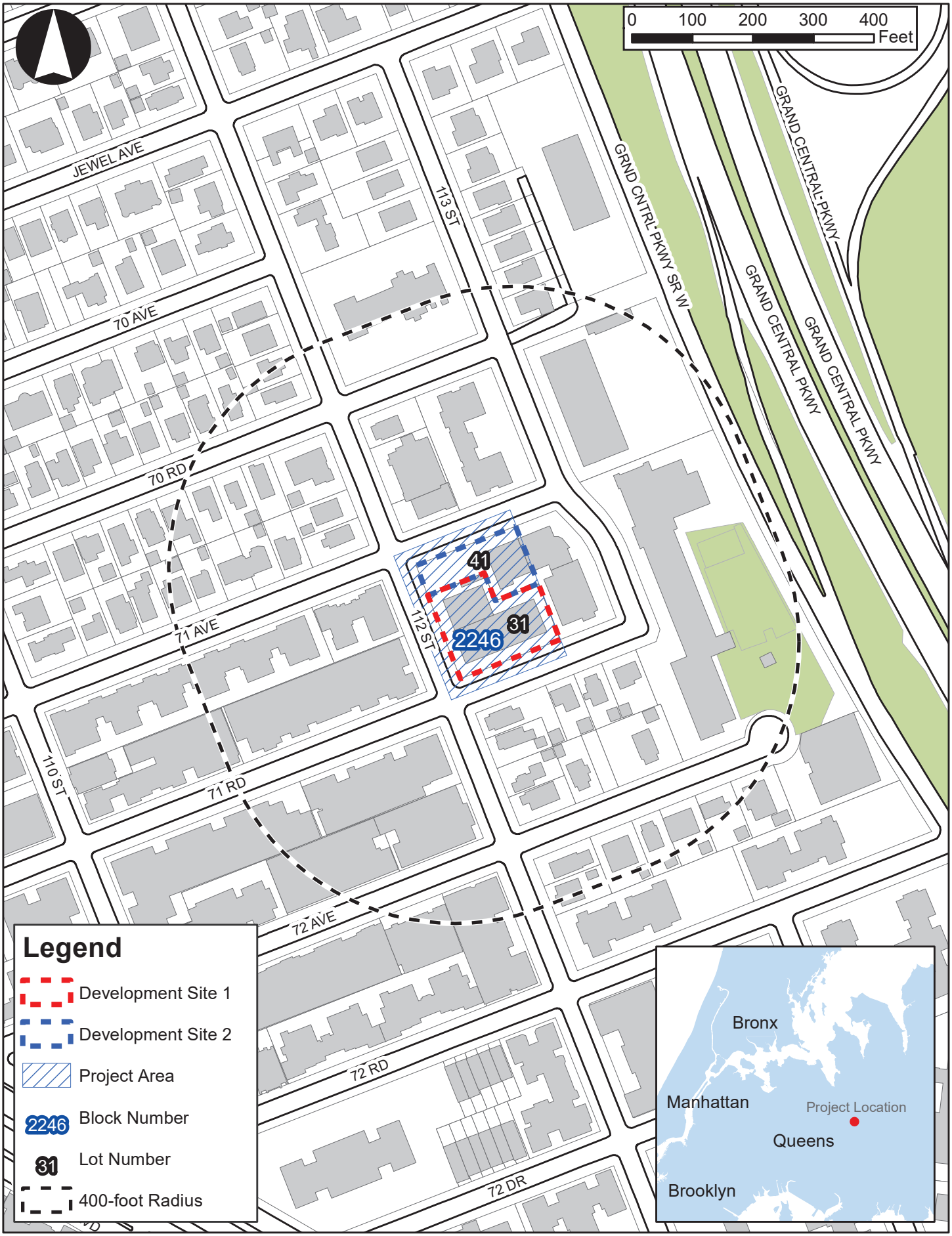
Development of the Proposed Project requires approvals from the City Planning Commission (CPC) for the following discretionary actions:

- Zoning Map Amendment to rezone the Project Area from an R1-2A to an R7D district (Zoning Map 14a)

- Zoning Text Amendment to modify Appendix F of the Zoning Resolution (ZR) to include the Rezoning Area as a Mandatory Inclusionary Housing (MIH) Area.

This attachment provides a summary and description of the existing conditions of the Project Area and the surrounding vicinity, the requested approvals and the purpose and need for the Proposed Action and the analysis framework for this EAS.

Figure A-1
Project Location



II. EXISTING CONDITIONS

Project Area

As shown in **Figure A-1**, the Project Area comprises the applicant-owned property located at 71-11 112th Street (Queens Block 2246, Lot 31), as well as the northwest portion of the adjacent property (71-02 113th Street, Block 2246, Lot 41), which is not under the Applicant's control. The Project Area is bounded by 112th Street, 71st Road and 71st Avenue to the west, south and north, respectively, and extends to the easternmost lot line of Lot 31 (approximately 175 feet (ft) in depth). The L-shaped Projected Development Site 1 comprises approximately 22,500 sf of lot area and has frontages of approximately 150 ft and 175 ft along 112th Street and 71st Road, respectively, while Projected Development Site 2 (approximately 12,500 sf of Lot 41's total 31,000-sf lot area) has frontages of approximately 50 ft and 175 ft along 112th Street and 71st Avenue, respectively.

The two-story, approximately 24,000-gsf community facility currently developed on Projected Development Site 1 contains the existing RTFH (Use Group 4, house of worship), as well as eight classrooms (Use Group 3). It has a built floor area ration (FAR) of 1.02 which is above the 1.0 FAR permitted for community facility uses in an R1-2A zoning district. The RTFH is currently in-use and operable. The classrooms are leased to NYC DOE on an as-needed basis (e.g. if another facility is being renovated) for use Monday-Friday during school hours and are primarily utilized by primary school students and associated staff. The current DOE lease expires in 2022 and the Applicant does not intend to renew it, regardless of the Proposed Actions. RTFH utilizes the classrooms for religious school Wednesday evenings and Sunday mornings with a maximum of 100 students attending on Sundays. RTFH employs approximately 25 workers and up to 25 DOE employees utilize the site at any time, although none are permanently posted at the site. An existing, approximately 20-foot curb cut on 112th Street provides access to four at-grade accessory parking spaces.

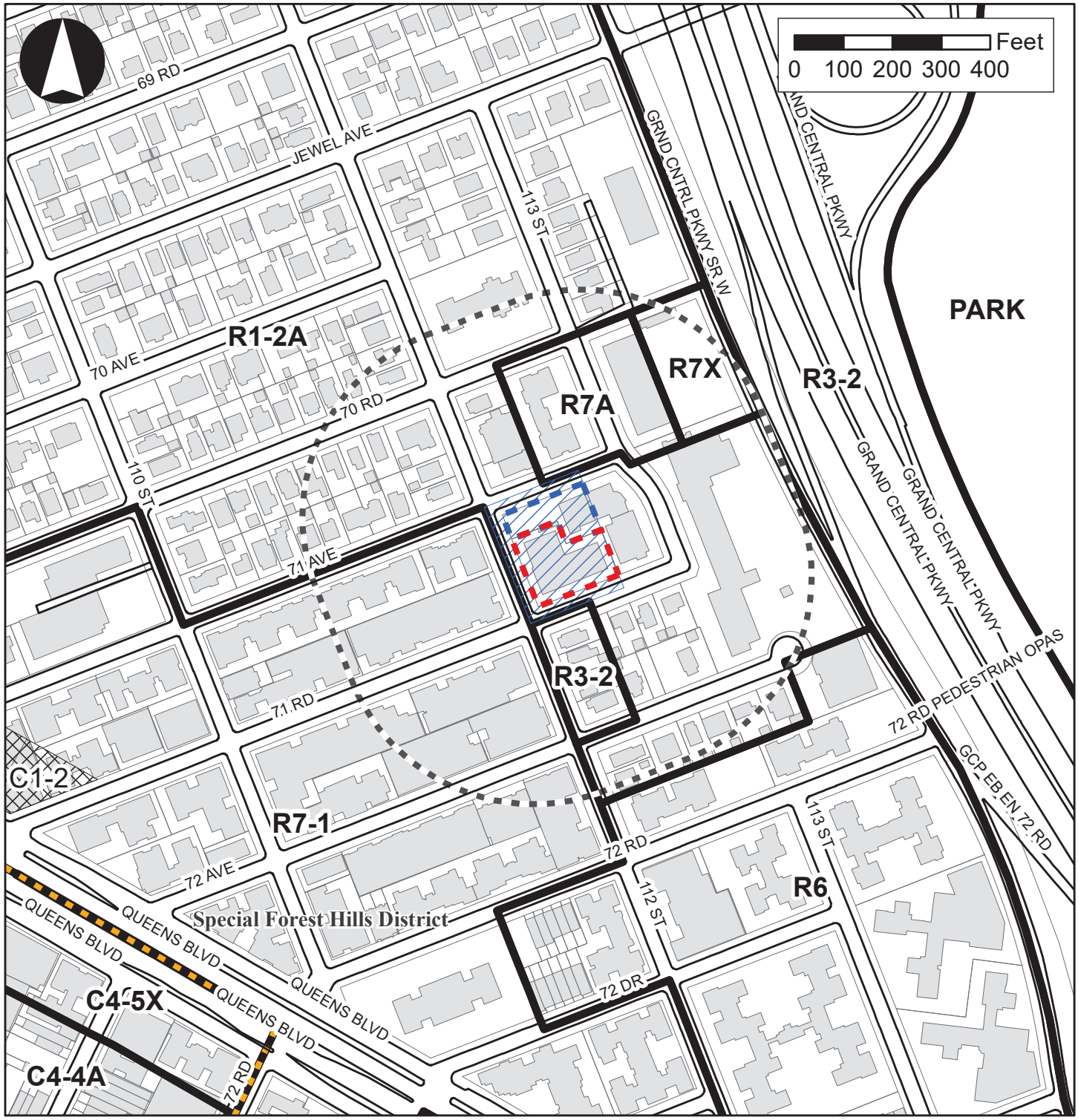
Projected Development Site 2, located adjacent to and north of Projected Development Site 1, is owned by Touro College. It contains an approximately 11,700-gsf portion of a larger, three-story educational building and a 20-space parking lot. The community facility building currently developed on Projected Development Site 2 has an existing built FAR of 0.90.

Surrounding Context

The Project Area was rezoned from an R1-2 zoning district to a R1-2A zoning district as part of the 2009 Cord Meyer-Forest Hills rezoning. R1-2A zoning districts allow Use Groups 1, 3 and 4 and permit maximum FARs of 0.50 and 1.00 for residential and community facility uses, respectively. An R7-1 district is mapped on the west side of 112th Street (directly west of the Project Area), while an R7A district is mapped just north of the Project Area and an R3-2 district is mapped directly south across 71st Road. Further south, beginning between 72nd Avenue and 72nd Road, an R6 district is mapped (see **Figure A-2**).

The area along 112th Street, north of 71st Avenue, is predominantly developed with one and two family buildings, shifting to 6-10 floor, multi-family elevator buildings south of 71st Avenue, adjacent to the Project Area, where the zoning district changes from R1-2A to R7-1. Public facility and institutional uses are located within and adjacent to the Project Area, as well as directly to the north, east and south. Additional one and two family buildings are located south of the Project Area (along 71st Road and 72nd Avenue) and a small number of mixed residential and commercial buildings are scattered throughout the

Figure A-2
Existing Zoning

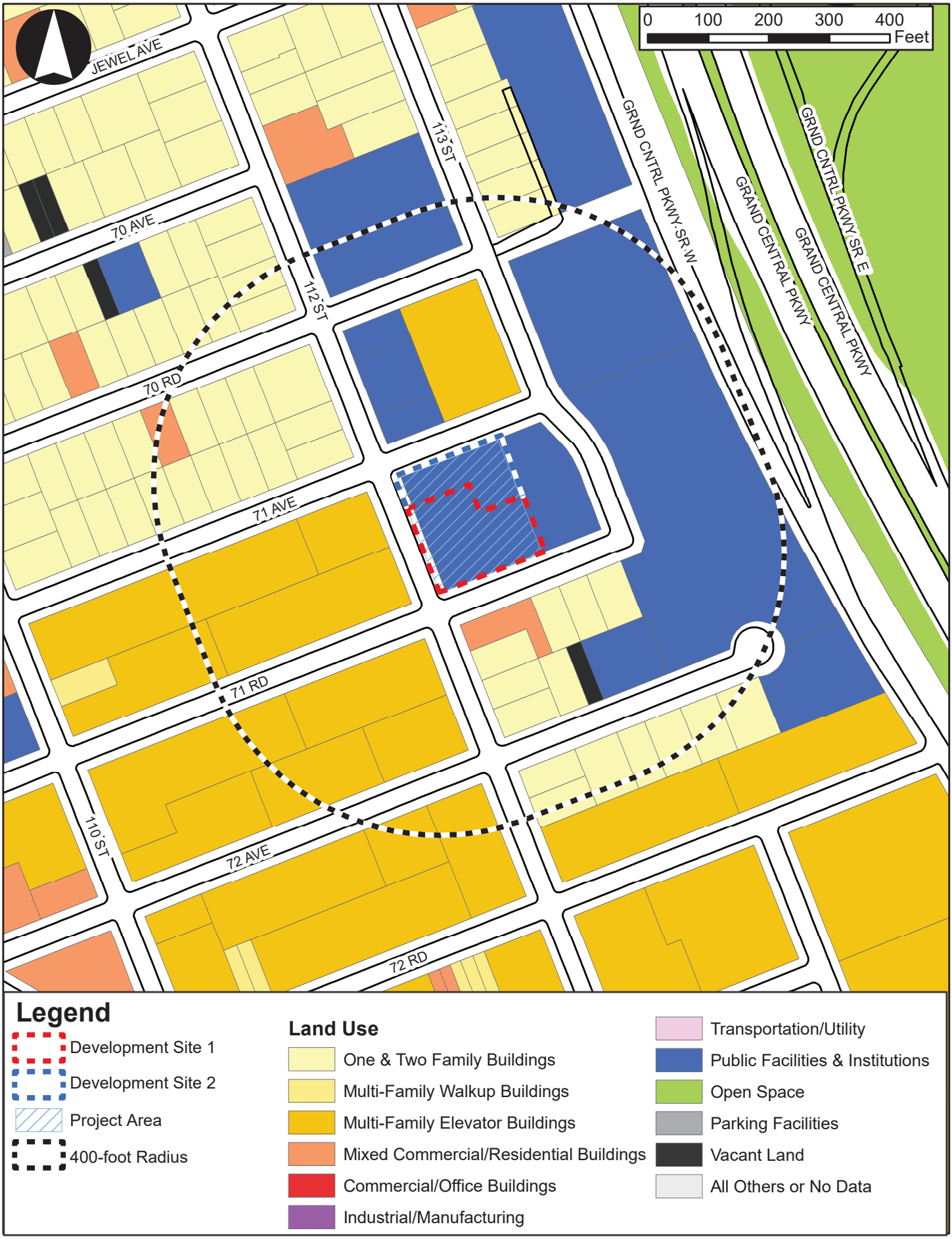


Legend

- Development Site 1
- Development Site 2
- Project Area
- 400-foot Radius
- Existing Building
- M1 Zoning Districts
- Special Districts
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5

Source: DOITT, DCP

Figure A-3
Existing Land Use



area (see **Figure A-3**). Approximately 650 ft east of the Project Area, the Grand Central Parkway divides the neighborhoods from the approximately 900-acre Flushing Meadows-Corona Park.

Surrounding Area

The Project Area is located in the Forest Hills neighborhood of Queens. The area surrounding the Project Area is a mixed-use environment comprising residential and community facility uses along one-way local streets with commercial uses and transportation facilities (the Forest Hills-71st Avenue and the 75th Avenue Stations) located approximately a quarter-mile to the southwest along Queens Boulevard. The institutional uses are generally houses of worship (including the RTFH) or educational structures, such as Touro College and PS 196Q.

112th Street, the western boundary of the Project Area, is an approximately 60 ft wide local street with one northbound travel lane and parking lanes at either curb. 71st Avenue and 71st Road, the northern and southern boundaries of the Project Area, share similar dimensions and are one-way east and one-way west, respectively. 113th Street operates one-way south to the east of the Project Area. The six-lane Grand Central Parkway is located approximately 650 ft east of the Project Area with nearby points of ingress at Jewel Avenue and 72nd Road.

The Project Area is close to parks and recreational facilities including Willow Lake Playground, Ehrenreich-Austin Playground and Flushing Meadows-Corona Park, an almost 900-acre regional park that was the site of two World's Fairs and contains the USTA Billie Jean King National Tennis Center, the Citi Field baseball stadium, Willow Lake, an art museum, a zoo, a botanical garden, six playgrounds and various additional recreational and educational facilities. Flushing Meadows-Corona Park is the largest park in Queens (the second largest in the City) and a flagship park destination within the New York City parks network.

The area is served by the NYCT E/F/M/R trains at the Forest Hills-71st Avenue subway station, located approximately ¼-mile southwest of the Project Area. Additional E/F train service is provided at the 75th Avenue Station located at 112th Street and Queens Boulevard. The Q23 runs along 108th Street with service between East Elmhurst and Ditmars Boulevard and the Q64 bus routes operate along Jewel Avenue with service between Hillcrest and Forest Hills. Additionally, several local and inter-borough bus lines (Q23, Q60, Q64, QM11, and QM18) make stops along Queens Boulevard in proximity to the Project Area.

III. PURPOSE AND NEED FOR THE PROPOSED ACTIONS

The Proposed Actions are intended to provide opportunities for new residential and community facility development, as well as increase the efficiency of the RTFH and enhance its accessibility – the facility currently has ADA accessibility issues. The Applicant intends for the Proposed Actions to create new housing development opportunities, including affordable housing, in an area where strong demand for housing exists on underutilized land formerly reserved exclusive for community facility use.

Furthermore, as noted above, the existing RTFH facility currently developed on Projected Development Site 1 is overbuilt under the existing R1-2A zoning district. As such, the Proposed Actions are needed to permit the construction of the Proposed Project.

Finally, the Proposed Actions would allow the redevelopment of Projected Development Site 1 into an economically integrated mix of residential DUs consistent with planned and anticipated redevelopment of nearby sites, such as the Former Parkway Hospital development located approximately 250 ft to the

northeast, as well as filling the needs of the RTFH. Thus, the Proposed Actions would allow the Applicant to better serve the RTFH's congregants while additionally producing new affordable and market rate housing development.

IV. DESCRIPTION OF THE PROPOSED ACTIONS

Proposed Zoning Map Changes

The Proposed Actions include an amendment of the City's zoning map to rezone the Project Area from the existing R1-2A zoning district to an R7D district. The proposed zoning district would allow the applicant to maximize their property's residential development potential while maintaining and upgrading the RTFH synagogue.

The existing low-density R1-2A residential zoning designation would be replaced with a contextual medium-density R7D residential zoning district, which would allow for a higher density development. The Project Area is located directly adjacent to an existing R7-1 zoning district and an R7A district and is approximately 250 ft southwest of a R7X zoning district. Therefore, the proposed zoning map change would be contextually similar to proximate zoning districts.

The Project Area's existing R1-2A zoning district is a low-density residential district mapped primarily in Forest Hills, Queens that is characterized by generous yard requirements and produce smaller scale buildings with a maximum FAR of 0.50 (1.00 for community facilities). Use Group 1 (residential) and Use Groups 3 and 4 (such as houses of worship and schools) are permitted as-of-right within R1-2A zoning districts.

The proposed R7D zoning district would be mapped on Block 2246, Lot 31 and an approximately 12,500-sf portion of Lot 41. R7D is a medium-density residential district that permits Use Groups 1 through 4 as-of-right and permits a maximum FAR of 4.20 (5.60 pursuant to the Mandatory Inclusionary Housing Program) for residential uses. Community facility uses have a maximum FAR of 4.20.

Proposed Zoning Text Amendment

The Applicant is proposing to map the Project Area as a Mandatory Inclusionary Housing (MIH) Area by creating a new map for Queens Community District 6 in Appendix F of the New York City Zoning Resolution. An MIH Area requires affordable housing to be provided equivalent to either 25 percent (60% of Area Median Income, or AMI) or 30 percent (80% AMI) of the residential floor area developed (Options 1 and 2, respectively). An MIH designation sets a new maximum permitted residential FAR which supersedes the FAR permitted by the underlying zoning district. With both the designation of the Project Area as an MIH Area and its rezoning to R7D, the maximum permitted FAR within the Project Area would be 5.60. Mapping of the MIH Area would facilitate development of approximately 38 to 46 affordable housing units on Projected Development Site 1, as the Applicant would provide affordable housing equivalent to 25 to 30 percent of the residential floor area pursuant to MIH Option 1 or 2. As the MIH designation would also apply to Projected Development Site 2, it is assumed approximately 5 to 6 affordable housing units could be developed on this site, pursuant to MIH Option 1 or 2, respectively.

V. DESCRIPTION OF THE PROPOSED PROJECT

The Applicant is proposing several actions to facilitate a new mixed-use, predominantly residential, development on Projected Development Site 1. The Proposed Actions described above will facilitate a new approximately 162,535-gsf mixed-use development on approximately 22,500 sf of lot area. It is expected that this Proposed Project would include the following components:

- Up to approximately 124,235 gsf of residential uses, comprising a total of approximately 153 DUs, of which 38 to 46 DUs would be affordable, pursuant to MIH Option 1 or Option 2;
- Approximately 16,600 gsf of community facility space; and
- Approximately 66 accessory parking spaces (21,700 gsf).

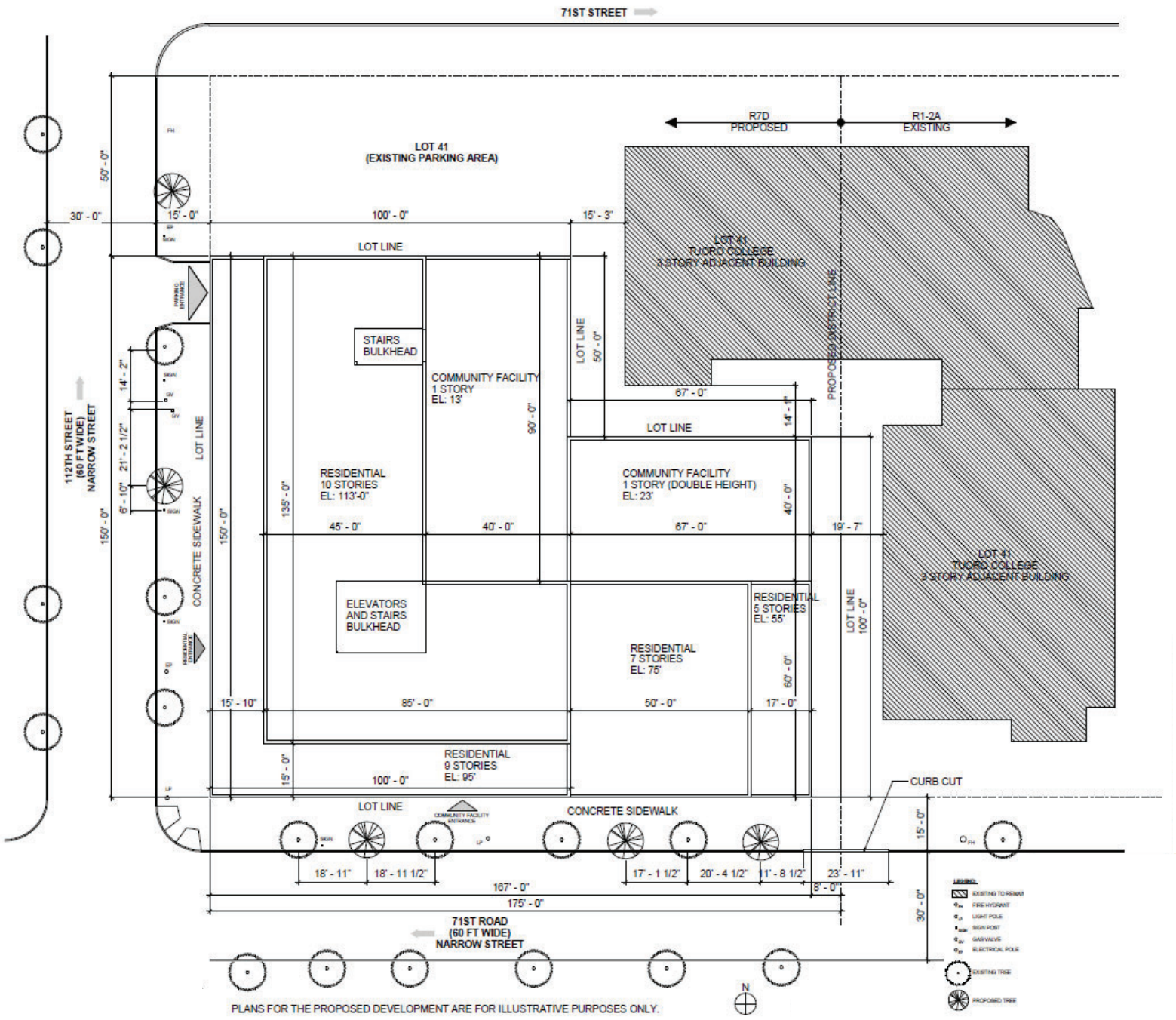
Figure A-4 provides a preliminary site plan for the Proposed Project. As shown in this preliminary plan, the Proposed Project would be accessible via an entrances/exits on the east side of 112th Street and the north side of 71st Road. As shown in **Figure A-5** (the preliminary massing diagram), the Proposed Project would consist of one 10-story building which would have a base height of approximately 95 ft after which it would set back 15 ft along 112th Street and 71st Road then rise to 113 ft, complying with the proposed R7D zoning district and MIH program requirements.

The 16,600 gsf of community facility space would contain the RTFH in the first and second floors and would have frontage along 71st Road. As currently envisaged, there would be a sanctuary space, offices and multi-purpose classroom/meeting spaces for the RTFH congregants within the community facility portion of the Proposed Project. The Applicant plans that there will be approximately 153 dwelling units located on floors 2 through 10 including approximately 38 to 46 dwelling units affordable to households with incomes at or below 60 or 80 percent of the Area Median Income ("AMI"), pursuant to MIH Option 1 or Option 2. An entrance and lobby for the residential portion of the building is proposed to be located on 112th Street.

Parking for the Proposed Project would be below-grade and accessed via the existing curb cut on 112nd Street. Approximately five of the 66 planned spaces would be reserved for the RTFH while the remainder would be available to the development's residents.

VI. ANALYSIS FRAMEWORK AND REASONABLE WORST-CASE DEVELOPMENT SCENARIO (RWCDS)

In order to assess the potential effects of the Proposed Actions, a reasonable worst-case development scenario (RWCDS) for both "future No-Action" (No-Action) and "future with the Proposed Action" (With-Action) conditions will be analyzed for an analysis year, or Build Year, of 2025. The future With-Action scenario identifies the amount, type and location of development that is expected to occur by the end of 2025 as a result of the Proposed Actions. The No-Action scenario identifies development projections for 2025 absent the Proposed Actions. The effect of the Proposed Actions would be the incremental change in conditions between the No-Action and With-Action scenarios. While the Proposed Project would be constructed on Projected Development Site 1 in one continuous phase over approximately 22 months with completion and occupancy in 2023, a potential development on the adjacent soft site (Projected Developemnt Site 2) would require more time as the Applicant is not aware of any plans to develop this site. Thus, a conservative build year of 2025 was determined for this analysis. In accordance with the 2021



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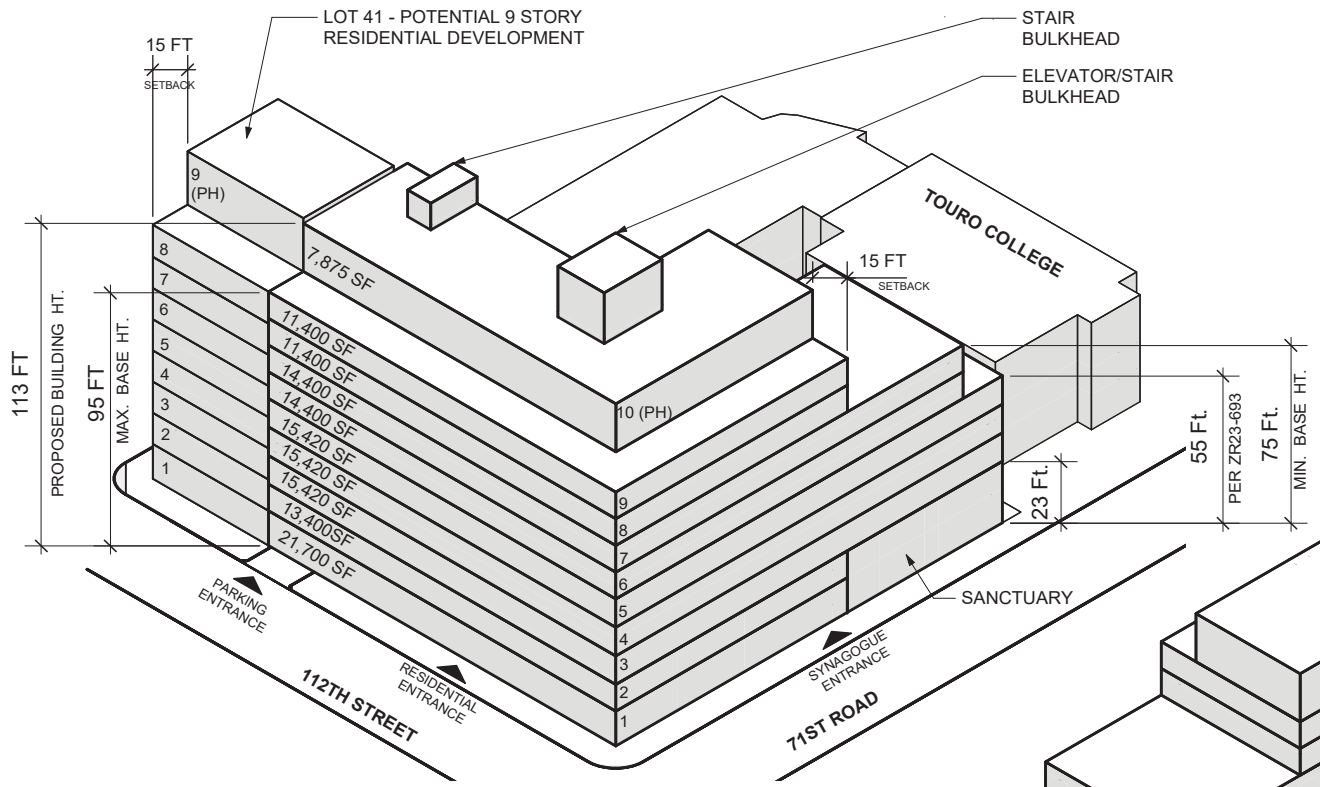
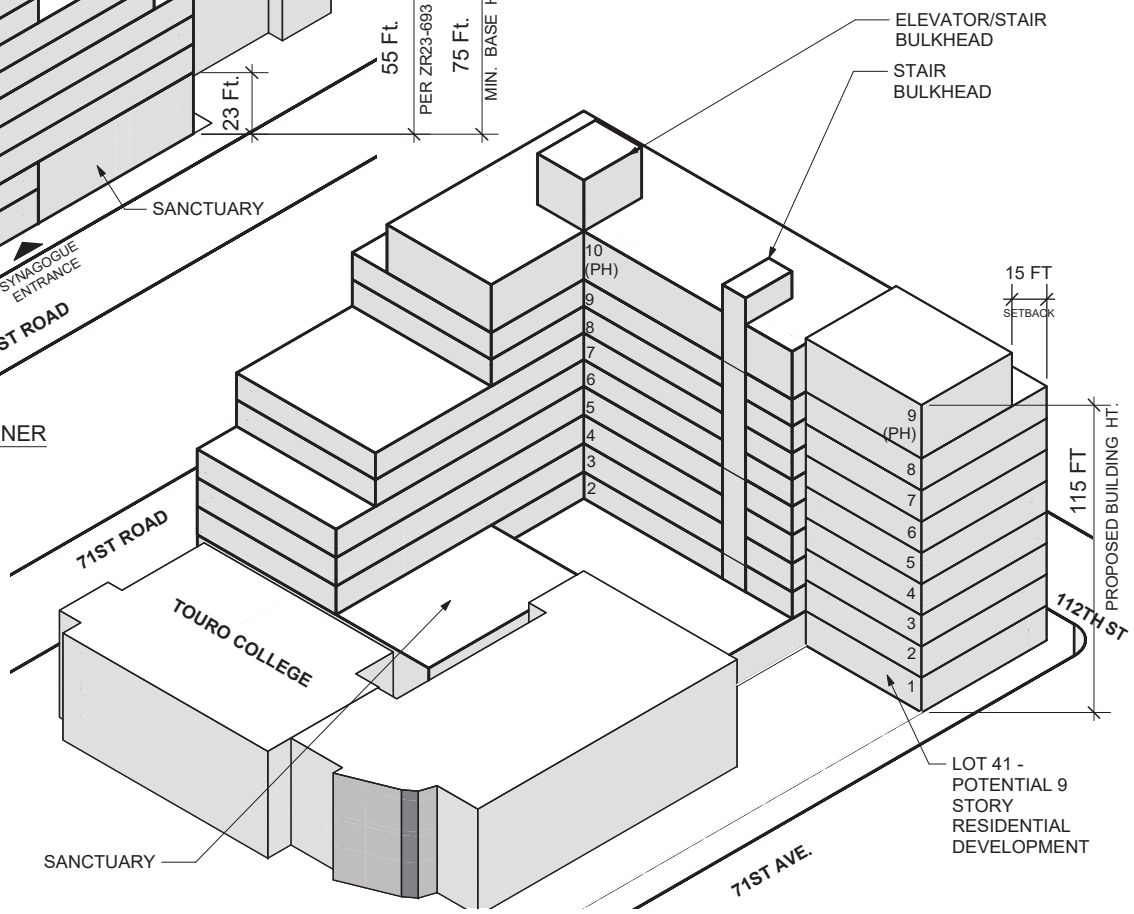


1 MASSING DIAGRAM - VIEW FROM SOUTH-WEST (STREET) CORNER



2 MASSING DIAGRAM - VIEW FROM NORTH-EAST (REAR)

FOR ILLUSTRATIVE PURPOSES ONLY

CEQR Technical Manual, for each technical area, a comparison of the No-Action condition and the With-Action condition provides the basis to determine the potential environmental effects of the Proposed Action.

Identification of Development Sites/Affected Area

According to the *CEQR Technical Manual*, the following factors, commonly referred to as "soft site criteria," are generally considered when evaluating whether some amount of development would likely be constructed by the Build Year as a result of Proposed Actions:

- The uses and bulk allowed: Lots located in areas where changes in use would be permitted and/or contain buildings built to substantially less than the maximum allowable floor area ratio (FAR) under the existing zoning are considered "soft" enough such that there would likely be sufficient incentive to develop in the future, depending on other factors specific to the area (e.g., the amount and type of recent as-of-right development in the area, recent real estate trends, site specific conditions that make development difficult, and issues relating to site control or site assemblage that may affect redevelopment potential); and

- Size of the development site: Lots must be large enough to be considered "soft." Generally, lots with a small lot size are not considered likely to be redeveloped, even if they are currently built to substantially less than the maximum allowable FAR. A small lot is often defined for this purpose as 5,000 sf or less, but the lot size criteria is dependent on neighborhood-specific trends, and common development sizes in the study area should be examined prior to establishing this criteria.

However, the following uses and types of buildings that meet the soft site criteria are typically excluded from development scenarios because they are unlikely to be redeveloped as a result of Proposed Action:

- Full block and newly constructed buildings with utility uses, as these uses are often difficult to relocate;

- Lots where construction is actively occurring, or has recently been completed, as well as lots with recent alterations that would have required substantial capital investment, unless recently constructed or altered lots were built to less than or equal to half of the maximum allowable FAR under the proposed zoning;

- Lots whose location or irregular shape would preclude or greatly limit future as-of-right development (generally, development on irregular lots does not produce marketable floor space);

- Long-standing institutional uses with no known development plans; or

- Multi-unit buildings (existing individual buildings with six or more residential units, and assemblages of buildings with a total of 10 or more residential units, are unlikely to be redeveloped because of the required relocation of tenants in rent-stabilized units).

Definition of Projected and Potential Development Sites

To produce a reasonable, conservative estimate of future growth, identified development sites are typically divided into two categories: projected development sites and potential development sites. Projected development sites are considered more likely to be developed within the analysis period for the Proposed Actions (i.e. by 2025), while potential sites are considered less likely to be developed over the same period.

As shown below in **Table A-1**, the Applicant-owned Projected Development Site 1 is considered a Projected Development Site, as the Applicant intends to develop the site with a mixed-use building in the future with the Proposed Actions, as detailed above.

As discussed above, one other property is within the Project Area: the northwest portion of Block 2246, Lot 41. This property is not owned or controlled by the Applicant. Lot 41 is currently developed with three educational buildings and an at-grade parking lot (approximately 11,700 gsf of one building and the entirety of the parking lot are within the Project Area). Because the Proposed Actions would permit greater density for residential and community facility uses within the Project Area, this property could also be redeveloped. Therefore, Lot 41 is also considered a Projected Development Site in the RWCDS (see **Table A-1** below).

Future without the Proposed Actions (No-Action Condition)

The existing R1-2A zoning permits a 0.5 FAR for residential and 1.0 FAR for community facility uses. As both sites are built to near or over this FAR, it is assumed that under the No-Action scenario neither Projected Development Site 1 nor Projected Development Site 2 would be redeveloped and both properties would remain in their existing condition as described above.

Future with the Proposed Actions (With-Action Condition)

In the future with the Proposed Actions (the With-Action condition), the proposed zoning map amendment and zoning text amendment would be implemented in the Project Area. As such, the Project Area would be remapped as a R7D district and would be designated as an MIH Area. Under With-Action conditions, the maximum allowable FAR in the Project Area would increase to 5.6 when fully utilizing the additional FAR under the MIH Program.

As detailed above in the "Description of the Proposed Development," the Applicant intends to redevelop Projected Development Site 1 with a mixed-use building with an overall FAR of 5.6. Because this would maximize the floor area allowable on the Development Site, the Proposed Project is the RWCDS With-Action condition for Projected Development Site 1.

As detailed in **Table A-1**, under the With-Action RWCDS Projected Development Site 1 would be developed with an approximately 162,535-gsf, ten-story, approximately 113-foot-tall (roof height) development containing 153 DUs (of which 38 to 46 would be affordable), 16,600 gsf of community facility space, and 66 accessory parking spaces. Access to the 66-space accessory parking garage would be via an existing curb cut on 112th Street. The proposed 16,600 gsf of community facility space would be reinhabited by the RTFH. The entrances to the residential space and the parking garage would both be along 112th Street while the entrance to the community facility space would be along 71st Road.

In accordance with the City's MIH policy, under the Proposed Actions, the Applicant will choose either MIH Option 1 or 2, which would require 25 or 30 percent of the residential floor area be designated as affordable housing units for residents with incomes averaging between 60 and 80 percent of AMI and none of the units exceeding 130 percent of AMI. As discussed above, this designation would result in approximately 38 to 46 affordable DUs on Projected Development Site 1 depending on which MIH option is chosen.

As noted above, a portion of Lot 41 is located within the Project Area. This portion is considered Projected Development Site 2 and is currently occupied by an approximately 11,700-gsf part of a larger community facility building, as well as an at-grade parking lot. Both the building and parking lot are owned by Touro College, which also owns the remaining buildings on Lot 41. Under the With-Action condition, it is assumed that the portion of Lot 41 that is within the Project Area, which would be underbuilt in the future with the Proposed Actions, would be redeveloped in accordance with the proposed R7D zoning district and MIH designation. As the section of the Touro College building that is within the Project Area is part of a larger building that is currently utilized by the college, it is assumed that this building would not be redeveloped and would remain in its existing condition as an approximately 11,700-gsf part of a larger community facility building. However, the With-Action RWCDS assumes that the parking lot would be replaced with a 23,800-gsf, nine-story, approximately 115-foot-tall (roof height) building containing 20 DUs (of which approximately 5 to 6 would be affordable pursuant to MIH Option 1 or 2) and approximately 1,800 gsf of community facility use. The entrances to both the residential and community facility spaces are assumed to be along 71st Avenue. Under the With-Action condition, no parking would be provided at Projected Development Site 2 as fewer than 15 required parking spaces can be waived pursuant to the proposed R7D zoning.

As shown in **Table A-1** below, the With-Action RWCDS developments on Projected Development Sites 1 and 2 would contain approximately 146,235 gsf of total residential space and 30,100 gsf of total community facility space within the Project Area. The residential space would contain 173 DUs on Projected Development Sites 1 and 2, of which 43 to 52 would be affordable rental units. In addition, the Proposed Actions would result in a total of 66 accessory parking spaces on Projected Development Site 1.

Table A-1: With-Action Scenario –Total Development within Project Area

Lot	Lot Area (sf)	Max. FAR	Max. Residential		Max. Community Facility SF	Max. Total Building SF	Max. Parking Spaces	Max. Building Height
			SF	DUs				
Projected Sites[1]								
31	22,500	5.6	111,000 zsf (124,235 gsf)	153	15,000 zsf (16,600 gsf)	126,000 zsf (162,535 gsf)[2]	66	113'
p/o 41	12,500	5.6	21,120 zsf (22,000 gsf)	20	12,960 zsf (13,500 gsf)[3]	34,160 zsf (35,500 gsf)[3]	0	115'
Total RWCDS With-Action Projected Development on Block 2246:			*132,120 zsf (146,235 gsf)*	*173 (43-52 affordable)*	*27,960 zsf (30,100 gsf)*	*160,160 zsf (198,035 gsf)*	*66*	*115'*

Notes: [1]The Applicant-owned site is highlighted

[2]Total gsf includes 21,700 gsf of below-grade parking garage

[3]Total gsf includes the 11,700-gsf portion of the existing Touro College building which would remain in its existing condition

It should be noted that the total community facility space shown in **Table A-1** includes the existing 11,700 gsf portion of the Touro College building which would remain on Lot 41 and would continue to operate in its existing condition, independent of the RWCDS development. For the incremental change between the No-Action and With-Action conditions, please see **Tables A-2** and **A-3** below.

Reasonable Worst-Case Development Scenario for Analysis Purposes

Table A-2 below compares the future No-Action and future With-Action conditions at each projected development site, while **Table A-3** summarizes the total net change within the Project Area. As summarized in **Table A-3**, compared to future conditions without the Proposed Actions, the RWCDS anticipates that the Proposed Actions would result in a net increase of 173 dwelling units (approximately 146,235 gsf) and 42 accessory parking spaces, as well as a reduction of approximately 5,600 gsf of community facility space. Based on an average household size of 2.25 persons per dwelling unit, the Proposed Actions would result in an increase of 390 residents as compared to the No-Action condition. In addition, the Proposed Actions would result in a net reduction of 20 employees as compared to the No-Action condition. This net increment is cumulative of the RWCDS developments on Projected Development Sites 1 and 2 and represent the basis for environmental analyses in the EAS.

Table A-2: Net Change at Projected Development Sites 1 and 2 as a Result of the Proposed Actions

	Use	No-Action	With-Action	Net Increment
Projected Development Site 1	**Residential**	--	124,235 gsf; 153 DU	+124,235 gsf; +153 DU
	Community Facility	24,000 gsf	16,600 gsf	-7,400 gsf
	Accessory Parking Spaces	4	66	+62
	Employees[1]	50	25	-25
	Residents[2]	--	344	+344
Projected Development Site 2	**Residential**	--	22,000 gsf; 20 DU	+22,000 gsf; +20 DU
	Community Facility	11,700 gsf	13,500 gsf	+1,800 gsf
	Accessory Parking Spaces	20	--	-20
	Employees[3]	35	40	+5
	Residents[2]	--	45	+45

Notes: [1]RTFH and NYC DOE each employ 25 employees based on information provided by the Applicant
[2]Assumed based on the average household size of 2.25 persons per rental unit in Queens Community District 6 (2020 US Census)
[3]Based on 3 employees per 1,000 gsf of community facility space

Table A-3: Net Change within the Project Area as a Result of the Proposed Actions

	Use	No-Action	With-Action	Net Increment
Project Area	**Total Residential**	--	*146,235 gsf; 173 DU*	*+146,235 gsf; +173 DU*
	Total Community Facility	*35,700 gsf*	*30,100 gsf*	*-5,600 gsf*
	Total Accessory Parking Spaces	*24*	*66*	*+42*
	Total Employees[1]	*85*	*65*	*-20*
	Total Residents[2]	--	*390*	*+390*

Note: [1]Based on the average household size of 2.25 persons per rental unit in Queens Community District 6 (2020 US Census)

ATTACHMENT B

SUPPLEMENTAL SCREENING

I. INTRODUCTION

This Environmental Assessment Statement ("EAS") has been prepared in accordance with the guidance and methodologies presented in the 2021 *City Environmental Quality Review* (CEQR) *Technical Manual*. For each technical area, thresholds are defined, which if met or exceeded, require that a detailed technical analysis be undertaken. Using this guidance, preliminary screening assessments were conducted for the Proposed Actions; to determine whether detailed analysis of any technical area may be appropriate. Part II of the EAS Form identifies those technical areas that warrant additional assessment. For those technical areas that warranted a "Yes" answer in Part II of the EAS Form – including Land Use, Zoning & Public Policy, Community Facilities, Open Space, Shadows, Urban Design and Visual Resources, Water and Sewer Infrastructure, Air Quality, Noise, Historic and Cultural Resources, Hazardous Materials, Public Health, Neighborhood Character and Construction – supplemental screening assessments are provided in this attachment. The remaining technical areas detailed in the 2021 *CEQR Technical Manual* were not deemed to require supplemental screening because they do not trigger initial *CEQR* thresholds and/or are unlikely to result in significant adverse impacts. These areas screened out from any further assessment include Socioeconomic, Natural Resources, Solid Waste and Sanitation Services, Energy, Transportation, and Greenhouse Gas Emissions.

The supplemental screening assessments contained herein identified that additional analyses of Land Use, Zoning and Public Policy, Open Space, Shadows, Urban Design & Visual Resources, Water and Sewer Infrastructure, Air Quality (Stationary Sources), Noise, Historic and Cultural Resources, and Hazardous Materials are required. The analysis of Land Use, Zoning and Public Policy is provided in **Attachment C** while the analyses of Open Space, Open Space, Shadows, Urban Design and Visual Resources, Water and Sewer Infrastructure, Air Quality, Noise, Historic and Cultural Resources, Hazardous Materials, and Community Facilities are provided in **Attachments D, E**, **F, G, H, I, J, K,** and **L** respectively. Per the supplemental screening assessments provided in this attachment, more detailed analyses of the following technical areas are not required: Public Health, Neighborhood Character, and Construction. **Table B-1** presents a summary of analysis screening information for the Proposed Actions.

As described in **Attachment A, "Project Description,"** the Applicant is seeking a zoning map amendment, as well as a zoning text amendment to facilitate the development of a new mixed use residential and community facility building at 71-11 112th Street (Block 2246, Lot 31) in the Forest Hills neighborhood of Queens, Community District 6. The Proposed Project would consist of 153 dwelling units (DUs), of which 38 to 46 would be affordable, and an approximately 16,600-gsf community facility in a new ten-story building on the approximately 22,500-sf applicant-owned site. The Proposed Project is expected to be constructed, occupied and fully operational by 2025. The Proposed Actions would also affect a 12,500-sf portion of the adjacent property (Lot 41). Collectively, Lot 31 (Projected Development Site 1) and the northwest portion of Lot 41 (Projected Development Site 2) are considered the "Project Area." For the purpose of this analysis, it is assumed that the portion of Lot 41 located within the Project Area would be developed with an approximately 23,800-gsf building containing 20 DUs, 5 to 6 of which would be affordable, and 1,800 gsf of community facility space as a result of the Proposed Actions.

Table B-1: Summary of CEQR Technical Areas Screening

CEQR TECHNICAL AREA	SCREENED OUT PER EAS FORM	SCREENED OUT PER SUPPLEMENTAL SCREENING	ANALYSIS REQUIRED
Land Use, Zoning, & Public Policy			X
Socioeconomic Conditions	X		
Community Facilities			X
Open Space			X
Shadows			X
Urban Design & Visual Resources			X
Natural Resources	X		
Water and Sewer Infrastructure			X
Solid Waste & Sanitation Services	X		
Energy	X		
Transportation - Traffic & Parking - Transit - Pedestrians	 X X X		
Air Quality - Mobile Sources - Stationary Sources	 X		 X
Greenhouse Gas Emissions	X		
Noise			X
Historic & Cultural Resources			X
Hazardous Materials			X
Public Health		X	
Neighborhood Character		X	
Construction		X	

II. SUPPLEMENTAL SCREENING AND SUMMARY OF DETAILED ANALYSES

Land Use, Zoning, & Public Policy

According to the 2021 *CEQR Technical Manual,* a detailed assessment of land use and zoning is appropriate if the Proposed Actions would result in a significant change in land use or would substantially affect regulations or policies governing land use. An assessment of zoning is typically performed in conjunction with a land use analysis when the action would change the zoning on the site or result in the loss of a particular use. As the Proposed Actions include zoning map and text amendments, a detailed land use, zoning, and public policy is warranted and is provided in **Attachment C, "Land Use, Zoning, and Public Policy."**

As presented in **Attachment C "Land Use, Zoning, and Public Policy,"** no significant adverse impacts on land use, zoning, or public policy, as defined by the guidance for determining impact significance set forth in the *CEQR Technical Manual*, are anticipated in the 2025 future with the Proposed Actions in the primary and secondary study areas. Compared to the future without the Proposed Actions, the Proposed Actions would introduce residential uses in the Project Area that would be compatible with adjacent land uses. Furthermore, the Proposed Actions would not conflict with public policies applicable to either the Project Area or the surrounding area nor would the Proposed Actions cause existing structures to become nonconforming. In addition, the Proposed Actions would not result in land uses that conflict with public

policies applicable to the primary or secondary study areas. Therefore, the Proposed Actions would not result in any significant impacts related to land use, zoning and public policy.

Community Facilities

Community facilities are public or publicly funded schools, libraries, child care centers, health care facilities and fire and police protection. An analysis examines an action's potential effect on the services provided by these facilities. An action can affect facility services directly, when it physically displaces or alters a community facility; or indirectly, when it causes a change in population that may affect the services delivered by a community facility.

As discussed in **Attachment A**, **"Project Description,"** while the Proposed Actions would result in the temporary closure of the RTFH during the construction period; however, the congregation would have access to a suitable, alternative location in the surrounding area for the duration. Additionally, although in the future with the Proposed Actions the DOE would no longer lease classroom space from the RTFH, the temple's capacity is limited and the classrooms are utilized on an "as needed" basis (e.g. when another DOE facility is being renovated). Furthermore, the current lease between the RTFH and DOE expires in 2022 with no commitment or intent to renew. As such, the RTFH is not the site of a permanent school and the Proposed Actions would not result in the direct displacement of or significant impacts to existing, on-site community facilities.

With regard to other community facilities, the Proposed Actions would not result in the introduction of a sizeable new population to the neighborhood nor would they affect the physical operations of or access to/from police or fire stations. In addition, as noted in **Attachment A**, **"Project Description,"** the Proposed Actions would only result in 43 to 52 new affordable DUs. Per *CEQR Technical Manual* guidance, the minimum number of new low or low/moderate income residential units in Queens that would trigger a detailed analysis for Early Childhood Programs is 139 units. Furthermore, the *CEQR Technical Manual* minimum number of new residential units that would trigger a detailed analysis for impacts on nearby libraries is 663. However, based on rates for Geographic District 28, the Proposed Actions would result in approximately 38, 14, and 17 elementary, intermediate, and high school students, respectively. This is below the CEQR threshold for high school students, which is 150 new students, but over the threshold of 50 or more total elementary and intermediate school students. As such, a detailed analysis of indirect effects of the Proposed Actions on area elementary and intermediate schools is warranted and is provided in **Attachment L, "Community Facilities."** As detailed in **Attachment L**, the Proposed Actions would not have significant adverse direct or indirect impacts on existing community facilities or services.

Open Space

Based on the 2021 *CEQR Technical Manual*, an open space assessment is warranted if an action(s) would directly affect an open space, or if it would increase the population by more than 200 residents or 500 workers. As described in **Attachment A**, **"Project Description,"** the Proposed Actions are expected to add approximately 389 new residents to the Project Area and decrease the worker population by 25 employees, compared to the future No-Action Condition. As this number of residents would exceed the CEQR threshold, an analysis of indirect residential effects on open space is warranted and included in **Attachment D**, **"Open Space."** As discussed in detail in **Attachment D**, no significant adverse impacts are expected on open space as a result of the Proposed Action.

Shadows

A shadows assessment considers proposed actions that result in new shadows long enough to reach a publicly accessible open space or historic resource (except within an hour and a half of sunrise or sunset). According to the 2021 *CEQR Technical Manual*, for proposed actions resulting in structures less than 50 feet high, a shadow assessment is generally not necessary unless the site is adjacent to a park, historic resource or important natural feature (if the features that make the structure significant depend on sunlight). As the Proposed Actions would result in two buildings, each with a maximum height of approximately 135 feet, a shadows analysis was completed and can be found in **Attachment E, "Shadows."** As described in **Attachment E**, the detailed shadows analysis determined that the Proposed Actions would not result in significant adverse shadows impacts.

Urban Design & Visual Resources

An area's urban design components and visual resources together define the look and character of the neighborhood. The urban design characteristics of the neighborhood encompass the various components of buildings and streets in the area, including building bulk, use, and type; building arrangement; block form and street pattern; streetscape elements; street hierarchy; and natural features. An area's visual resources are its unique or important public view corridors, vistas, or natural or built features. For CEQR analysis purposes, this includes only views from public and publicly accessible locations and does not include views from private residences or places of business.

An analysis of urban design and visual resources is appropriate if a proposed action would (a) result in buildings that have substantially different height, bulk, form, setbacks, size, scale, use, or arrangement than exists in an area; (b) change block form, demap an active street or map a new street, or affect the street hierarchy, street wall, curb cuts, pedestrian activity or streetscape elements; or (c) would result in above-ground development in an area that includes significant visual resources. As the Proposed Actions include a zoning map and a zoning text amendment that would change the permitted bulk allowed in the Project Area, a preliminary urban design analysis is required and is provided in **Attachment F, "Urban Design and Visual Resources."** As discussed therein, the Proposed Actions and associated RWCDS, would not result in a significant adverse impact on the area's urban design and visual resources, as defined by the CEQR Technical Manual. Therefore, the Proposed Actions would not result in significant adverse impacts on urban design and visual resources.

Water and Sewer Infrastructure

As defined in the *City Environmental Quality Review* (CEQR) *Technical Manual*, infrastructure comprises the physical systems that support populations and includes structures such as water mains and sewers, bridges and tunnels, roadways, and electrical substations. These structures are static and thus have defined capabilities that may be affected by growth in a particular area. As the Proposed Actions would result in the development of a site larger than one acre and increase the amount of impervious surface, an analysis of the Proposed Actions' impact on water and sewer infrastructure was conducted and is included in **Attachment G, "Water and Sewer Infrastructure."**

The Proposed Actions would not result in significant adverse impacts on wastewater treatment or stormwater conveyance infrastructure nor would the RWCDS result in significant adverse impacts on the City's sewage conveyance and treatment systems. Therefore, the Proposed Actions would not result in significant adverse impacts on water or sewer infrastructure.

Air Quality

According to the guidelines provided in the *CEQR Technical Manual*, air quality analyses are conducted in order to assess the effect of an action on ambient air quality (i.e., the quality of the surrounding air), or effects on the project because of ambient air quality. Air quality can be affected by "mobile sources," pollutants produced by motor vehicles, and by pollutants produced by fixed facilities, i.e., "stationary sources." As per the *CEQR Technical Manual*, an air quality assessment should be carried out for actions that can result in either significant adverse mobile source or stationary source air quality impacts.

Mobile Sources

Mobile source impacts could occur with actions that increase or cause a redistribution of traffic, create any other mobile sources of pollutants, or add new uses near mobile sources. Per *CEQR Technical Manual* Section 210, the threshold for detailed CO impact analysis is 170 vehicles per hour per intersection for the directly affected area, and the threshold for $PM_{2.5}$ impact analysis is 12 to 23 heavy-duty diesel vehicles (HDDV) or its equivalent vehicular emission based on the type of road. According to NYS DOT Highway Functional Classification (https://www.dot.ny.gov/gisapps/functional-class-maps), the streets bounding the Project Area are classified as neither collector, arterial, nor expressway/limited access roads. Therefore, 112th Street, 71st Avenue, and 71st Road are classified as paved roads with less than 5,000 vehicles per day and have a threshold of 12 HDDV trip-ends.

In accordance to guidance from the *CEQR TM*, a travel demand forecast was prepared to determine the number of project-generated vehicle trips (autos, taxi, and trucks combined) that would be introduced as a result of the Proposed Actions. Compared to the reasonable worst-case development scenario (RWCDS) No-Action condition, the Proposed Actions would result in a net increase of approximately 43, 22, 36, and 39 total vehicle trips during the weekday AM, weekday midday, weekday PM, and Saturday peak hours, respectively, which would be distributed throughout the street network surrounding the Development Site. As detailed in **Attachment A, "Project Description,"** the residential and community facility spaces on Projected Development Site 1 would have entrances on 112th Street and 71st Road, respectively. Access and egress to Projected Development Site 1's 66-space parking garage would also be along 112th Street. Under the With-Action condition, the entrances to both the residential and community facility spaces on Projected Development Site 2 are assumed to be along 71st Avenue. As such, vehicle trips were assigned to the frontage corresponding to the appropriate use's entrance. Additionally, as the 66-space parking garage on Projected Development Site 1 would accommodate approximately 86 percent of project-generated parking demand, the remaining vehicle trips were assigned to nearby off-street parking facilities. Based on these assignments, the intersection of 112th Street and 71st Avenue would be the location receiving the greatest number of trips – 22 autos, 1 taxi, and 1 truck – during the weekday AM peak period. Using the Equivalent Truck Calculator worksheet provided in Section 210 of the *CEQR TM*, these 23 LDGT and 1 HDDV8B trips would equal 12 truck equivalents, which would be under the threshold for detailed $PM_{2.5}$ impact analysis (see **Table B-2** below). Therefore, further analysis of air quality mobile sources from action-generated vehicle trips has been screened out in accordance with *CEQR Technical Manual* guidance and a detailed analysis of mobile source air quality impacts is not warranted.

Table B-2: $PM_{2.5}/PM_{10}$ Equivalent Truck Calculation

Road Types	Equ. Truck	Screen value	PM2.5 Screen
Paved road < 5000 veh/day	12	12	Pass Screen
Collector roads	6	19	Pass Screen
Principal and minor arterials	2	23	Pass Screen
Expressways and limited access roads	2	23	Pass Screen

Source: *CEQR Technical Manual* & NYS Department of Transportation Functional Class Viewer

Stationary Sources (HVAC)

Stationary source impacts could occur with actions that create new stationary sources or pollutants, such as emission stacks for industrial plants, hospitals, or other large institutional uses, or a building's boiler stacks used for heating/hot water, ventilation, and air conditioning ("HVAC") systems, that can affect surrounding uses. Impacts from boiler emissions associated with a development are a function of fuel type, stack height, minimum distance of the stack on the source building to the closest building of similar or greater height, building use, and the square footage size of the source building. In addition, stationary source impacts can occur when new uses are added near existing or planned emissions stacks, or when new structures are added near such stacks and those structures change the dispersion of emissions from the stacks so that they affect surrounding uses.

The RWCDS was analyzed for potential stationary source impacts, which is provided in **Attachment H, "Air Quality."** As detail in **Attachment H**, the stationary source air quality analysis determined that both Projected Development Site 1 and 2 (Block 2246, Lots 31 and 41) would require (E) designations (E-685) that would specify the location of the boiler stack to be restricted to the highest tier of the proposed buildings (i.e., atop the bulkhead) and would require the use of natural gas for the respective HVAC systems. As these (E) designations would ensure that there would be no significant air quality impacts associated with the Proposed Actions, no significant adverse stationary air quality impacts are expected in the future with the Proposed Actions.

Stationary Sources (Industrial)

Based on the review of area land uses, there are no industrial sources within 400 feet of the Project Area or large/major sources (e.g., Title V or State Facilities) within 1,000 feet of the Project Area. Therefore, no significant adverse industrial or major combustion emission source air quality impacts are anticipated and detailed analysis is not warranted.

Parking Garage Source

Based on guidance from the *CEQR Technical Manual*, the maximum capacities of parking garages are evaluated with a threshold criterion to predict whether the potential impacts associated with mobile source emissions are significant. The Project Area is located in a CEQR Traffic Zone 3, which covers all areas within 0.5 mile of subway stations. In Zone 3, no analysis of parking facilities is required unless 85 or more off-street spaces are proposed. As described in **Attachment A, "Project Description,"** there are 66 off-street parking spaces proposed as part of the Proposed Project and, therefore, no parking facilities analysis is required.

Noise

The principal types of noise sources affecting the New York City environment are mobile sources (primarily motor vehicles), stationary sources (typically machinery or mechanical equipment associated with manufacturing operations or building heating, ventilating and air conditioning systems) and construction noise. The *CEQR Technical Manual* states that the initial impact screening for noise considers whether the project would: (1) generate any mobile or stationary sources of noise; and/or (2) be located in an area with existing high ambient noise levels. As discussed below, the Proposed Actions would generate or divert vehicular traffic, but this would not represent a substantial new mobile source of noise.

Mobile Source Screening

As indicated on the EAS Form, the Proposed Actions would generate or divert vehicular traffic. Therefore, a screening assessment is necessary to determine if a detailed mobile source noise analysis is warranted. As indicated in the *CEQR Technical Manual*, Chapter 19, "Noise," Section 311.1, if existing noise passenger car equivalent (PCE) values are not increased by 100 percent or more at any sensitive receptor location, a significant adverse mobile source noise impact would not occur and no further analysis is needed. As indicated in the Section 13, "Transportation," of the EAS Form, the Proposed Actions would not exceed any threshold identified in Table 16-1 in Chapter 16, "Transportation," of the *CEQR Technical Manual* and, therefore, they would generate a net increment of fewer than 50 vehicle trips in all peak hours. As such, the Proposed Actions are not expected to double PCE values at any location. The *CEQR Technical Manual* states that, if existing noise PCE values are not increased by 100 percent or more, it is not likely that a proposed project would cause a significant adverse mobile source noise impact. In addition, the Project Area is not located near heavily trafficked or atypical roadways. Accordingly, the Proposed Actions would not result in significant adverse mobile source noise impacts and detailed mobile source noise analysis is not warranted.

Stationary Source Screening

Consistent with guidance in the *CEQR Technical Manual*, Chapter 19, "Noise," Section 220, the Proposed Actions would not create a substantial stationary noise source, but would introduce a new noise sensitive receptor. As such, the Proposed Actions would not have the potential to result in significant adverse impacts, but a stationary source noise assessment was conducted to determine the level of building attenuation necessary to ensure that interior noise levels within the proposed residential and community facility spaces would satisfy applicable interior noise exposure criteria. As described in **Attachment I, "Noise,"** existing noise levels at all three noise receptor locations would remain below the 70 dBA CEQR threshold. Therefore, consistent with *CEQR Technical Manual* guidance, no special noise attenuation measures beyond standard construction practices would be required for residential and community facility uses on any of the RWCDS development's street frontages in order to achieve interior noise levels of 45 dBA or lower for residential and community facility uses or 50 dBA or lower for commercial office uses. As such, the RWCDS development would provide sufficient attenuation to achieve the *CEQR Technical Manual* interior noise level guidelines, and, thus, the Proposed Actions would not result in any significant adverse noise impacts related to building attenuation requirements.

Other Noise Concerns

The Project Area is not located within 1,500 feet of an existing or proposed rail line with a direct line of site to that rail line and the Proposed Actions would not generate or reroute aircraft or introduce a new

receptor within a 65 dBA DNL contour. In addition, the building's mechanical systems would be designed with enclosures where necessary to meet all applicable noise regulations (i.e., Subchapter 5 §24-227 of the New York City Noise Control Code and the NYC DOB Building Code) and to avoid producing levels that would result in any significant increase in ambient noise levels. As such, the Proposed Actions would not introduce any sensitive receptors near any such mobile noise sources. Accordingly, the Proposed Actions would not result in significant adverse noise impacts related to train, aircraft, or mechanical equipment.

Historic and Cultural Resources

Historic and cultural resources include both architectural and archaeological resources. The 2021 *CEQR Technical Manual* identifies historic and cultural resources as districts, buildings, structures, sites, and objects of historical, aesthetic, cultural and archaeological importance. This includes designated New York City Landmarks (NYCL); properties calendared for consideration as landmarks by the New York City Landmarks Preservation Commission (NYCLPC); properties listed in the State/National Registers of Historic Places (S/NR) or contained within a district listed in or formally determined eligible for S/NR listing; properties recommended by the New York State Board for listing on the S/NR; National Historic Landmarks (NHL); and properties not identified by one of the programs listed above, but that meet their eligibility requirements. An assessment of historic/archaeological resources is usually needed for projects that are located adjacent to historic or landmark structures or within historic districts, or projects that require in-ground disturbance, unless such disturbance occurs in an area that has already been excavated.

According the *CEQR Technical Manual* guidelines, impacts on historic resources are considered on those sites directly affected by proposed action(s) and in the area immediately surrounding identified development sites (i.e., within 400 feet). In a letter from the Landmarks Preservation Commission (LPC) dated August 30, 2020, LPC finds that the properties within the Project Area have no historical or archaeological significance; however, one property (P.S. 196-Q located at 71-25 113th Street) within the 400-foot radius is S/NR eligible (see **Appendix I**). As such, an assessment of potential impacts to this architectural resource is warranted and provided in **Attachment J, "Historic and Cultural Resources."** As detailed in **Attachment J**, PS 196-Q is not adjacent to the Project Area. Rather, it is approximately 200 feet to the east. In addition, as detailed in **Attachment E, "Shadows,"** while the Proposed Actions would result in incremental shadows being cast on a portion of PS 196-Q, the school is not sunlight-sensitive. As such, no significant adverse impacts to architectural or archaeological resources would result from the Proposed Actions. These findings have been confirmed by LPC in a letter dated June 17, 2022 (see **Appendix I**).

Hazardous Materials

As defined in the 2021 *CEQR Technical Manual*, 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 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 adverse impacts from hazardous materials can occur when: (a) hazardous materials exist on a site, and (b) an action would increase pathways to their exposure; or (c) an action would introduce new activities or processes using hazardous materials.

A Phase I Environmental Site Assessment (ESA) was prepared for Projected Development Site 1 by ALC Environmental (ALC) in August 2020. The Phase I EAS found one recognized environmental condition (REC) associated with the property – the presence of one 10,000-gallon No. 2 heating oil underground storage

tank (UST) – and one historical recognized environmental condition (HREC). (For the full Phase I ESA see **Appendix II**.) As such, a detailed assessment of potential impacts related to hazardous materials was prepared and is included in **Attachment K, "Hazardous Materials."** As detailed in **Attachment K**, ALC recommends that the tank closure records be provided for review, to ensure that the tank was properly closed. If no such records are available, a geophysical survey and soil and/or groundwater sampling is recommended to determine the former UST location, and to confirm whether or not subsurface conditions have been impacted.

However, as noted in **Attachment A**, Projected Development Site 1 is currently developed with an operable and in-use community facility. In addition, Projected Development Site 2, which is not under the control of the Applicant, is also in use in its existing condition. Given the continued use of the sites, it is not feasible to conduct invasive drilling and sampling activities at this time. Instead, an (E) designation would be placed on Projected Development Site 1 (Block 2246, Lot 31) and Projected Development Site 2 (Block 2246, Lot 41) which would require site investigation prior to issuance of building permits. By placing an (E) designation on these sites, the potential for an adverse impact to human health and the environment resulting from the Proposed Actions would be avoided. With the requirements of the (E) designation to be assigned to these sites there would be no impact from the potential presence of contaminated materials. The implementation of the preventative and remedial measures outlined in the (E) designation would preclude the potential for significant adverse hazardous materials impacts from the Proposed Actions. Therefore, no further analysis is required at this time.

Public Health

For CEQR analysis purposes, Public Health involves the activities that society undertakes to create and maintain conditions in which people can be healthy. Many public health concerns are closely related to air quality, hazardous materials and noise.

According to the guidance of the *CEQR Technical Manual*, a public health assessment may be warranted if a project results in (a) increased vehicular traffic or emissions from stationary sources resulting in significant adverse air quality impacts; (b) increased exposure to heavy metals and other contaminants in soil/dust resulting in significant adverse impacts, or the presence of contamination from historic spills or releases of substances that might have affected or might affect groundwater to be used as a source of drinking water; (c) solid waste management practices that could attract vermin and result in an increase in pest populations; (d) potential significant adverse impacts to sensitive receptors from noise and odors; (E) vapor infiltration from contaminants within a building or underlying soil that may result in significant adverse hazardous materials or air quality impacts; (f) exceedances of accepted federal, state, or local standards; or (g) other actions that might exceed the preceding thresholds but might, nonetheless, result in significant health concerns.

As detailed in analyses provided in this EAS, the Proposed Project would not result in significant adverse impacts in the areas of air quality, hazardous materials or noise. Therefore, the Proposed Actions do not have the potential to result in significant adverse public health impacts, and no further assessment is warranted.

Neighborhood Character

As the Proposed Actions and associated RWCDS required analyses of Land Use, Zoning, and Public Policy, Open Space, Shadows and Noise, a supplemental screening analysis is necessary to determine if a detailed neighborhood character analysis is warranted in accordance with *CEQR Technical Manual* methodology.

As described in **Attachment A, "Project Description,"** the Proposed Actions would facilitate the development of a mixed-use building containing residential and community facility uses which would introduce affordable and market rate housing, as well as providing an updated space for the RTFH synagogue. According to the Applicant, the Proposed Actions would support citywide goals, by creating expanded opportunities for new affordable housing development. Additionally, the use and bulk would match existing developments in the surrounding neighborhood. As discussed above, and in further detail in **Attachment C, "Land Use, Zoning, and Public Policy," Attachment D, "Open Space," Attachment G, "Air Quality"** and **Attachment H, "Noise,"** the Proposed Actions are not expected to result in any significant adverse impact for the five technical areas related to neighborhood character. Furthermore, the Proposed Actions and RWCDS would not adversely affect any component of the surrounding area's neighborhood character. Therefore, the Proposed Actions would not result in a significant adverse impact to neighborhood character and further analysis is not warranted.

Construction

Although temporary, construction impacts can include noticeable and disruptive effects from an action that is associated with construction or could induce construction. Determination of the significance of the construction impacts and the need for mitigation is generally based on the duration and magnitude of the impacts. Construction impacts are usually important when construction activity could affect traffic conditions, archaeological resources, the integrity of historic resources, community noise patterns and/or air quality conditions.

As noted in the EAS Form, construction of the Proposed Project is expected to occur over a 22-month period, with construction beginning in 2022 and completion in 2024 however, as the RWCDS includes a portion of an adjacent lot not under the control of the Applicant, a build year of 2025 has been identified for conservative analysis purposes. With an anticipated construction period of 22-months total, construction of the Projected Project would be classified as short-term for CEQR purposes. Most construction activity would occur Monday through Friday, although delivery and installation of certain equipment could occur on weekend days if necessary. Hours of construction are regulated by the New York City Department of Buildings (DOB) and apply in all areas of the City. In accordance with those regulations, almost all work would occur between 7 AM and 6 PM on weekdays, although some workers could arrive and begin to prepare work areas before 7 AM. Occasionally, Saturday or overtime hours could be required to complete time-sensitive tasks. Weekend work would require a permit from the DOB and, in certain instances, approval of a noise mitigation plan from DEP under the New York City Noise Code.

Construction activities may result in short-term disruption of both traffic and pedestrian movements in the vicinity of the Project Area. This would occur primarily due to the potential temporary loss of curbside lanes from the staging of equipment and movement of materials to and from the Project Area. Most construction traffic would take place outside the AM and PM traffic peak hours in the vicinity of the Project Area due to typical construction hours. Additionally, construction may at times result in temporary closings of sidewalks adjacent to the Project Area in order to accommodate construction vehicles, equipment and supplies. The construction site would be surrounded by construction fencing and barriers as required by DOB, which would limit the effects of construction on nearby land uses. While it is possible that some sidewalks immediately adjacent to the construction site would be closed to accommodate heavy loading areas for at least several months of the construction period for the site, detailed Maintenance and Protection of traffic (MPT) plans for the construction site would be required and would need to be submitted for approval to the New York City Department of Transportation (DOT)'s Office of

Construction Mitigation and Coordination (OCMC), the entity that insures critical arteries are not interrupted, especially in peak travel periods.

Noise associated with construction would be limited to typical construction activities and would be subject to compliance with the New York City Noise Code and the United States Environmental Protection Agency (EPA) noise emission standards for construction equipment. These controls and the temporary nature of construction activity would assure that there would be no significant adverse noise impacts associated with construction activity.

While the Proposed Actions would result in construction that would result in temporary disruption in some of the surrounding area, including noise, dust and traffic associated with the delivery of materials and arrival of workers in the Project Area, the incremental effects of construction, if any, would be negligible. Therefore, no impacts from construction are expected as a result of the Proposed Actions.

ATTACHMENT C

LAND USE, ZONING, & PUBLIC POLICY

I. INTRODUCTION

The Applicant (Werber Management, Inc. and the Reform Temple of Forest Hills ("RTFH")) is seeking the approval of two discretionary actions ("The Proposed Actions") affecting the applicant-owned property at 71-11 112th Street (Block 2246, Lot 31) of in the Forest Hills neighborhood of Queens Community District (CD) 6, as well as the northwest portion of the adjacent Lot 41 (collectively the "Project Area"). The discretionary actions include: (1) a zoning map amendment to rezone the project from an R1-2A to an R7D district and (2) a zoning text amendment to Appendix F of the *Zoning Resolution of the City of New York* (ZR) to designate the Project Area as a Mandatory Inclusionary Housing (MIH) Area. The Proposed Actions would facilitate the redevelopment Lot 31 with a 10-story mixed-use building containing 153 dwelling units (DUs) – of which 115 to 107 DUs would be market rate and 38 to 46 DUs would be affordable rental units, pursuant to MIH Option 1 or 2 – as well as approximately 16,600 gross square feet (gsf) of community facility space.

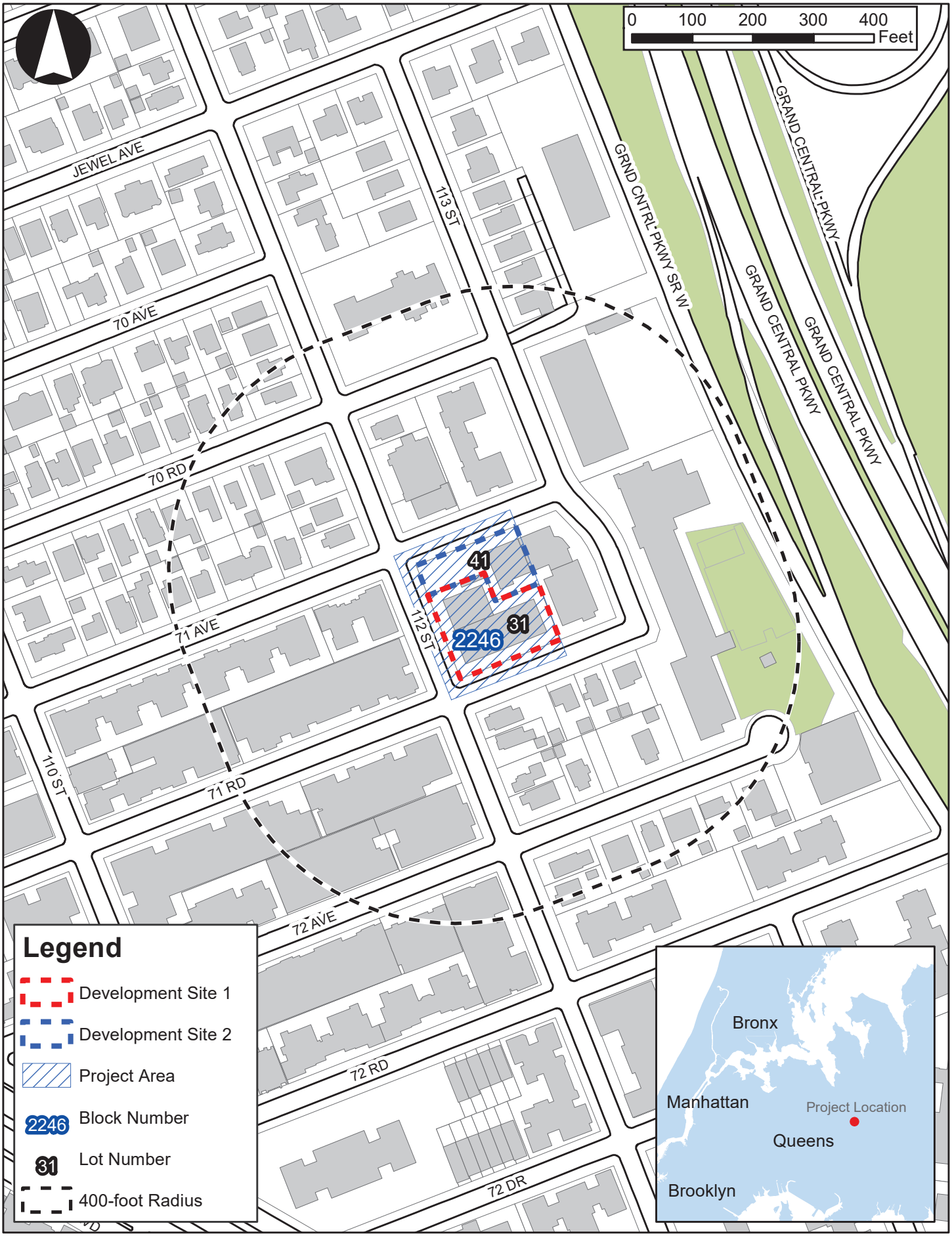
As outlined in the 2021 *City Environmental Quality Review* (CEQR) *Technical Manual*, a detailed assessment of land use and zoning is appropriate if a proposed action would result in a significant change in land use or zoning, or if the Proposed Actions would substantially affect regulations or policies governing land use. An assessment of zoning is typically performed in conjunction with a land use analysis when the action would change the zoning on a site or result in the loss of a particular use. As the Proposed Actions include a zoning map amendment and a zoning text amendment, a detailed assessment of land use, zoning and public policy is warranted and is provided in this attachment. This detailed assessment discusses existing and future conditions of the Project Area with and without the Proposed Actions, as well as properties within an approximately 400-foot radius surrounding the Project Area.

II. METHODOLOGY

As mentioned above, the Proposed Actions include a zoning map amendment and a zoning text amendment, which would affect land use, zoning and public policy. In accordance with *CEQR Technical Manual* guidance, land use, zoning and public policy are addressed and analyzed for two geographical areas. For the purpose of this assessment, the primary study area encompasses the Project Area (Block 2246, Lot 31 and part of Lot 41). The secondary study area encompasses areas that have the potential to experience indirect impacts as a result of the Proposed Actions. The secondary study area extends an approximate 400-foot radius from the boundary of the primary study area. The secondary study area is generally bound by 70th Road to the north, the Grand Central Parkway to the east, 72nd Avenue to the south and 110th Street to the west. Both the primary and secondary study areas have been established in accordance with *CEQR Technical Manual* guidance and are presented in **Figure C-1.**

The analysis of land use, zoning and public policy first provides a description of the existing land use, zoning and public policy conditions in each of the study areas. Existing land uses in the primary and secondary study areas were determined based on the New York City Primary Land Use Tax Lot Output (PLUTO) data files for 2021. New York City Zoning and Land Use (ZoLa), New York City Zoning maps and the *Zoning Resolution of the City of New York* were consulted to describe existing zoning districts in each of the study areas. Relevant public policy documents, recognized by the New York City Department of City

Figure C-1
Project Location



Planning (DCP) and other City agencies were utilized to describe existing public policies pertaining to the primary and secondary study areas.

The analysis then projects land use, zoning and public policy conditions in the 2025 analysis year without the Proposed Actions. This is the "No-Action" or "future without the Proposed Actions" scenario, which is developed by identifying proposed developments and other relevant changes anticipated to occur in the primary and secondary study areas within this time frame. The No-Action scenario describes the baseline conditions in each of the study areas against which the Proposed Actions' incremental changes are measured. Finally, the analysis projects land use, zoning and public policy conditions with the approval of the Proposed Actions to the analysis year 2025. This is the "With-Action" or "future with the Proposed Actions" scenario.

III. DETAILED ASSESSMENT

The assessment presented herein considers the existing conditions within the primary and secondary study areas, as discussed in **Attachment A, "Project Description,"** as well as the potential effects of the Proposed Actions on the land use, zoning and public policy within these study areas.

Existing Conditions

Land Use

Primary Study Area (Project Area)

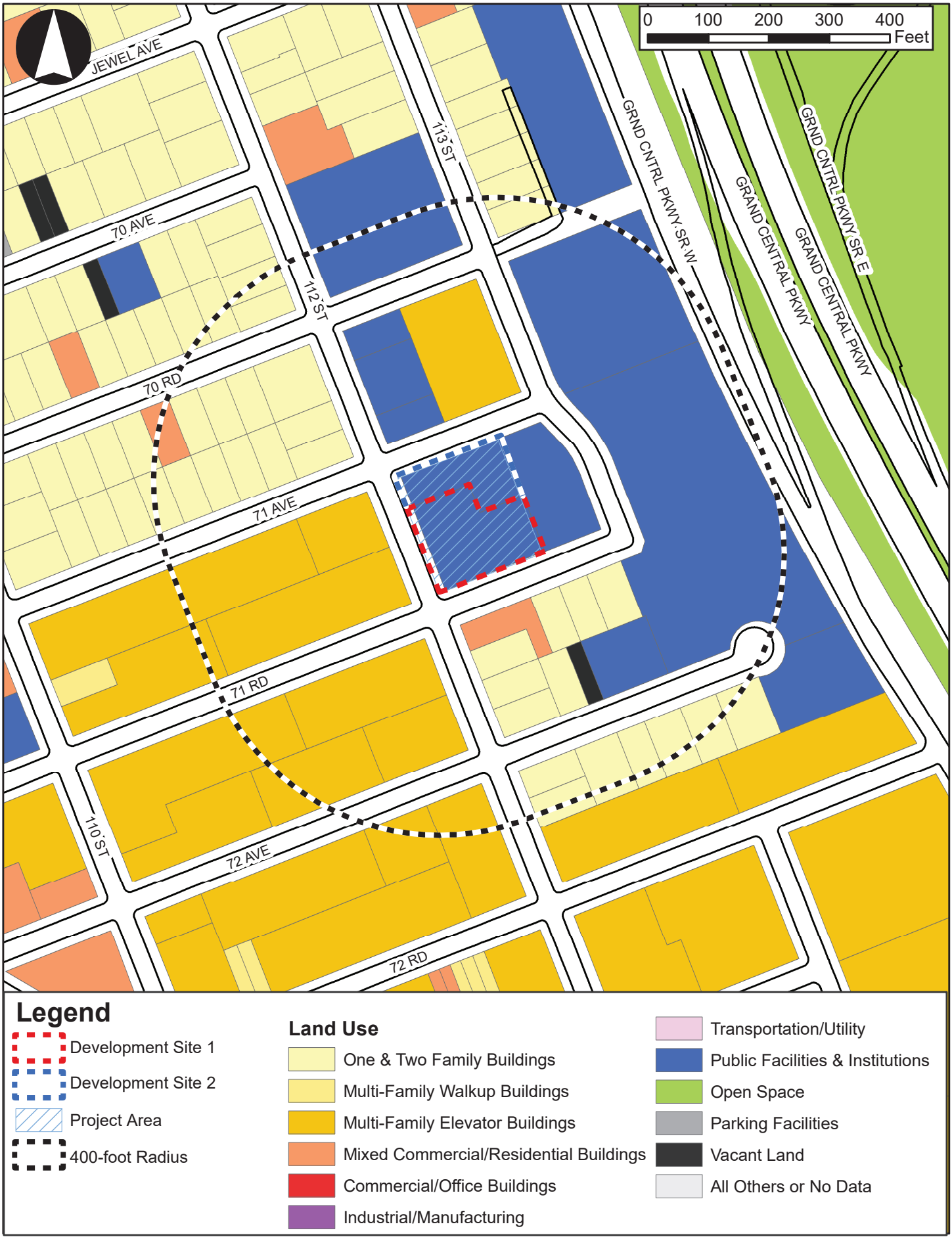
The Project Area comprises approximately 35,000 sf of Queens Block 2246 which includes the approximately 22,500-sf, applicant-controlled Lot 31 on (Projected Development Site 1), as well as an approximately 12,500-sf portion of the adjacent Lot 41 (Projected Development Site 2), which is not under the control of the applicant. Site 1 has approximately 175 feet of frontage on 71st Road and approximately 150 feet of frontage on 112th Street while Site 2 has approximately 50 feet of frontage along 112th Street and 175 feet of frontage on 71st Avenue. Both site are mapped to a depth of approximately 175 ft east of 112th Street. On Projected Development Site 1, a two-story, approximately 24,000-gsf community facility is currently developed which contains the existing RTFH (Use Group 4, house of worship), as well as eight classrooms (Use Group 3). RTFH utilizes the classrooms for religious school Wednesday evenings and Sunday mornings with a maximum of 100 students attending the Sunday session. RTFH leases their classroom space to NYC DOE for use on an as-needed basis by primary school students and associated staff during typical Monday-Friday school hours. RTFH employs approximately 25 workers and up to 25 DOE employees utilize the space at any one time. An existing, approximately 20-foot curb cut on 112th Street provides access to four at-grade accessory parking spaces.

Projected Development Site 2, located adjacent to and north of Projected Development Site 1, is owned by Touro College and contains an approximately 11,700-gsf portion of a larger, three-story educational building and a 20-space, at-grade parking lot accessed from 112th Street via an existing curb cut.

Secondary Study Area

As shown in **Table C-1** and **Figure C-2**, the secondary study area predominantly consists of residential buildings which represent approximately 78.6 percent of the lots in the secondary study area, 56 percent of the total lot area and 74.7 percent of the total building area. One- and two-family residential buildings

Figure C-2
Existing Land Use



are predominantly located to the northwest of the Project Area and are the most prevalent in terms of number of lots, representing 64.3 percent of total lots. Multi-family elevator residential buildings comprise 14.3 percent of total lots, but represent 26.6 percent of total lot area and 64.4 percent of total building area – compared to one- and two-family buildings which represent 29.4 and 10.2 percent of total lot area and total building area, respectively. Two mixed commercial/residential buildings are also present within the secondary study area, one of which is directly south of the Project Area.

Table C-1: Existing Land Uses within the Secondary Study Area

Land Use	Number of Lots	Percentage of Total Lots (%)	Lot Area (sf)	Percentage of Total Lot Area (%)	Building Area (sf)	Percentage of Total Building Area (%)
Total Residential	33	78.6%	278,184	56.0%	568,242	74.7%
One & Two-Family	*27*	*64.3%*	*146,184*	*29.4%*	*77,818*	*10.2%*
Multi-Family Walkup	*0*	*0%*	*0*	*0%*	*0*	*0%*
Multi-Family Elevator	*6*	*14.3%*	*132,000*	*26.6%*	*490,424*	*64.4%*
Mixed Commercial/ Residential	2	4.8%	12,300	2.5%	6,011	0.8%
Commercial/Office	0	0%	0	0%	0	0%
Industrial/Manufacturing	0	0%	0	0%	0	0%
Transportation/Utility	0	0%	0	0%	0	0%
Public Facilities & Institutions	6	14.3%	204,050	40.8%	186,840	24.5%
Open Space	0	0%	0	0%	0	0%
Parking Facilities	0	0%	0	0%	0	0%
Vacant Land	1	2.4%	2,500	0.50%	0	0%
All Others or No Data	0	0%	0	0%	0	0%
Total	*42*	*100%*	*497,034*	*100%*	*761,093*	*100.0%*

Source: 2021 PLUTO data

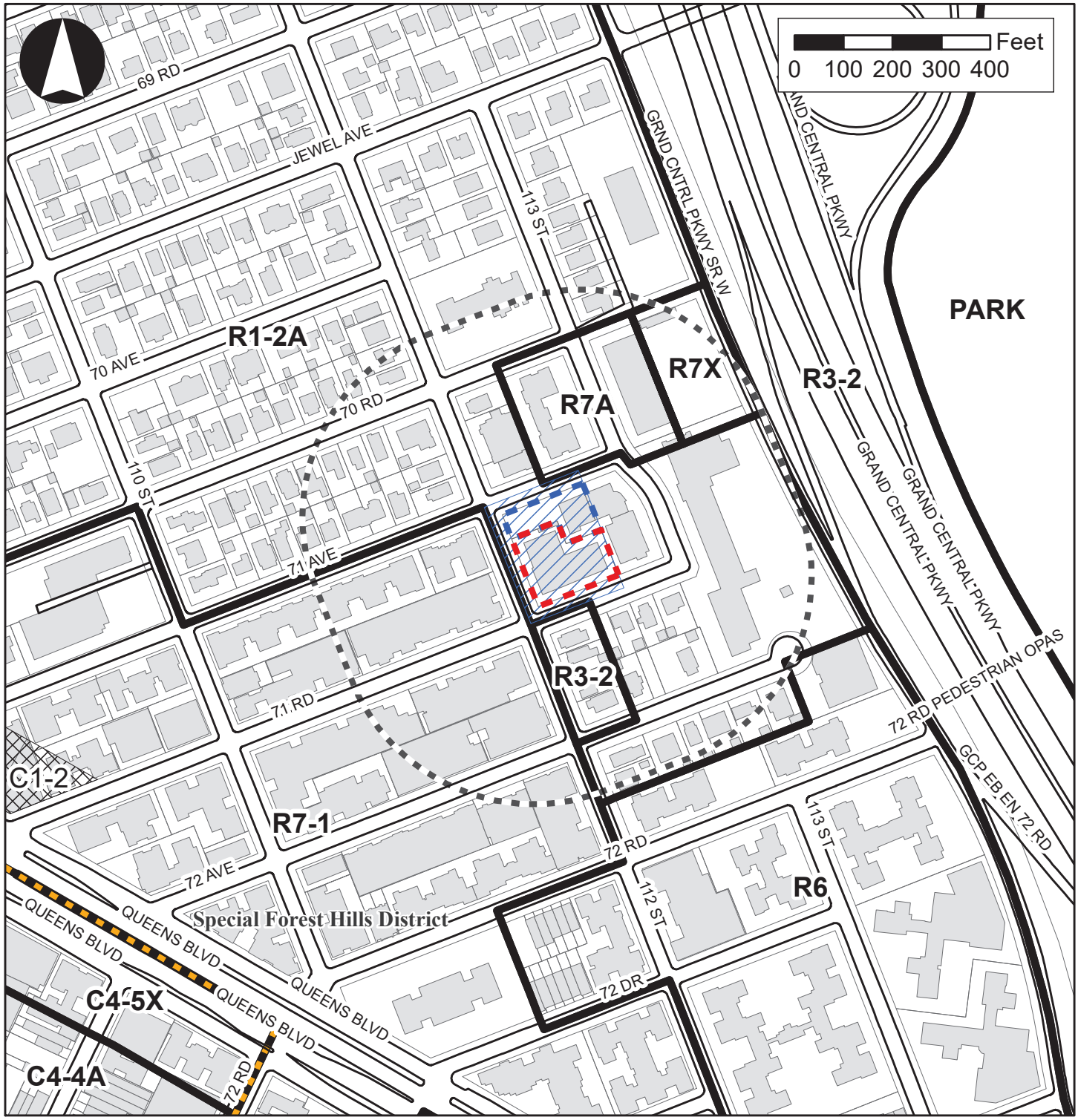
As presented in **Table C-1 above**, public facility and institutional uses represent approximately 14.3 percent of total lots in the secondary study area, 40.8 percent of the total lot area and approximately 24.5 percent of the total building area. As shown in **Figure C-2**, public facility and institutional uses are generally located in the portion of the secondary study area east of 112th Street. One parcel of vacant land, representing approximately 0.5 percent of the total lot area, is located in the southern portion of the secondary study area. This parcel is used as a side yard for the adjacent residential building. As presented in **Table C-1**, there are no commercial/office, industrial/manufacturing or transportation/utility uses within the secondary study area, nor are there open spaces or parking facilities.

Zoning

Primary Study Area (Project Area)

As shown in **Figure C-3,** the Project Area is located within the southwestern portion of the Cord Mayer-Forest Hills rezoning area which rezoned the Project Area from an R1-2 zoning district to an R1-2A zoning district as part of this 2009 rezoning. An R1-2A district permits Use Groups 1, 3 and 4 (single-family detached residential and community facility uses, respectively) and has a maximum floor area ratio (FAR) of 0.5 and 1.0 for residential and community facility uses, respectively (see **Table C-2**). R1-2A districts are

Figure C-3
Existing Zoning



Legend

- Development Site 1
- Development Site 2
- Project Area
- 400-foot Radius
- Existing Building
- M1 Zoning Districts
- Special Districts
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5

Source: DOITT, DCP

limited to the Forest Hills neighborhood of Queens – a low-density residential area with many single family homes.

Secondary Study Area

In addition to the R1-2A described above, which is mapped in the northern and eastern portions of the secondary study area, the secondary study area also includes R7-1, R7A, R7X and R3-2 districts (see **Figure C-3**). R7 districts are medium-density districts which encourage lower apartment buildings on smaller lots or taller buildings on larger lots with less lot coverage. The area directly west of the Project Area, across 112th Street, is mapped with an R7-1 district which permits a maximum of 3.44 and 4.00 FAR for residential uses along either narrow or wide streets, respectively. As shown in **Table C-2** below, the maximum FAR for community facilities in R7-1 districts is 4.8. Parking is typically required for 60 percent of DUs, although requirements are lower for income-restricted housing and in Transit Zones.

Table C-2: Primary and Secondary Study Area Zoning Districts

District	Definition/ General Use	Maximum FAR
Residential Districts		
R1-2A	This classification allows for single family detached houses. The height factor regulations limit building height to 35 feet and front yards must be as deep as neighboring yard.	R: 0.50; CF: 1.00; C: 0.0; M: 0.0
R3-2	This classification allows for low density residential housing including low-rise attached houses, small multifamily apartment houses, and detached and semi-detached one- and two-family residences. It is the lowest density zoning district in which multiple dwellings are permitted. Because of their flexibility, R3-2 districts are mapped widely in all boroughs except Manhattan.	R: 0.50; CF: 1.00; C: 0.0; M: 0.0
R7-1	This classification allows for medium-density apartment houses. The height factor regulations encourage lower apartment buildings on smaller zoning lots and, on larger lots, taller buildings with less lot coverage. As an alternative, developers may choose the optional Quality Housing regulations to build lower buildings with greater lot coverage.	HF: R: 0.87-3.44; C: 0.0; CF: 4.8; M: 0.0 QH: R: 3.44-4.0; C: 0.0; CF: 4.8; M: 0.0
R7A	This classification is a medium-density contextual residence district. It allows for an FAR of 4.0 or 4.60 if it is Inclusionary. This classification produces high lot coverage apartment building with seven to nine stories.	QH: R: 4.00-4.60; CF: 4.00; C: 0.0; M: 0.0
R7X	This classification allows for medium-density contextual residences. For inclusionary buildings, an FAR of 6.00 is allowed. Buildings tend to range from 12 to 14 stories. Above a base height of 60 to 85 feet, the building must be set back a depth of 10 feet on a wide street and 15 feet on a narrow street before rising to its maximum height of 120 feet. If providing a qualifying ground floor, the maximum base height is 95 feet and the maximum height of the building is 125 feet.	QH: R: 5.00-6.00; CF: 5.00 C: 0.0; M: 0.0

Source: *Zoning Resolution of the City of New York*

As shown in **Figure C-3**, an R7A district and an R7X district are mapped on the blocks immediately north and northeast of the Project Area (Blocks 2246 and 2248, respectively). Pursuant to the 2019 Former Parkway Hospital Site Rezoning, the site of the decommissioned hospital and the lot directly across the street were rezoned from R1-2A to R7A and R7X zoning districts. Additionally, the text of the Zoning Resolution was amended to establish a corresponding MIH district. Both the R7A and R7X zoning districts

are contextual zoning districts with a maximum residential FAR of 4.6 and 6.0, respectively, pursuant to MIH, while the maximum community facility FAR is 4.0 and 5.0, respectively.

An R3-2 zoning district is mapped on the western edge of Block 2248, to the south of the Project Area, which permits a maximum FAR of 0.5 for residential use and 1.0 FAR for community facilities. Pursuant to the 2019 112-06 71st Street Rezoning, Lots 1, 4, 6 and 9 on this block were rezoned from an R1-2A zoning district to the current R3-2 zoning district to a depth of 100 feet from 112th Street. While not located within the secondary study area, an R6 zoning district, which permits a maximum FAR of 2.43 at a building height of 13 stories, is mapped just south of the secondary study area boundary.

Public Policy

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

The primary study area is not located within an urban renewal area, a Coastal Zone or an area defined by an adopted 197-a plan, nor is it designated an Industrial Business Zone (IBZ) or a historic district. The Proposed Actions would not involve the siting of any public facilities subject to Fair Share Criteria. City policies which are applicable to the primary and secondary study areas include the *Housing New York: A Five-Borough, Five-Year Plan* and the *PlaNYC 2030/OneNYC*, which are described below.

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

Housing New York, released in 2014, is the City's comprehensive housing development policy plan that seeks, as a primary goal, to build and preserve 300,000 units of high-quality affordable housing over the next decade. Framed by the policy goals and objectives in *Housing New York*, the City-approved MIH program requires, through zoning actions, a share of new housing to be permanently affordable. *Housing New York* was developed in conjunction with HPD to create housing opportunities for New Yorkers with a range of incomes, while fostering vibrant and diverse neighborhoods.

The primary components of *Housing New York* include:

- Mandatory affordable housing, not voluntary. Production of affordable housing would be a condition of residential development when developers build in an area zoned for MIH, whether rezoned as part of a City neighborhood plan or a private rezoning application.

- Affordable housing would be permanent. There would be no expiration to the affordability requirement of apartments generated through MIH, making them a long-term, stable reservoir of affordable housing.

Housing New York, and the adopted (March 22, 2016) Zoning for Quality and Affordability (ZQA) and Mandatory Inclusionary Housing (MIH) programs are aimed at promoting affordable and better quality housing in New York City. The primary goals of the ZQA and MIH programs are to: (1) support the creation of new affordable housing and senior care facilities, (2) help deploy public resources devoted to affordable

housing more efficiently, and (3) encourage better residential buildings that are more compatible with their surroundings and which help enliven the pedestrian environment.

In November 2017, the Administration launched *Housing New York 2.0* (HNY 2.0) which built on the foundation laid through the *Housing New York* plan by committing to complete the initial goals ahead of schedule, generating an additional 100,000 affordable units over the following four years and introducing a suite of new initiatives to help thousands more families and seniors afford their rent in the neighborhoods they hold dear.

PlaNYC 2030/OneNYC (Previously PLaNYC)

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, *One New York: The Plan for a Strong and Just City* (OneNYC) was released by the de Blasio administration, building upon the sustainability goals established by PlaNYC. Sustainability and resiliency remain the core goals of OneNYC, but with the poverty rate remaining high and income inequality continuing to grow, the de Blasio administration added equity as a guiding principle throughout the plan. In addition to the focuses of population growth, aging infrastructure and global climate change, OneNYC brings new attention to additional concerns. OneNYC includes updates on the progress towards the 2011 sustainability initiatives and 2013 resiliency initiatives, with additional goals and new initiatives under the organization of four visions: growth, equity, resiliency and sustainability.

Goals of the plan are to make New York City:

- A Growing, Thriving City by fostering industry expansion and cultivation, promoting job growth, creating and preserving affordable housing, supporting the development of vibrant neighborhoods, increasing investment in job training, expanding high-speed wireless networks and investing in infrastructure.

- A Just and Equitable City by raising the minimum wage, expanding early childhood education, improving health outcomes, making streets safer and improving access to government services.

- A Sustainable City by reducing greenhouse gas emissions, diverting organics from landfills to attain Zero Waste, remediating contaminated land and improving access to parks.

- A Resilient City by making buildings more energy efficient, making infrastructure more adaptable and resilient and strengthening coastal defenses.

The Future without the Proposed Actions (No-Action Scenario)

Land Use, Zoning, and Public Policy

In the absence of the Proposed Actions (the No-Action scenario), it is assumed that Projected Development Site 1 (approximately 22,500 sf) would not be redeveloped and the existing, approximately 24,000-gsf building would remain a community facility (the RTFH) with four accessory parking spaces. No changes would be made to existing R1-2A zoning, a contextual residential district which permits 0.50 FAR for residential uses and 1.00 for community facility uses. Additionally, under the No-Action condition, it is assumed that Projected Development Site 2 (approximately 12,500 sf) would also remain in its existing condition as a 20-space parking lot and approximately 11,700-gsf of a larger three-story educational building. However, there are several developments either planned or in construction that are within a half-mile of the Project Area which are reasonably assumed to be completed by the analysis year. Of these developments, one is located within the secondary study area while the remaining seven are within a half-mile of the Project Area, but are outside of the study area. All eight No-Action developments are presented in **Table C-3** below.

Table C-3: Anticipated No-Action Developments

Name/Address	Development Type	Residential (DUs)	Estimated Residents[1]	Residential (sf)	Community Facility/ Other Use (sf)
Secondary Study Area Developments					
70-35 113th Street	Mixed – Use	351	697[2]	398,016	4,034 Community Facility 180 Parking Spaces
	Subtotal	*351*	*697*	*398,016*	*4,034 Community Facility* *180 Parking Spaces*
Developments Within Half-Mile Radius					
75-42 Grand Central Parkway	Residential	10	21	8,908	--
110-48 Jewel Avenue	Residential	1	2	500	2 Parking Spaces
108-37 Jewel Avenue	Residential	1	2	300	2 Parking Spaces
PS 303Q/68-60 110 Street	School	0	0	0	60,065 Community Facility
112-28 68 Drive	Residential	1	2	4460	--
107-02 Queens Boulevard	Mixed-Use	74	155	73,021	11,677 Commercial 46 Parking Spaces
108-15 72nd Avenue	Mixed-Use	26	55	19,696	13 Parking Spaces
	Subtotal	*113*	*277*	*106,885*	
	Totals	*464*	*974*	*504,901*	*64,099 Community Facility* *11,677 Commercial* *243 Parking Spaces*

Sources: New York City Department of Building's (DOB's) Building Information Search (BIS), real estate/leasing material, real estate blogs
Notes: [1]Assumes average household size of 2.10 for Queens CD 6 (2010 U.S. Census)
[2]The Parkway Hospital Development includes 67 AIRS units which assumes household size of 1.5

The aforementioned former Parkway Hospital site, located across the street from the Project Area at the intersection of 113th Street and 71st Avenue. As noted above, it is the only known and anticipated development within the secondary study area. As the rezoning has been approved, it is expected to proceed as planned under the No-Action scenario. The resulting 402,050-gsf mixed-use development would comprise two buildings (8 stories and 14 stories) collectively containing 4,034 gsf of community facility space and 180 accessory parking spaces in addition to a mix of 216 market rate, 68 affordable and

67 Affordable Independent Residences for Seniors (AIRS) units. A few other known and anticipated developments, which are within a half-mile of the Project Area, but are located outside either study area, are expected to occur in the 2025 No-Action scenario. There are no known or planned changes to public policy applicable to either the primary or secondary study areas in the future without the Proposed Actions**.**

The Future with the Proposed Actions (With-Action Scenario)

Land Use

Per CEQR methodology, although changes in land use could lead to impacts in other technical areas, significant adverse land use impacts are extraordinarily rare in the absence of an impact in another technical area. Also, according to the *CEQR Technical Manual*, many land use changes may be significant, but not adverse.

In the future with the Proposed Action, the primary study area is expected to be redeveloped with residential and community facility uses at a greater density than would be allowed existing zoning.

Primary and Secondary Areas

In the future with the Proposed Actions, a new 140,835-gsf mixed-use development containing 153 DUs and 16,600 gsf of community facility space (the RTFH) would be constructed on Projected Development Site 1. The proposed 10-story building would maximize the 5.60 FAR (pursuant to MIH designation) and would have frontages on 112th Street and 71st Road. Access to the proposed residential portion of the development would be through an entrance on 112th Street while the synagogue's entrance would be around the corner on 71st Road. In accordance with the City's MIH policy, under the Proposed Actions, the Applicant will choose either MIH Option 1 or Option 2. Under MIH Option 1, 25 percent of the residential floor area would be designated as affordable housing units for residents with incomes averaging 60 of AMI while 30 percent of the residential floor area would be designated as affordable housing units for residents with incomes averaging 80 percent of AMI under MIH Option 2. Mapping of the proposed MIH Area would facilitate development of approximately 38 to 46 permanently affordable housing units on Projected Development Site 1 (the remaining 115 to 107 units would be market rate). 66 accessory parking spaces would be located within a cellar level garage on Projected Development Site 1 which would be accessed from 112th Street through an existing curb cut.

The RWCDS also assumes that Project Development Site 2 would be redeveloped in the future with the Proposed Actions, in accordance with the proposed R7D zoning district and MIH designation. Projected Development Site 2 would be improved with a 23,800-gsf building containing 20 DUs – 5 to 6 of which would be affordable, pursuant to MIH Option 1 or 2 – and approximately 1,800 gsf of community facility uses. The total incremental development that would occur under the Proposed Actions is shown in **Table C-4** on the following page.

Table C-4: Comparison of No-Action and With-Action Scenarios

RWCDS			
Use	**No-Action Scenario**	**With-Action Scenario**	**Increment**
Community Facility	35,700 gsf Place of Worship and Classrooms	30,100 gsf Place of Worship and Classrooms	-5,600 gsf
Residential	0 DUs (0 gsf)	173 DUs (146,235 gsf)	+173 DUs (+146,235 gsf)
Total Development	35,700 gsf	198,035 gsf[1]	+162,335 gsf

Note: [1]Includes approximately 21,700 gsf below-grade parking garage

Assessment

The new residential use introduced by the Proposed Actions would be complementary to the existing land use character of Forest Hills which includes a mix of residential and community facility uses. As such, the Proposed Actions would not generate land uses that would be incompatible with surrounding land uses. While the RTFH's congregation would be temporarily relocated during the construction period, the synagogue would be replaced and the Proposed Actions would not displace existing land uses within the primary study area in such a way as to adversely affect surrounding land uses. Although the RTFH have not yet finalized this temporary location, according to the Applicant, the temple plans to stay within the neighborhood and have connections with multiple nearby facilities that have space to house the synagogue's different functions (e.g., services, religious school, or office space). Therefore, the Proposed Actions and associated RWCDS would support land use trends and would not result in the direct displacement of existing land uses. As such, no significant adverse land use impacts are expected within the primary study area. In addition, the secondary study area would not undergo any land use changes as a result of the Proposed Actions. The Proposed Project would not introduce any new land uses that would be incompatible with their surroundings and no significant adverse land use impacts would occur in the secondary study area.

Zoning

In the future with the Proposed Actions, the primary study area (the Project Area) would be rezoned from R1-2A to R7D zoning district. In addition, the primary study area would also be designated as an MIH Area.

Zoning Map Amendment

The proposed R7D zoning district would be bounded by the centerline of 71st Avenue to the north, 71st Road to the south and 112th Street to the west. The district's eastern boundary would be mapped to a depth of approximately 175 feet from 112th Street. The proposed zoning district would be adjacent to existing R7-1, R7A and R3-2 zoning districts and would be approximately 400 feet north of an R6 district (refer to **Figure C-3**). As shown in **Table C-5,** the Proposed Actions would increase the maximum allowable density in the primary study area from 0.5 FAR for residential uses and 1.0 for community facility uses to 5.6 and 4.8 for those same uses, respectively.

Table C-5: Comparison of Existing and Proposed Zoning

		Existing R2-1A	Proposed R7D (with MIH)
Permitted Use Groups		1, 3-4	1-4
Maximum Permitted FAR	Residential	0.5	5.6
	Community Facility	1.0	4.8
	Commercial	Not Permitted	Not Permitted
	Manufacturing	Not Permitted	Not Permitted

Source: *Zoning Resolution of the City of New York*

Zoning Text Amendment

A zoning text amendment to Appendix F of the *Zoning Resolution of the City of New York* (ZR) is proposed in order to establish the Project Area as an MIH area. Under MIH, a share of new housing is required to be permanently affordable when land use actions create significant new housing potential, either as part of a City land use proposal or a private land use application. As discussed previously, under the With-Action Scenario, up to 52 permanently affordable DUs would be created through the MIH Program at the Projected Development Site.

Assessment

The Proposed Actions would not result in significant adverse zoning impacts in either the primary or secondary study areas. The proposed zoning map amendment and zoning text amendment would create additional zoning capacity to support new housing development in a transit-accessible, predominantly residential area – increasing the number of affordable housing units available in both Forest Hills and the greater New York City. In addition, the development facilitated by the Proposed Actions would improve the flexibility, efficiency, and overall usefulness of the RTFH, as well as bringing the synagogue into ADA compliance and allow the synagogue to remain in its current location.

While the proposed R7D district and MIH designation would permit development at a density greater than permitted under existing or No-Action conditions, blocks to the immediate north and northeast of the Project Area were mapped with an R7A district and an R7X district as part of the 2018 Former Parkway Hospital Site Rezoning. Maximum residential FAR of 4.6 and 6.0 are permitted in R7A and R7X districts, respectively. As described above, the Parkway Hospital rezoning is expected to result in an eight story building and a 14 story building. The blocks to the immediately west of the Project Area are mapped within an R7-1 district which permits a maximum residential FAR of 3.44 and 4.0 on narrow streets and wide streets, respectively. Within this district, two six-story buildings are currently developed directly across from the Project Area on the west side 112th Street. Additionally, an R6 district (maximum 2.43 residential FAR) is mapped roughly 400 ft south of the Project Area. Furthermore, given the Project Area's location, approximately ⅓-mile from both the Forest Hills-71 Avenue E/F/M/R subway station and the 75th Avenue E/F subway station, both development sites are well-served by transit and well-suited for additional residential development.

The Proposed Actions would result in zoning changes that would facilitate the development of Projected Development Site 1 with a 10-story mixed-use residential and community facility building, as well as an additional nine-story mixed-use building on Projected Development Site 2. The Proposed Actions would not create structures that would be incompatible with the proposed zoning, nor would they cause a substantial number of existing structures to become non-complying. The residential and community

facility uses generated by the Proposed Actions would be consistent with uses nearby and in the surrounding area.

For these reasons, the Proposed Actions would not represent a significant adverse impact on zoning in the primary or secondary study areas, in accordance with the criteria set forth in the *CEQR Technical Manual*.

Public Policy

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

The Proposed Actions would support the policies and goals of *Housing New York: A Five-Borough, Five-Year Plan,* and the recent *HNY 2.0* plan update, by establishing a MIH Area encompassing the area to be rezoned, which would require the development in the With-Action scenario to include permanent affordable rental units. The Applicant is seeking to develop Projected Development Site 1's residential portion pursuant to either MIH Option 1 or Option 2. Under MIH Option 1, 25 percent of the residential floor area (approximately 38 DUs) would be required to be affordable to households making 60 percent AMI while 30 percent of the residential floor area (approximately 46 DUs) would be required to be affordable to households making 80 percent AMI. Additionally, approximately 5 to 6 of the 20 DUs on Projected Development 2 would be affordable pursuant to MIH Option 1 or 2, respectively.

The residential development provided under the With-Action scenario would provide the Forest Hills neighborhood with a much needed mix of new market-rate and affordable housing and would support the City's efforts to increase the overall amount of affordable housing in New York City. Based on this information, the Proposed Actions would be consistent with the policy goals and objectives of *Housing New York: A Five-Borough, Five-Year Plan*.

PlaNYC 2030/OneNYC (Previously PLaNYC)

The Proposed Actions would support the policies and goals of PlaNYC 2030/OneNYC. The Proposed Actions and associated RWCDS would create additional affordable and market rate housing capacities, in turn contributing to the community and economic development of the Forest Hills neighborhood and Queens as a whole. Therefore, the Proposed Actions would be consistent with the policy goals and objectives of *PlaNYC 2030/OneNYC*.

Assessment

The Proposed Actions would not result in any significant adverse public policy impacts to the primary or secondary study area. Rather, the Proposed Actions would support the goals of the City's initiatives by providing both market-rate and affordable rental units to an area where such opportunities are needed. Furthermore, in their most recent needs statement, Queens CD 6 identified support for individuals with low income as a priority. Therefore, further analysis related to public policy is not warranted.

ATTACHMENT D

OPEN SPACE

I. INTRODUCTION

An open space assessment may be necessary if a proposed action(s) could potentially have a direct or indirect effect on open space resources in the project area. A direct effect would "physically change, diminish, or eliminate an open space or reduce its utilization or aesthetic value." An indirect effect may occur when the population generated by a proposed action would be sufficient to diminish noticeably the ability of an area's open space to serve the existing or future population. Per the *City Environmental Quality Review (CEQR) Technical Manual*, if a project would generate more than 200 residents or 500 nonresidential users, an open space assessment should be conducted pursuant to CEQR.

While the Proposed Actions would not have a direct effect on existing open space resources, the reasonable worst-case development scenario (RWCDS) facilitated by the Proposed Actions is expected to result in an incremental increase of approximately 173 DUs over the 2025 No-Action condition. This would result in an incremental increase of an estimated 390 residents[1], as compared to the No-Action condition, which would exceed the *CEQR Technical Manual* preliminary screening threshold of 200 new residents for an indirect open space analysis.

As the DOE would no longer lease space within the new development in the future With-Action condition, the Proposed Actions and associated RWCDS are expected to result in a net decrease of 20 employees, from 85 to 65[2], as compared to the No-Action condition. This is below the *CEQR Technical Manual* threshold for open space analysis based on employee numbers and, therefore, the analysis of indirect open space impacts focuses exclusively on the open space needs of the area's residential population. In the following analysis, both quantitative and qualitative assessments were conducted to determine whether the Proposed Actions and subsequent RWCDS would significantly reduce the amount of open space available for the area's residential population.

II. METHODOLOGY

The analysis of open space resources has been conducted in accordance with *CEQR Technical Manual* guidance. Using CEQR methodology, the adequacy of open space in the study area is assessed quantitatively using a ratio of usable open space acreage to the study area population, referred to as the open space ratio. This quantitative measure is then used to assess the changes in the adequacy of open space resources in the future, both without and with the Proposed Action. In addition, qualitative factors are considered in assessing the Proposed Actions' potential effects on open space resources.

In accordance with *CEQR Technical Manual* methodologies, the open space study area is generally defined by a reasonable walking distance that users would travel to reach local open space and recreational resources. That distance is typically a half-mile radius for residential projects and a quarter-mile radius for commercial projects with a significant worker population. As the worker population generated by the Proposed Actions would fall below the threshold of 500 additional employees for areas defined as neither underserved no well-served by open space resources, a half-

[1] Assumes average household size of 2.25 persons for Queens Community District 6 based on 2020 US Census data.
[2] Assumes existing employees to be retained by RTFH and Touro College (25 and 35, respectively), as well as five additional Touro College employees based on the *CEQR Technical Manual* rate of 1 employee/1,000 sf of community facility.

mile radius is the appropriate study area boundary for the Proposed Actions and RWCDS and is described in greater detail below.

Open Space Study Area

The Project Area consists of Queens Block 2246, Lots 31 and a portion of Lot 41 in the Forest Hills neighborhood of Queens Community District 6. Pursuant to *CEQR Technical Manual* guidance, the residential open space study area includes all census tracts that have at least 50 percent of their area located within a half-mile of the Project Area and all open spaces within this area that are publicly accessible. As shown in **Figure D-1**, the half-mile open space study area includes the following census tracts in their entirety: census tracts 737, 739, 757.01, 757.02 (which contains the Project Area), and 769.01. The open space study area extends approximately from 68th Avenue and 68th Road in the north, 71st Avenue, Yellowstone and Queens Boulevards in the west, Slocum Circle, Ascan Avenue, Burns Street and Jackie Robinson Parkway/Union Turnpike to the south and the Grand Central Parkway to the east.

Analysis Framework

Indirect Effects Analysis

Indirect effects occur to an area's open spaces when a proposed action(s) would add enough population, either workers or residents, to noticeably diminish the ability of an area's open space to serve the existing or future population. Indirect effects may occur when the population generated by a proposed action overtaxes the capacity of existing public open spaces so that the service provided to existing and future populations in the area would be diminished substantially or noticeably.

As part of the preliminary assessment for open space, a project should be reviewed to determine if it is located in an area of the City within a Walk to a Park Service Area. The Walk to a Park Service Area (WPSA) is a part of the *OneNYC 2050 Building a Strong and Fair City* plan, in which New York City has laid out a goal for 85 percent of New York City residents living within a walking distance of a park by 2030. Existing areas located within the WPSA are within a walking distance of a park (i.e. half a mile). Areas not located within the WPSA are considered "walk gaps;" they are areas of New York City that are not within walking distance to a park. As shown in **Figure D-2**, the Project Area is located within an area that has been identified as the WPSA as it is within a walking distance of a park (i.e. not a walk gap area).

With an inventory of available open space resources and potential users, the adequacy of open space in the study area can be assessed both quantitatively and qualitatively. The quantitative approach computes the ratio of open space acreage to the population in the study area and compares this ratio with certain guidelines. The qualitative assessment examines other factors that can affect conclusions about adequacy, including proximity to additional resources beyond the study area, the availability of private recreational facilities and the demographic characteristics of the area's population. Specifically, the analysis in this chapter includes:

- Characteristics of the residential users. To determine the number of residents in the study area, 2020 US Census data have been compiled for census tracts comprising the open space study area.

Figure D-1

Open Space Study Area

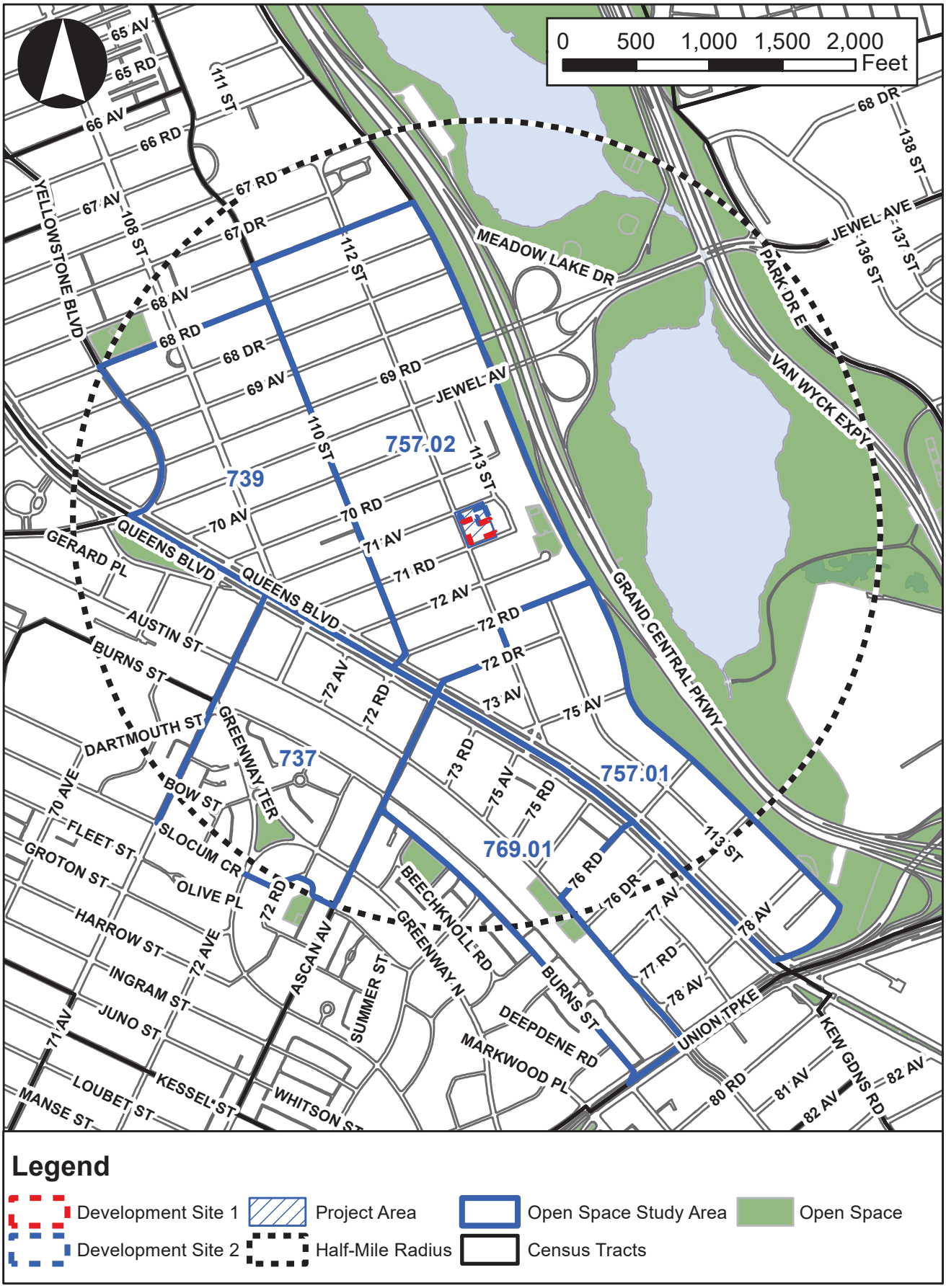
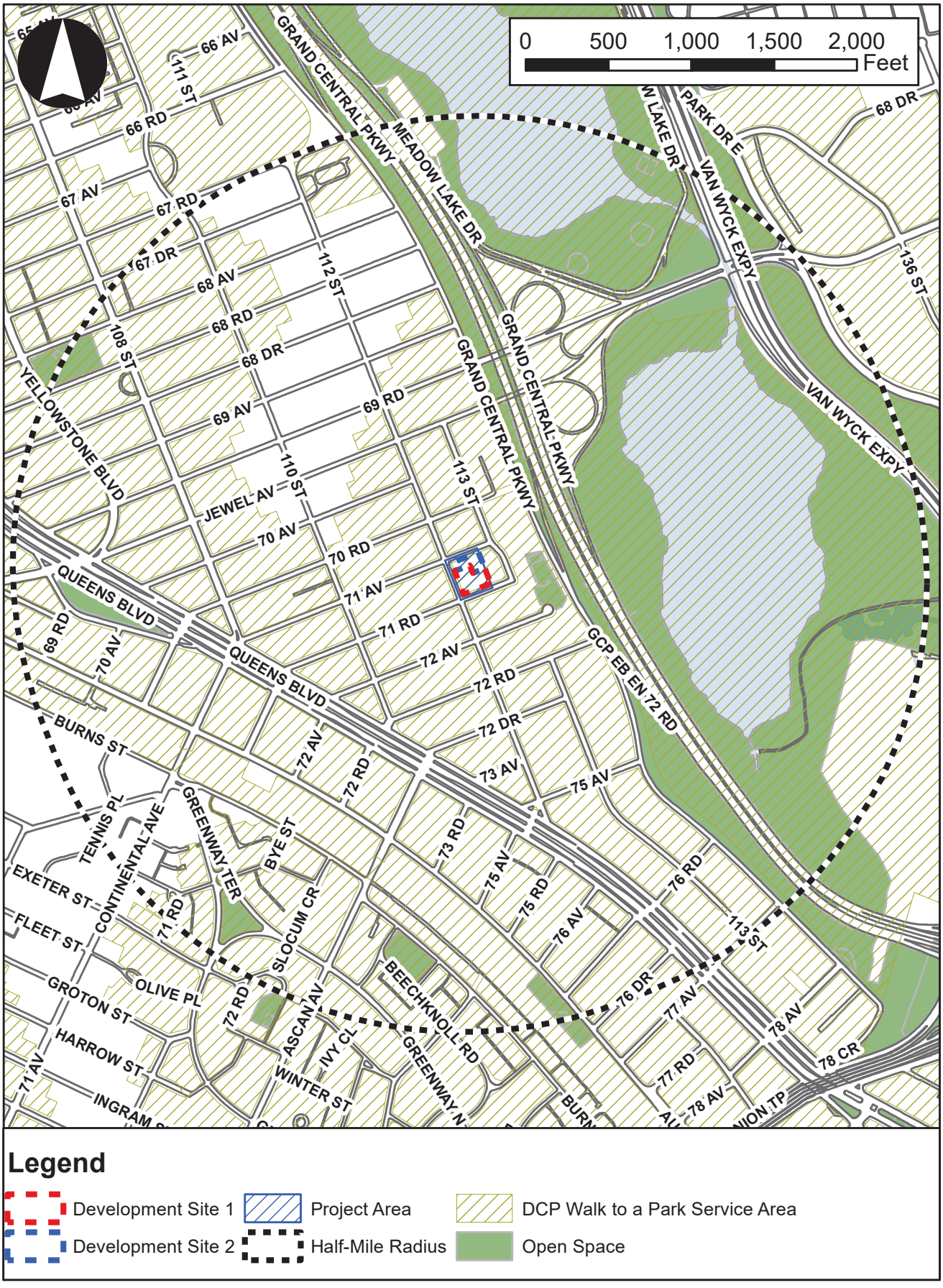


Figure D-2

Walk to a Park Service Area



- An inventory of all publicly accessible passive and active recreational facilities in the open space study area.

- An assessment of the quantitative ratio of open space in the study area by computing the ratio of open space acreage to the population in the study area and comparing this open space ratio the City's planning goal. (In New York City, the optimal open space ratio for residential populations is 2.5 acres of open space per 1,000 residents. Ideally, this would comprise a balance of 80 percent active open space (2.0 acres per 1,000 residents) and 20 percent passive open space (0.5 acres per 1,000 residents).

- An evaluation of qualitative factors affecting open space use.

- A determination of the adequacy of open space in the residential open space study area for existing, No-Action, and With-Action conditions.

Impact Assessment

As described in the *CEQR Technical Manual,* the significance of an action's effects on an area's open spaces is determined using both quantitative and qualitative factors, as compared to the No-Action condition. The determination of significance is based upon the context of a project, including its location, the quality and quantity of the open space in the future With-Action condition, and any new open space provided by an action.

An action's potential effects on an area's open space are based, in part, on how a project would change the open space ratios in the study area, as well as other qualitative considerations. According to the *CEQR Technical Manual*, a project that would reduce the open space ratio by more than the general guidelines for the open space percentage change shown in **Table D-1** may be considered significant, as these reductions may result in overburdening existing facilities or further exacerbating a deficiency in open space. As shown in **Table D-1**, the guidance for tolerated percent change in open space ratio is determined based on the open space ratio ranges outlined in the *CEQR Technical Manual*. In areas that are within a WPSA, a greater percentage of change (more than five percent) may be tolerated.

TABLE D-1: Guidance for Percentage Change in Open Space Ratio

Open Space Ratio Range	Percent Change in Open Space Ratio
2.01 to 2.50 or Greater	5%
1.51 to 2.0	4%
1.01 to 1.5	3%
0.51 to 1.0	2%
0.50 or Less	1%
*2.5 open space ratio is the planning goal in New York City.	

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

It should be noted that the City's optimal open space ratios and percentage reductions shown in **Table D-1** do not constitute an absolute impact threshold and the *CEQR Technical Manual* also recommends consideration of qualitative factors in assessing the potential for open space impacts. Furthermore, as discussed in Section 321 of Chapter 7, "Open Space" of the 2021 *CEQR Technical Manual*, projects located outside of the WPSA should be further assessed for qualitative impacts. As such, projects that may result in significant quantitative impacts on open space are typically further assessed in a qualitative assessment to determine the overall significance of the impact. The qualitative assessment supplements the quantitative assessment and considers the distribution of open space, whether a site is within the WPSA, the distance from the site to regional parks, the connectivity of open space(s), and any additional open space created by the Proposed Actions not available to the general public, if

applicable, and determinations as to what constitutes a significant adverse open space impact are not based solely on the results of the quantitative assessment.

III. PRELIMINARY ASSESSMENT

According to the *CEQR Technical Manual*, an initial quantitative open space assessment may be useful to determine if a detailed open space analysis is necessary, or whether the open space assessment can be targeted to a particular user group. This initial assessment calculates an open space ratio by relating the existing residential and nonresidential populations to the total open space in the study area. It then compares that ratio with the open space ratio in the future with the Proposed Actions. If there is a decrease in the open space ratio that would approach or exceed five percent, or if the study area exhibits a low open space ratio from the onset (indicating a shortfall of open spaces), a detailed analysis is warranted. The detailed analysis examines passive and active open space resources available to both residents and nonresidents (e.g., daily workers and visitors) within study areas delineated in accordance with the *CEQR Technical Manual*.

Pursuant to the guidance of the *CEQR Technical Manual*, a preliminary open space assessment was conducted. As the study area exhibits a low open space ratio (i.e., below the City's optimal planning goal of 2.5 acres per 1,000 residents) under existing and future conditions, a detailed open space analysis is warranted and is provided below.

IV. DETAILED ANALYSIS

Existing Conditions

Study Area Population

To determine the residential population served by existing open space resources, 2020 Census data were compiled for the census tracts comprising the half-mile study area. As shown in **Table D-2**, the study area has a total residential population of approximately 22,280.

TABLE D-2: Existing Residential Population in the Half-Mile Study Area

Census Tract	Residential Population
737	2,277
739	5,548
757.01	5,110
757.02	5,071
769.01	4,274
Total	***22,280***

Source: 2020 Census

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 ages 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 ages ten through 14 use playground equipment, court spaces, Little League fields, and ball fields. Teenagers' and young adults' needs tend toward court game facilities such as basketball and field sports. Adults between the ages of 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, requiring bike paths, promenades, and vehicle-free roadways. Adults also gather with families for picnicking, ad hoc active

sports such as Frisbee®, and recreational activities in which all ages can participate. Senior citizens engage in active recreation such as tennis, gardening, and swimming, as well as recreational activities that require passive facilities.

The residential population of the study area was also broken down by age group.[3] As shown in **Table D-3**, people between the ages of 20 and 64 make up the majority (82 percent) of the residential population. Children and teenagers (0 to 19 years old) account for approximately 18 percent of the entire residential population and persons 65 years and over account for 21 percent of the residential study area population. Based on this data, the peak hours of open space demand would be expected to be concentrated during weekends and during the early morning and late afternoon/evening hours during the week, as it could be assumed that most residents aged 20 to 64 would work or attend school during the middle of the day on weekdays.

TABLE D-3: Residential Population Age Distribution in the Half-Mile Study Area

Age Category[1]	Residential Population	Percent of Population
Under 5 years old	1,583	7%
5 to 9 years	1,228	6%
10 to 14 years	933	4%
15 to 19 years	258	1%
20 to 64 years	13,706	62%
65 years and older	4,572	21%

Note: [1]Age group percentages based on 2015-2019 Five Year ACS data
Source: 2020 Census and 2015-2019 Five-Year American Community Survey (ACS)

Inventory of Publicly Accessible Open Space

According to the *CEQR Technical Manual*, open space may be public or private and may be used for active or passive recreational purposes. Pursuant to the *CEQR Technical Manual*, public open space is defined as facilities open to the public at designated hours on a regular basis and is assessed for impacts under CEQR guidance, whereas private open space is not accessible to the general public on a regular basis and therefore should only considered qualitatively. Field surveys and secondary sources were used to determine the number, availability, and condition of publicly accessible open space resources in the study area.

An open space is determined to be active or passive by the uses that the design of the space allows. Active open space is the part of a facility used for active play such as sports or exercise and may include playground equipment, playing fields and courts, swimming pools, skating rinks, golf courses, and multi-purpose play areas (open lawns and paved areas for active recreation such as running games, informal ball-playing, skipping rope, etc.). Passive open space is used for sitting, strolling, and relaxation and typically contains benches, walkways and picnicking areas.

Within the defined study area, all publicly accessible open spaces were inventoried and identified by their location, size, owner, type, utilization, equipment, hours, and condition. The information used for this analysis was gathered through the New York City Department of Parks and Recreation's (DPR's) website, field inventories conducted in July 2020, and other secondary sources of information.

The condition of each open space facility was categorized as "Excellent," "Good," "Fair," or "Poor." A facility was considered in excellent condition if the area was clean and attractive and if all equipment

[3] Aside from age groups under/over 18 years of age, the 2020 US Census data does not include detailed information about residential age groups. As such, the residential population age groups were determined based on the percentage of age group characteristics provided in the 2015-2019 Five-Year American Community Survey (ACS) data and applied to 2020 Census data.

was present and in good repair. A good facility had minor problems such as litter or older but operative equipment. A fair or poor facility 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. Determinations were made subjectively, based on a visual assessment of the facilities.

Likewise, judgments as to the intensity of use of the facilities were qualitative, based on an observed degree of activity or utilization on a weekday afternoon, which is considered the weekday peak utilization period according to the *CEQR Technical Manual*. If a facility seemed to be at or near capacity (i.e. most benches or equipment was in use), then utilization was considered heavy. If the facility or equipment was in use but could accommodate additional users, utilization was considered moderate. If a playground or sitting area had few people, usage was considered light. **Table D-4**, identifies the address, ownership, hours and acreage of active and passive open spaces in the study area, as well as their condition and utilization. **Figure D-3** maps the locations of open space resources in the study area.

Description of Open Space Resources in the Study Area

As shown in **Table D-4** below, there are two publicly accessible open spaces within the open space study area (Willow Lake Playground and Ehrenreich-Austin Playground) which comprise a total of 2.44 acres of open space. Both of these open spaces are included in the quantitative analysis, of which approximately 1.79 acres (73 percent) are active open space and 0.65 acres (27 percent) are passive open space. The open spaces in the study area both have posted hours between 6:00 am and 9:00 pm. The playgrounds generally feature play equipment, athletic sports courts, benches, drinking fountains and seating areas.

Willow Lake Playground is located on 72nd Avenue between 112th Street and the Grand Central Parkway. The facility consists of 1.28 acres in which 1.09 acres (85 percent) count towards active space and the remaining 0.19 acres (15 percent) for passive space, such as sitting on benches. The park receives its name from Willow Lake located in nearby Flushing Meadows-Corona Park. The park was acquired by condemnation in 1951 and the existing playground opened in 1955. The playground was renovated in 2004. The facility has basketball courts, a handball court, playgrounds and swings. A field visit on an afternoon in July of 2020 indicated moderate utilization, with most users utilizing the playground and benches.

Ehrenreich-Austin Playground is located on Austin Street between 76th Avenue and 76th Drive. The facility consists of 1.16 acres in space in which 0.67 acres (60 percent) count towards active space and the remaining 0.46 acres (40 percent) for passive space, such as sitting on benches. In 1963, the park was named after Leo Ehrenreich, the former "unofficial mayor of Kew Gardens," whom was an advocate for pedestrian safety and traffic improvements in Queens. The facility has basketball courts, a handball court, playgrounds, spray showers, swings and a seating area. A field visit on an afternoon in July of 2020 indicated moderate utilization, with most users utilizing the playground, basketball courts and benches.

As shown below in **Table D-4**, both open space resources included in the quantitative analysis are in good condition and exhibit moderate utilization.

Table D-4: Inventory of Existing Open Space and Recreational Facilities in the Study Area

Map No.[1]	Name	Address	Owner/ Agency	Amenities	User Groups	Access Hours	Total Acres	Passive		Active		Condition/ Utilization
								%	Acres	%	Acres	
Quantitative Open Space Resources												
1	Willow Lake Playground	72nd Ave. btwn. 112th St. and Grand Central Pkwy.	DPR	Playgrounds, Basketball Courts, Bathrooms, Handball Courts, Spray Showers, Seating Areas, Swings	Children, Adults, Seniors	6am – 9pm	1.28	15	0.19	85	1.09	Good/ Moderate
2	Ehrenreich - Austin Playground	Austin St. btwn. 76th Ave. and 76th Dr.	DPR	Playgrounds, Basketball Courts, Bathrooms, Handball Courts, Spray Showers, Seating Areas, Concrete Playing Field	Children, Adults, Seniors	6am – 9pm	1.16	40	0.46	60	0.70	Good/ Moderate
Total Included in Quantitative Analysis							*2.44*	*27 %*	*0.66*	*73%*	*1.78*	
Qualitative Open Space Resources												
A	Flushing Meadows - Corona Park	Grand Central Pkwy., Whitestone Exwy. btwn. 111th St. and College Point Blvd., Park Drive E.	DPR	Barbecuing Areas, Baseball Fields, Basketball Courts, Bathrooms, Bicycling & Greenways, Dog-Friendly Areas, Eateries, Fishing, Fitness Equipment, Football Fields, Golf Courses, Handball Courts, Ice Skating Rinks, Indoor Pools, Kayak/Canoe Launch Sites, Marinas, Media Labs, Model Aircraft Fields, Playgrounds, Recreation Centers, Skate Parks, Soccer Fields, Spray Showers, Tennis Courts, Volleyball Courts, Wi-Fi Hot Spots, Zoos & Aquariums	Children, Adults, Seniors	6am – 9pm	897.69[2]	25	224.42	75	673.27	
B	Yellowstone Park	Yellowstone Blvd. btwn. 68th Ave. and 68th Rd.	DPR	Playgrounds, Basketball Courts, Bathrooms, Dog-Friendly Areas, Swings, Fields	Children, Adults, Seniors	6am – 10 pm	1.75	50	0.88	50	0.88	
C	MacDonald Park	Queens Blvd. btwn. Yellowstone Blvd. and 70th Rd.	DPR	Seating Areas, Chess Tables, Monuments, Trees	Adults, Seniors	6am – 10pm	1.42	100	1.42	0	0	
Total Excluded from Quantitative Analysis							*900.86*	*25 %*	*26.72*	*75%*	*674.14*	

Source: New York City Department of Parks and Recreation (DPR), July 2020 field visits

Notes: [1]Map number keyed to **Figure D-3**

[2]Reflects total acreage of Flushing Meadows – Corona Park. Approximately 160.35 acres of the park are within a half-mile of the Project Area, but were conservatively excluded from the quantitative assessment.

Open Space Resources

Assessment of Existing Open Space Adequacy

Quantitative Assessment

The following analysis of the adequacy of existing open space resources within the study area takes into consideration the ratios of active, passive, and total open space resources per 1,000 residents. As an optimal planning goal, the City tries to achieve an overall residential open space ratio of 2.5 acres per 1,000 residents (80 percent (2 acres) active and 20 percent (0.5 acres) passive) for large-scale plans and proposals. Although a typical population mix may call for such a goal, it is often not feasible for many areas of the City (especially higher density areas). As such, the City's optimal open space ratios and percentage reductions do not constitute an absolute impact threshold and a qualitative assessment might be warranted to determine the overall significance of the impact.

In calculating the open space ratio per 1,000 user population for the study area, Resources 1 and 2 listed in the "Quantitative Open Space Resources" section of **Table D-4** were included and are shown in **Figure D-3**. Pursuant to *CEQR Technical Manual* guidance, Resources A through C were not included in the calculations as they are either (1) within a half mile of the Project Area, but are within census tracts with more than 50 percent of their area outside of the half-mile radius or (2) are private open spaces and therefore do not qualify as open space resources for the quantitative assessment.

As shown in **Table D-5** below, with an existing study area residential population of approximately 22,280 people, the existing total open space ratio in the study area is approximately 0.110 acres of open space per 1,000 residents; the study area has 0.080 acres of active open space per 1,000 residents and 0.029 acres of passive open space per 1,000 residents. As indicated in **Table D-5**, the existing total and passive residential open space ratios are below the City's open space planning goal of 2.5 acres per 1,000 residents.

Table D-5: Adequacy of Open Space Resource in the Study Area – Existing Conditions

Existing Population	Open Space Acreage			Open Space per 1,000 Residents			City Open Space Planning Goals		
	Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
22,280	2.44	0.66	1.78	0.110	0.029	0.080	2.5	0.5	2

Qualitative Assessment of Open Space Adequacy

The open space resources that exist within the open space study area fall below City guidelines for the provision of publicly accessible open space. The existing open space ratios per 1,000 residents fall below the City's planning goal of 2.5 acres per 1,000 residents.

The quantitative deficiency of open space resources within the defined study area may be partially ameliorated by several factors. First, both of the open spaces in the study area are considered in good condition. More importantly, the study area contains a good mix of open space and recreational facilities, with 73 percent dedicated to active uses and 27 percent to passive recreation, that include basketball and handball courts, as well as benches, play equipment and swing sets. As noted above, approximately 18 percent of the study area's residents are below the age of 20, indicating a need for playgrounds, court game facilities and ballfields which are generally utilized by this cohort.

As shown in **Figure D-3** and listed in **Table D-4**, there are three additional open space resources (Resources A through C) which are located within a half-mile of the Project Area, but do not meet the criteria for inclusion in the quantitative open space analysis. Of these qualitative open spaces, all three

parks are of significant size and are within a half-mile of the Project Area, but are located just beyond the open space study area boundary.

The largest open space resource that is nearby to the Project Area, but falls outside of the study area is Flushing Meadows-Corona Park. Flushing Meadows-Corona Park is categorized as a "regional park" and, containing almost 900 acres, is the largest open space resource in Queens. The park contains active spaces with areas for baseball, soccer, tennis and cricket, as well as six playgrounds. Open areas such as meadows and the Flushing Bay Promenade comprise some of the park's passive open space. The southern segment of the park, which is near the Project Area, contains Meadow Lake and Willow Lake. While approximately 160.35 acres of this resource are within a half-mile radius of the Project Area (refer to **Figure D-1**), the park is located outside the open space study area (i.e., it is located in a census tract that is not at least 50 percent within a half-mile of the Project Area) and, therefore, was conservatively excluded from the quantitative open space assessment. However, it should be noted that Flushing Meadows-Corona Park is accessible via pedestrian access points at Jewel Avenue and Grand Central Parkway Service Road, as well as via a pedestrian overpass at 72nd Road and Grand Central Parkway Service Road. The Jewel Avenue pedestrian access point is roughly 900 feet northeast of the Project Area and also features a dedicated bike lane. The pedestrian overpass is approximately 733 ft southeast of the project area and is the western terminus of the Pat Dolan Trail (previously Willow Lake Trail) which features a bird blind and a scenic viewpoint of Willow Lake.

The other two open space resources – which are smaller and are within a half-mile radius of the Project Area, but are outside the open space study area – are Yellowstone Park and MacDonald Park. Yellowstone Park consists of 1.75 acres which are split roughly 50/50 between active and passive uses. It was acquired by condemnation in 1964 and opened in 1968. The second, MacDonald Park, consists of 1.42 acres of passive uses. The park is named in honor of Captain Gerald MacDonald, a World War I veteran and former Forest Hills resident. The space was acquired by the City in 1917 and was later turned into a park in 1933. Although these additional open space resources cannot be included in quantitative calculations, they add considerable active and passive open spaces for the study area's population and could lessen the open space deficit.

It should be noted that there are three open spaces located within a half-mile of the Project Area, but which were excluded from the quantitative and qualitative analyses as they are privately owned: Touro College, Hawthorne Park, and Flag Pole Green (see **Figure D-3**). Touro College is adjacent to the RTFH and encompasses the entirety of Lot 41 – a portion of which is within the Project Area. Approximately 2,200 sf (0.05 acres) of outdoor play space is located within the side and rear yards of the college providing active open space resources to Touro's students, faculty, and staff who would otherwise use nearby open space resources.

The other two open spaces within a half-mile of the Project Area are private parks containing a total of 2.48 acres of passive open space. Although not fenced in, these parks are maintained by the Forest Hills Gardens Corporation and are reserved exclusively for the residents of Forest Hills Gardens, a 175-acre private community of roughly 4,500 residents. While residents who do not live in Forest Hills Gardens are not permitted to use these resources, it is expected that residents of Forest Hills Gardens will continue to use these private open spaces which further alleviates demand on other open space resources in the area.

The Future without the Proposed Actions (No-Action Condition)

Under the No-Action scenario, no changes would occur to the Project Area and both development sites would remain in their existing conditions.

Study Area Population

As presented below in **Table D-6**, there are several developments of varying size currently planned within the half-mile open space study area which would introduce residential units and are expected to be completed by the analysis year 2025. It should be noted that these No-Action developments are independent of the Proposed Actions, but are expected to contribute residential population to the study area.

Table D-6 shows that these No-Action developments are expected to increase the half-mile study area population by approximately 992 residents by 2025, based on the number of proposed DUs and an average household size of 2.25 for Queens Community District 6. The half-mile study area population is expected to increase to 23,272 residents by 2025.

Table D-6: 2022 No-Action Study Area Residential Development

No-Action Development	Program	Residents[1]
75-42 Grand Central Parkway	Residential with 10 DUs	21
110-48 Jewel Avenue	Residential with 0 DUs	0
108-37 Jewel Avenue	Residential with 1 DU	2
112-28 68th Drive	Residential with 1 DU	2
107-02 Queens Boulevard	Mixed Use with 74 DUs	115
108-15 72nd Avenue	Mixed Use with 26 DUs	55
70-01 113th Street and 70-35 113th Street	Mixed-use with 351 DUs[2]	697[3]
Total No-Action Study Area Population Increment		*992*
Existing Study Area Residential Population		*22,280*
Total No-Action Study Area Residential Population		*23,272*

Sources: New York City Department of Buildings (DOB) Buildings Information System (BIS), YIMBY

Notes: [1]Residential population estimates are based on average household size of 2.25 for Queens CD 6 (2020 US Census data)

[2]Includes 67 AIRS units per the Former Parkway Hospital Site Rezoning FEIS (CEQR #18DCP021Q)

[3]Assumes household size of 1.5 per AIRS unit

Open Space Resources

No changes to study area open space resources are anticipated in the 2025 No-Action condition. As such, open space in the half-mile open space study area would total 2.44 acres, comprising 0.66 acres of passive open space and 1.78 acres of active open space, as under existing conditions.

Open Space Adequacy

Table D-7, below, presents the No-Action open space ratios for the half-mile study area, based on the anticipated population increases outlined above. As indicated in **Table D-7**, as under existing conditions, the total, the passive, and the active open space ratios would be less than the City's open space planning goals of 2.5 acres of open space per 1,000 residents (including 0.5 acres of passive open space and two acres of active open space). The total open space ratio is expected to decrease from 0.110 to 0.105 acres per 1,000 residents in the No-Action condition, with No-Action passive and active open space ratios of 0.028 and 0.077 acres per 1,000 residents, respectively. As under existing conditions, residents of the study area are expected to continue to utilize other open space resources outside of the study area, which were conservatively not included in the quantitative assessment, but which are sizable and in close proximity to the study area boundary – most notably, the regional park Flushing Meadows-Corona Park.

TABLE D-7: Adequacy of Open Space Resource in the Study Area – 2025 No-Action Conditions

No-Action Population	Open Space Acreage			Open Space per 1,000 Residents			City Open Space Planning Goals		
	Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
23,272	2.44	0.66	1.78	0.105	0.028	0.077	2.50	0.50	2.0

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

This section describes the open space conditions that would result from the RWCDS associated with the Proposed Actions by 2025. It evaluates the potential for the Proposed Actions to result in significant adverse impacts to open space resources directly and indirectly based on a comparison of the No-Action condition (described above) to the With-Action condition.

Study Area Population

As described in **Attachment A, "Project Description,"** in the future with the Proposed Action, the RWCDS would introduce approximately 173 DUs to the Project Area. Using the same planning assumptions as the No-Action conditions (2.25 residents per DU and 100 percent occupancy), the Proposed Actions are expected to introduce a net increase of approximately 390 residents which would therefore increase the study area's population to a total of 23,662 residents in the 2025 With-Action condition.

Open Space Adequacy

As noted above, the open space impact analysis consists of both quantitative and qualitative assessments. The quantitative assessment considers how a proposed action(s) could change the open space ratios in the study area.

Under the With-Action condition, the total open space ratio in the study area would decrease from 0.105 in the No-Action to 0.103 acres per 1,000 residents in the With-Action (see **Table D-8**). The active open space ratio would also decrease compared to No-Action conditions, from 0.077 to 0.075 acres per 1,000 residents, which would continue to be below the city's guidance ratio of 2.0 acres per 1,000 residents. The passive open space ratio per 1,000 residents would also decrease and would remain below the city's guideline ratio of 0.50, although the decrease would be less than 0.001 acres per 1,000 residents as compared to No-Action conditions.

TABLE D-8: Adequacy of Open Space Resource in the Study Area – 2025 No-Action Conditions

With-Action Population	Open Space Acreage			Open Space per 1,000 Residents			City Open Space Planning Goals		
	Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
23,662	2.44	0.66	1.78	0.103	0.028	0.075	2.50	0.50	2.0

Qualitative Assessment

According to the 2021 *CEQR Technical Manual*, a significant adverse open space impact may occur if a proposed action(s) would reduce the open space ratio by more than the general guidelines for the open space percentage change provided in **Table D-9**.

TABLE E-9: Detailed Assessment- Percentage Change Guidance to Determine Possible Open Space Impact

Total Open Space Ratio Range*	Passive Open Space Ratio Range*	Active Open Space Ratio Range*	Percentage Change in Open Space ratio Signifying a Possible Adverse Open Space Impact
2.01 to 2.50 Or greater	0.41 to 0.50 Or greater	1.61 to 2.0 Or greater	5%
1.51 to 2.00	0.31 to 0.40	1.21 to 1.60	4%
1.01 to 1.50	0.21 to 0.30	0.81 to 1.20	3%
0.51 to 1.00	0.11 to 0.20	0.41 to 0.80	2%
0.50 or less	0.01 to 0.10	0.01 to 0.40	1%
	* 2.5 open space ratio is the planning goal in NYC, with optimal distribution goal of 2.0 active open space ratio and 0.5 passive open space ratio.		

Source: Table 7-5 in Chapter 7, "Open Space" of the 2021 *CEQR Technical Manual.*

Table D-10 expresses the percentage change from No-Action to With-Action conditions for the study area. As noted previously, in the future with the Proposed Actions, ratios of open spaces to residents would continue to be lower than the optimal planning goals furnished by DCP. As shown in **Table E-10**, the study area's total open space ratio in the future with the Proposed Actions would be 0.103 acres per 1,000 residents, which represents a reduction of approximately 1.64 percent (0.002 acres per 1,000 residents) from No-Action conditions. The passive open space ratio for residents would decrease by less than 0.001 acres per 1,000 residents in the With-Action condition, a 1.64 percent decrease. The active open space ratio in the study area would decrease from 0.077 acres per 1,000 residents to 0.075 acres per 1,000 residents in the With-Action condition, a 1.64 percent decrease.

TABLE D-10: Comparison of No-Action to With-Action Open Space Ratios in the Half-Mile Study Area

Ratio	*CEQR Technical Manual* Open Space Optimal Planning Goal (acres per 1,000)	Open Space Ratios Per 1,000			Percent Change
		Existing	No-Action	With-Action	Future No-Action to Future With-Action
Total – Residents	2.50	0.110	0.105	0.103	-1.64%
Passive – Residents	0.50	0.029	0.028	0.028	-1.64%
Active – Residents	2.00	0.080	0.077	0.075	-1.64%

As shown in **Table D-10**, the Proposed Actions would exceed the guidelines detailed in **Table D-9**; however, according to *CEQR Technical Manual* guidance, these optimal open space ratios and percentage reductions do not solely constitute an impact threshold and a project's location, the quality, quantity, and types of nearby open space, and the balance of passive and active open space should be considered in the determination of significance. As shown in **Table D-10**, the study area contains roughly 2.7 times as much active open space as passive open space and, as noted above, study area open spaces are in good condition, provide a variety of facilities, and moderately used. In addition, as shown in **Figure D-2**, the Project Area is located within a WPSA and, therefore, is not located within a walk gap area (i.e., an area of the City that is not within a walking distance to a park).

However, projects that may result in quantitative impacts on open space are typically further assessed in a qualitative assessment approach to determine the overall significance of the impact. The qualitative assessment below also indicates that the quality and number of the study area open spaces combined with the availability of open spaces outside the study area which would help to ameliorate the open space shortfall in the future With-Action conditions.

Qualitative Assessment

As in the existing and No-Action conditions, the study area would continue to have a shortfall of open space in the future with the Proposed Actions. Although the open space ratios in the study area would remain less than the DCP planning goals, the deficiency of open space resources in the study area would be ameliorated by several factors. The open space resources included in the quantitative analysis were found to be in good condition. In addition, the open spaces offer a variety of passive and active recreational amenities, ranging from sitting areas, playgrounds, basketball and handball courts, spray showers, and bathrooms.

Additionally, the demand for open space generated by the Proposed Actions is not expected to significantly exacerbate the No-Action deficiency, as it represents a less than a two percent decrease in the study area's open space ratio. Furthermore, the population added as a result of the Proposed Actions is not expected to noticeably affect utilization of the area's open spaces. As noted above, the study area open space resources are in good condition and offer a variety of amenities which, therefore, could likely handle increased demand. In addition, the population generated by the Proposed Actions is not expected to have any special characteristics that would place heavy demands on facilities that cater to specific user groups, such as a disproportionately older or younger population and the breakdown of the population is expected to remain the same. In the future with the Proposed Actions, new residents generated by the Proposed Action are expected to exhibit similar characteristics to the current residents of the study area the breakdown of the population is expected to remain the same. Furthermore, as the Proposed Actions would facilitate development within an R7D zoning district (a contextual zoning district governed by Quality Housing bulk regulation) amenities for the building's occupants would be required as part of the Proposed Project. As such, the RWCDS development would include an approximately 5,605 sf rooftop recreational area for residents' use, as well as several residential terraces, which would alleviate some of the open space demand created by the Proposed Action. While these spaces have been conservatively left out of the quantitative assessment, they would further ameliorate the existing open space deficiency.

As noted previously, there are three open space resources which are within the half-mile radius, but were conservatively excluded from the qualitative analysis, which would further ameliorate the study area's open space deficiency. These parks, including the roughly 898-acre Flushing Meadows-Corona Park, the 1.75-acre Yellowstone Park and the 1.42-acre MacDonald Park, are located adjacent to the study area boundary and contain a wide range of recreational amenities. Specifically of note is Flushing Meadows-Corona Park, approximately 160.35 acres of which are within a half-mile of the Project Area, but were excluded from the quantitative assessment for conservative analysis purposes. Flushing Meadows-Corona Park is the largest park in Queens, the second largest park in the City, and a flagship destination within the City's park network that draws regional users who would travel farther than a half mile. Flushing Meadows-Corona Park is approximately 700 feet east of the Project Area and has pedestrian access via Jewel Avenue and the Pat Dolan Trail footbridge – which are roughly 900 feet and 733 feet from the Project Area, respectively. Although located outside of the open space study area, it is likely that a proportion of open space users residing in the study area would frequent this resources given the proximity, size, and range of amenities. Additionally, it is likely that Yellowstone and MacDonald Parks would be frequented by study area open space users.

It should also be noted that there are three private open spaces located within a half-mile of the Project Area which were not be included in either the quantitative or qualitative analysis, but which would help ameliorate the study area's open space deficiency. Two are private parks (Flag Pole Green and Hawthorne Park) which are reserved for residents of the Forest Hills Gardens community. The third is Touro College's outdoor recreational space which is located adjacent to the Project Area and provides

open space for the college's students and staff. Although not accessible to the public, it is expected that these private open spaces would continue to be utilized, further reducing demand on public open space resources.

Finally, as detailed in **Attachment C: "Land Use, Zoning and Public Policy,"** approximately 56 percent of the total lot area within 400 feet of the Project Area contain one & two family and multi-family walk-up buildings. Typically, these land uses include private yards, courtyards, or other recreational amenities for the building's or buildings' residents – such as seating areas, open lawns, landscaping and/or children's play equipment – which would further reduce demand on public open space resources.

While the residential open space study area would continue to have a shortfall of open space in the future with the Proposed Actions, these actions would not result in a significant adverse impact on open space given the moderate utilization of the study area's existing open spaces and the availability of significant, additional open spaces conservatively not included in the quantitative analysis Therefore, demand for open space generated by the Proposed Actions is not expected to significantly exacerbate the No-Action deficiency and the population added as a result of the Proposed Actions is not expected to noticeably affect utilization of the area's open spaces.

The study area's open space resources are in good condition and are moderately used, offer a range of amenities, and, therefore, could handle additional demand. Residents of the study area would also continue to use additional open space resources not included in the quantitative assessment. Therefore, while the Proposed Actions would result in an incremental decrease in total, passive, and active open space ratios in the future, given the level of decrease anticipated, the number, condition and array of amenities of study area open spaces, and the availability of additional open spaces conservatively not included in the quantitative analysis, the Proposed Actions are not expected result in a significant adverse impact on open space. In addition, the Proposed Actions would not have a direct effect on any study area open spaces due to construction or operation nor would the Proposed Actions result in the imposition of noise, air pollutant emissions, odors, or new shadows on public open spaces that may alter usability. Therefore, the Proposed Actions would not result in a significant adverse open space impact, and further analysis is not needed.

ATTACHMENT E

SHADOWS

I. INTRODUCTION

According to the 2021 *CEQR Technical Manual*, an adverse shadows impact is considered to occur when an incremental shadow from 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 threatens the viability of vegetation or other resources. Pursuant to CEQR guidance, sunlight-sensitive resources of concern are those resources that depend on sunlight, or for which direct sunlight is necessary to maintain the resource's usability or architectural integrity. Sunlight-sensitive resources can include publicly accessible open spaces, architectural resources, natural resources, community gardens, and Greenstreets. In general, shadows on city streets, sidewalks, buildings, or project-generated open spaces are not considered significant under CEQR. In addition, shadows occurring within an hour and a half of sunrise or sunset generally are not considered significant under CEQR.

According to the *CEQR Technical Manual*, a shadows assessment is required only if a proposed action would result in structures (or additions to existing structures) of 50 feet or more and/or be located adjacent to, or across the street from, a sunlight-sensitive resource. As described in **Attachment A, "Project Description,"** the RWCDS facilitated by the Proposed Actions would entail the development of two buildings on 112th Street in Forest Hills, Queens, each with a maximum height of approximately 135 feet (including mechanical bulkhead). Therefore, a shadows analysis was prepared to determine the potential for the Proposed Actions to result in significant adverse impacts on sunlight-sensitive resources.

II. 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. For projects resulting in structures less than 50 feet tall, a shadow assessment is generally not necessary, unless the site is adjacent to a park, historic resource, or important natural feature (if the feature that makes the structure significant depends on sunlight).

First, a preliminary screening assessment must be conducted to ascertain whether shadows resulting from the Proposed Actions and associated RWCDS could reach any sunlight-sensitive resource at any time of year. 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:

- *Public open space* (e.g., parks, playgrounds, plazas, schoolyards, greenways, and landscaped medians with seating). Planted areas within unused portions or roadbeds that are part of the Greenstreets program are also considered sunlight-sensitive resources. The use of vegetation in an open space establishes its sensitivity to shadows. This sensitivity is assessed for both (1) warm-weather dependent features, like wading pools and sandboxes, 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 use, such as sitting or sunning; active use, such as playfields or paved courts; and such activities as gardening, or children's wading pools and sprinklers. Vegetation

requiring direct sunlight includes the tree canopy, flowering plants, and plots, particularly plots for food production in community gardens. The amount of sunlight typically considered to be the minimum that plantings and vegetation would need is six to eight hours of direct sunlight. However, certain plantings and vegetation can tolerate partial sun, with a reduced minimum requirement of four to six hours of direct sunlight. Examples of areas that can tolerate partial sun are established tree canopies, shrubs or perennials.

- *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 facades); 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 a historic landmark.

- *Natural resources where the introduction of shadows could alter the resource's condition or microclimate.* Such resources could include community gardens, surface water bodies, wetlands, or designated resources, such as coastal fish and wildlife habitats.

The preliminary screening assessment consists of three tiers of analysis. The first tier determines a simple radius around the Project Area representing the longest shadow that could be cast. If there are sunlight-sensitive resources within the radius, the analysis proceeds to the second tier, which 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. 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.

If the third tier of analysis does not eliminate the possibility of new shadows on sunlight-sensitive resources, a detailed shadow analysis is required to determine the extent and duration of the incremental shadow resulting from the project. In accordance with the *CEQR Technical Manual*, shadows on sunlight-sensitive resources of concern were modeled for four representative days of the year. For the New York City area, the months of interest for an open space resource encompass the growing season (i.e., March through October) and one month between November and February representing a cold-weather month (usually December). Representative days for the growing season are generally the March 21 vernal equinox (or the September 21 autumnal equinox, which is approximately the same), the June 21 summer solstice, and a spring or summer day halfway between the summer solstice and equinoxes, such as May 6 or August 6 (which are approximately the same). For the cold-weather months, the December 21 winter solstice is included to demonstrate conditions when open space users rely most heavily on available sunlight warmth. As these months and days are representative of the full range of possible shadows, they are also used for assessing shadows on sunlight-sensitive historic and natural resources. The *CEQR Technical Manual* defines the temporal limits of a shadow analysis period to fall from an hour and a half after sunrise to an hour and a half before sunset.

The detailed analysis provides the data needed to assess the shadow impacts. The effects of the new shadows on the sunlight-sensitive resources are described, and their degree of significance is considered. The result of the analysis and assessment are documented with graphics, a table of incremental shadow durations, and narrative text. As described in the *CEQR Technical Manual*, an incremental shadow is generally not considered significant when its duration is no longer than ten minutes at any time of year and the resource continues to receive substantial direct sunlight. A significant shadow impact generally occurs when an incremental shadow of ten minutes or longer falls on a sunlight-sensitive resource and results in one of the following:

- *Vegetation:* a substantial reduction in sunlight duration available to sunlight-sensitive features of the resource to less than the time of its minimum sunlight needs(when there would be 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 sunlight needs).

- *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, including information regarding anticipated new users and the open space's utilization rates throughout the affected time periods.

- *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.

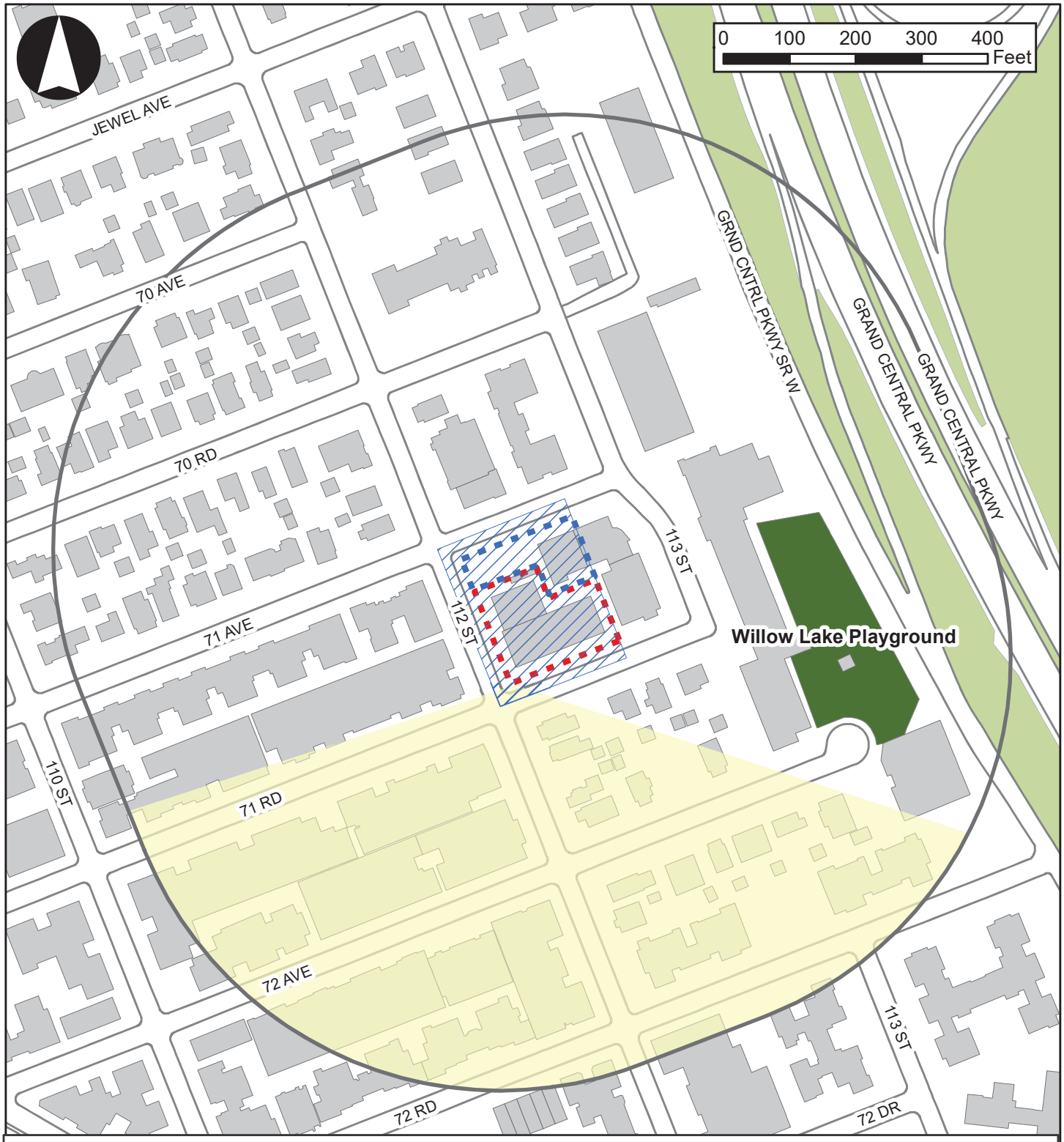
In general, a significant adverse shadows impact occurs when the incremental shadows added by a proposed building fall on a sunlight-sensitive resource and substantially reduce or completely eliminate direct sunlight exposure, thereby significantly altering the public's use of the resource or threatening the viability of vegetation or other natural resources.

III. PRELIMINARY SCREENING

Tier 1 Screening Assessment

According to the 2020 *CEQR Technical Manual*, the longest shadow that a structure will cast in New York City, except for periods close to dawn or dusk, is 4.3 times its height and occurs on December 21 (the winter solstice). The height of the RWCDS developments at the Projected Development Sites (approximately 135 feet including the mechanical bulkhead) was used to determine the longest shadow study area (Tier 1 Assessment). As such, the longest shadow study area would be approximately 580.5 feet. Within this longest shadow study area, there is one resource that is potentially sunlight-sensitive: the Willow Lake Playground (see **Figure E-1**). Willow Lake Playground is publicly accessible 1.28-acre playground located at 72nd Avenue between 112th Street and Grand Central Parkway. Therefore, further screening was warranted in order to determine whether this resource could be affected by project-generated shadows.

Figure E-1
Shadows Analysis - Tiers I & II



Legend

- Development Site 1
- Development Site 2
- Project Area
- Building Footprints
- Tier I: Longest Shadow Study Area (580.5')
- Tier II: Area That Cannot Be Shaded
- Sunlight Sensitive Resource
- Open Space - Not Publicly Accessible

Tier 2 Screening Assessment

Due to the path of the sun across the sky in the northern hemisphere, no shadow can be cast in a triangular area south of any given project site. In New York City, this area lies between -108 and +108 degrees from true north. The purpose of the Tier 2 screening is to determine whether the sunlight-sensitive resources identified in the Tier 1 screening are located within portions of the longest shadow study area that can receive shade from the development generated by the Proposed Actions.

As presented in **Figure E-1**, Willow Lake Playground falls within the RWCDS' maximum shadow radius, and based on the Tier 2 Screening Assessment, it cannot be ruled out that development generated by the Proposed Actions would not cast shadows on this open space.

The longest shadow study area also includes one historic resource: the P.S. 196-Q Grand Central Parkway School which is a S/NR-eligible building. However, as this historic resource is not sunlight-sensitive (i.e., it does not contain sunlight-sensitive features such as stained-glass or polychromatic detailing), further analysis of this resource is not warranted.

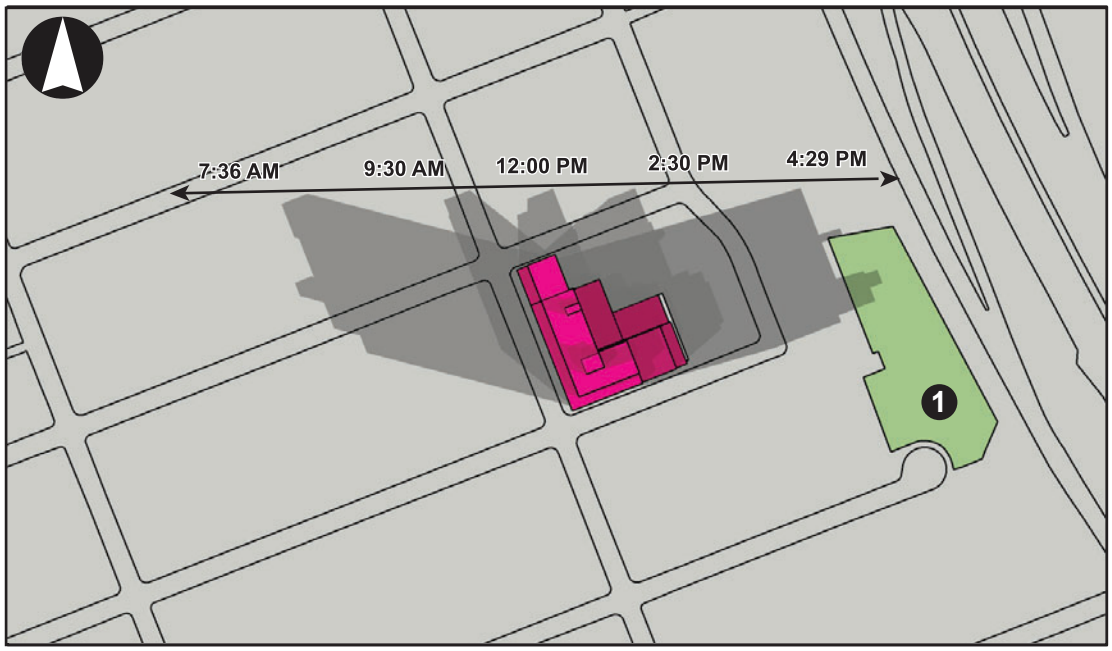
Tier 3 Screening Assessment

According to the *CEQR Technical Manual*, a Tier 3 screening assessment should be performed to determine if, in the absence of intervening buildings, shadows resulting from a development can reach a sunlight-sensitive resource, thereby warranting a detailed shadows analysis. The Tier 3 screening assessment is used to determine if shadows resulting from a proposed action can reach a sunlight-sensitive resource at any time between 1.5 hours after sunrise and 1.5 hours before sunset on representative analysis dates.

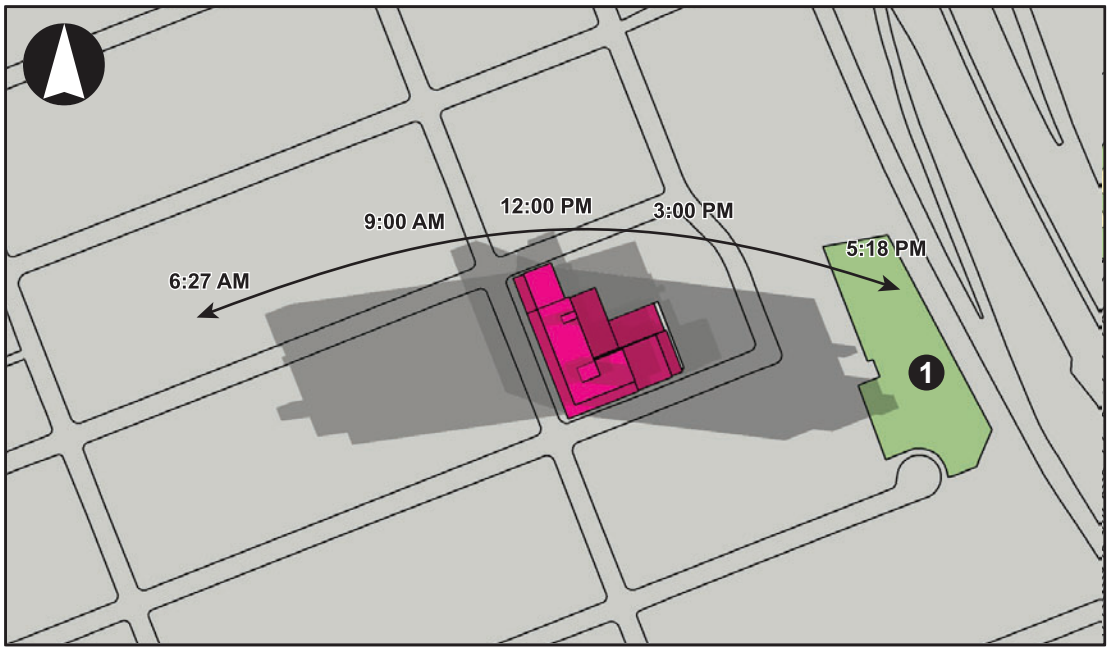
As project-generated shadows could reach nearby sunlight-sensitive resources, a Tier 3 assessment was performed using three dimensional (3D) computer mapping software. The 3D model was used to calculate and display project-generated shadows on four individually representative analysis dates which are indicative of the range of potential shadows over the course of the year (March 21/September 21, the equinoxes; May 6, the midpoint between the summer solstice and the equinox (and equivalent to August 6); June 21, the summer solstice and the longest day of the year; and December 21, the winter solstice and shortest day of the year). The model contained 3D representations of the elements in the base map used in the preceding assessments and a 3D model of the RWCDS developments resulting from the Proposed Actions. At this stage of the assessment, surrounding buildings and structures within the study area were not included in the model so that it may be determined whether project-generated shadows would reach any sunlight-sensitive resources without intervention from surrounding structures.

Figures E-2a and **E-2b** illustrate the range of project-generated shadows that could occur in the absence of existing buildings on the four representative analysis days. The Tier 3 analysis shows that Willow Lake Playground could receive project-generated shadows on three of the four analysis days. Therefore, a detailed shadow analysis is required to determine the extent and duration of project-generated incremental shadows on this open space resource.

Figure E-2a
Tier 3 Screening



MARCH 21/SEPTEMBER 21



MAY 6/AUGUST 6

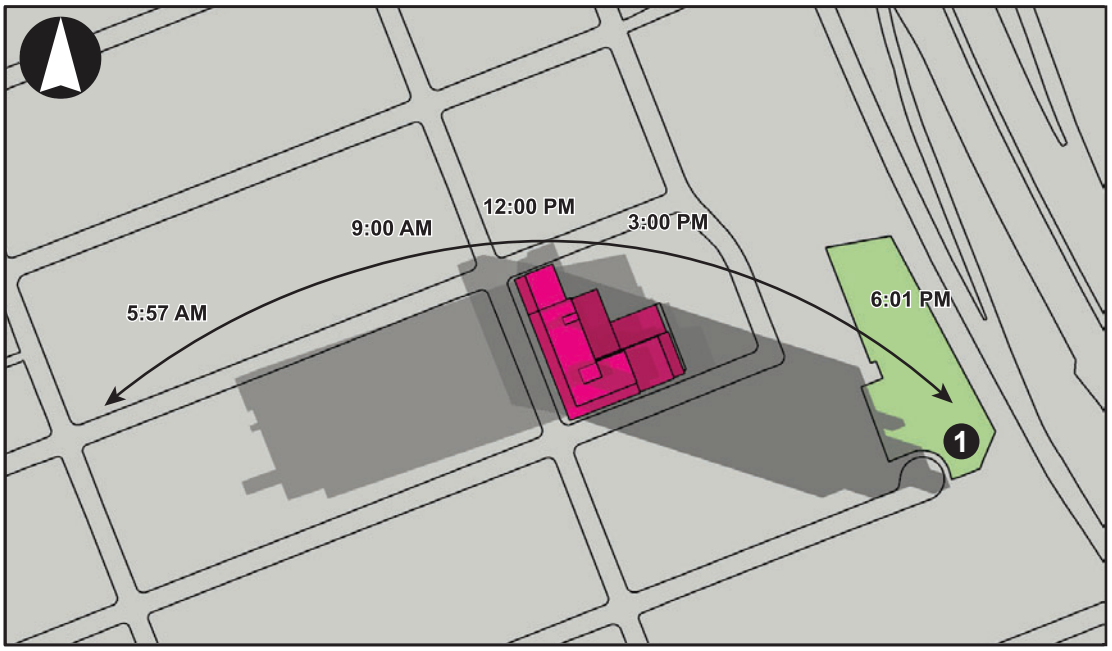
RWCDS Development

1 **Sunlight-Sensitive Resource**

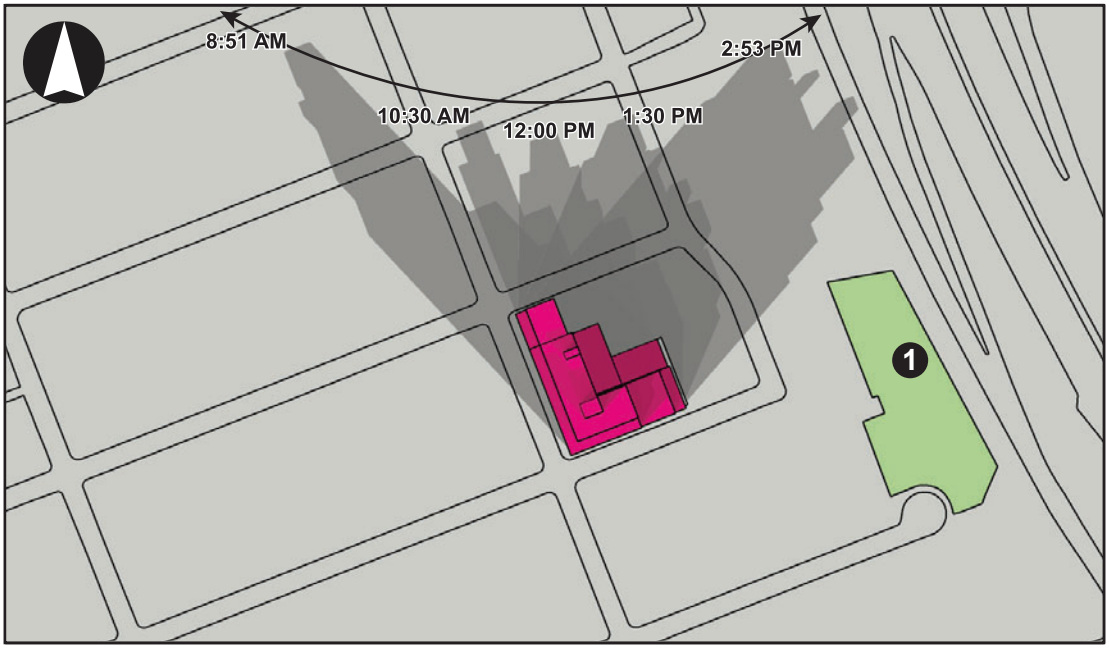
Project-Generated Shadow

Note: Resources keyed to Table -1

Figure E-2b
Tier 3 Screening



JUNE 21



DECEMBER 21

RWCDS Development

1 **Sunlight-Sensitive Resource**

Project-Generated Shadow

Note: Resources keyed to Table E-1

Table E-1: Tier 3 Shadow Screening Assessment Results

Map No.[1]	Resource Name	March 21/Sept. 21 7:36 AM – 4:29 PM	May 6/August 6 6:27 AM – 5:18 PM	June 21 5:57 AM – 6:01 PM	December 21 8:51 AM – 2:53 PM	Analysis Days
1	Willow Lake Playground	Shaded	Shaded	Shaded	Not Shaded	3

Note: [1]Number keyed to **Figures E-2a** and **E-2b**

IV. DETAILED ANALYSIS OF SHADOW IMPACTS

Shadows Analysis

Per CEQR guidance, detailed shadows analyses were performed for the sunlight-sensitive resource identified above on four representative days of the year (March 21/September 21, May 6/August 6, June 21 and the shortest day of the year, December 21). These four representative days are indicative of the range of potential shadows over the course of the year. Additionally, CEQR guidance defines the temporal limits of a shadow analysis period to fall from an hour and a half after sunrise to an hour and a half before sunset. To evaluate the extent and duration of new shadows that may be cast on a sunlight-sensitive resource as a result of a proposed action(s), shadows that would exist in the future without a proposed project are also considered. Because existing buildings may already cast shadows on a sun-sensitive resource, a proposed project may not result in additional, or incremental, shadows upon that resource. **Figures F-3a** through **F-6b** show the incremental, project-generated shadows during final hour of each of the four representative days of the year (i.e., the time with the longest eastwardly cast shadows). In addition, **Table E-2** below summarizes the entry and exit times established in the detailed analysis and the total duration of project-generated incremental shadows on the sunlight-sensitive resource.

Table E-2: Duration of Incremental Shadows on Sunlight Sensitive Resources[1]

Map No.[1]	Resource Name	Shadow Enter-Exit/ Incremental Shadow Duration	Analysis Days			
			March 21/ Sept. 21	May 6/ August 6	June 21	December 21
			7:36 AM – 4:29 PM	6:27 AM – 5:18 PM	5:57 AM – 6:01 PM	8:51 AM – 2:53 PM
1	Willow Lake Playground	Shadow enter-exit time	-	-	-	-
		Incremental shadow duration	-	-	-	-

Note: [1]All times are Eastern Standard Time; Daylight Savings Time was not accounted for per *2020 CEQR Technical Manual* guidance

As shown in **Figures F-3a** through **F-6b** and **Table E-2**, due to intervening presence of PS 196-Q Grand Central Parkway School (located directly west of the playground), no incremental shadows would reach the playground during any of the four representative analysis days. As such, although the RWCDS would result in shadows with the potential to reach the Willow Lake Playground in the absence of surrounding buildings, due to the intervening buildings adjacent to the Willow Lake Playground, this sunlight-sensitive resource would not be shaded by the Proposed Development. Therefore, the Proposed Actions would not result in any significant adverse impacts to sunlight-sensitive resources and no further analysis is warranted.

Figure E-3a
Willow Lake Playground
Incremental Shadows on March 21/September 21

3:29 PM

3:59 PM

Proposed Development
Open Space
Incremental Shadow

Figure E-3b
Willow Lake Playground
Incremental Shadows on March 21/September 21

4:29 PM

Proposed Development

Open Space

Incremental Shadow

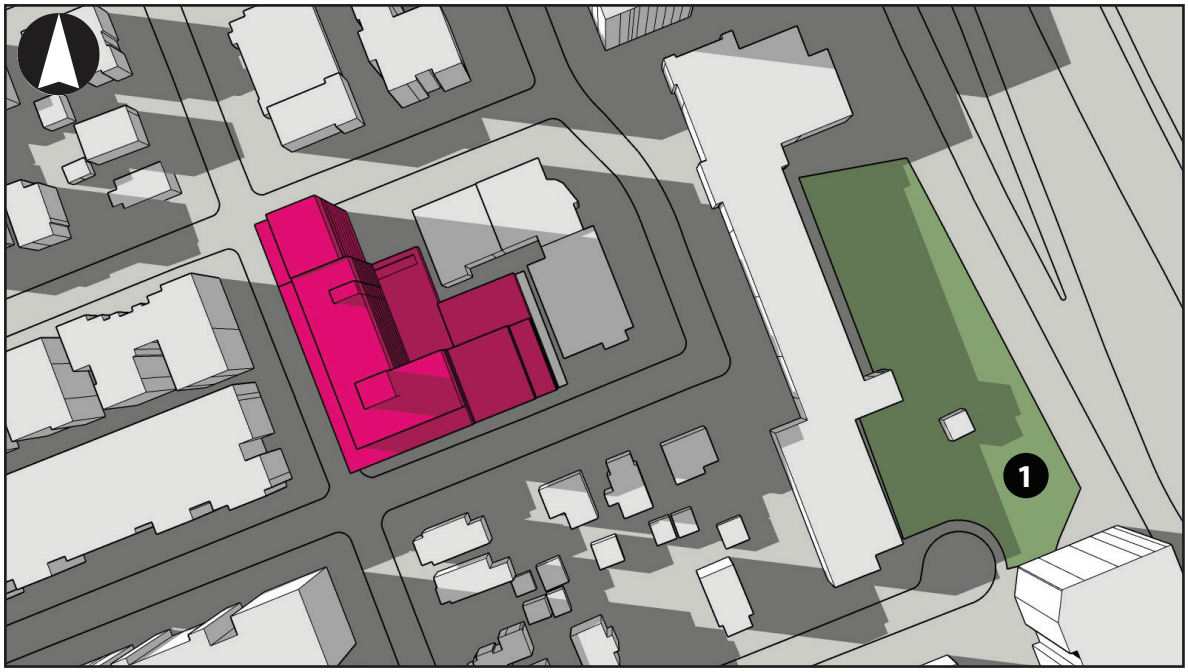
Figure E-4a
Willow Lake Playground
Incremental Shadows on May 6/August 6

4:18 PM

4:48 PM

Proposed Development
Open Space
Incremental Shadow

Figure E-4b
Willow Lake Playground
Incremental Shadows on May 6/August 6



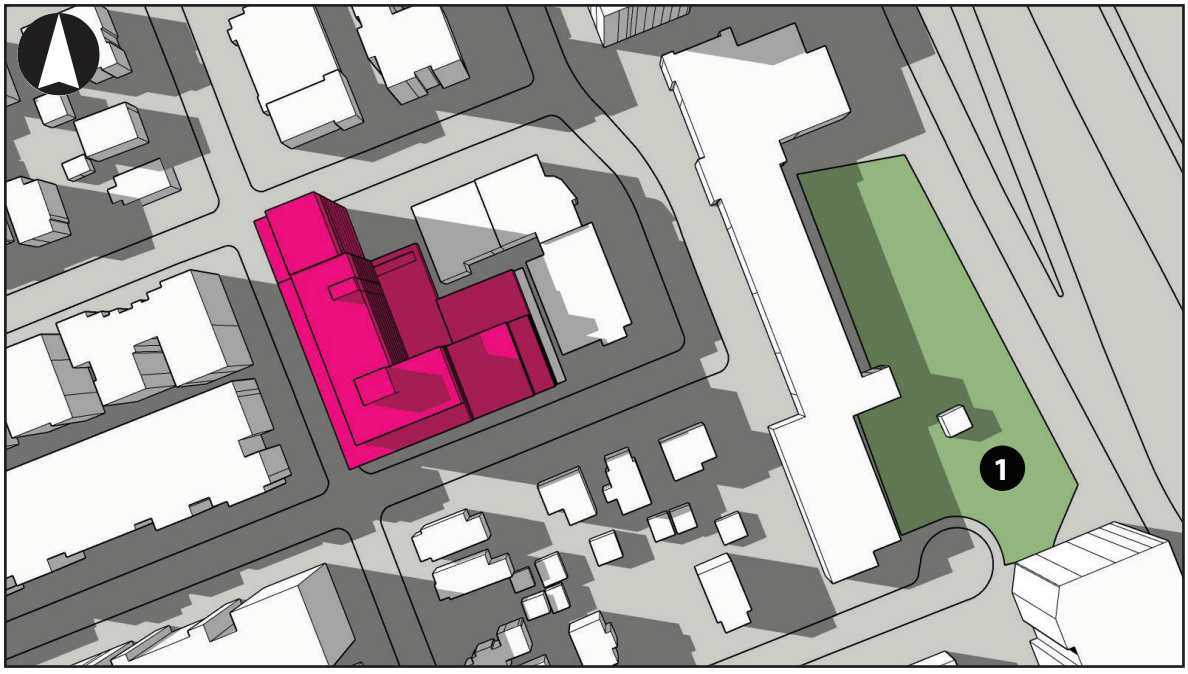
5:18 PM

Proposed Development

Open Space

Incremental Shadow

Figure E-5a
Willow Lake Playground
Incremental Shadows on June 21

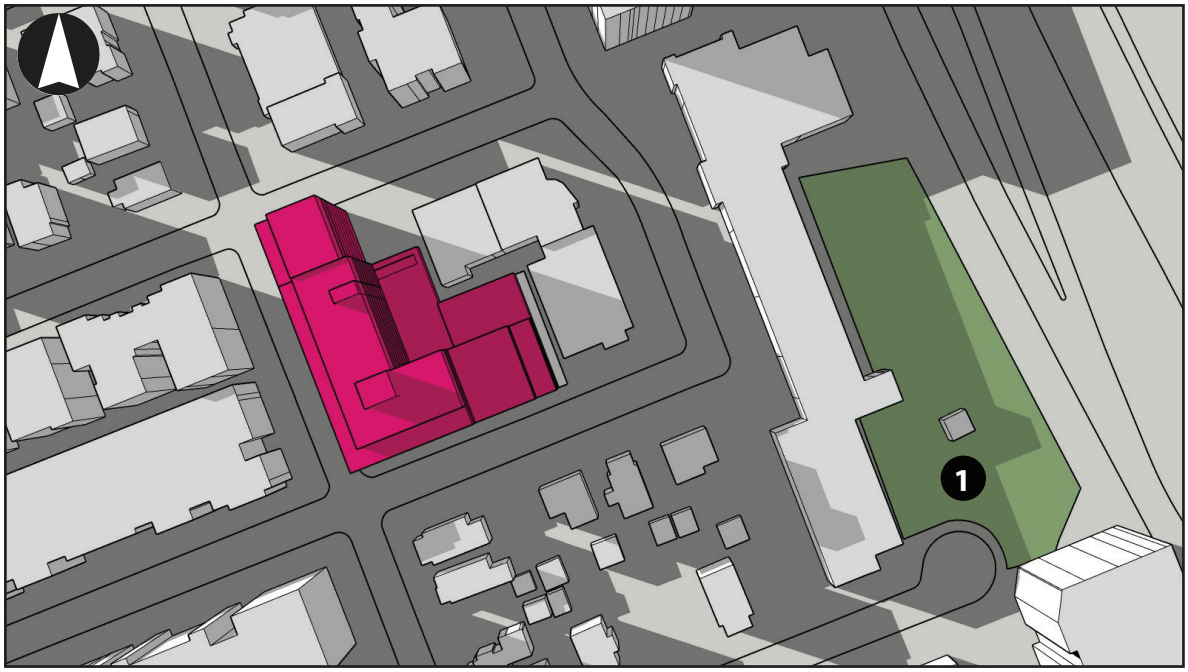


5:01 PM

5:31 PM

Proposed Development
Open Space
Incremental Shadow

Figure E-5b
Willow Lake Playground
Incremental Shadows on June 21



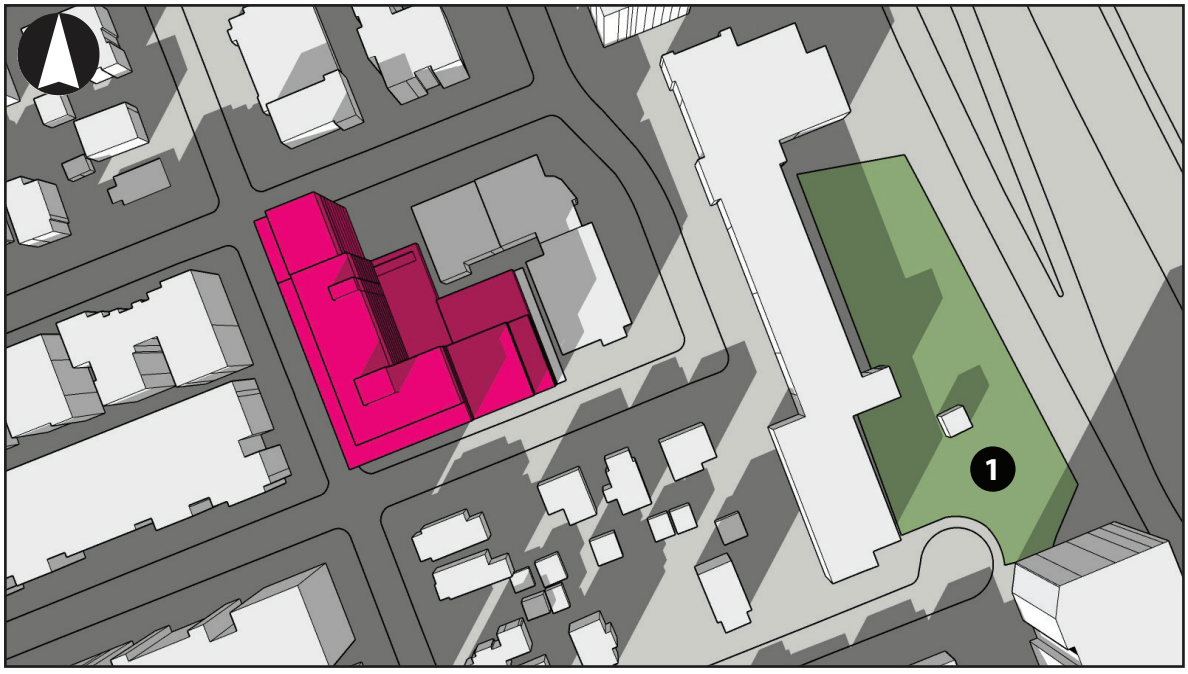
6:01 PM

Proposed Development

Open Space

Incremental Shadow

Figure E-6a
Willow Lake Playground
Incremental Shadows on December 21



1:53 PM

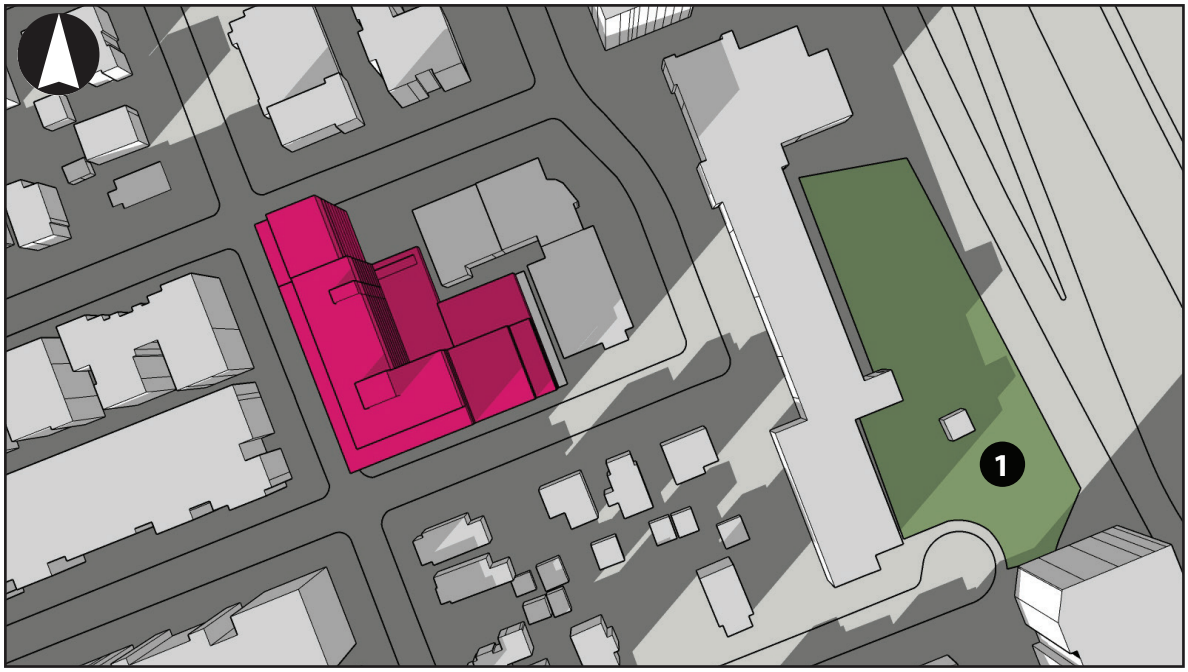
2:23 PM

Proposed Development

Open Space

Incremental Shadow

Figure E-6b
Willow Lake Playground
Incremental Shadows on December 21



2:53 PM

Proposed Development

Open Space

Incremental Shadow

ATTACHMENT F

URBAN DESIGN AND VISUAL RESOURCES

I. INTRODUCTION

This attachment considers the potential effects of the Proposed Actions and associated reasonable worst-case development scenario (RWCDS) on urban design and visual resources. As defined in the 2021 *City Environmental Quality Review* (CEQR) *Technical Manual*, urban design is the totality of components that may affect a pedestrian's experience of public space. Elements such as streets, buildings, visual resources, open space, natural resources, wind and sunlight play an important role in the pedestrian experience. As presented in **Attachment A, "Project Description,"** under the RWCDS, the Proposed Actions would facilitate the incremental development of 173 dwelling units (DUs) across two adjacent site (including a net increase of up to 52 affordable DUs) and 66 below grade parking spaces within the Project Area, as well as a net reduction of 5,600 gsf of community facility space.

In accordance with *CEQR Technical Manual* guidance, the assessment focuses on the components of the Proposed Actions that may have the potential to alter the arrangement, appearance and functionality of the built environment. The effect of the Proposed Actions represents the incremental effect on conditions resulting from the net change in development between No-Action and With-Action conditions.

II. METHODOLOGY

Pursuant to the *CEQR Technical Manual*, an assessment of urban design is appropriate when a project may have effects on one or more of the elements that contribute to the pedestrian experience of public space. The assessment focuses on the components of a proposed action(s) or project that may have the potential to alter the arrangement, appearance, and functionality of the built environment.

As described in the *CEQR Technical Manual*, a preliminary urban design analysis is appropriate when there is potential for a pedestrian to observe from the street level a physical alteration beyond that allowed by existing zoning. A preliminary analysis provides a "snapshot" of the project, comparing existing and future conditions with and without the proposed actions. The following analysis examines each of the elements that play an important role in the pedestrian experience, including street hierarchy and streetscape (including the arrangement and orientation of streets); building scale, form and arrangement; and natural features, open space and topography. The following preliminary analysis also considers the effects of the Proposed Actions and associated RWCDS on the area's visual resources, which are generally considered to be important public view corridors, vistas, or natural or built features. Visual resources can include waterfront views, public parks, landmark structures or districts, or natural features, such as rivers or geologic formations.

Per criteria of Section 230 of the *CEQR Technical Manual*, a wind condition analysis is not warranted for the Proposed Actions. The study area is not located in a high wind location (such as along west and northwest-facing waterfronts) and the RWCDS would not be of a "substantial size" that would have the potential to alter wind conditions.

Based on *CEQR Technical Manual* guidance, the study area for urban design is the area where the project may influence land use patterns and the built environment. The urban design study areas consists of both a primary study area (where urban design effects of the Proposed Actions are direct) and a secondary

study area. For the purpose of this assessment, the primary study area is coterminous with the Project Area as described in **Attachment A, "Project Description."** Consistent with the analysis of land use, zoning, and public policy, the secondary study area for the urban design assessment has been defined as an area within approximately 400 feet of the rezoning area (see **Figure F-1**).

The analysis is based on field visits, aerial views, photographs, and other graphic images of the study area and surrounding area. Zoning calculations, including floor area calculations, building heights, and lot coverage information are also provided.

III. PRELIMINARY ANALYSIS

Existing Conditions

Primary Study Area (Project Area)

The approximately 35,000-sf primary study area, which is coterminous with the Project Area, comprises the entirety of the 22,5000-sf applicant-owned Lot 31 (Projected Development Site 1), as well as approximately 12,500 sf of the larger 31,000-sf Lot 41 (Projected Development Site 2), on Queens Block 2246 in the Forest Hills neighborhood of Queens CD 6. The Project Area has frontage on 112th Street to the west, 71st Avenue to the north, 71st Road to the south and extends to a depth of approximately 175 feet from 112th Street.

Projected Development Site 1 (Block 2246, Lot 31)

The applicant-owned Block 2246, Lot 31 site is an L-shaped corner lot with approximately 150 feet of frontage on 112th Street to the west and 175 feet of frontage on 71st Road to the south. Both 112th Street and 71st Road are approximately 60 feet wide (classified as "narrow" streets) and operate one-way northbound or westbound, respectively. As shown in Views 1-8 of **Figures F-2a** and **F-2b**, Projected Development Site 1 is currently developed with a two-story, modernist-style brick building. The building, which has been inhabited by religious institutions since its construction in 1963 and has been occupied by the Reform Temple of Forest Hills (RTFH) since 1994. However, in its current configuration the facility no longer serves the needs of the congregation and has certain compliance issues with the Americans with Disabilities Act (ADA) as the building was built many years before that act became law. The approximately 24,000-gsf (1.02 FAR) structure occupies the vast majority of the lot while landscaping, walkways, and a small parking lot are located around the building's perimeter.

Facing 112th Street, the RTFH's main entrance provides the structure's primary visual interest with three, approximately 15-foot tall stained glass windows depicting religious scenes positioned above the entry's three sets of glass doors. Grey stucco covers the building's façade on either side of the entrance and a stylized reproduction of the Ten Commandments is mounted to the wall approximately 20 feet off the ground (see Views 3 and 4 in **Figure F-2a)**. Windows and square columns wrap around the outside of the ground floor while the stuccoed façade of the 71st Road frontage is broken up with intermittently spaced vertical rows of windows. The building's northern and eastern façades are tan brick with minimal windows. As shown in **Figures F-2a** and **F-2b** the remainder of Projected Development Site 1 accommodates a four-space surface parking lot, accessible from a curb cut on 112th Street, and shrubs, short trees, and other landscaping located between the building edge and the sidewalks. Signs with service times and related information are located near the main entrance and at the northeast corner of the 112th Street and 71st Road intersection. Street trees, primarily sycamores, are present along 112th

Figure F-1
Project Location

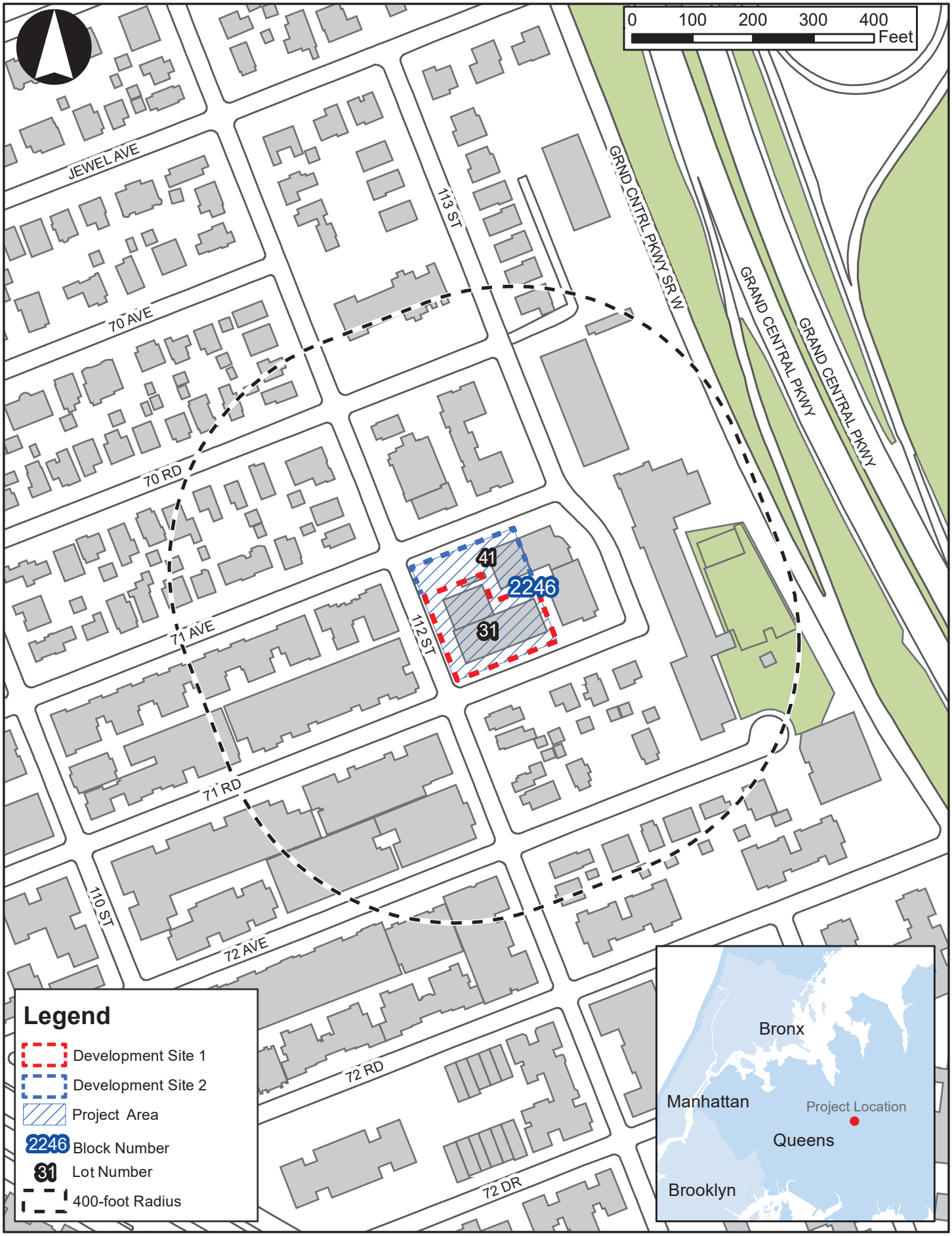
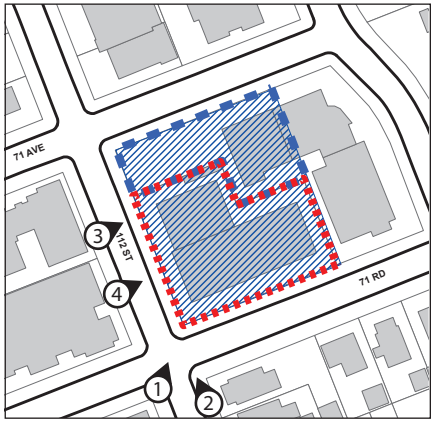


Figure F-2a
Site Photos - Taken 09/23/2021

V1 - Looking northeast at the Project Area from 112th Street and 71st Road



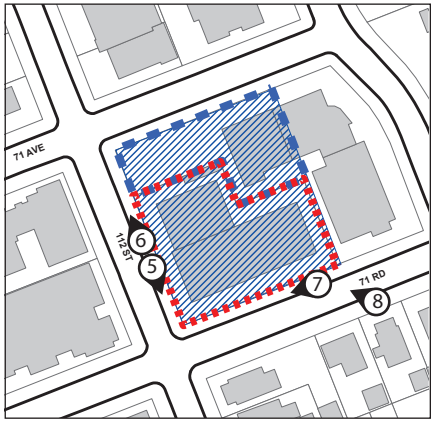
V2 - Looking northwest at the Project Area from 112th Street and 71st Road

V3 - Looking northeast at the Project Area from 112th Street

V4 - Looking northeast at the Project Area from 112th Street

Figure F-2b
Site Photos - Taken 09/23/2021

V5 - Looking southeast from Lot 31 towards 112th Street and 71st Road



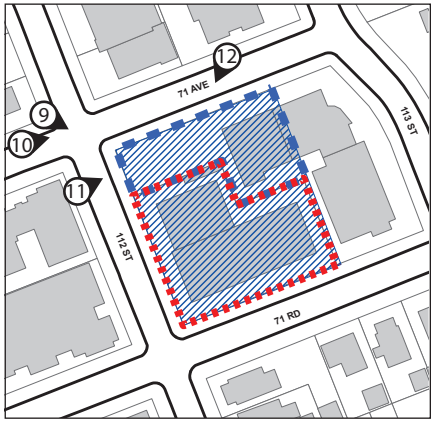
V6 - Looking northwest from Lot 31 towards 112th Street and 71st Avenue

V7 - Looking southwest at the Project Area along 71st Road

V8 - Looking northwest at the Project Area from 71st Road

Figure F-2c
Site Photos - Taken 09/23/2021

V9 - Looking southeast at the Project Area from 112th Street and 71st Avenue



V10 - Looking northeast at the Project Area from 112th Street and 71st Avenue

V11 - Looking northeast at the Project Area from 112th Street

V12 - Looking southwest at the Project Area from 71st Avenue

Street and 71st Road, as well as standard parking regulation signs and overhead street lighting. A second curb cut on 71st Road leads to a paved storage area with access to the building's basement.

Projected Development Site 2 (Block 2246, part of Lot 41)

Projected Development Site 2, which abuts Projected Development Site 1 to the north, is an approximately 12,500-sf, L-shaped portion of the larger Lot 41. Site 2 has approximately 50 feet of frontage on 112th Street to the west and approximately 175 feet of frontage on 71st Avenue to the north. Lot 41, which is owned by Touro College, is currently developed with a three-story, brick educational building and a 20-space parking lot (see Views 9-12 of **Figure F-2c**). Of this three-story building, approximately 11,700 gsf (0.94 FAR) is within the Project Area's boundaries and occupies the eastern portion of Projected Development Site 2. Both the portion of the building within the Project Area and the parking lot are bounded by a chain-link fence. Streetscape elements along Projected Development Site 2's street frontage are limited to standard street signage, street trees and cobra head lighting fixtures. One fire hydrant is located at the southeast corner of 112th Street and 71st Avenue.

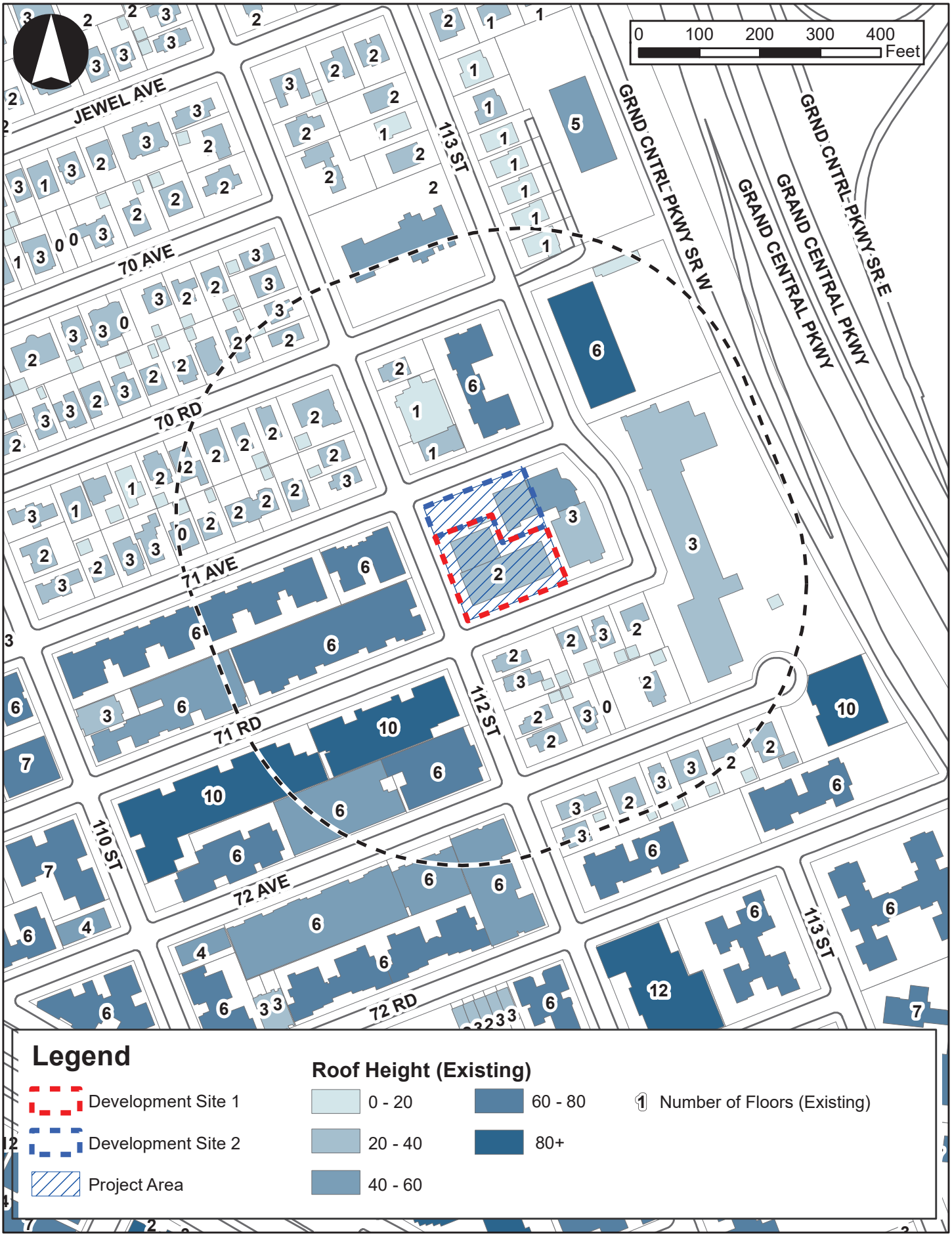
Secondary Study Area

As shown in **Figure F-1**, the street plan in the study area is characterized by a grid pattern generally containing one-way local streets that is interrupted by the Grand Central Parkway (GCP) service road at the study area's eastern boundary. All streets within the study area are classified as "narrow" (approximately 60-feet wide) with one travel lane and parking along each curb. 112th and 113th Streets are aligned north-south while the Roads (70th, 71st) and Avenues (71st, 72nd) are aligned east-west. The blocks west of 112th Street are generally rectangular (longer in the east-west direction) while the blocks east of 112th Street are irregularly shaped due to 113th Street terminating at 71st Road and 72nd Avenue terminating in a cul-de-sac just before the GCP.

As described in **Attachment C, "Land Use, Zoning and Public Policy,"** these blocks contain a range of residential and community facility buildings with various building typologies, the majority of which exceed one- and two-stories. One and two family buildings are concentrated to the south and northwest and generally occupy small lots and, although set back from the sidewalk, form a consistent streetwall. The buildings' front yards/drives are generally lined with decorative landscaping which abut the sidewalk (refer to Views 2 and 10 of **Figures F-2a** and **F-2c**, respectively). In contrast, west of 112th Street and south of 71st Avenue are multi-family elevator buildings, which are generally six to ten stories high and occupy larger lots (see **Figure F-3**). In addition, the building at the southeast corner of the intersection of 112th Street and 72nd Road is twelve stories tall. Multi-story institutional buildings, including Touro College and PS 196-Q, are located on larger lots between 112th Street and the GCP service road. Mature street trees are found at regular intervals throughout the secondary study area, as well as other streetscape elements like standard cobra-head streetlights, traffic lights, fire hydrants and street signage. Crosswalks are present at the majority of intersections. Narrower, ribbon sidewalks line much of the roadways within the secondary study area with full sidewalks located in proximity to the public school.

In the southeast portion of the study area, the Willow Lake Playground is located in the space behind PS 196-Q. Beyond this, outside of the secondary study area, is the GCP, which is flanked by trees, but is inaccessible to the public. Further to the east is Flushing Meadows-Corona Park. These natural features are not visible from either development site due to existing, intervening buildings. No other visual resources are located on, or are visible from, the primary or secondary study areas.

Existing Building Heights and Number of Floors



Future without the Proposed Actions (No-Action Condition)

Primary Study Area (Project Area)

In the 2025 future without the Proposed Actions, it is anticipated that neither Projected Development Site 1 nor Projected Development Site 2 would be redeveloped. As such, they are expected to remain in their existing conditions.

Secondary Study Area

In the No-Action condition, street patterns in the study area would not change. The existing grid pattern and street directions would remain the same. There are no known streetscape improvement plans in the study area.

As described in **Attachment C, "Land Use, Zoning, and Public Policy,"** there is one known development project in the secondary study area that are expected to be completed and occupied by the 2025 analysis year. This project, the redevelopment of the former Parkway Hospital, is located approximately 200 feet northeast of the development sites at 70-35 113th Street and would alter the context and built environment with the addition of a building expansion and new building. The site was rezoned in 2018 from an R1-2A district to an R7A district and an R7X district. By the 2025 analysis year, this development is expected to result in a 402,050-gsf mixed-use building containing 351 DUs, 4,034 gsf of community facility space, and 180 parking spaces. The existing six-story building on the site will be enlarged to an eight-story building and the remainder of the site will be developed with a 14-story, 145-foot-tall building. No other developments are expected in the No-Action condition.

In the No-Action condition, there would be no changes to natural features or open space within the study area. No new visual resources would be introduced to the primary or secondary study area and no visual resources currently exist in the study area. Therefore, in the future without the Proposed Actions, view corridors and visual resources would remain similar to existing conditions.

Future with the Proposed Actions (With-Action Condition)

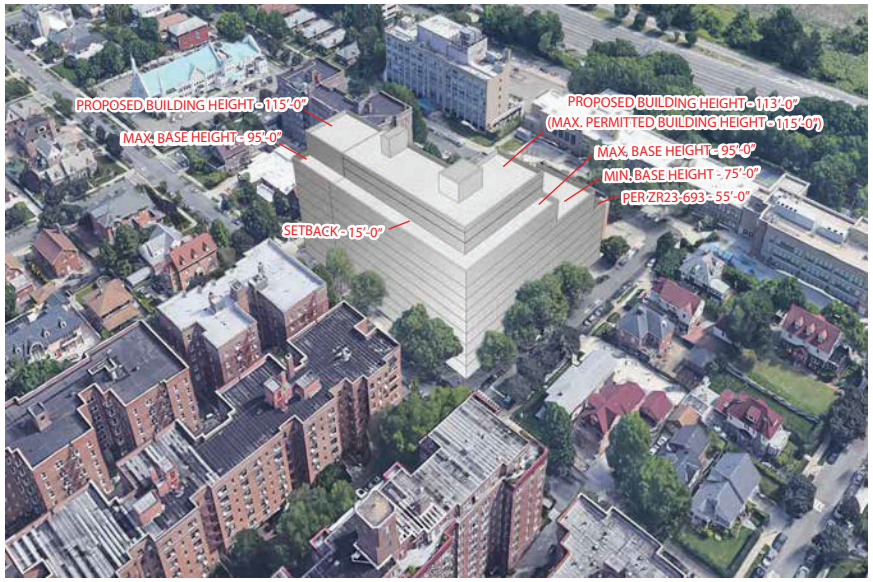
In the 2025 With-Action condition, the Proposed Actions, which include a zoning map and a zoning text amendment, would be approved. As presented in **Attachment A, "Project Description,"** under the RWCDS, the Proposed Actions would facilitate the incremental development of 173 DUs (including a net increase of up to 52 affordable DUs) and 66 parking spaces across the two development sites, as well as a net reduction of approximately 5,600 gsf of community facility floor area. Comparisons of the No-Action and With-Action condition views of the primary study area from the secondary study area are provided in **Figures F-4a** through **F-4c**.

Primary Study Area (Project Area)

The Proposed Actions would map an R7D zoning district on the Project Area. R7D districts are contextual zoning district governed by quality housing regulations, which would increase the allowable density and maximum building height as compared to the Project Area's existing R1-2A district. R7D districts encourage denser developments resulting in high lot coverage buildings set at or near the street line with height limits greater than R7A districts, but less than R7X districts. To maintain the continuity of the street wall, a new building can be no closer to the street line than any adjacent street wall. In the 2025 future with the Proposed Actions, the applicant-owned Projected Development Site 1 would be developed with

Figure F-4a
Comparative Views - No-Action and With-Action

V1 - No-Action, aerial view looking northeast at Project Area



V2 - With-Action, aerial view looking northeast at Project Area

V3 - No-Action, aerial view looking south at Project Area

V4 - No-Action, aerial view looking south at Project Area

Figure F-4b
Comparative Views - No-Action and With-Action

V5 - No-Action, pedestrian view looking north at Project Area from 112th Street and 71st Road

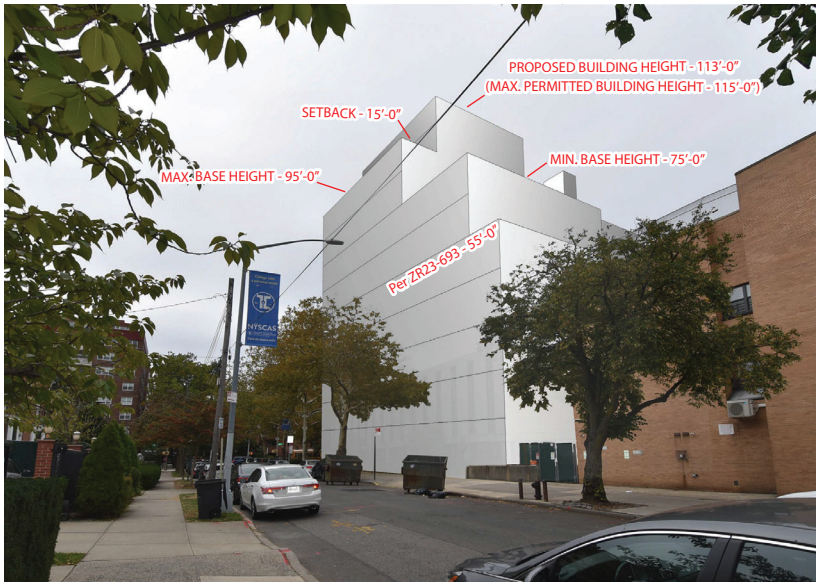
V6 - With-Action, pedestrian view looking north at Project Area from 112th Street and 71st Road

V7 - No-Action, pedestrian view looking southeast at Project Area from 112th Street and 71st Avenue

V8 - With-Action, pedestrian view looking southeast at Project Area from 112th Street and 71st Avenue

Figure F-4c
Comparative Views - No-Action and With-Action

V9 - No-Action, pedestrian view looking west at Project Area from 71st Road



V10 - With-Action, pedestrian view looking west at Project Area from 71st Road

V11 - No-Action, pedestrian view looking west at Project Area from 71st Avenue

V12 - With-Action, pedestrian view looking west at Project Area from 71st Avenue

a 10-story, mixed-use building containing 153 DUs, of which 38 to 46 would be affordable, and 16,600 gsf of community facility floor area. In compliance with the proposed R7D district and MIH designation, the new building would have a base height of 95 feet then setback 15 feet before reaching a roof height of 113 feet. It should be noted that, although the maximum permitted roof height in R7D districts is 115 feet, the proposed 113 foot roof height is based on preliminary elevations provided by the project architect. However, the two foot difference is nominal and the proposed 113 foot roof height still provides a conservative analysis.

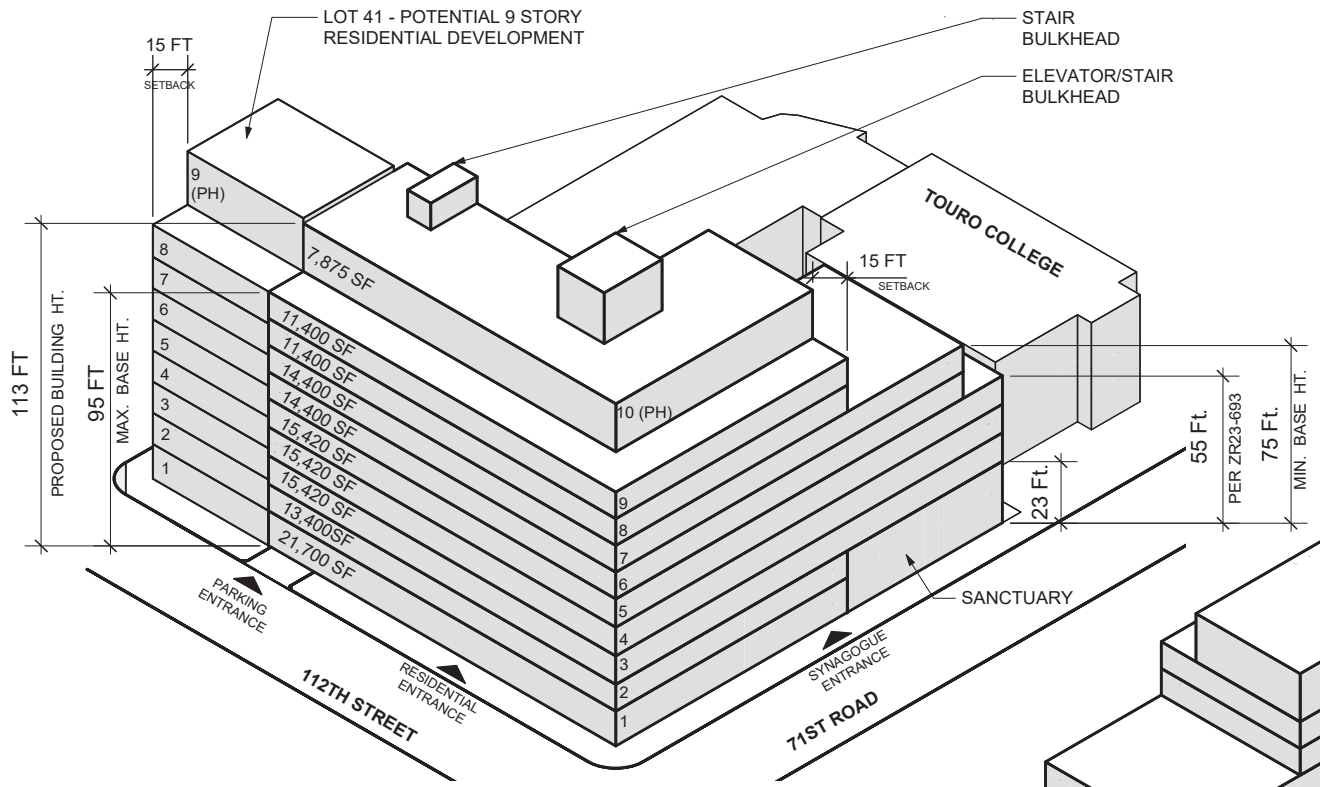
In addition to the development on the Applicant-owned Projected Development Site 1 described above, in the future with the Proposed Actions, the adjacent, non-applicant-owned Projected Development Site 2 is assumed to be developed with a nine-story, 23,800-gsf mixed-use building containing residential and community facility uses. This building would also have a base height of 95 feet then setback 15 feet before reaching a roof height of 115 feet.

The Proposed Actions would improve Projected Development Site 1, as compared to the No-Action condition, by activating the streetscape with new residential uses that would complement the residential character of the neighborhood and by replacing of the existing community facility with one that better fits the neighborhood context. In addition, as part of the proposed development, street trees would be planted along the rezoning area's street frontages, further improving the adjacent streetscape. Unlike the existing and No-Action conditions, the With-Action development would replace the existing accessory parking lot on Projected Development Site 1 with a below-grade garage. In addition, the existing parking lot on Projected Development Site 2 would be entirely replaced by new development. As such, the With-Action streetscape would have a more pedestrian-oriented streetscape with no pedestrian view devoted to surface-level, auto-oriented uses.

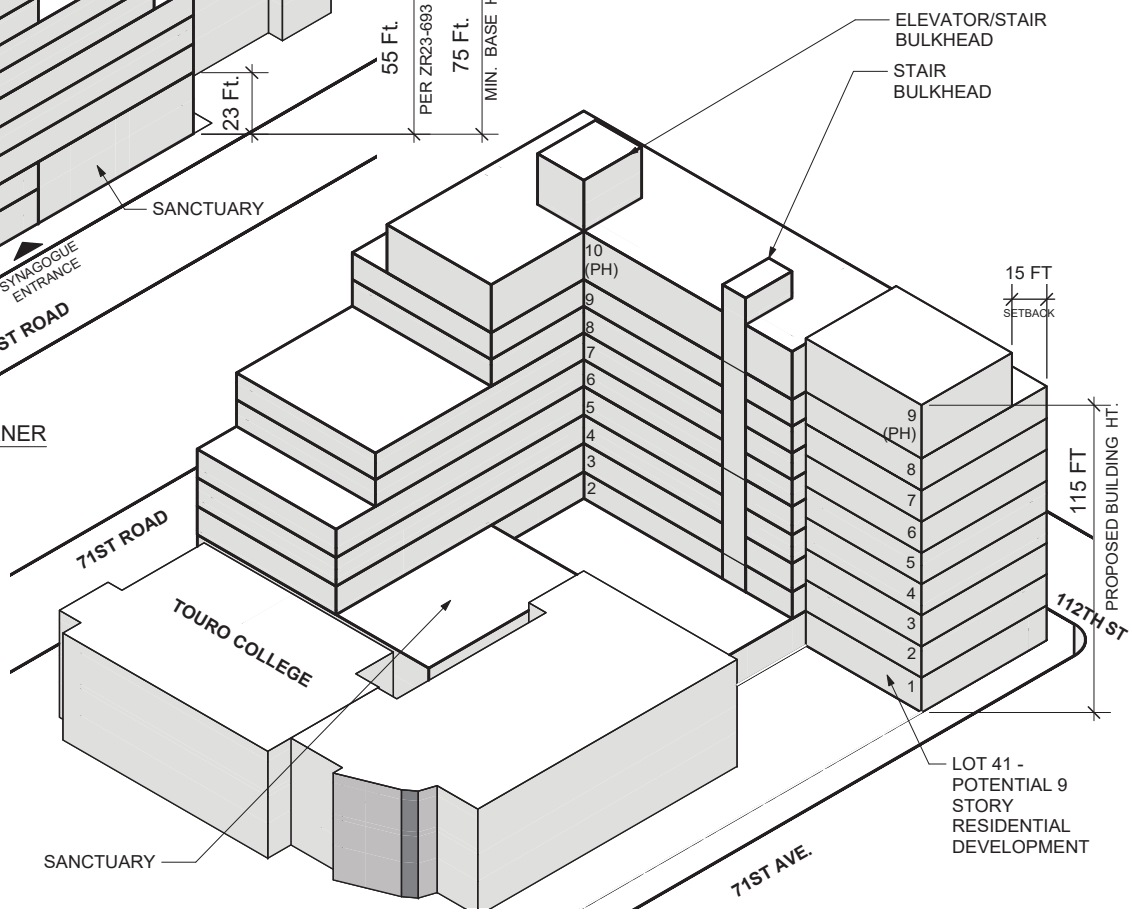
The community facility uses would occupy the ground floor of the proposed buildings on Projected Development Sites 1 and 2 with the RTFH reinhabiting the ground floor of Site 1. As Projected Development Site 2 is owned by Touro College, is it expected that the college would utilize the ground floor community facility space on Site 2. Together, the new residential and community facility spaces would increase foot traffic in the immediate vicinity of the Project Area which would further activate the streetscape and improving the pedestrian experience.

As shown in **Figure F-5** the RWCDS With-Action buildings would rise to a maximum height of 113 and 115 feet tall on Projected Development Site 1 and 2, respectively, and would be built to the streetline on all street frontages. The upper floors of the building would be visible from 112th Street, 113th Street, 71st Road, and 71st Avenue. As described previously, the surrounding area supports a mix of building types, scales and heights, including low-rise, two-to-three-story residential buildings, medium-rise, six-to-ten-story multifamily housing, and three-to-six-story institutional buildings. While the RWCDS buildings would be taller and have greater density than the two- and three-story buildings currently developed on the sites, the With-Action buildings would be within the existing range of building heights in the surrounding area and the additional height would not significantly affect the pedestrian experience along adjacent roadways.

As the With-Action buildings would be built to the streetline, they would not encroach on public streets or sidewalks. The With-Action buildings would form a consistent streetwall along each of the Sites' frontages, complementing the existing building context. As shown in **Figure F-5** the With-Action buildings on Projected Development Site 1 and 2 would incorporate setbacks above the maximum allowable base height of 95 feet in order to comply with the regulations of the proposed R7D zoning district. There would



1 MASSING DIAGRAM - VIEW FROM SOUTH-WEST (STREET) CORNER



2 MASSING DIAGRAM - VIEW FROM NORTH-EAST (REAR)

be no change to the street grid or block form as a result of the Proposed Actions and no publicly accessible views to significant visual resources in the study area would be affected.

Overall, the RWCDS buildings would enhance the pedestrian environment with new pedestrian-oriented buildings and would enliven the primary study area with new residents and visitors. For these reasons, the Proposed Actions would not result in significant adverse impacts on the urban design of the primary study area.

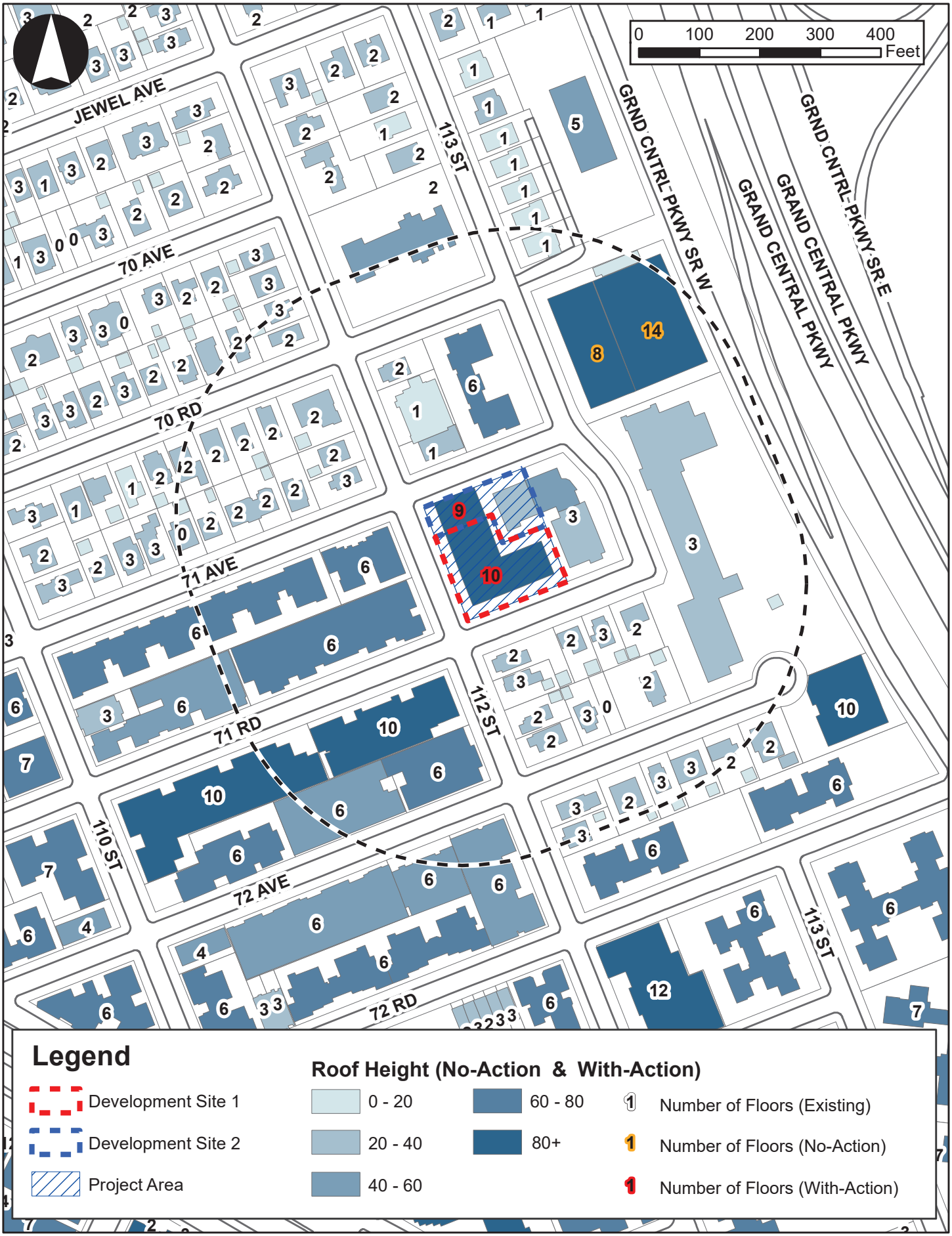
Secondary Study Area

The Proposed Actions would not result in any changes in the urban design in the secondary study area, as development facilitated by the Proposed Actions would be limited to the rezoning area. Additionally, the Proposed Actions would not result in changes to street patterns in either the primary or secondary study area. New development constructed as a result of the Proposed Actions would be constructed on an existing block and the existing grid pattern and street directions would remain the same. The proposed streetscape improvements on sidewalks and streets immediately adjacent to the development sites would be consistent with the streetscapes throughout the study area, and would improve the area's urban design character.

The Proposed Actions would produce two mixed-use residential and community facility buildings that would complement the mix of uses and densities found in the surrounding study area. While the RWCDS With-Action buildings would represent a departure from the urban design character of certain portions of secondary study area, they would be consistent with the buildings located on the west side of 112th Street, the north side of 71st Avenue, and the east side of 113th Street in terms of building height, lot placement and street wall (refer to **Figure F-6**). The With-Action development would also be consistent with the developments planned in the No-Action condition. In addition, the primary study area buildings' land uses would create a more engaging street wall from the perspective of a pedestrian rather than the parking lots that would remain absent the Proposed Actions. Furthermore, the Proposed Actions would contribute to the overall urban design character of the secondary study area and would not adversely affect any urban design features of the secondary study area. Therefore, the Proposed Actions would not result in significant adverse impacts to the experience of the pedestrian.

As described above, there would be no changes to natural features or open space within the study area and there are no visual resources within, or visible from, the primary or secondary study areas. As such, the Proposed Actions would not result in significant adverse impacts on visual resources.

No-Action and With-Action Building Heights and Number of Floors



ATTACHMENT G

WATER AND SEWER INFRASTRUCTURE

I. INTRODUCTION

As defined in the 2021 *City Environmental Quality Review* (CEQR) *Technical Manual*, infrastructure comprises the physical systems that support populations and includes structures such as water mains and sewers, bridges and tunnels, roadways, and electrical substations. These structures are static and thus have defined capabilities that may be affected by growth in a particular area. This attachment assesses the potential effects of the Proposed Actions on the City's water supply, wastewater treatment and stormwater management infrastructure, in accordance with guidance set forth in the *CEQR Technical Manual*.

As described in **Attachment A, "Project Description,"** the Proposed Actions would facilitate the development of an approximately 162,535-gross square foot (gsf) mixed-use building (the "Proposed Project") on Block 2246, Lot 31 in the Forest Hills neighborhood of Queens, CD 6. The new ten-story development would be constructed in accordance with the site's proposed rezoning (from R1-2A to R7D), as well as the proposed MIH designation, and would consist of approximately 16,600 gsf of community facility and approximately 153 dwelling units (DUs).

In addition, the Proposed Actions would affect a portion of an adjacent property. Under the reasonable worst case development scenario (RWCDS), it is assumed that, as a result of the Proposed Actions, this property (Lot 41) would retain approximately 11,700 gsf of existing community facility space and the remaining lot area, currently a surface parking lot, would be redeveloped with approximately 20 DUs and 1,800 gsf of additional community facility space. Collectively, Lot 31 and the portion of Lot 41 located within the proposed rezoning area (Projected Development Sites 1 and 2, respectively) comprise the Project Area.

II. METHODOLOGY

According to the *CEQR Technical Manual*, a preliminary water supply infrastructure analysis is needed if a project would result in an exceptionally large demand for water (e.g., more than one million gallons per day (mgd)) or is located in an area that experiences low water pressure (e.g., areas at the end of the water supply distribution system such as the Rockaway Peninsula or Coney Island). Additionally, the *CEQR Technical Manual* indicates that a sewer analysis is warranted if a project site is located in a separately sewered area and would exceed incremental development thresholds determined by the site's zoning.

While the Proposed Actions and associated RWCDS would not generate large demand for water nor is it located in a low water pressure area, the Project Area is located in a part of the City that is served by a separated sewer system, and the existing zoning within the Project Area is mapped within an R1-2A district, for which the development thresholds are generally 25 residential units or 50,000 square feet (sf) of non-residential uses. As described in **Attachment A, "Project Description,"** the Proposed Project would exceed the development thresholds in the *CEQR Technical Manual* for new development in a separated sewer area, therefore, analysis of the Proposed Actions' effects on wastewater and stormwater infrastructure is warranted.

Existing and future water demand and sanitary sewage generation were calculated based on use generation rates set forth in Table 13-2 of the *CEQR Technical Manual*. The DEP Flow Volume Calculation

Matrix was then used to calculate the overall sanitary sewage and stormwater runoff volume distributed to the sewer system for four rainfall volume scenarios with varying durations. Per *CEQR Technical Manual* methodology, the ability of the City's sewer infrastructure to handle the anticipated demand from the Proposed Actions and associated RWCDS is assessed by estimating existing sewage generation rates and then comparing these existing rates to the future with and without the Proposed Actions.

III. DETAILED ASSESSMENT

Existing Condition/No-Action Condition

The Project Area is approximately 0.8 acres (35,000 sf) and is bounded by 112th Street to the west, 71st Avenue to the north, 71st Road to the south and continues for a depth of approximately 175 feet from 112th Street. The 22,500-sf Projected Development Site 1 (Lot 31) is developed with a two-story building with minor landscaping around the perimeter and a four-space accessory parking lot. Projected Development Site 2 comprises approximately 12,500 sf of the larger Lot 41, and contains a 20-space accessory parking lot and a portion of a three-story building.

Sewer Conveyance System

The majority of New York City's wastewater treatment system consists of the sewer network beneath the streets and fourteen Water Pollution Control Plants (WPCPs) located throughout the City. The City's WPCPs are regulated by the New York State Department of Environmental Conservation (NYSDEC), which issues permits regulating the discharge of treated effluent. Combined, all fourteen WPCPs in New York City have a State Pollution Discharge Elimination System (SPDES) permitted total capacity of 1.8 billion gallons per day (gpd). The area served by each plant is called a "drainage area" or "catchment area." While approximately 60 percent of New York City's sewers are called combined sewers (sewers that receive sanitary wastewater as well as stormwater runoff), the Project Area is located in a part of New York City served by a separate sewer system where sanitary sewage flows to a wastewater treatment plant (the Bowery Bay WPCP which is the primary plant for Northwest Queens) and stormwater flows untreated through outfalls into nearby waterways.

Based on a review of available DEP water system maps, the sewer system surrounding the Project Area is made up of a 15-inch storm sewer pipe and a 10-inch sanitary sewer pipe under 112th Street and 10-inch sanitary sewer pipes which run beneath 71st Avenue and 71st Road. An additional 14-inch sewer force main with an automatic electronic pumping station, runs under 71st Road.

Water Demand and Sanitary Flows

As described in **Attachment A, "Project Description,"** two development sites comprise the Project Area. Projected Development Site 1, which has a lot area of approximately 22,500 sf, is occupied by a two-story community facility and a four-space parking lot. The approximately 12,500-sf Projected Development Site 2 is improved with a portion of a larger three-story community facility building, a 20-space parking lot and associated paved walkways. For purposes of analysis, the amount of sanitary sewage is estimated as all water demand generated by the existing uses within the Project Area except that used by air conditioning, which is typically not discharged to the sewer system. As shown in **Table E-1**, the amount of daily sanitary sewage generated by the existing uses within the Project Area is an estimated 3,570 gpd, which is conveyed to the Bowery Bay WPCP – the fifth largest in terms of capacity of the City's 14 treatment plants.

Table E-1: Existing/No-Action Water Consumption and Wastewater Generation in the Project Area

Lot	Land Use	Rate[1]	Size (GSF)	Wastewater Generation (gpd)	A/C (gpd)
31	Community Facility	Domestic: 0.10 gpd/sf; A/C: 0.17 gpd/sf	24,000 gsf	2,400	4,080
41	Community Facility	Domestic: 0.10 gpd/sf; A/C: 0.17 gpd/sf	11,700 gsf	1,170	1,989
Total Water Consumption (Domestic Water + A/C)				*9,639 gpd*	
Total Wastewater Generation				*3,570 gpd*	

Note: [1]As no rate for community facility uses is provided in the *CEQR Technical Manual*, domestic and air conditioning generation rate assumes office rate based on *CEQR Technical Manual* water demand rates from Table 13-2

Stormwater Flows

The Project Area has a total lot area of approximately 35,000 sf occupied by a two- and a three-story community facility buildings on Projected Development Sites 1 and 2, respectively. The remaining portions are occupied by paved surfaces (used predominantly for parking and open storage) and some plantings/lawns. As such, impervious surfaces (roofs and pavement) currently comprise the majority of the Project Area, resulting in a weighted coefficient of 0.83 for existing runoff volumes (see **Table E-2** below). Using the DEP Flow Volume Calculation Matrix, this weighted runoff coefficient was applied to calculate the amount of stormwater runoff for various rainfall intensities and durations, with rainfall ranging from 0.00 inches to 2.50 inches over durations of 3.80 to 19.50 hours. **Table E-3** shows the calculated stormwater runoff for the Project Area under existing conditions. As indicated in the table, the Project Area currently generates between 0.00 and 0.05 mg of stormwater for the different rainfall intensities.

Table E-2: Existing Surface Types in the Project Area

Lot	Surface Type	Roof[1]	Pavement and Walks	Other	Grass and Soft Scape	Total
31	Area (%)	60	20	0	20	100
	Surface Area (sf)	13,500	4,500	0	4,500	22,500
	Runoff Coefficient[2]	1.0	0.85	0.85	0.20	0.81
41	Area (%)	31	64	0	5	100
	Surface Area (sf)	3,900	8,000	0	600	12,500
	Runoff Coefficient[2]	1.0	0.85	0.85	0.20	0.87
Weighted Runoff Coefficient[3]						*0.83*

Notes: [1]Total roof area on site
[2]Runoff coefficients for each surface type are as per DEP
[3]Runoff coefficient weighted based on surface area sf for each site

Table E-3: Existing Stormwater Runoff to Waterbody

Rainfall (inches)	Duration (Hours)	Total Area (Acres)	Weighted Runoff Coefficient[1]	Total Stormwater Runoff to Waterbody (MG)[2]
0.00	3.80	0.8	0.83	0.00
0.40	3.80			0.01
1.20	11.30			0.02
2.50	19.50			0.05

Notes: [1]Refer to **Table E-2**
[2]MG = million gallons

The Future without the Proposed Actions (No-Action Condition)

In absence of the Proposed Actions, no changes would occur within the Project Area and all existing uses are anticipated to remain in their current states. As such, no changes to surface coverage are expected.

Therefore, water demand, sewage generation and stormwater runoff will remain as discussed under the "Existing Conditions."

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

As described above, the Proposed Actions and associated RWCDS would result in 173 DUs and 30,100 gsf of community facility space resulting an increased demand for water and an increase in sanitary wastewater generation, as well as an increase in stormwater runoff from the additional fully impervious rooftops and semi-impervious paved areas at the sites. Those increases are described below.

Water Demand and Sanitary Flows

As shown in **Table E-4**, the RWCDS development facilitated by the Proposed Actions would result in a total projected water demand of approximately 71,895 gpd (0.07 mgd) at the Project Area by 2025 and a projected sanitary sewage generation of approximately 41,910 gpd (0.04 mgd). While this represents an increase in sanitary flow in the Project Area, it would be 0.27 percent of the daily flow at the Bower Bay WPCP and would not result in an exceedance of the plant's permitted 150 mgd capacity. Therefore, the RWCDS would not affect the plant's treatment efficiency or compromise its ability to properly treat wastewater before discharge.

Table E-4: With-Action Consumption and Wastewater Generation in the Project Area

Lot	Land Use	Rate[1]	Size/Population[2]	Wastewater Generation (gpd)	A/C (gpd)
31	Residential	Domestic: 100 gpd/person; A/C: 0.17 gpd/sf	344 residents; 124,235 gsf	34,4000	21,120
	Community Facility	Domestic: 0.10 gpd/sf; A/C: 0.17 gpd/sf	16,600 gsf	1,660	2,822
41	Residential	Domestic: 100 gpd/person; A/C: 0.17 gpd/sf	45 residents; 22,048 gsf	4,500	3,748
	Community Facility	Domestic: 0.10 gpd/sf; A/C: 0.17 gpd/sf	13,500 gsf	1,350	2,295
Total Water Consumption (Domestic Water + A/C)				*71,895 gpd*	
Total Wastewater Generation				*41,910 gpd*	

Note: [1]Rates based on *CEQR Technical Manual* water demand rates from Table 13-2. For community facility uses, as no rate is provided in the *CEQR Technical Manual*, domestic and air conditioning generation rate assumes retail/office.
[2]Resident population based on average household size of 2.25 for Queens CD 6 (2020 US Census)

Connecting to the City's sewer system requires certification from DEP as part of the building permit process, which is not a discretionary approval. The Applicant would be required to file a site connection proposal for approval from DEP to tie into the sewer system. In order to obtain a sewer connection permit from DEP, the Applicant would be required to demonstrate that the existing system could handle the increased flows due to the Proposed Project. As part of the site connection approval process, a hydraulic analysis of the existing sewer system would likely be required to determine whether the existing sewer system is capable of supporting higher density development and the related increase in wastewater flow, or whether there will be a need to upgrade the existing sewer system. In addition, there may be a need to amend the existing drainage plan based on the hydraulic analysis calculations. This analysis would be undertaken prior to construction of the Proposed Project and would be coordinated with DEP for review and approval. In addition, in accordance with the New York City Plumbing Code (Local Law 33 of 2007), while not accounted for in the quantitative analysis, the Proposed Project would be required to utilize low-flow plumbing fixtures, which would reduce sanitary flows to the plant. Therefore, the Proposed Project would not result in a significant adverse impact to the City's sanitary sewage conveyance and treatment.

Stormwater Flows

In the future with the proposed action, the amount of roof area, pavement and walkways within the Project Area would increase as compared to existing conditions, with a decrease in the amount of grass/soft scape within the Project Area. Although development on Projected Development Site 2 could feature landscaped areas, the amount and location of landscaped areas is not known at this time as the site is not controlled by the Applicant. Therefore, for the purposes of a conservative analysis, all lot area on this development site that is not rooftop area is assumed to be pavement area, which features a higher runoff coefficient than landscaped area (aka soft scape). **Table E-5** shows the surface types that are expected in the Project Area under the 2025 With-Action conditions. As presented in **Table E-5**, the weighted runoff coefficient for the Project Area would increase to 0.98 in the future with the Proposed Actions, as compared to 0.83 under existing conditions.

Table E-5: With-Action Surface Types in the Project Area

Lot	Surface Type	Roof[1]	Pavement and Walks	Other	Grass and Soft Scape	Total
31	Area (%)	90	9	0	1	100
	Surface Area (sf)	20,300	1,980	0	220	22,500
	Runoff Coefficient[2]	1.0	0.85	0.85	0.20	0.98
41	Area (%)	53	47	0	0	100
	Surface Area (sf)	6,604	5,896	0	0	12,500
	Runoff Coefficient[2]	1.0	0.85	0.85	0.20	0.93
					Weighted Runoff Coefficient[3]	*0.98*

Notes: [1]Total roof area on site
[2]Runoff coefficients for each surface type are as per DEP
[3]Runoff coefficient weighted based on surface area sf for each site

Using these stormwater flow calculations, the DEP Flow Volume Calculation Matrix was completed for the existing conditions and the With-Action condition. The calculations from the Flow Volume Calculation Matrix help to determine the change in stormwater runoff volumes from existing conditions to With-Action conditions at four rainfall volume scenarios with varying durations. The summary comparing the estimated stormwater runoff under these conditions is shown in **Table E-6** below.

Table E-6: **With-Action Stormwater Runoff to Waterbody**

Rainfall (inches)	Duration (Hours)	Total Area (Acres)	Existing/No-Action Conditions		With-Action Condition	
			Weighted Runoff Coefficient[1]	Stormwater Runoff to Waterbody(MG)[2]	Weighted Runoff Coefficient	Stormwater Runoff to Waterbody(MG)
0.00	3.80	0.8	0.83	0.00	0.98	0.01
0.40	3.80			0.01		0.02
1.20	11.30			0.02		0.05
2.50	19.50			0.05		0.09

Notes: [1]Refer to **Table E-2**
[2]MG = million gallons

As shown in the Table **E-6**, depending on the rainfall volume and duration, the total With-Action runoff volume range from less than 0.01 to 0.09 mgd. Compared to existing conditions, this would represent an increase in stormwater flows of 0.01 to 0.04 mgd, depending on rainfall intensities. As previously noted, the Project Area is located in an area that is well-served by sewer infrastructure. Given the size of the sewer facilities near the Project Area, it is anticipated that there is capacity in the adjacent sewer infrastructure to accommodate the additional flows generated by the Proposed Actions and associated RWCDS.

Stormwater Best Management Practices

The Flow Volume Matrix calculations do not reflect the use of any sanitary and stormwater source control best management practices (BMPs) to reduce stormwater runoff volumes to the sewer system. Stormwater BMPs would be required as part of the DEP site connection approval process in order to bring the building(s) into compliance with the required stormwater release rate (see DEP memorandum dated July 22, 2022 in **Appendix I**). Based on the DEP Guidelines for Detention Facility Design, dated November 19, 2012, for new developments, the required stormwater release rate for the RWCDS would be 0.25 cubic feet per second (cfs) or ten percent of the allowable flow. Specific BMP methods (such as blue and green roofs, subsurface detention and infiltration, porous pavement, enhanced tree pits, and rain cisterns) will be determined with further refinement of the building design and in consultation with DEP.

ATTACHMENT H

AIR QUALITY

I. INTRODUCTION

The potential for air quality impacts from the Proposed Actions are examined in this attachment, which was conducted pursuant to 2021 *CEQR Technical Manual* guidelines. Per *CEQR Technical Manual* guidelines, an air quality analysis is conducted to assess the effect of a proposed action(s) on ambient air quality (i.e., the quality of the surrounding air), or effects on a proposed project because of ambient air quality. Air quality can be affected by mobile sources (pollutants produced by motor vehicles), and by stationary sources (pollutants produced by fixed facilities). According to the *CEQR Technical Manual*, an air quality assessment should be carried out for actions that can result in either significant adverse mobile source or stationary source air quality impacts.

The Applicant is seeking zoning map and zoning text amendments to facilitate the development of the Applicant-owned site (known as "Projected Development Site 1") on Block 2246, Lot 31 in the Forest Hills neighborhood of Queens. The Applicant is proposing to build a 10-story, approximately 113-foot-tall, mixed-use residential and community facility building comprising approximately 140,835 gross square feet (gsf) (162,535 gsf including the below-grade, 66-space parking facility). Under the Reasonable Worst Case Development Scenario (RWCDS), the proposed zoning changes would also allow for the development of another mixed-use residential and community facility building on the northwest portion of the adjacent Lot 41 on Block 2246 (known as "Projected Development Site 2"). The With-Action development on Projected Development Site 2 would including a total of 23,800 gsf, would have 9-stories, and would reach approximately 115 feet tall. Together, Projected Development Sites 1 and 2 comprise the "Project Area." In absence of the Proposed Actions, the Project Area's existing R1-2A zoning would remain in place, neither Projected Development Site 1 nor Site 2 would be redeveloped, and both sites would remain in their existing conditions.

Additionally, it should be noted that, as detailed in **Attachment A, "Project Description,"** an approximately 11,700-gsf portion of an existing community facility building is located within the Project Area. This building is not under the Applicant's control and operates independent mechanical and building systems. In both the No-Action and With-Action conditions, neither the 11,700 gsf portion nor the larger building are expected to be affected by the Proposed Actions and the building's existing exhaust stack would remain in its current condition (i.e., independent of the RWCDS development on Projected Development Site 2). As such, only the new, approximately 23,800-gsf mixed-use development on Site 2 is included in the air quality analysis.

As both With-Action buildings would be adjacent to each other and would have the same total building height under the RWCDS (approximately 135-feet including bulkhead)[1], emissions released from the heating, ventilation, and air conditioning (HVAC) systems of each building could potentially and adversely affect the other building. Therefore, pursuant to *New York City Environmental Quality Review (CEQR) Technical Manual* guidance, a project-on-project HVAC analysis was conducted. In addition, although there are no existing buildings taller or the same height as the two RWCDS With-Action buildings within

[1] The stack heights for the RWCDS With-Actions developments are based on a building height that is lower than the maximum zoning envelope permitted under the proposed R7D district, which may result in more conservative estimates of potential project-on-project air quality emissions.

400 feet of the Project Area, the Former Parkway Hospital development detailed in **Attachment C, "Land Use, Zoning, and Public Policy"** will include a building that would be taller than the RWCDS With-Action buildings. As this planned development will be within 400 feet of the Project Area, a preliminary screening of potential project-on-existing air quality impacts was prepared and is detailed below.

As detailed in **Attachment B, "Supplemental Screening," t**here are no industrial sources within 400 feet nor are there any major or large combustion sources located within 1,000 feet radius of the Project Area, and therefore, no industrial or major source analyses are warranted. In addition, the maximum hourly incremental traffic volumes generated by the RWCDS (approximately 43, 22, 36, and 39 total vehicle trips (autos, taxi, and trucks combined) during the weekday AM, weekday midday, weekday PM, and Saturday peak hours, respectively) would not exceed the carbon monoxide (CO) screening threshold of 170 peak hour vehicle trips at a single intersection in the study area. Furthermore, Project-generated volumes would also not exceed the particulate matter (PM) emission screening thresholds discussed in Chapter 17, Sections 210 and 311 of the *CEQR Technical Manual* (see **Attachment B**). Therefore, a quantitative assessment of emissions from Action-generated traffic was not warranted.

II. STATIONARY SOURCE HVAC ANALYSIS

Relevant Air Pollutants

The U.S. Environmental Protection Agency (EPA) has identified several pollutants, which are known as criteria pollutants, as being of concern nationwide. As the two RWCDS With-Action developments, would likely be heated by natural gas, the two criteria pollutants associated with natural gas combustion – nitrogen dioxide (NO_2) and particulate matter smaller than 2.5 microns ($PM_{2.5}$) – were considered for the analysis.

Applicable Air Quality Standards and Significant Impact Criteria

As required by the Clean Air Act, National Ambient Air Quality Standards (NAAQS) have been established for the criteria pollutants by EPA. The NAAQS are concentrations set for each of the criteria pollutants to protect public health and the nation's welfare, and New York has adopted the NAAQS as the State ambient air quality standards. This analysis addressed compliance of the potential impacts with the 1-hour and annual NO_2 NAAQS.

In addition to the NAAQS, the *CEQR Technical Manual* requires that projects subject to CEQR apply a $PM_{2.5}$ significant impact criteria (based on concentration increments) developed by the New York City Department of Environmental Protection (NYCDEP) to determine whether potential adverse $PM_{2.5}$ impacts would be significant. If the estimated impacts of a proposed project are less than these increments, the impacts are not considered significant. This analysis addressed compliance of the potential impacts with the 24-hour and annual $PM_{2.5}$ CEQR significant incremental impact criteria.

The current standards and CEQR significant impact criteria that were applied to this analysis, together with their health-related averaging periods, are provided in **Table H-1**.

Table H-1: Applicable National Ambient Air Quality Standards and CEQR Threshold Values

Pollutant	Averaging Period	NAAQS	CEQR Thresholds
NO_2	1 Hour	0.10 ppm (188 µg/m^3)	--
	Annual	.053 ppm (100 µg/m^3)	--
$PM_{2.5}$	24 Hour	35 µg/m^3	8.5 ug/m^3
	Annual	12 µg/m^3	0.3 ug/m^3

Notes: ppm = parts per million; µg/m^3 = micrograms per cubic meter

NO_2 NAAQS

Nitrogen oxide (NO_x) emissions from gas combustion consist predominantly of nitric oxide (NO) at the source. The NOx in these emissions are then gradually converted to NO_2, which is the pollutant of concern, in the atmosphere (in the presence of ozone and sunlight as these emissions travel downwind of a source).

The 1-hour NO_2 NAAQS standard of 0.100 ppm (188 ug/m^3) is the 3-year average of the 98th percentile of daily maximum 1-hour average concentrations in a year. For determining compliance with this standard, the U.S. EPA has developed a modeling approach for estimating 1-hour NO_2 concentrations that is comprised of 3 tiers: Tier 1, the most conservative approach, assumes a full (100 percent) conversion of NOx to NO_2; Tier 2 applies a conservative ambient NOx/NO_2 ratio of 80% to the NOx estimated concentrations; and Tier 3, which is the most precise approach, employs AERMOD's Plume Volume Molar Ratio Method (PVMRM) module. The PVMRM accounts for the chemical transformation of NO emitted from the stack to NO_2 within the source plume using hourly ozone background concentrations. When Tier 3 is utilized, AERMOD generates 8th highest daily maximum 1-hour NO_2 concentrations or total 1-hour NO_2 concentrations if hourly NO_2 background concentrations are added within the model, and averages these values over the numbers of the years modeled. Total estimated concentrations are generated in the statistical form of the 1-hour NO_2 NAAQS format and can be directly compared with the 1-hour NO_2 NAAQS standard.

Based on New York City Department of Planning (DCP) guidance, Tier 1, as the most conservative approach, should initially be applied as a preliminary screening tool to determine whether violations of the NAAQS is likely to occur. If exceedances of the 1-hour NO_2 NAAQS were estimated, the less conservative Tier 2 approach was applied followed by Tier 3.

The annual NO_2 standard is 0.053 parts per million (ppm or 100 ug/m^3). To conservatively estimate annual NO_2 impacts, a NO_2 to NOx ratio of 0.75 percent, which is recommended by the NYCDEP for an annual NO_2 analysis, was applied.

$PM_{2.5}$ CEQR Significant Impact Criteria

CEQR Technical Manual guidance includes the following criteria for evaluating significant adverse $PM_{2.5}$ incremental impacts:

> *Predicted 24-hour maximum $PM_{2.5}$ concentration increase of more than half the difference between the 24-hour $PM_{2.5}$ background concentration and the 24-hour standard.*

The 24-hour $PM_{2.5}$ background concentration of 25.8 ug/m^3 was obtained from Queens College 2 (F) monitoring station as the average of the 98th percentile for the latest 3 years of available monitoring data collected by the NYSDEC for 2017-2019. As the applicable background value is 25.8 ug/m^3, half of the difference between the 24-hour $PM_{2.5}$ NAAQS and this background value is 4.6 ug/m^3. As such, a significant impact criterion of 4.6 ug/m^3 was used for determining whether the potential 24-hour $PM_{2.5}$ impacts of the RWCDS development are considered significant.

For an annual average, adverse $PM_{2.5}$ incremental impact, per *CEQR Technical Manual* guidance:

> *Predicted annual average $PM_{2.5}$ concentration increments greater than 0.3 ug/m^3 at any receptor location for stationary sources.*

The above 24-hour and annual significant impact criteria were used to evaluate the significance of predicted $PM_{2.5}$ impacts from the HVAC screenings.

Emissions from the With-Action RWCDS Buildings

The RWCDS developments at Projected Development Sites 1 and 2 would have independent HVAC systems, would be located adjacent to each other, and would be the roughly same height with roof heights of approximately 113 and 115 feet, respectively, and total heights (including bulkheads) of approximately 135 feet. As such, the HVAC emissions from each With-Action building has the potential to adversely affect the other building. The potential for greater effects would likely occur on Projected Development Site 2 given that the RWCDS on Projected Development Site 1 would be a larger development (i.e., include more floor area) and, therefore, would have higher HVAC emissions.

CEQR HVAC Screening Analysis - Nomographs

According to *CEQR Technical Manual* guidance, a preliminary screening analysis is recommended as a first step to predict whether the potential impacts of the project would be significant. Based on *CEQR Technical Manual* guidance, a preliminary screening analysis was conducted to predict whether the potential impacts of the HVAC emissions would be significant, and a detailed analysis would be required. The *CEQR* screening procedure is applicable to single buildings that are more than 30 feet apart from the nearest building of similar or greater height. As the RWCDS With-Action buildings on Projected Development Sites 1 and 2 would be located adjacent to each other (i.e., less than 30 feet), the CEQR screening procedure is not applicable for project-on-project emissions. Therefore, a detailed stationary source HVAC project-on-project analysis was conducted to determine whether the potential impacts of these emissions would be significant.

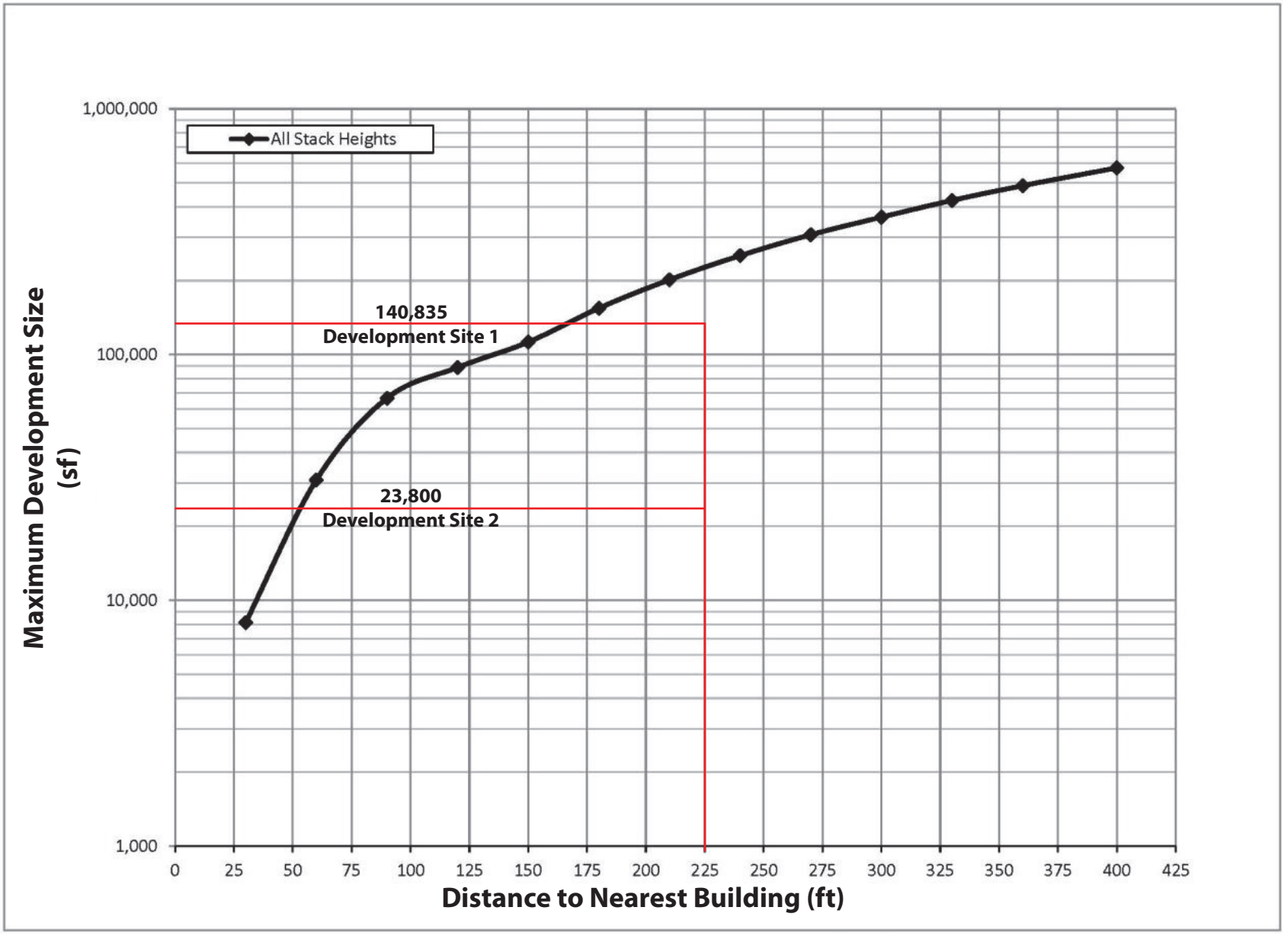
As noted above, there are no existing buildings that are taller than the Projected Developments at Sites 1 and 2 within 400 feet of the project area, but the planned Former Parkway Hospital development (Block 2248, Lots 228 and 230), which will include an 8-story building and a 14-story building, will be located approximately 226 feet northeast of the Project Area.[2] As such, the CEQR screening procedure was carried out to assess the potential for project-on-existing emissions. The total square footage of each RWCDS With-Action building was used in the analysis and the conservative, generic nomograph shown in Figure 17-3 of the *CEQR Technical Manual* "Stationary Source Screen" for a corresponding stack height was applied. This nomograph depicts the size of a development versus the distance below which a potential impact could occur and provides a threshold distance. As required by the *CEQR* screening procedure, the curve in Figure 17-3 that was applied is the one with a stack height that is closest to but not higher than the stack height of With-Action buildings (with an assumed 3-foot stack above each roof). If the actual distance between a building with an HVAC stack and an affected building is greater than the threshold distance for a building size, then that building passes the screening analysis (and no significant impact is predicted). However, if the actual distance is less than the threshold distance for a building, then there is a potential for a significant impact, and a detailed analysis would be required.

As shown in **Figure H-1a**, the plotted points on Figure 17-3, which corresponds to the size of each RWCDS development against the distance to the nearest building of similar or greater height, would fall below the applicable curve at 226 feet (see **Figure H-1a**). Additionally, for a more conservative analysis, the

[2] Although the distance from the Project Area to the 14-story building would be approximately 300 feet, the 226-foot distance to the 8-story building was used for conservative analysis purposes.

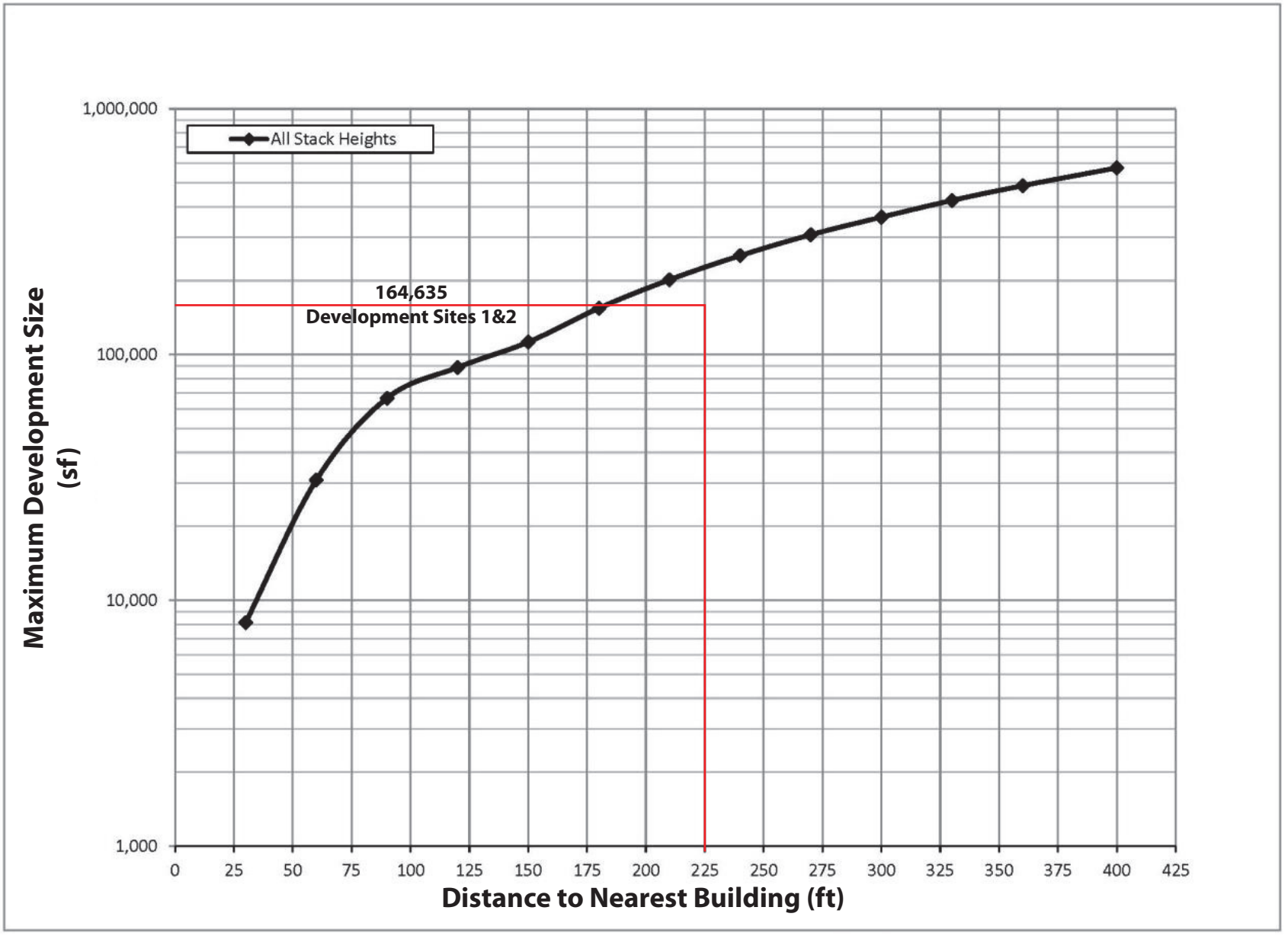
BOILER SCREEN

Figure 17-3: Stationary Source Screen- Heat and Hot Water System



BOILER SCREEN

Figure 17-3: Stationary Source Screen- Heat and Hot Water System



cumulative size of the both development (approximately 164,635 gsf) was also plotted on Figure 17-3 as both developments would reach a maximum building height of approximately 135 feet including the bulkhead (see **Figure H-1b**). As shown in **Figure H-1b**, the plotted point would remain below the applicable curve at 226 feet. Therefore, each development on Projected Development Site 1 and 2, as well as a cumulative total of both developments, would pass the project-on-existing screening analysis.

Detailed Dispersion Analysis

A dispersion modeling analysis was conducted to estimate impacts from the HVAC emissions of each of the Projected Development Sites using the latest version of EPA's AERMOD dispersion model 7.12.1 (EPA version 16216r). In accordance with *CEQR Technical Manual* guidance, this analysis was conducted assuming stack tip downwash, urban dispersion surface roughness length, and elimination of calms. AERMOD's Plume Volume Molar Ratio Method (PVMRM) module was utilized for 1-hour NO_2 analysis -- to account for NOx to NO_2 conversion. Analyses were conducted with and without the effects of wind flow around the projected development sites (i.e., with and without downwash) utilizing AERMOD Building Profile Input Program (BPIP) algorithm and the highest results are reported.

Emission Rates

Under the RWCDS, the With-Action buildings would likely be heated by natural gas, emission rates of NOx and $PM_{2.5}$ were calculated based on annual natural gas usage corresponding to the gross floor area (gsf) of each building and EPA AP-42 emission factors for firing natural gas in small boilers.

The $PM_{2.5}$ emission factor from natural gas combustion of 7.6 pounds per million cubic feet accounted for both filterable and condensable particulates was used (AP-42, Table 1.4-2).

- NOx emission rates were estimated using the NOx uncontrolled emission factor (AP-42 Table 1.4-1).
- Short-term NO_2 and $PM_{2.5}$ emission rates were estimated by accounting for seasonal variation in heat and hot water demand. Based on recent Department of City Planning (DCP) guidance, a seasonal emission factor was set as 1.0 for the winter season and 0.5 for each of the three other seasons of the year.
- A total energy consumption factor of 60.3 MBtu per square foot was obtained from Table US1, applicable for housing in New York City (*CEQR* Air Quality Appendix, Table US1, Total Energy Consumption, Expenditures and Intensities, 2005, Part I: Housing Unit Characteristics and Energy Use Indicators). Using 60.3 MBtu per square foot and the natural gas heating value of 1,020 Btu/ft^3, this value was converted to a fuel usage factor of 59.1 cubic feet per square foot per year and applied for the With-Action buildings.

Table H-2 provides the estimated $PM_{2.5}$ and NO_2 short-term (e.g., 24-hour and 1-hour) and annual emission rates for each With-Action building. The diameter of the stacks and the exhaust's exit velocities were estimated based on values obtained from NYCDEP "CA Permit" database for the corresponding boiler sizes (i.e., rated heat input or million BTUs per hour). Boiler sizes were estimated based on assumption that all fuel would be consumed during the 100-day (or 2,400 hours) heating season. A stack exit temperature of 300°F (423°K), which is appropriate for boilers, was assumed for all boilers.

Table H-2: Estimated Pollutant Short-term and Annual Emission Rates

Site ID	Block/Lot	Stack Height [1]	Total Floor Area	$PM_{2.5}$ Emission Rate [2]		NO_2 Emission Rate [3]	
		feet	gsf	g/sec	g/sec	g/sec	g/sec
				24-hr.	Annual	1-hr.	Annual
Projected Development Site 1	2246/31	138	140,835	3.32E-03	9.10E-04	4.37E-02	1.20E-02
Projected Development Site 2	2246/41	138	23,800	5.61E-04	1.54E-04	7.39E-03	2.02E-03

Notes:

[1] Stack height assumes a three foot stack located on approximately 20-foot bulkheads for a total building height of 135 feet.

[2] $PM_{2.5}$ emission factor for natural gas combustion of 7.6 lb./10^6 cubic feet included filterable and condensable particulate matter (Filterable $PM_{2.5}$ =1.9 lb./10^6 ft^3 and condensable $PM_{2.5}$=5.7 lb./10^6 ft^3 (AP-42, Table 1.4-2).

[3] NOx emission factor for natural gas of 100 lb./10^6 ft^3 for uncontrolled boilers with <100MMBtu/hr. (AP-42, Table 1.4-1).

Meteorological Data

All analyses were conducted using the latest five consecutive years of meteorological data (2015-2019) provided by the New York State Department of Conservation (NYSDEC). Surface data was obtained from La Guardia Airport and upper air data was obtained from Brookhaven station, New York. Surface data were obtained from La Guardia International Airport and upper-air data from Brookhaven station, New York. Five years of meteorological data were combined into a single multiyear file to conduct $PM_{2.5}$ and NO_2 analyses for its respective averaging periods.

Background Concentrations

The maximum 1-hour NO_2 background concentration from Queens College 2 monitoring station is 55.1 ppb or 103.9 µg/m^3, which is the 3-year average of the 98th percentile of daily maximum 1-hour concentrations for 2017-2019. The annual average NO_2 background concentration for 2017-2019 is 14.62 ppb or 27.6 µg/m^3. The 3-year average (2017-2019) annual $PM_{2.5}$ background concentration is 7.0 µg/m^3.

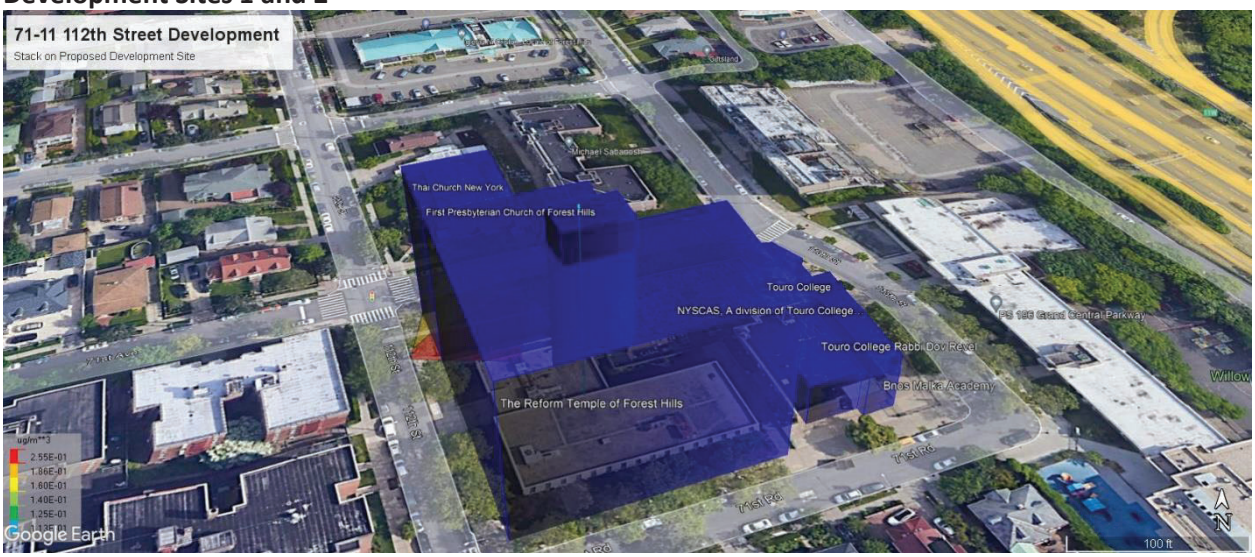
Stack and Receptors Locations for HVAC Analysis

The two With-Action buildings would have separate stacks for their respective boilers and HVAC systems. It is assumed that emissions from each With-Action building would be released through a stack located 3 feet above the bulkhead and 10 feet from the edge of the bulkhead facing each adjacent building. If exceedances of the *CEQR* significant impact criteria or NAAQS are predicted, the stacks were gradually set back further from the impacted buildings until no exceedances of the *CEQR* thresholds or NAAQS were predicted.

Receptors were placed around all faces of each building in 10-foot increments on all floor levels horizontally and vertically, starting 10 feet above the ground and extending up to the level of the upper windows (which were assumed to be 5 feet below roof level).

With the stacks located on the 135-foot-tall bulkhead of each With-Action building and receptors (windows receptors) on each impacted building being 5 feet below the roof, the difference between stack height (even without considering plume rise) and receptors heights would be at least 23 feet, which means that the receptors will be below the plume centerlines (i.e., where the highest impacts would occur). This difference will result in substantially reduced plume impacts. A 3-D view of the RWCDS With-Action buildings (with the stacks on the bulkheads) is provided in **Figure H-2** below.

Figure H-2: View of RWCDS With-Action Developments and Associated Stack Locations at Projected Development Sites 1 and 2



Project on Project Impacts ($PM_{2.5}$ and NO_2)

AERMOD is run with five years of meteorological data that include surface mixing height, wind speed, stability class, temperature, and wind direction. **Table H-3** and **Table H-4** show the results of the $PM_{2.5}$ and NO_2 analyses, respectively. All modeled concentrations were added to background values and compared with the NAAQS. Additionally, the $PM_{2.5}$ increments were compared with the NYCDEP *de minimis* values. All pollutant concentrations would comply with the applicable legislation and guidelines, and no impacts are projected.

Table H-3: $PM_{2.5}$ Analysis Results (with and without Downwash)

Site ID	Receptor Site	24-hour $PM_{2.5}$ Impacts ($\mu g/m^3$)	Annual $PM_{2.5}$ Impacts ($\mu g/m^3$)	CEQR Significant Impact Criteria 24-hour/Annual ($\mu g/m^3$)
With Downwash				
Projected Development Site 1	Projected Development Site 2	0.32	0.03	8.5/0.3
Projected Development Site 2	Projected Development Site 1	0.03	< 0.1	8.5/0.3
Without Downwash				
Projected Development Site 1	Projected Development Site 2	0.06	<0.1	8.5/0.3
Projected Development Site 2	Projected Development Site 1	0.02	< 0.1	8.5/0.3

When considering results, it should be noted that because both buildings are of the same height, lower impacts are predicted because the stacks are at least 10 feet above the roof while the receptors are considered to be 5 feet below roof height, and the plume centerlines (i.e., where the highest impacts occur) would be above the roof where there are no receptors.

The results show no exceedances of the CEQR significant threshold values for both $PM_{2.5}$ 24-hour/annual are predicted. Therefore, $PM_{2.5}$ emissions would not significantly affect the receptors of each of the With-

Action developments. However, an (E) designation would be required to restrict stack locations on bulkheads and fuel to the exclusive use of natural gas in the HVAC systems for each projected development site.

The NO_2 analysis was conducted using the same stack locations on bulkheads of each With-Action building as utilized in the $PM_{2.5}$ analysis. For the 1-hour NO_2 analysis, a Tier 1 analysis was sufficient to demonstrate the compliance with 1-hour NO_2 NAAQS of 188 ug/m^3. With the Tier 1 analysis, the background 1-hour NO_2 concentration is added to the estimated concentration and the total 1-hour NO_2 concentration is compared to the 1-hour NO_2 NAAQS.

As shown in **Table H-4**, the maximum estimated 1-hour NO_2 concentrations are less than the 1-hour NO_2 NAAQS. In addition, the total annual average NO_2 concentrations, which included impacts and the NO_2 annual background concentration, are also less than the annual NO_2 NAAQS of 100 ug/m^3 for each of the development sites. Therefore, NO_2 emissions would not cause significant impacts with the mapping of (E) designations.

Table H-4: NO_2 Analysis Results (with and without Downwash)

Site ID	Receptor Site	1-hour NO_2 Total Conc. (1) (µg/m^3)	Total Annual NO_2 Conc. (2) (µg/m^3)	NAAQS 1-hour/Annual (µg/m^3)
With Downwash				
Projected Development Site 1	Projected Development Site 2	109.3	27.9	188/100
Projected Development Site 2	Projected Development Site 1	104.7	27.6	188/100
Without Downwash				
Projected Development Site 1	Projected Development Site 2	106.4	27.6	188/100
Projected Development Site 2	Projected Development Site 1	104.7	27.6	188/100

Note: [1] 1-hour NO_2 total concentrations include background value of 103.9 ug/m^3
[2] Total annual NO_2 concentrations include background value of 27.6 ug/m^3

III. (E) Designations

Based on the results of the stationary source HVAC analysis, an (E) designation (E-685) will need to be placed on the applicant-controlled Projected Development Site 1 (Block 2246, Lot 31) and on the non-applicant controlled Projected Development Site 2 (Block 2246, Lot 41), which would restrict stack locations on bulkheads and limit the use to natural gas in the HVAC systems. Exact bulkhead locations and distances from the streets for both sites should be determined based on the actual drawings, which should be considered as a part of application.

The (E) designation text related to air quality would be as follows:

> **Block 2246, Lot 31: To avoid any potential significant adverse air quality impacts, any new residential or community facility development on Block 2246, Lot 31 must use natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) systems and hot water equipment and must ensure that the hot water equipment and HVAC stack is located on the bulkhead resulting in a stack height that is at least 138 feet above grade.**

Block 2246, Lot 41: To avoid any potential significant adverse air quality impacts, any new residential or community facility development on Block 2246, Lot 41 must use natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) systems and hot water equipment and must ensure that the hot water equipment and HVAC stack is located on the bulkhead resulting in a stack height that is at least 138 feet above grade.

With the placement of an (E) designation on Projected Development Sites 1 and 2 (Block 224, Lots 31 and 41, respectively) with restrictions for fuel oil and stack location/height requirements, no exceedances of applicable air quality standards or *CEQR* significant impact thresholds are predicted. The (E) designation would ensure that there would be no significant air quality impacts associated with the Proposed Actions.

ATTACHMENT I

NOISE

I. INTRODUCTION

This attachment assesses the potential for the Proposed Actions and associated reasonable worst-case development scenario (RWCDS) development to result in significant adverse noise impacts. As described in **Attachment A, "Project Description,"** the Proposed Actions are a zoning map and a zoning text amendment that would rezone the western portion of Queens Block 2246 in the Forest Hills neighborhood of Queens Community District 6, affecting approximately 22,500 square feet (sf) of Block 2246, Lot 31 and approximately 12,500 sf of Block 2246, Lot 41 (the "Project Area").

The RWCDS associated with the Proposed Actions would facilitate the development of an approximately 140,835-gross square foot (gsf) mixed-use building containing residential and community facility uses on Lot 31 (Projected Development Site 1), including approximately 153 dwelling units (DUs), 46 of which would be affordable, and approximately 16,600 gsf of community facility space. In addition, Projected Development Site 2 (Lot 41) is expected to be developed with an approximately 23,800-gsf mixed-use building containing 20 DUs and approximately 1,800 gsf of community facility space on the ground floor.

As discussed in **Attachment B, "Supplemental Screening,"** the Proposed Actions would not generate sufficient traffic to trigger a detailed traffic analysis, and thus, would not have the potential to cause a significant noise impact due to mobile sources (i.e., it would not result in a doubling of noise passenger car equivalents [PCEs] which would be necessary to cause a 3 dBA increase in noise levels). Therefore, this noise analysis was conducted to determine the level of building attenuation necessary to ensure that interior noise levels within the proposed residential and community facility spaces that make up the RWCDS development would satisfy applicable interior noise exposure criteria.

II. NOISE FUNDAMENTALS

Noise is considered unwanted sound. Sound is a fluctuation in air pressure. Sound pressure levels are measured in units called "decibels" (dB). The particular character of the sound that we hear (a whistle compared with a French horn, for example) is determined by the speed, or "frequency," at which the air pressure fluctuates or "oscillates." Frequency defines the oscillation of sound pressure in terms of cycles per second (cps). One cycle per second is known as 1 Hertz (Hz). People can hear sound over a relatively limited range of frequencies, generally between 20 Hz and 20,000 Hz. Furthermore, the human ear does not perceive all frequencies equally well. High frequencies (e.g., a whistle) are more easily discernible and therefore more intrusive than many of the lower frequencies (e.g., the lower notes on the French horn).

A-Weighted Sound Level (dBA)

In order to establish a uniform noise measurement that simulates people's perception of loudness and annoyance, the decibel measurement is weighted to account for those frequencies most audible to the human hearing range. This is known as the A-weighted sound level, or "dBA," and it is the descriptor of noise levels most often used for community noise. As shown in **Table I-1**, the threshold of human hearing is defined as 0 dBA; very quiet conditions (as in a rural area at night, for example) are approximately 30-40 dBA; levels between 50 dBA and 70 dBA define the range of noise levels generated by normal daily

activity; levels above 70 dBA would be considered noisy, and then loud, intrusive, and deafening, as the scale approaches 120 dBA.

TABLE I-1: Common Noise Levels

Sound Source	(dBA)
Air Raid Siren at 50 feet	120
Maximum Levels at Rock Concerts (Rear Seats)	110
On Platform by Passing Subway Train	100
On Sidewalk by Passing Heavy Truck or Bus	90
On Sidewalk by Typical Highway	80
On Sidewalk by Passing Automobiles with Mufflers	70
Typical Urban Area	60-70
Typical Suburban Area	50-60
Quiet Suburban Area at Night	40-50
Typical Rural Area at Night	30-40
Soft Whisper at 5 meters	30
Isolated Broadcast Studio	20
Audiometric (Hearing Testing) Booth	10
Threshold of Hearing	0

Source: *CEQR Technical Manual*/Cowan, James P. Handbook of Environmental Acoustics. Van Nostrand Reinhold, New York, 1994. Egan, M. David, Architectural Acoustics. McGraw-Hill Book Company, 1988.
Note: A 10 dBA increase appears to double the loudness, and a 10 dBA decrease appears to halve the apparent loudness.

Community Response to Changes in Noise Levels

Table I-2 shows the average ability of an individual to perceive changes in noise. It is important to note that the dBA scale is logarithmic, meaning that each increase of 10 dBA describes a doubling of perceived loudness. Thus, the noise on a platform with a passing subway train, at 100 dBA, is perceived as twice as loud as passing heavy trucks at 90 dBA. For most people to perceive an increase in noise, it must be at least 3 dBA. At 5 dBA, the change will be readily noticeable. These guidelines permit direct estimation of an individual's probable perception of changes in noise levels.

TABLE I-2: Average Ability to Perceive Changes in Noise Levels

Change (dBA)	Human Perception of Sound
2-3	Barely perceptible
5	Readily noticeable
10	A doubling or halving of the loudness of sound
20	A dramatic change
40	Difference between a faintly audible sound and a very loud sound

Source: Bolt Beranek and Neuman, Inc., Fundamentals and Abatement of Highway Traffic Noise, Report No. PB-222-703. Prepared for Federal Highway Administration, June 1973.

Noise Descriptors Used In Impact Assessment

Because the sound pressure level unit, dBA, describes a noise level at just one moment, and very few noises are constant, other ways of describing noise over extended periods have been developed. One way of describing fluctuating sound is to describe the fluctuating noise heard over a specific time period as if it had been a steady, unchanging sound. For this condition, a descriptor called the "equivalent sound level", L_{eq}, can be computed. L_{eq} is the constant sound level that, in a given situation and time period (e.g., 1 hour, denoted by $L_{eq(1)}$) conveys the same sound-energy as the actual time-varying sound.

Statistical sound level descriptors such as L_1, L_{10}, L_{50}, L_{90}, and L_x, are sometimes used to indicate noise levels that are exceeded 1, 10, 50, 90 and "x" percent of the time, respectively. Discrete event peak levels are given as L_1 levels. L_{eq} is used in the prediction of future noise levels, by adding the contributions from new sources of noise (i.e., increases in traffic volumes) to the existing levels and in relating annoyance to increases in noise levels.

The relationship between L_{eq} and levels of exceedance is worth noting. Because L_{eq} is defined in energy rather than straight numerical terms, it is not simply related to the levels of exceedance. If the noise fluctuates very little, L_{eq} will approximate L_{50} or the median level. If the noise fluctuates broadly, the L_{eq} will be approximately equal to the L_{10} value. If extreme fluctuations are present, the L_{eq} will exceed L_{90} or the background level by 10 or more decibels. Thus the relationship between L_{eq} and the levels of exceedance will depend on the character of the noise. In community noise measurements, it has been observed that the L_{eq} is generally between L_{10} and L_{50}. The relationship between L_{eq} and exceedance levels has been used in this analysis to characterize the noise sources and to determine the nature and extent of their impact at both monitoring locations.

For the purposes of this analysis, the maximum 1-hour equivalent sound level (L_{eq}) has been selected as the noise descriptor to be used in the noise impact evaluation. L_{eq} is the noise descriptor used in the *CEQR Technical Manual* for noise impact evaluation, and is used to provide an indication of highest expected sound levels. L_{10} is the noise descriptor used in the *CEQR Technical Manual* for building attenuation.

The day-night sound level (L_{dn}) is the noise description used in the HUD Noise guidebook that sets exterior noise standards for housing construction projects receiving federal funds. Similar to L_{eq}, the L_{dn} refers to a 24-hour average noise level with a 10 dBA penalty applied to noise levels during the hours between 10:00 PM and 7:00 AM to reflect the greater intrusiveness of noise experienced during these hours. However, because the L_{dn} descriptor tends to average out high hourly values over 24 hours, the *CEQR Technical Manual* recommends that the L_{eq} descriptor be used for purposes of impact analysis.

CEQR Technical Manual Noise Standards

The NYC Department of Environmental Protection (DEP) has set external noise exposure standards based on L_{10} noise levels. These standards are shown on the following page in **Table I-3**. Noise exposure is classified into four categories: acceptable, marginally acceptable, marginally unacceptable and clearly unacceptable.

The *CEQR Technical Manual* defines attenuation requirements for buildings based on exterior noise level. Recommended noise attenuation values for building facades are designed to maintain interior noise levels of 45 dBA or lower for residential and community facility uses and 50 dBA or lower for commercial uses, and are determined based on exterior L_{10} noise levels. The standards shown are based on maintaining an interior noise level for the worst-case hour L_{10} of 45 dBA or lower. (Attenuation requirements are shown in **Table I-4** on the following page.)

Table I-3: Noise Exposure Guidelines for Use in City Environmental Impact Review

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

Source: New York City Department of Environmental Protection (adopted policy 1983).

Notes: Any new activity shall comply with the Impact Thresholds detailed in Section 410 of Chapter 19, "Noise," of the 2021 *CEQR Technical Manual*;

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 an 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 old-age homes.

3 One may use the FAA-approved L_{dn} contours supplied by the Port Authority, or the noise contours may be computed from the federally approved INM Computer Model using flight data supplied by the Port Authority of New York and New Jersey.

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 octave band standards).

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

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

Source: NYC Department of Environmental Protection, 2021 *CEQR Technical Manual*

Notes:

[A] DNL descriptor based on average values of L_{dn} over a year period

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

[C] 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 leel under the build condition rounded up to a whole number

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

III. DETAILED ANALYSIS

Existing Conditions

The Project Area encompasses the western portion of Queens Block 2246 in the Forest Hills neighborhood of Queens Community District 6 and contains the approximately 22,500 square foot (sf), Applicant-owned Lot 31 and approximately 12,500 sf of Lot 41. It is bounded by 112th Street to the west, 71st Avenue to the north, 71st Road to the south and extends to a depth of approximately 175 ft. The Project Area is currently developed with a two-story community facility building occupied by the Reform Temple of Forest Hills (RTFH) on Lot 31 and, on Lot 41, a portion of a three-story educational building and an above-grade parking lot.

Selection of Noise Monitoring/Receptor Locations

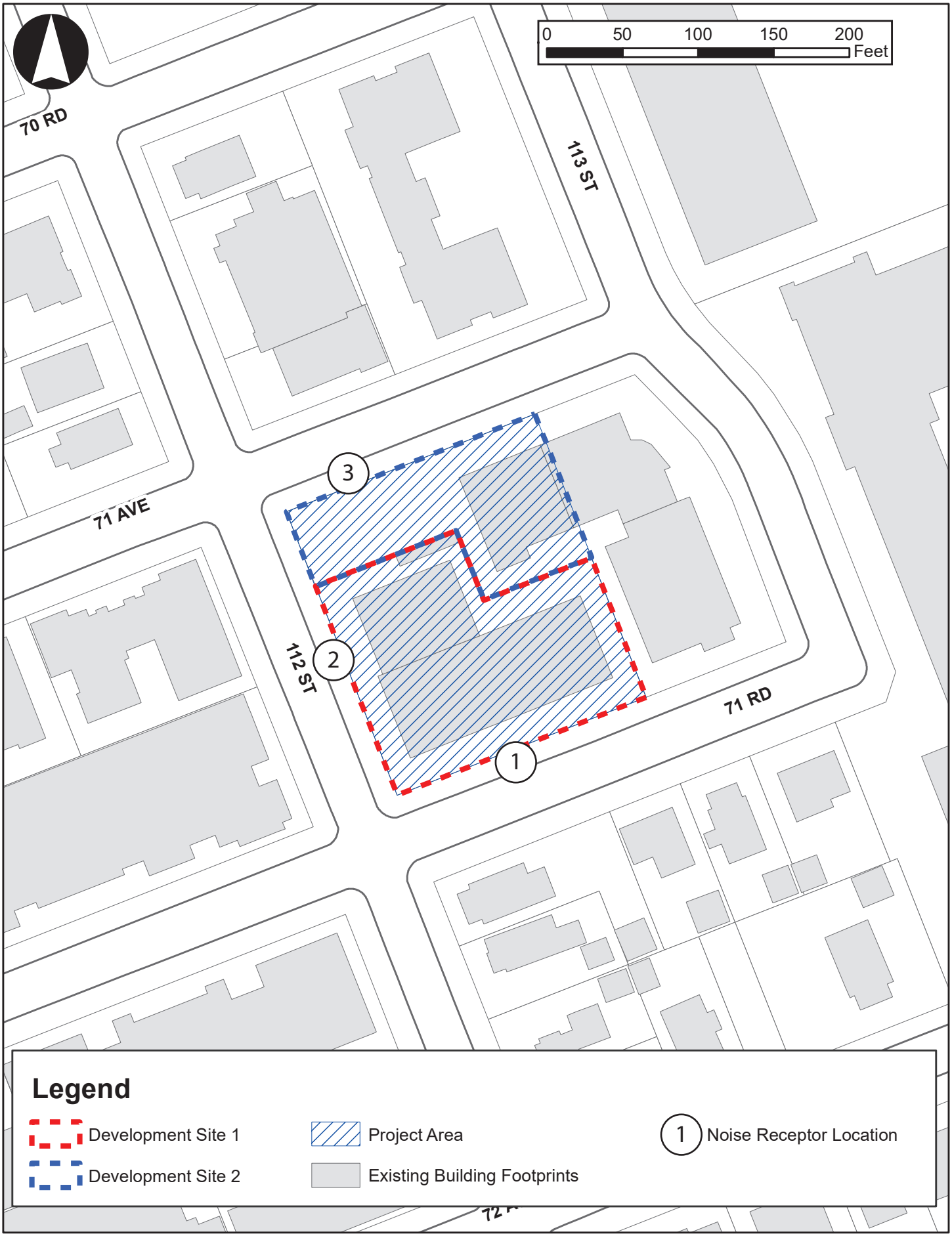
In order to collect existing noise levels at the Project Area, the existing levels were measured at three peripheral locations. Receptor Location 1 was placed at ground level midway along the RTFH's 71st Road frontage to measure noise levels of traffic along 71st Road. Receptor Location 2 was on the west side of 112th Street midway along the RTFH's 112th Street frontage, also at ground level, to measure noise levels of traffic along 112th Street. Receptor Location 3 was placed at ground level along Lot 41's existing parking lots fence facing 71st Avenue approximately 75 feet east of 112th Street to measure noise along 71st Avenue. Measurements performed at these three receptor locations were conducted as part of the building attenuation analyses. For reference, the noise monitoring receptor locations are identified in **Figure I-1**.

Noise Monitoring

At all three receptor locations, 20-minute spot measurements of existing noise levels were performed for each of three noise analysis time periods - weekday AM peak hour (8:00 AM to 9:00 AM), weekday midday peak hour (12:00 PM to 1:00 PM), and weekday PM peak hour (5:00 PM to 6:00 PM). Noise monitoring was performed on Wednesday, October 6th, 2021. The weather was overcast to partly cloudy and in the 60s – 70s °F with an average wind speed from 3 - 6 mph.

Figure I-1

Noise Receptor Locations



Equipment Used During Noise Monitoring

The instrumentation used for the measurements was a Brüel & Kjær Type 4189 ½-inch microphone connected to a Brüel & Kjær Model 2250 Type 1 (as defined by the American National Standards Institute) sound level meter. This assembly was mounted at a height of 5.5 feet above the ground surface on a tripod and at least 6 feet away from any sound-reflecting surfaces to avoid major interference with source sound levels being measured at the receptor locations along 71st Road, 112th Street, and 71st Avenue. The meter was calibrated before and after readings with a Brüel & Kjær Type 4231 sound-level calibrator using the appropriate adaptor. Measurements at each location were made on the A-scale (dBA). The data were digitally recorded by the sound level meter and displayed at the end of the measurement period in units of dBA. Measured quantities included L_{eq}, L_1, L_{10}, L_{50}, and L_{90}. A windscreen was used during all sound measurements except for calibration. Weather conditions were noted to ensure a true reading as follows: wind speed under 12 mph; relative humidity under 90 percent; and temperature above 14°F and below 122°F (pursuant to ANSI Standard S1.13-2005).

Existing Noise Levels at Monitoring Locations

The noise monitoring results from Receptor Locations 1 through 3 are shown in **Table I-5** below. Automobile traffic was the dominant noise source and the values shown reflect the level of vehicular activity on the respective roadways adjacent to the Project Area. As shown in **Table I-5**, the highest overall L_{10} value (65.7 dBA) was measured in the AM peak hour at Receptor 3, located the northern boundary of the Project Area along 71st Avenue. Pursuant to *CEQR Technical Manual* guidelines, this L_{10} value places Receptor 3 in the "Marginally Acceptable" CEQR noise exposure category, although the noise levels are below 65.0 dBA in all other peak periods. The highest L_{10} for Receptor 1 was also in the AM peak hour (63.7 dBA), placing it in the "Acceptable" noise exposure category. The highest L_{10} for Receptor 2 was in the AM peak hour as well (65.1 dBA), placing it also in the "Marginally Acceptable" noise exposure category.

TABLE I-5: Existing Noise Levels (dBA) at Project Area

#[1]	Noise Receptor Location	Time[2]	L_{max}	L_{min}	L_{eq}	L_1	L_{10}[3]	L_{50}	L_{90}	*CEQR* Noise Exposure Category
1	North side of 71st Road between 112th and 113th Streets	AM	82.5	50.0	60.8	70.8	**63.7**	57.0	53.1	**Acceptable**
		MD	71.7	50.9	54.3	61.8	55.7	53.2	52.2	
		PM	74.0	48.8	57.2	68.6	59.2	54.2	51.1	
2	East side of 112th Street between 71st Road and 71st Avenue	AM	88.3	48.2	62.5	71.3	**65.1**	58.9	53.9	**Marginally Acceptable**
		MD	76.0	47.2	57.7	65.6	61.9	53.8	49.4	
		PM	83.4	47.7	60.9	69.6	64.2	56.5	50.1	
3	South side of 71st Avenue between 112th and 113th Streets	AM	74.1	48.2	60.6	68.8	**65.7**	55.6	51.6	**Marginally Acceptable**
		MD	75.0	48.8	55.6	66.9	56.8	52.9	50.7	
		PM	77.6	48.7	60.7	73.2	62.5	54.6	50.9	

Notes: Field measurements were performed by Philip Habib & Associates on Wednesday, October 6, 2021.

[1] Refer to Figure I-1 for receptor locations.

[2] AM = weekday AM peak period; MD = weekday midday peak period; PM = weekday PM peak period.

[3] Highest L_{10} at each receptor is shown in **bold**.

As noted above, the dominant noise source at Receptor Locations 1, 2, and 3 is automobile traffic. **Table I-6** below shows the traffic volumes per vehicle classifications observed at each receptor location during the weekday AM, midday, and PM 20-minute monitoring sessions.

TABLE I-6: Existing 20-Minute Traffic Volumes at Receptor Locations

#[1]	Noise Receptor Location	Time	Autos	Bus	Heavy Trucks	Medium Trucks	Light Trucks	Total
1	North side of 71st Road between 112th and 113th Streets	AM	34	0	0	6	2	42
		MD	17	0	0	0	0	17
		PM	28	0	0	0	0	28
2	East side of 112th Street between 71st Road and 71st Avenue	AM	154	0	1	2	4	161
		MD	82	0	0	1	6	89
		PM	111	0	0	3	4	118
3	South side of 71st Avenue between 112th and 113th Streets	AM	34	0	0	1	0	35
		MD	35	0	0	0	2	37
		PM	39	0	0	1	0	40

Notes: Vehicle counts were performed by Philip Habib & Associates on Wednesday, October 6, 2021.
[1] Refer to Figure I-1 for receptor locations.

IV. ATTENUATION REQUIREMENTS

As shown earlier in **Table I-4**, the *CEQR Technical Manual* has set noise attenuation requirements for buildings based on L_{10} noise levels. Recommended composite window/wall attenuation values for buildings are designed to maintain interior noise levels of 45 dBA or lower for residential and community facility uses and 50 dBA or lower for commercial office uses, and are determined based on L_{10} noise levels.

Any facades that would experience an L_{10} of 70.0 dBA or greater must provide an alternate means of ventilation (AMV) permitting a closed window condition during warm weather. This can be achieved by installing double-glazed windows on a heavy frame for masonry structures or windows consisting of laminated glass, along with AMV such as central air conditioning, through-wall sleeve-fitted air conditioners, packaged terminal air conditioning (PTAC) units, trickle vents integrated into window frames, or other approved means. Where the required window/wall attenuation is above 40 dBA, special design features may be necessary that go beyond the normal double-glazed window and air conditioning. These may include specially designed windows (e.g., windows with small sizes, windows with air gaps, windows with thicker glazing, etc.) and additional building insulation.

As detailed above and presented in **Table I-5**, existing noise levels at all noise receptor locations would remain below the 70 dBA *CEQR* threshold and, therefore, no special noise attenuation measures beyond standard construction practices would be required for residential or community facility uses on any of the RWCDS development's street frontages in order to achieve interior noise levels of 45 dBA or lower for community facility uses or 50 dBA or lower for commercial office uses. As such, the RWCDS development would provide sufficient attenuation to achieve the *CEQR Technical Manual* interior noise level guidelines, and thus, the Proposed Actions would not result in any significant adverse noise impacts related to building attenuation requirements.

V. OTHER NOISE CONCERNS

Mechanical Equipment

No detailed designs of the residential building's mechanical systems (i.e., heating, ventilation, and air conditioning systems) are available at this time. However, those systems would be designed to meet all applicable noise regulations and requirements (i.e., Subchapter 5, §24-227 of the New York City Noise Control Code, the New York City Department of Buildings Code), and would be designed to produce noise levels which would not result in any significant increases in ambient noise levels.

Train Noise

An initial train noise impact screening analysis would be warranted if a new receptor would be located within 1,500 feet of existing rail activity and have a direct line of sight to that activity. As the development site is not within 1,500 of an existing rail line nor does the site have a direct line of sight to a rail activity, no initial train noise impact screening analysis is warranted.

Aircraft Noise

An initial aircraft noise impact screening analysis would be warranted if the new receptor would either generate or reroute aircraft or introduce a new receptor within a 65 dBA DNL contour. Since the Proposed Actions would not generate or reroute aircraft, and as the Proposed Rezoning Area is not within a 65 dBA DNL contour, no initial aircraft noise impact screening analysis is warranted.

ATTACHMENT J

HISTORIC AND CULTURAL RESOURCES

I. INTRODUCTION

Historic and cultural resources include both architectural and archaeological resources. The *City Environmental Quality Review* (CEQR) *Technical Manual* identifies historic and cultural resources as districts, buildings, structures, sites, and objects of historical, aesthetic, cultural, and archaeological importance. This includes designated New York City Landmarks (NYCL); properties calendared for consideration as landmarks by the New York City Landmarks Preservation Commission (LPC); properties listed on the State/National Registers of Historic Places (S/NR) or contained within a district listed on or formally determined eligible for S/NR listing; properties recommended by the New York State Board for listing on the S/NR; National Historic Landmarks (NHL); and properties not identified by one of the programs listed above, but that meet their eligibility requirements. An assessment of historic/archaeological resources is usually needed for projects that are located adjacent to historic or landmark structures or are within historic districts, or projects that require in-ground disturbance, unless such disturbance occurs in an area that has already been excavated.

According to *CEQR Technical Manual* guidance, impacts on historic architectural resources are considered on those sites affected by a proposed action and in the area surrounding a project site. The historic resources study area is therefore defined as the Project Area (Queens Block 2246, Lot 1 (Projected Development Site 1) and p/o Lot 41 (Projected Development Site 2)) plus an approximate 400-foot radius around the Project Area (refer to **Figure J-1**), which is typically adequate for the assessment of historic architectural resources, in terms of physical, visual, and historical relationships.

An assessment of archaeological resources is usually required for projects that involve in-ground disturbance, unless such disturbance occurs in an area that has already been excavated. As presented in **Attachment B, "Supplemental Screening,"** the LPC determined in a letter dated July 27, 2020 that neither Projected Development Site 1 nor Projected Development Site 2 contain archaeological resource concerns. However, as shown in **Figure J-1**, there is one S/NR eligible property within 400 feet of the Project Area. This property is P.S. 196-Q which is located at 71-25 113th Street – approximately 200 feet east of the Lot 31. As such, an archaeological analysis is not warranted for the Proposed Actions, and this attachment focuses exclusively on this historic architectural resource.

II. EXISTING CONDITIONS

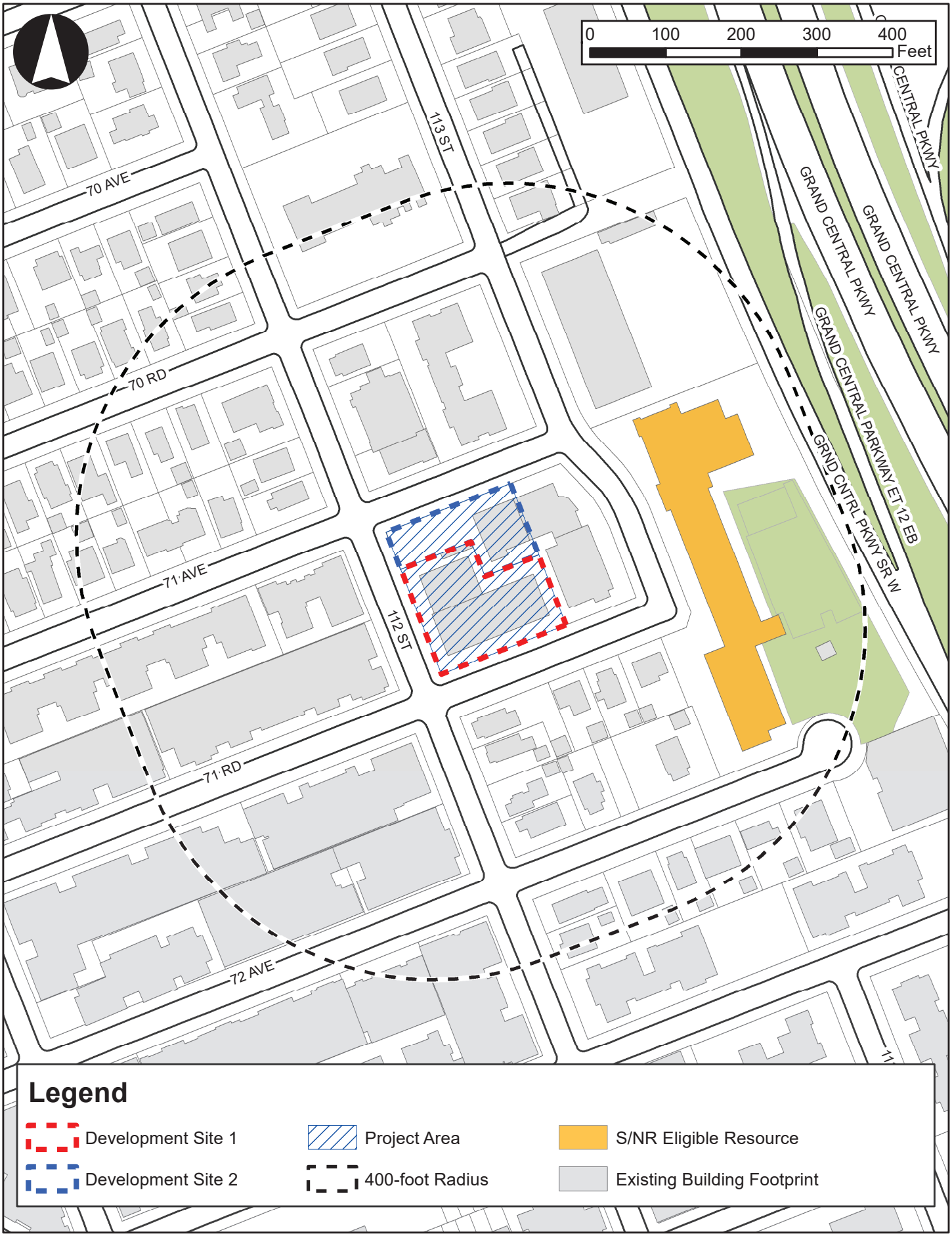
Project Site

In a letter dated July 27, 2020 (provided in **Appendix I**), LPC determined that neither Projected Development Site 1 nor Projected Development Site 2 contain any designated or eligible historic architectural resources.

400-Foot Study Area

As noted above, the LPC determined there are no S/NR designated resources within 400 feet of the Project Area; however, there is one S/NR eligible resource. As shown in **Figure J-1**, this resource (PS-196-Q Grand Central Parkway School) is located approximately 200 feet east of the Project Area. The school was

Figure J-1
Project Location



constructed in 1952 and accommodates students in grades K-12. The building has approximately 522 feet of lot frontage along 113th Street. The rear portion of the lot is occupied by a paved play area and the Willow Park Playground. As noted in **Attachment E, "Shadows,"** while the Willow Park Playground is a sunlight-sensitive resource, PS 196-Q is not.

III. THE FUTURE WITHOUT PROPOSED ACTIONS (NO-ACTION CONDITION)

Under No-Action conditions, the status of historic resources could change. S/NR-eligible architectural resources could be listed in the Registers, and properties found eligible for consideration for designation as NYCLs could be calendared and/or designated. Changes to the historic resources identified above or to their settings could also occur irrespective of the Proposed Actions. Future projects could affect the settings of architectural resources. It is possible that some architectural resources in the study area could deteriorate, while others could be restored. In addition, future projects could accidentally damage architectural resources through adjacent construction.

Additionally, historic resources that are listed on the S/NR or that have been found eligible for listing are given a measure of protection from the effects of federally-sponsored, or federally-assisted projects under Section 106 of the National Historic Preservation Act, and are similarly protected against impacts resulting from state-sponsored or state-assisted projects under the New York State Historic Preservation Act. Although preservation is not mandated, federal agencies must attempt to avoid adverse impacts on such resources through a notice, review, and consultation process. Private property owners using private funds can, however, alter or demolish their S/NR-listed or S/NR-eligible properties without such a review process.

Anticipated Developments in the No-Action Condition

Project Area

In the future without the Proposed Actions, the Project Area would not be redeveloped. Therefore, the existing conditions within the Project Area would remain and no changes are expected to occur. Under the No-Action scenario, the Applicant-owned Projected Development Site 1 would continue to be occupied two-story, approximately 24,000-gsf community facility accommodating the Reform Temple of Forest Hills (RTFH), as well as a four-space asphalt-paved parking lot, while the Touro College-owned Projected Development Site 2 would continue to be occupied by an approximately 11,700-gsf portion of a larger, three-story educational building and a 20-space parking lot.

400-Foot Study Area

As presented in **Attachment C, "Land Use, Zoning, and Public Policy,"** there is one known and anticipated development in the 400-foot study area. It is being developed independently of the Proposed Project and is expected to be completed by the Proposed Actions' 2025 build year. In the future without the Proposed Actions, a new, approximately 402,050-gsf mixed-use development comprising two buildings (8 stories and 14 stories) and collectively containing 4,034 gsf of community facility space, a mix of 216 market rate, 68 affordable, and 67 Affordable Independent Residences for Seniors (AIRS) units, and 180 accessory parking spaces would be constructed at 70-35 113th Street (Block 2248, Lots 228 and 230), which was formerly the site of the Parkway Hospital. This planned development is adjacent to and shares a lot line with PS 196-Q; however, as detailed in the 2018 *Former Parkway Hospital EAS* (CEQR 18DCP021Q), no

significant adverse impacts for architectural or archaeological resources would occur as a result of this No-Action development and further assessment was not warranted.

IV. FUTURE WITH THE PROPOSED ACTIONS (WITH-ACTION CONDITION)

According to the *CEQR Technical Manual*, generally, if a project would affect those characteristics that make a resource eligible for NYCL designation or S/NR listing, this could be a significant adverse impact. This section assesses the Proposed Action's potential to result in significant adverse impacts on identified architectural resources in the study area, including impacts resulting from construction of the Proposed Project, project-generated shadows, or other indirect effects on existing historic resources in the study area.

The Proposed Actions were assessed in accordance with guidance established in the *CEQR Technical Manual* (Chapter 9, Part 420), to determine (a) whether there would be a physical change to any designated or listed property as a result of the Proposed Action; (b) whether there would be a physical change to the setting of any designated or listed resource, such as context or visual prominence, as a result of the Proposed Action; and (c) if so, whether the change is likely to diminish the qualities of the resource that make it important.

As detailed in **Attachment A, "Project Description,"** the Proposed Actions would facilitate the development of a nine-story, approximately 162,535-gsf mixed residential and community facility building on the on the Applicant-owned Projected Development Site 1. In addition, an approximately 23,800-gsf, ten-story mixed residential and community facility building would be developed on Projected Development Site 2.

Direct (Physical) Impacts

Historic resources can be directly affected by physical destruction, demolition, damage, alteration, or neglect of all or part of a historic resource. For example, alterations, such as the addition of a new wing to an historic building or replacement of the resource's entrance could result in significant adverse impacts, depending on the design. Direct effects also include changes to an architectural resource that cause it to become a different visual entity, such as a new location, design, materials, or architectural features.

The Proposed Actions are site-specific, and the Project Area does not contain any designated or eligible historic resource. In addition, the Project Area is not adjacent to PS 196-Q. Therefore, the Proposed Actions would not result in any direct physical impacts to historic architecture resources.

Indirect (Contextual) Impacts

Contextual impacts may occur to architectural resources under certain conditions. According to the *CEQR Technical Manual*, possible impacts to architectural resources may include isolation of the property from or the alteration of its setting or visual relationships with the streetscape. This includes changes to the resource's visual prominence so that it no longer conforms to the streetscape in terms of height, footprint, or setback; is no longer part of an open setting; or can no longer be seen as part of a significant view corridor. Significant indirect impacts can occur if a proposed action(s) would cause a change in the quality of a property that qualifies it for listing on the S/NR or for designation as a NYCL.

The Proposed Actions would not result in significant adverse indirect impacts on historic architectural resources. The Proposed Project would not significantly alter the context or setting of the PS 196-Q as compared to No-Action conditions. As detailed above, the Proposed Action would facilitate the construction of a nine-story building on Projected Development Site 1 and a ten-story building on Projected Development Site 2. Although it is possible that the tops of these buildings could be visible when looking west from PS 196-Q, the Project Area is located approximately 200 feet west of PS 196-Q and this would not be significant or adverse. The area is a developed urban environment with multiple existing mid-rise buildings currently developed throughout. In addition, as detailed above, the former Parkway Hospital site, which is located adjacent to PS 196-Q, is currently being redeveloped with an eight-story building and a fourteen-story building. As such, the Proposed Project would not substantially change the visual setting of PS 196-Q so as to affect those characteristics that make the building eligible for S/NR designation.

Additionally, in the future with the Proposed Actions, no incompatible visual, audible, or atmospheric elements would be introduced to any historic resource's setting. The Proposed Project would not alter the relationship of any identified historic architectural resources to the streetscape, as all streets in the study area would remain open and all historic resources' relationships to the street would remain unchanged in the future with the Proposed Actions. The Proposed Project would not eliminate or screen public views of any historic architectural resources, which would remain visible in view corridors on adjacent public streets and sidewalks. No primary facades, significant architectural ornamentation, or notable features of PS 196-Q would be obstructed by the Proposed Project.

The Proposed Actions would not result in development that would diminish the qualities that make the S/NR eligible PS 196-Q historically and architecturally significant. As such, the Proposed Actions would not result in any significant adverse indirect or contextual impacts on historic architectural resources.

Construction-Related Impacts

Any new construction taking place within historic districts or adjacent to individual landmarks has the potential to cause damage to contributing buildings to those historic resources from ground-borne construction vibrations. The New York City Building Code provides some measure of protection for all properties against accidental damage from adjacent construction by requiring that all buildings, lots, and service facilities adjacent to foundation and earthwork areas be protected and supported. Additional protective measures apply to LPC-designated and S/NR-listed historic resources located within 90 linear feet of a proposed construction site. For these structures, DOB's Technical Policy and Procedure Notice (TPPN) #10/88 applies. TPPN #10/88 supplements the standard building protections afforded by the Building Code by requiring, among other things, a monitoring program to reduce the likelihood of construction damage to adjacent LPC-designated or S/NR-listed resources (within 90 feet) and to detect at an early stage the beginnings of damage so that construction procedures can be changed. As there are no historic architectural resources located within 90 feet of the Project Area, the Proposed Actions would not result in any significant adverse construction-related impacts to historic resources.

Shadows-Related Impacts

As detailed in **Attachment E, "Shadows,"** PS 196-Q is located within the longest shadow study area. However, as it does not contain sunlight-sensitive features (such as stained-glass or polychromatic detailing) the limited incremental shadows generated by the Proposed Actions would not result in any significant adverse impacts to historic resources.

ATTACHMENT K

HAZARDOUS MATERIALS

I. INTRODUCTION

As defined in the 2021 *CEQR Technical Manual*, 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 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 adverse impacts from hazardous materials can occur when: (a) hazardous materials exist on a site, and (b) an action would increase pathways to their exposure; or (c) an action would introduce new activities or processes using hazardous materials.

As the Proposed Actions would facilitate the development of a new mixed residential and community facility building, this chapter assesses the potential for the presence of hazardous materials in soil, groundwater, and/or soil vapor at the Applicant-owned Projected Development Site 1 (71-11 112th Street; Block 2246, Lot 31), located in the Forest Hills neighborhood of Queens.

II. METHODOLOGY

In August 2020, a Phase I Environmental Site Assessment (ESA) was prepared by ALC Environmental (ALC) for the project site in order to identify any recognized environmental conditions (RECs) from existing or historic land uses. The Phase I ESA was prepared in conformance with the ASTM *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* E 1527-13, as well as the U.S. Environmental Protection Agency (EPA) All Appropriate Inquiry (AAI) requirements (November 2005). The assessment was undertaken to determine whether additional investigations are necessary and whether any remedial or environmental control measures would be required on Lot 31 for the Proposed Project to avoid the potential for impacts pertaining to hazardous materials.

The August 2020 Phase I ESA contained research into the historic uses and development of the property, examination of available information from governmental agencies, and a visual inspection of the property to determine the possible presence of toxic or hazardous materials, including petroleum and chemical products. Based upon the available information, an evaluation was made regarding the presence of potential RECs from either current or historical land uses.

As detailed in ASTM E 1527-13, RECs are "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 a 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. The term is not intended to include *de minimis* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies." Controlled RECs are "a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that have been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls."

The specific methodology followed in the Phase I ESA for evaluating the potential for environmental impacts at the project site is described below. The methodology consisted of a review of several environmental sources, including regulatory agency databases, historical Sanborn maps, and City directories. Additionally, a visual inspection of Projected Development Site 1 (including the exterior of the site and accessible interior areas) identified the current use of the site and evidence of storage tanks.

Historical site research was used to assess the presence of RECs at the project site. Sources of historical information may include one or more of the following:

- Reference documents (historical maps, aerial photographs, City directories, etc.).
- Interviews with site contacts, operators, and neighboring property operators and owners.
- United States Geological Survey (USGS) topographic maps, land use maps, zoning maps, and floodplain maps.
- Previous environmental reports.

The following regulatory agency lists and databases of documented hazardous waste sites, waste handlers, and spills were reviewed:

- EPA for location of National Priority List (NPL or Superfund) and Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) sites, Emergency Response Notification System finds, and Resource Conservation and Recovery Act (RCRA) Hazardous Waste Handlers and Treatment/Storage/Disposal Facilities lists, etc.
- New York State Department of Environmental Conservation (NYSDEC) for hazardous waste spills, current State Pollutant Discharge Elimination System (SPDES) sites, Inactive Hazardous Waste Disposal Sites, Major Oil Storage Facilities, Chemical Bulk Storage and Petroleum Bulk Storage Facilities, Toxic Release Inventory System, Solid Waste Facilities, etc.

The site inspection involved a review of current operations, interviews with knowledgeable site occupants, operators, or owners, and a visual inspection of accessible areas of the project site for indications of significant contamination by toxic or hazardous waste or materials. The site inspection included the following objectives:

- To identify sources of potential on-site contamination, such as aboveground storage tanks (ASTs) or underground storage tanks (USTs), septic systems, dry wells, and interior floor drains.
- To examine the site for signs of potential contamination, including stained soils, unusual odors, stressed or dead vegetation, improperly stored chemicals, oil slicks on standing waters, on-site waste disposal practices, etc.
- To determine if on-site storage, handling, use, and disposal of toxic or hazardous materials follows good practice to minimize the potential of spills or site contamination.
- To identify potential off-site sources of contamination through observation of off-site neighboring land use, topography, and drainage patterns.
- To identify on-site and adjacent sensitive receptors, such as surface waters, wetlands, infiltration basins, drinking water wells, etc.

Limitations

The Phase I ESA report addresses the general and typical regulations for toxic and hazardous materials, but does not represent to examine specific compliance with legally mandated regulations concerning the handling, storage, use, or disposal of these materials at the project site. Additionally, no representations were made as to compliance with worker exposure standards established by the U.S. Occupational Safety and Health Administration (OSHA). In accordance with ASTM standards, a Phase I ESA is not prepared as an environmental compliance report.

The scope of work for the Phase I ESA does not include any testing of the project site soils (surface or sub-surface), ground or surface waters, soil vapor, or interior/exterior air quality. No definitive assessment of the presence of poly-chlorinated biphenyls (PCBs), radon, soil, or groundwater contamination, surface water, or sediment contamination form either on-site or off-site sources has been made.

III. EXISTING CONDITIONS

This section summarizes the findings of the Phase I ESA, specifically with respect to current and historical site conditions and RECs identified for the project site. The full Phase I ESA report is included in **Appendix II**. The Applicant-owned Projected Development Site 1 is an irregularly-shaped, approximately 22,500-sf parcel located at 71-11 112th Street (Block 2246, Lot 31) in the Forest Hills neighborhood of Queens.

Historic and Current Site Uses

Between 1902 and 1914, Lot 31 was developed with two residential homes and a third was built on the southeastern portion of the lot between 1914 and 1924. Although not related to hazardous materials, the Phase I notes that Hellen Keller lived in one of the residential buildings from 1917 to 1938. All three residential buildings were demolished in 1962.

Since the existing two-story building was constructed on the site in 1963, it has been used as a synagogue with classrooms and offices. It is currently occupied by the Reform Temple of Forest Hills (RTFH). A partial cellar is located on the northwestern portion of the building, which contains the natural gas-fired boiler, natural gas-fired water heater, and a workshop. The southern portion of the building contains classrooms on the ground floor with the sanctuary and a ballroom located above.

The classrooms are used in the evenings and weekends for religious classes and are leased to the New York City Department of Education (DOE) for use during normal school hours on an as needed basis (e.g., if another facility is under construction).

Nearby Historic and Current Land Uses

The surrounding properties are predominantly residential, as well as community facility and mixed residential and commercial. Based on field observations, the Phase I indicates that the current adjoining property uses do not appear to pose an environmental risk to the site.

Recognized Environmental Condition (REC)

A recognized environmental condition (REC) is defined as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property (1) due to a release of any hazardous substances or petroleum products; (2) under conditions indicative of a release to the environment; or (3) under

conditions that pose a material threat of a future release to the environment. As noted in the Phase I EAS, ALC found one REC associated with the property – the presence of one 10,000-gallon No. 2 heating oil underground storage tank (UST). According to UST database records, the tank was closed in-place on the site on June 1, 1999; however, no closure documentation is currently available. As such, this former UST represents a REC.

Historical Recognized Environmental Condition

An historical recognized environmental condition (HREC) is defined as an environmental condition which in the past would have been considered a *recognized environmental condition*, but which may or may not be considered a *recognized environmental condition* currently. The final decision rests with the environmental professional and will be influenced by the current impact of the historical recognized environmental condition on the property.

ALC determined that Projected Development Site 1 was listed in the LTANKS (Leaking Tanks) database in regards to a tank test failure incident reported on January 24, 1990, associated with UST described above (Spill No. 8910194). As per the database, the tank failed a Horner EZY Check test with a gross leak. The records indicate that the tank was planned to be isolated and retested. This case was closed by the New York State Department of Environmental Conservation (NYSDEC) on July 26, 1993. The regulatory agency awards a 'case closed' status only when contamination, if any, has been investigated and/or remediated in accordance with currently accepted regulatory standards. ALC found that the available NYSDEC records confirmed that the case was closed by the NYSDEC. Further notes indicated that less than one gallon of No. 4 fuel oil was released and groundwater was listed as being the resource affected. Although the case was closed by the regulatory agencies, this listing in of itself is considered to be a HREC.

Asbestos Containing Materials

ALC noted that suspect asbestos containing materials in the form of roofing materials (roof membrane and flashing), sheetrock and joint compound, pipe elbow insulation, ceiling tiles, and 9"x9"vinyl floor tiles were observed at Projected Development Site 1; however, the referenced materials appeared in overall good condition.

Vapor Encroachment Condition

A Tier I Vapor Encroachment Assessment (VEA) was performed at Projected Development Site 1 in accordance with ASTM E 2600-15, *Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions*, December 2015. A Tier I VEA determines whether there actually is or possibly is a potential for volatile vapors to encroach upon the subject property, producing a vapor encroachment condition (VEC). A VEC is the presence or likely presence of vapors in the subsurface of the subject property caused by the release of vapors from contaminated soil or groundwater either on or near the subject property. Based on the lack of tank closure documentation pertaining to the closed-in-place UST, a VEC at Projected Development Site 1 could not be ruled out and, therefore, this would constitute a REC. No additional VECs were identified for the surroundings sites within the distances specified by ASTM International Practice 2600-10.

Recommendations

ALC recommends that the tank closure records be provided for review, to ensure that the tank was properly closed. If no such records are available, a geophysical survey and soil and/or groundwater sampling is recommended to determine the former UST location, and to confirm whether or not subsurface conditions have been impacted.

Prior to any repair/renovation work that will affect suspect asbestos containing materials – roofing materials (roof membrane and flashing), sheetrock panels, wall and ceiling plaster, and vinyl floor tiles – asbestos testing should be conducted. If these materials are determined to contain asbestos, the materials should be abated by a certified asbestos abatement contractor prior to commencement of the renovation work, as per all applicable local, state and federal regulations.

IV. FUTURE WITHOUT THE PROPOSED PROJECT (No-Action Condition)

In the future without the Proposed Actions, also known as the "No-Action Condition," it is anticipated that Lot 31 would not be redeveloped and the community facility building located at the site would continue to be occupied by the RTFH, meaning there are no exposure risks as there would be no in-ground disturbance or renovation work.

Although not anticipated, any future construction at the site involving soil and groundwater disturbance could potentially create or increase pathways for human exposure to any subsurface hazardous materials present. Since no institutional controls (e.g., (E) designations or Restrictive Declarations that require the owner of a property to assess potential hazardous material impacts prior to construction) currently exist on the project site, such disturbance would not necessarily be conducted in accordance with the procedures (e.g., for conducting testing before commencing excavation and implementation of health and safety plans during construction) described in the following section. However, the local, State, and Federal regulatory requirements pertaining to any identified petroleum tanks and/or spills, requirements for disturbance and handling of suspect lead-based paint (LBP) and asbestos-containing materials (ACMs), and requirements for off-site disposal of soil/fill, would need to be followed. As such, without the Proposed Actions, the amount of soil disturbance would be less, but potentially the controls on its performance would not be as stringent as under the Proposed Project, as described below.

V. THE FUTURE WITH THE PROPOSED PROJECT (With-Action Condition)

In the future with the Proposed Actions, the development potential of Lot 31 would change to allow for residential as well as community facility uses. Based on the findings of the August 2020 Phase I ESA and this hazardous materials assessment, further investigation is necessary as no documentation is available that the 10,000-gallon No. 2 heating oil UST was closed in-place on the site. However, as noted in in **Attachment A, "Project Description,"** Projected Development Site 1 is currently developed with the operable and in-use RTFH. In addition, Projected Development Site 2, which is not under the control of the Applicant, is also in use in its existing condition. Given the continued use of the sites, it is not feasible to conduct invasive drilling and sampling activities at this time. In place of conducting a Phase II ESA (and for Projected Development Site 2, a Phase I ESA), at this time, an (E) designation would be placed on Projected Development Site 1 (Block 2246, Lot 31) and Projected Development Site 2 (Block 2246, Lot 41) which would require site investigation prior to issuance of building permits. By placing an (E) designation on these sites, the potential for an adverse impact to human health and the environment resulting from the Proposed Actions would be avoided.

The hazardous materials (E) designation is an institutional control that can be placed on a site as a result of the CEQR review of a zoning map or zoning text amendment or action pursuant to the Zoning Resolution. It provides a mechanism to ensure that testing for and mitigation and/or remediation of hazardous materials, if necessary, are completed prior to, or as part of, future development of an affected site, thereby eliminating the potential for hazardous materials impacts. The New York City Office of Environmental Remediation (OER) would provide the regulatory oversight of the environmental investigation and remediation during any development process. Building permits would not be issued for the development by the New York City Department of Buildings (DOB) without prior OER approval of the investigation and/or remediation pursuant to the provisions of Section 11-15 of the Zoning Resolution of the City of New York (Environmental Requirements). The DOB will typically issue the foundation permits when OER approves the remedial action work plan – the actual remediation is usually done concurrently with the construction. Engineering controls may also be incorporated into the development to eliminate exposure risks for future occupants.

These requirements related to hazardous materials would apply to:

Block 2246, Lots 31 and 41

The (E) designation text related to hazardous materials is as follows:

Task 1-Sampling Protocol

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

Task 2-Remediation Determination and Protocol

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

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

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

In a letter dated March 10, 2022, the NYC Department of Environmental Protection (DEP) concurs with the EAS's recommendation to map an (E) designation on Projected Development Sites 1 and 2 (see **Appendix I**). With the requirements of the (E) designation to be assigned to these sites there would be no impact from the potential presence of contaminated materials. The implementation of the preventative and remedial measures outlined in the (E) designation would preclude the potential for significant adverse hazardous materials impacts from the Proposed Actions. Therefore, no further analysis is required at this time.

ATTACHMENT L

COMMUNITY FACILITIES AND SERVICES

I. INTRODUCTION

This attachment examines the potential effects of the Proposed Actions on community facilities and services in and around the Project Area. The 2021 *City Environmental Quality Review* (CEQR) *Technical Manual* defines community facilities and services as public or publicly funded facilities, including schools, libraries, child care centers, health care facilities, and fire and police protection services. CEQR methodology focuses on direct impacts on community facilities and services, and on indirect effects caused by increased demand for community facilities and services generated by increases in population.

As detailed in **Attachment A, "Project Description,"** the Project Area encompasses the Applicant-owned property at 71-11 112th Street (Block 2246, Lot 31; "Projected Development Site 1") as well as the adjacent site (not under control of the Applicant) at 71-02 113th Street (Block 2246, Lot 41; "Projected Development Site 2") in the Forest Hills neighborhood of Queens Community District 6 (see **Figure L-1**). The Proposed Actions include a zoning map amendment and zoning text amendment to facilitate the development of a mixed-use residential/community facility building on Applicant-owned Projected Development Site 1. It is expected that the Proposed Actions would also result in the development of a mixed-use residential/community facility building on Projected Development Site 2, adjacent to the existing Touro College educational building on the site. Collectively, Projected Development Sites 1 and 2 are referred to as the "Project Area."

In total, the Proposed Actions would result in an increment of 173 residential dwelling units (DUs) in the Project Area, of which 43 to 52 would be affordable rental units for households with incomes at or below 80 percent of the Area Median Income (AMI). The Proposed Actions would also facilitate the development of community facility space in the Project Area, including an upgraded facility for the Reform Temple of Forest Hills ("RTFH") on Projected Development Site 1, and administrative space for Touro College on Projected Development Site 2. The anticipated Build Year is 2025. Absent approval of the Proposed Actions, no changes are expected to occur in the Project Area.

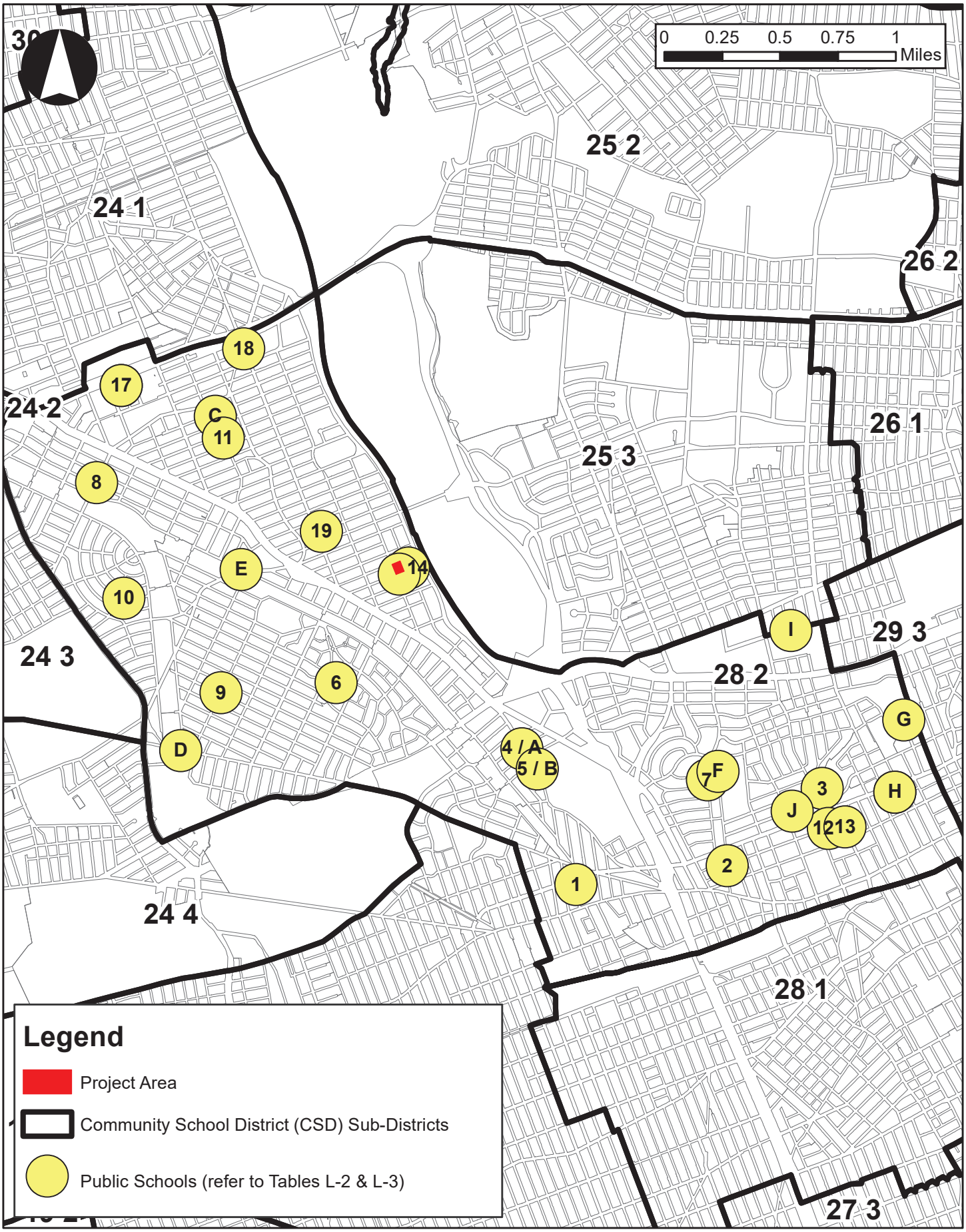
The following analysis of community facilities and services has been conducted in accordance with *CEQR Technical Manual* guidance, utilizing the latest data and guidance from agencies such as the New York City Department of Education (DOE), the New York City School Construction Authority (SCA), and the New York City Department of City Planning (DCP).

II. PRELIMINARY SCREENING

The purpose of the preliminary screening is to determine whether an assessment of community facilities and services is required for the Proposed Actions. As recommended by the *CEQR Technical Manual*, a community facilities assessment is warranted if an action has the potential to result in either direct or indirect effects on community facilities and services. If a proposed action would physically alter a community facility, whether by displacement of the facility or other physical change, this "direct" effect triggers the need to assess the service delivery of the facility and the potential effect that the physical change may have on that service delivery. In addition, under CEQR, "temporary direct" effects are considered when a temporary closing of a community facility is required. Temporary closing of a community facility may occur due to the construction in that location, among other reasons. New

Figure L-1

Public Schools Serving Elementary & Middle School Students in Queens CSD 28, Sub-District 2



population added to an area as a result of a proposed action would utilize existing services, which may result in potential "indirect" effects on service delivery. Depending on the size, income characteristics, and age distribution of the new population, there may be effects on public schools, libraries, or child care centers.

Direct Effects

The Proposed Actions would not directly displace or otherwise directly affect any public schools, child care centers, libraries, health care facilities, or police or fire protection service facilities. As detailed further in **Attachment A, "Project Description,"** the existing community facility building on Projected Development Site 1 is owned and utilized by the RTFH. The Proposed Actions are intended to increase the efficiency of the RTFH and enhance its accessibility with the development of an upgraded facility on Projected Development Site 1. In the past, the facility's classrooms have been leased to DOE on an as-needed basis, typically for primary school students and associated staff when other facilities are under renovation. For example, as shown in **Table L-2** below, during the 2019-2020 academic year, the P.S. 196 Grand Central Parkway Annex was listed at 112-15 71st Road (Projected Development Site 1) during construction of the school's expansion one block to the east at 71-25 113th Street (which is slated for completion in 2022). However, the DOE lease with RTFH expires in 2022 and the Applicant does not intend to renew it, regardless of the Proposed Actions. Therefore, no publicly funded community facilities would be directly impacted by the Proposed Actions on Projected Development Site 1.

On Projected Development Site 2, the existing Touro College educational building would remain unchanged in the future with the Proposed Actions. Additionally, no publicly-funded community facilities would be temporarily closed as a result of the Proposed Actions in the Project Area.

Indirect Effects

The *CEQR Technical Manual* includes thresholds that provide guidance in making an initial determination of whether a detailed analysis is necessary to determine potential impacts. **Table L-1** lists those *CEQR Technical Manual* thresholds for each community facilities analysis area. If a proposed action exceeds the threshold for a specific facility, a more detailed analysis is warranted. A preliminary screening analysis was conducted to determine if the Proposed Actions would exceed established CEQR thresholds warranting further analysis.

Table L-1: Preliminary Screening Analysis Criteria

Community Facility	Threshold for Detailed Analyses
Public Schools	More than 50 or more elementary/middle school students or 150 or more high school students based on the number of residential units using the SCA's Projected Public School Ratio
Early Childhood Programs	20 or more eligible children under age 5 based on the number of low or low/moderate income residential units
Libraries	More than five percent increase in ratio of residential units to library branches
Police/Fire Services and Health Care Facilities	Introduction of a sizeable new neighborhood

Source: 2021 *CEQR Technical Manual,* Table 6-1.

Public Schools

Potential impacts on schools may result if there would be insufficient seats available to serve the population as a result of a proposed action. The *CEQR Technical Manual* recommends conducting a detailed analysis of public schools if a project would generate 50 or more elementary/middle school students and/or 150 or more high school students. As detailed above, the Proposed Actions would result in a net increment of 173 residential units in the Project Area. Based on the SCA's Projected Public School Ratio student generation rates for Queens Community School District (CSD) 28 (which encompasses the Project Area, as shown in **Figure L-1**), the incremental 173 DUs that would be developed as a result of the Proposed Actions would introduce approximately 38 elementary school students, approximately 14 middle school students, and approximately 17 high school students.[1] Therefore, the Proposed Actions are not expected to result in any significant adverse effects on public high schools, and further analysis of high schools is not warranted. However, as the Proposed Actions would introduce a total of 52 elementary and middle school students in the Project Area, a detailed analysis of public elementary and middle schools is required and is provided below.

Early Childhood Programs

Publicly financed Early Childhood Programs are available for eligible children 5 and younger (until the child is eligible to attend Kindergarten for a fall start date). Families eligible for Early Childhood Program subsidized seats must meet financial and social eligibility criteria as established by DOE and detailed further in the *CEQR Technical Manual*. According to the *CEQR Technical Manual*, if a proposed action would add 20 or more children under age five who are eligible for publicly financed early childhood education services, a detailed analysis is warranted. For the purposes of CEQR analysis, the number of housing units expected to be subsidized and targeted for incomes of 80 percent of AMI or below should be used as a proxy for eligibility (139 units in Queens), a conservative assessment of demand since eligibility for subsidized child care is not defined strictly by income. As detailed above, the Proposed Actions would facilitate the development of 173 residential dwelling units (DUs) in the Project Area, of which 43 to 52 would be affordable rental units for households with incomes at or below 80 percent of AMI. Therefore, the Proposed Actions are not expected to result in any significant adverse effects on early childhood programs, and further analysis is not warranted.

Libraries

Potential impacts on libraries can result from an increased user population. According to the *CEQR Technical Manual*, an action that generates a five percent increase in the average number of residential units served per branch (equivalent to a 663-unit increase in Queens) may cause significant adverse impacts on library services and require further analysis. The Proposed Actions are expected to introduce 173 DUs to the Project Area. Therefore, the Proposed Actions would not exceed this threshold, and a detailed analysis of indirect impacts on libraries is not warranted.

[1] Per the SCA's 2019 Projected Public School Ratio student generation rates, housing units in Queens CSD 28 generate 0.22 elementary school students per DU, 0.08 middle school students per DU, and 0.10 high school students per DU.

Police/Fire Services & Health Care Facilities

The *CEQR Technical Manual* recommends a detailed analysis of indirect impacts on police, fire, and health care services in cases where a proposed action would create a sizeable new neighborhood where none existed before. As discussed above, the Proposed Actions would facilitate the development of a net increment of 173 DUs and a net decrease of 5,600 gsf of community facility space in the Project Area. As the Proposed Actions would not create a sizeable new neighborhood, further analysis of police, fire, and health care services is not warranted.

III. INDIRECT EFFECTS ON PUBLIC ELEMENTARY & MIDDLE SCHOOLS

Methodology

This analysis evaluates the potential impacts of the Proposed Actions on public elementary and middle schools serving the Project Area. According to the guidance presented in the *CEQR Technical Manual*, CEQR analyzes potential impacts only on public schools operated by DOE[2]; private and parochial schools within the study area are not included in the analysis of schools presented in this attachment.

The demand for community facilities and services is directly related to the type and size of the new population generated by the development resulting from the Proposed Actions. As detailed above, the Proposed Actions would result in a net increment of 173 residential units in the Project Area as compared to No-Action conditions. Based on the SCA's Projected Public School Ratio student generation rates, housing units in Queens CSD 28 generate 0.22 elementary school students per DU, 0.08 middle school students per DU, and 0.10 high school students per DU. Therefore, the Proposed Actions would generate approximately 38 elementary school students, 14 middle school students, and 17 high school students. According to *CEQR Technical Manual* guidance, this level of development would trigger a detailed analysis of elementary and middle schools, and a detailed analysis of high schools is not warranted for the Proposed Actions.

Following the methodologies in the *CEQR Technical Manual*, the study area for the analysis of elementary and middle schools is the CSD's "Sub-District" ("region" or "school planning zone") in which the project is located. As indicated in **Figure L-1**, the Project Area falls within the boundaries of Sub-District 2 of Queens CSD 28.

A schools analysis presents the most recent capacity, enrollment, and utilization rates for elementary and middle schools in the study area. Future conditions for the No-Action are then predicted based on enrollment projections and proposed development projects[3]; 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's most recent enrollment projections (Demographic Projections, 2020-2029) are posed on the SCA's website.[4] In addition, any new school projects identified in the DOE 2020-2024 Five-Year Capital Plan (and/or subsequent amendments) are included if construction has begun. According to

[2] Pursuant to CEQR guidance, charter schools, citywide gifted and talented schools, D75 special education, and D79 alternative equivalency schools are not included in the analysis.
[3] SCA's *Projected New Housing Starts for PS/MS Level Analysis, FY 2020-2024 Capital Plan (As of June 2020)*.
[4] *Enrollment Projections for the New York City Public Schools 2020-21 to 2029-30* by Statistical Forecasting.

the *CEQR Technical Manual*, some schools may be included in the analysis only if they are in the DOE Five-Year Capital Plan but are not yet under construction if the Lead Agency, in consultation with the SCA, concurs it is appropriate.

To determine the With-Action school utilization rates, the net elementary and middle school population generated by the Proposed Actions was added to the CSD Sub-District population. The effect of the new students introduced by the Proposed Actions 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 a project would result in: (1) a utilization rate of the elementary and/or middle schools that is equal to or greater than 100 percent in the With-Action condition; and (2) 100 or more new students generated from the proposed development past the 100 percent utilization rate.

Existing Conditions

As described above, elementary and middle schools in New York City are located in geographically defined school districts. As shown in **Figure L-1**, the Project Area is located within the boundaries of CSD 28, Sub-District 2 in Queens. Analyzed study area elementary and intermediate schools are defined by one of four categories: elementary (P.S.) schools, which serve grades Pre-K through 5; middle/intermediate (I.S.) schools, which serve grades 6 through 8; secondary schools (I.S./H.S.), which serve grades 6 through 12; and K-8 schools, which serve grades Pre-K through 8. For utilization purposes the elementary components of P.S./I.S. and K-8 schools have been combined, and the intermediate components of P.S./I.S. and I.S./H.S. organizations have been combined.

Tables L-2 and **L-3** provide the existing enrollment, capacity, and utilization rates for elementary and middle schools in CSD 28, Sub-District 2. In instances where school buildings house more than one organization, these organizations are listed separately.

Elementary Schools

As presented in **Table L-2** and illustrated in **Figure L-1**, there are a total of 16 schools serving elementary students within CSD 28, Sub-District 2. In the 2019-2020 academic year (the most current available data), elementary schools in CSD 28, Sub-District 2 had a utilization rate of 113.2 percent with a deficit of 1,273 seats. P.S. 196 Grand Central Parkway (School #14 in **Figure L-1**) is the zoned elementary school for the Project Area.[5]

Middle Schools

As shown in **Figure L-1**, there are a total of nine schools within CSD 28, Sub-District 2 that serve intermediate students. As indicated in **Table L-3**, CSD 28, Sub-District 2 middle schools have an existing utilization rate of 113.5 percent with a deficit of 727 seats. J.H.S. 157 Stephen A. Halsey located at 63-55 102nd Street (School C in **Figure L-1**) is the zoned middle school for the Project Area.

[5] As discussed above, the existing community facility building on Projected Development Site 1 is owned and utilized by the RTFH. In the past, the facility's classrooms have been leased to DOE on an as-needed basis, typically for primary school students and associated staff when other facilities are under renovation. As shown in **Table L-2**, during the 2019-2020 academic year, the "Annex" to P.S 196 Grand Central Parkway was listed at 112-15 71st Road (Projected Development Site 1) while construction of the school's new building was completed one block to the east at 71-25 113th Street. However, the DOE lease with RTFH expires in 2022 and the Applicant does not intend to renew it, regardless of the Proposed Actions.

Table L-2: CSD 28, Sub-District 2 Elementary School Enrollment, Capacity, & Utilization for the 2019-2020 Academic Year

Map No.[1]	Organization Name	Address	Org. Level	Enroll-ment	Target Capacity[2]	Utilization	Available Seats
1	P.S. 54 Hillside	86-02 127th Street	P.S	370	258	143.4%	-112
	P.S. 54 Hillside - Minischool		P.S	150	N/A	N/A	-150
2	P.S. 82 Hammond	88-02 144th Street	P.S	500	437	114.4%	-63
3	P.S. 86Q	87-41 Parsons Boulevard	P.S	774	800	96.8%	26
4	P.S. 99 Kew Gardens	82-37 Kew Gardens Road	P.S./I.S.	322	475	67.8%	153
5	P.S. 99 Kew Gardens Annex	83-34 Kew Gardens Road	P.S./I.S.	308	N/A	N/A	-308
6	P.S. 101 School in the Gardens	2 Russell Place	P.S	680	416	163.5%	-264
7	P.S. 117 J. Keld / Briarwood School	85-15 143rd Street	P.S	926	900	102.9%	-26
8	P.S. 139 Rego Park	93-06 63rd Drive	P.S	708	673	105.2%	-35
9	P.S. 144 Col. Jeromus Remsen	69-20 Juno Street	P.S	936	1,146	81.7%	210
10	P.S. 174 William Sidney Mount	65-10 Dieterle Crescent	P.S	590	517	114.1%	-73
	P.S. 174 William Sidney Mount - Transportable		P.S	71	N/A	N/A	-71
11	P.S. 175 The Lynn Gross Discovery School	64-35 102nd Street	P.S	808	639	126.4%	-169
12	P.S. 182 Samantha Smith	153-27 88th Avenue	P.S	523	555	94.2%	32
13	P.S. 182 Samantha Smith Annex	88-13 Parsons Boulevard	P.S	156	N/A	N/A	-156
14	P.S. 196 Grand Central Parkway	71-25 113th Street	P.S	978	762	128.3%	-216
15	P.S. 196 Grand Central Parkway Annex	112-15 71st Road	P.S	85	N/A	N/A	-85
16	P.S. 206 The Horace Harding School	61-02 98th Street	P.S	509	435	117.0%	-74
17	P.S. 206 The Horace Harding School - Transportable	61-21 97th Place	P.S	62	N/A	N/A	-62
18	P.S. 220 Edward Mandel	62-10 108th Street	P.S	671	530	126.6%	-671
19	P.S. 303 The Academy for Excellence through the Arts	68-61 110th Street	P.S	283	713	39.7%	430
20	P.S. 349 The Queens School for Leadership and Excellence	88-08 164th Street	P.S	520	401	129.7%	-119
			Totals:	**10,930**	**9,657**	**113.2%**	**-1,273**

Source: DOE's *Enrollment – Capacity – Utilization Report for the 2019-2020 School Year*.

Notes: [1] Refer to **Figure L-1**.

[2] Target capacity sets a goal of a reduced class size of 20 students for grade K-3 and 28 students for grades 4-8, and is used by the DOE for capital planning purposes. Additionally, per CEQR guidance, minischools, temporary and transportable units, and annexes are not included in the target capacity for conservative analysis purposes.

Table L-3: CSD 28, Sub-District 2 Middle School Enrollment, Capacity, & Utilization for the 2019-2020 Academic Year

Map No.[1]	Organization Name	Address	Org. Level	Enroll-ment	Target Capacity[2]	Utilization	Available Seats
A	P.S. 99 Kew Gardens	82-37 Kew Gardens Road	P.S./I.S.	39	57	68.1%	18
B	P.S. 99 Kew Gardens Annex	83-34 Kew Gardens Road	P.S./I.S.	37	N/A	N/A	-37
C	J.H.S. 157 Stephen A. Halsey	63-55 102nd Street	I.S./H.S.	1,651	1,387	119.0%	-264
D	I.S./H.S. 167 Metropolitan Expeditionary Learning School	91-30 Metropolitan Avenue	I.S./H.S.	378	382	98.9%	4
E	J.H.S. 190 Russell Sage	68-17 Austin Street	I.S.	1,126	1,059	106.3%	-67
F	J.H.S. 217 Robert A. Van Wyck	85-05 144th Street	I.S.	1,350	1,436	94.0%	86
	J.H.S. 217 Robert A. Van Wyck - Temporary		I.S.	360	N/A	N/A	-360
G	I.S./H.S. 310 Queens Collegiate School	167-01 Gothic Drive	I.S./H.S.	271	301	90.0%	30
H	M.S. 358Q	88-08 164th Street	I.S.	362	267	135.6%	-95
I	I.S./H.S. 680 Queens Gateway to Health Sciences Secondary School	160-20 Goethals Avenue	I.S./H.S.	273	259	105.4%	-14
J	I.S./H.S. 896 Young Women's Leadership School	150-91 87th Road	I.S./H.S.	253	225	112.4%	-28
			Totals:	**6,100**	**5,373**	**113.5%**	**-727**

Source: DOE's *Enrollment – Capacity – Utilization Report for the 2019-2020 School Year*.

Notes: [1] Refer to **Figure L-1**.

[2] Target capacity sets a goal of a reduced class size of 28 students for grades 4-8, and is used by the DOE for capital planning purposes. Additionally, per CEQR guidance, minischools, temporary and transportable units, and annexes are not included in the target capacity for conservative analysis purposes.

Future without the Proposed Actions (No-Action Condition)

In the future without the Proposed Actions, the utilization of public elementary and middle schools serving the Project Area and surrounding study area would be affected by changes in enrollment, mainly due to aging of the existing student body and new arrivals born in the area or moving to it, as well as changes in capacity, or number of available seats, in the study area schools.

Enrollment Projections

As noted above, the SCA provides future enrollment projections by district for up to 10 years. The latest available enrollment projections have been used in this analysis to conservatively project student enrollment in the 2025 build year. These enrollment projections focus on the natural growth of the City's student population and other population changes that do not account for demographic fluctuations or new residential development planned in the area (i.e., No-Action projects).

The SCA has also provided data on the number of new elementary and middle school students expected from new housing (No-Action projects) in Sub-District 2 of CSD 28 based on their capital planning work. The anticipated No-Action elementary and middle school enrollments for the study area are presented in **Table L-4**. As shown, No-Action developments are anticipated to add 1,094 elementary students and 343 intermediate students to CSD 28, Sub-District 2 schools in the No-Action condition.

Table L-4: Estimated 2025 No-Action Elementary & Middle School Enrollment in the Study Area

Study Area	School Level	Projected No-Action Enrollment[1]	Students Introduced by No-Action Residential Development[2]	Total No-Action Enrollment
CSD 28, Sub-District 2	Elementary	12,035	1,094	13,129
	Middle	5,312	343	5,654

Sources: [1] *Enrollment Projections for the New York City Public Schools 2020-21 to 2029-30* by Statistical Forecasting.
[2] SCA's *Projected New Housing Starts for PS/MS Level Analysis, FY 2020-2024 Capital Plan (as of June 2020)*.

Projected Capacity Changes

There are four elementary schools in CSD 28, Sub-District 2 which are currently undergoing renovations to increase capacity. No changes to intermediate schools in CSD 28, Sub-District 2 are anticipated in the 2025 future without the Proposed Actions.

1) The expansion of P.S. 196 Grand Central Parkway at 71-25 113th Street is slated for completion in 2022. As detailed above, the capacity of P.S. 196 in the 2019-2020 academic year was 762 students; when completed, the renovated school will have a capacity of 1,200 elementary school students.[6]

2) P.S. 303 The Academy for Excellence through the Arts has been undergoing an expansion since 2018, adding students from grades 4 and 5 in its building at 68-81 110th Street. It is expected that the expansion will be at-scale in the 2024-2025 academic year, with a total of 654 elementary school seats.[7]

[6] La Rocca Green Architects – PS 196 Queens (https://laroccagreene.com/portfolio/ps-196-queens/)
[7] DOE's *Amended Revised Educational Impact Statement: The Proposed Grade Expansion of P.S. 303 The Academy for Excellence through the Arts (28Q303) from a K-3 to a K-5 School in Building Q003 Beginning in the 2019-2020 School Year* (June 5, 2018).

3) An addition to P.S. 174 William Sydney Mount at 65-10 Dieterle Crescent is currently in progress, with an expected completion date of September 2024. As detailed in **Table L-2** above, the capacity of P.S. 174 in the 2019-2020 academic year was 517 students; when completed, the expanded school will have a capacity of 920 elementary school students.[8]

4) The P.S. 182 Samantha Smith Annex is undergoing construction at 88-13 Parsons Boulevard. As CEQR recommends excluding annex capacities from existing conditions, it was not included in **Table L-2** above. However, upon completion of the annex in August 2025, the P.S. 182 Annex will contain 100 elementary school seats.[9]

Elementary Schools

In the 2025 future without the Proposed Actions, CSD 28, Sub-District 2 elementary school enrollment is expected to increase to 13,129 students (from 10,930 students in the 2019-2020 academic year), with an increase in capacity of 2,874 seats. As shown in **Table L-5**, under No-Action conditions, the utilization rate of elementary schools in CSD 28, Sub-District 2 would continue to be overcapacity, with a utilization rate of 104.8 percent and a deficit of 598 elementary school seats.

Table L-5: Estimated 2025 No-Action Elementary & Middle School Enrollment, Capacity, & Utilization in CSD 28, Sub-District 2

Study Area	School Level	Enrollment[1]	Capacity[2]	Available Seats	Utilization
CSD 28, Sub-District 2	Elementary	13,129	12,531	-598	104.8%
	Middle	5,654	5,373	-281	105.2%

Notes: [1] Refer to **Table L-4**.
[2] Reflects anticipated capacity changes detailed above.

Middle Schools

In the 2025 future without the Proposed Actions, CSD 28, Sub-District 2 middle school enrollment is expected to decrease to 5,654 students (from 6,100 students in the 2019-2020 academic year), with no changes to capacity. As shown in **Table L-5**, under No-Action conditions, the utilization rate of middle schools in CSD 28, Sub-District 2 would continue to be overcapacity, with a utilization rate of 105.2 percent and a deficit of 281 middle school seats.

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

The Proposed Actions would introduce an incremental increase of 173 DUs to the Project Area as compared to No-Action conditions. Based on the 2019 Queens CSD 28 student generation rates, the Proposed Actions would introduce 38 elementary school students and 14 middle school students to the Project Area. No elementary or intermediate school capacity changes would occur as a result of the Proposed Actions.

[8] SCA's *Capacity Projects in Progress (as of February 2022)* funded by the FY 2020-24 Five-Year Capital Plan.
[9] SCA's *Capacity Projects in Progress (as of February 2022)* funded by the FY 2020-24 Five-Year Capital Plan.

Elementary Schools

In the future with the Proposed Actions, CSD 28, Sub-District 2 elementary schools would continue to operate overcapacity, as under No-Action conditions (refer to **Table L-6**). CSD 28, Sub-District 2 elementary schools would increase from a No-Action utilization rate of approximately 104.8 percent to approximately 105.1 percent in the With-Action condition, with a deficit of 636 elementary school seats in the future with the Proposed Actions.

Table L-6: Estimated 2025 With-Action Elementary & Middle School Enrollment, Capacity, & Utilization in CSD 28, Sub-District 2

Study Area	School Level	No-Action Enrollment[1]	Students Introduced by the Proposed Actions	With-Action Enrollment	Capacity[1]	Available Seats	Utilization
CSD 28, Sub-District 2	Elementary	13,129	38	13,167	12,531	-636	105.1%
	Middle	5,654	14	5,668	5,373	-295	105.5%

Note: [1] Refer to **Table L-5**.

As discussed above, a significant adverse impact may occur if a project would result in both of the following conditions: (1) a utilization rate of the elementary schools that is equal to or greater than 100 percent in the With-Action condition; and (2) 100 or more new students generated from the proposed development past the 100 percent utilization rate. As shown in **Table L-6**, the Proposed Actions would not generate 100 or more new students. Therefore, no significant adverse impacts to public elementary schools would occur as a result of the Proposed Actions.

Middle Schools

In the future with the Proposed Actions, CSD 28, Sub-District 2 middle schools would continue to operate overcapacity, as under No-Action conditions (refer to **Table L-6**). CSD 28, Sub-District 2 middle schools would increase from a No-Action utilization rate of approximately 105.2 percent to approximately 105.5 percent in the With-Action condition, with a deficit of 296 middle school seats in the future with the Proposed Actions.

As detailed above, a significant adverse impact may occur if a project would result in both of the following conditions: (1) a utilization rate of the middle schools that is equal to or greater than 100 percent in the With-Action condition; and (2) 100 or more new students generated from the proposed development past the 100 percent utilization rate. As shown in **Table L-6**, the Proposed Actions would not generate 100 or more new students. Therefore, no significant adverse impacts to public middle schools would occur as a result of the Proposed Actions.

APPENDIX I

AGENCY CORRESPONDENCES

Landmarks Preservation Commission

1 Centre Street
9th Floor North
New York, NY 10007

Voice (212)-669-7700
Fax (212)-669-7960
http://nyc.gov/landmarks

ENVIRONMENTAL REVIEW

Project number: DEPARTMENT OF CITY PLANNING / LA-CEQR-Q
Project: RTFH REZONING
Date Received: 7/27/2020

Properties with no Architectural or Archaeological significance:
1) 71-11 112 STREET, BBL: 4022460031
2) 71-02 113 STREET, BBL: 4022460041

Comments:

In the radius: P.S. 196-Q, 71-25 113 St., S/NR eligible.

Gina Santucci 7/30/2020

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 35077_FSO_DNP_07302020.docx

Landmarks Preservation Commission

1 Centre Street
9th Floor North
New York, NY 10007

Voice (212)-669-7700
Fax (212)-669-7960
http://nyc.gov/landmarks

ENVIRONMENTAL REVIEW

Project number: DEPARTMENT OF CITY PLANNING / 77DCP781Q/22DCP781Q
Project: RTFH REZONING
Date Received: 6/13/2022

Properties with no Architectural or Archaeological significance:
1) 71-11 112 STREET, BBL: 4022460031
2) 71-02 113 STREET, BBL: 4022460041

Comments:

The LPC is in receipt of the EAS dated 6/3/22. The document appears acceptable for historic and cultural resources.

Gina Santucci 6/17/2022

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 1_35077_FSO_GS_06172022.docx

Environmental Protection

Rohit T. Aggarwala
Commissioner

Angela Licata
Deputy Commissioner
Sustainability

59-17 Junction Blvd.
Flushing, NY 11373

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

March 10, 2022

Stacey Barron
Associate Project Manager
Environmental Assessment and Review Division
New York City Department of City Planning
120 Broadway, 31st Floor
New York, NY 10271

Re: Reform Temple of Forest Hills Rezoning
Block 2246, Lot 31 and p/o Lot 41
CEQR # 77DCP781Q

Dear Ms. Barron:

The New York City Department of Environmental Protection, Bureau of Sustainability (DEP) has reviewed the November 2021 Environmental Assessment Statement (EAS) prepared by Philip Habib & Associates and the August 2020 Phase I Environmental Site Assessment (Phase I) prepared by ALC Environmental on behalf of Weber Management, Inc and the Reform Temple of Forest Hills (applicant) for the above referenced project. It is our understanding that the applicant is requesting a zoning map amendment and zoning text amendment (Proposed Actions) from the New York City Department of City Planning (DCP) affecting the applicant-controlled property located at 71-11 112th Street (Block 2246, Lot 31) in the Forest Hills neighborhood of Queens Community District 6, as well as a portion of the adjacent property (Block 2246, Lot 41) which is not controlled by the applicant. Collectively, the entirety of the Lot 31 and the portion of Lot 41 (Projected Development Sites 1 and 2, respectively) comprise the Project Area. The Project Area is bounded by 112th Street to the west, 71st Road to the south, and 71st Avenue to the north and extends to a depth of approximately 175 feet east of 112th Street. This proposal seeks (i) a zoning map amendment to rezone the Project Area from the existing R1-2A district to an R7D zoning district, the boundary of which extends approximately 175 feet east from 112th Street; and (ii) a text amendment to Appendix F of the Zoning Resolution to add the Project Area as a Mandatory Inclusionary Housing (MIH) Area. The Proposed Actions would facilitate an approximately 140,835 gross square feet (gsf) mixed-use development (Proposed Project) containing 153 dwelling units (DUs) – of which 107 would be market rate and 46 would be affordable rental units, pursuant to MIH option 2 – as well as approximately 16,600 gsf of community facility uses and 66 accessory parking spaces on the approximately 22,500 square feet applicant-owned site. Lot 31 is the current site of the operable and in-use Reform Temple of Forest Hills, an approximately 24,000 gsf community facility, and the temple would reinhabit the proposed 16,600 gsf ground floor community facility space once construction is completed. The proposed rezoning area includes the approximately 12,500 sf northwest section of the

adjacent Lot 41 which is owned by Touro College and is currently developed with an approximately 11,700 gsf portion of a larger, educational building and a 20-space parking lot. It is assumed that in the future with the Proposed Actions this existing building would remain in its existing condition while the parking lot could be redeveloped with a nine-story, approximately 23,800 gsf, mixed-use building containing approximately 20 DUs, of which approximately 6 would be affordable, as well as 1,800 sf of community facility use.

Block 2246, Lot 31

The August 2020 Phase I report revealed that historical on-site and surrounding area land uses consisted of a variety of residential and commercial uses including a synagogue, residential homes, schools, apartment buildings, auto garages, a playground, a hospital, garages, etc. Regulatory databases identified 14 spills within 1/8 mile; 24 underground storage tank sites, 40 aboveground storage tank sites, and 3 dry cleaners within 1/4 mile; 35 leaking storage tank sites and 1 brownfield site within 1/2 mile of the subject property. The subject property was listed in the leaking tanks database regarding a tank test failure incident associated with a 10,000-gallon No. 4 fuel oil underground storage tank.

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

Projected Development Site 1: Block 2246, Lot 31 (Site under the control or ownership of the applicant)

- Based on prior on-site and/or surrounding area land uses which could result in environmental contamination and testing is not physically possible during the CEQR process, DEP concurs with the EAS recommendation that an (E) Designation for hazardous materials should be placed on the zoning map pursuant to Section 11-15 of the New York City Zoning Resolution for the subject property. The (E) Designation will ensure that testing and mitigation will be provided as necessary before any future development and/or soil disturbance. Further hazardous materials assessments should be coordinated through the Mayor's Office of Environmental Remediation.

Projected Development Site 2: Block 2246, Lot 41 (Site not under the control or ownership of the applicant)

- Based on prior on-site and/or surrounding area land uses which could result in environmental contamination, DEP concurs with the EAS recommendation that an (E) Designation for hazardous materials should be placed on the zoning map pursuant to Section 11-15 of the New York City Zoning Resolution for the subject property. The (E) Designation will ensure that testing and mitigation will be provided as necessary before any future development and/or soil disturbance. Further hazardous materials assessments should be coordinated through the Mayor's Office of Environmental Remediation.

Future correspondence and submittals related to this project should include the following CEQR # **77DCP781Q**. If you have any questions, you may contact Mohammad Khaja-Moinuddin at (718) 595-4445.

Sincerely,

Wei Yu

Wei Yu
Deputy Director, Hazardous Materials

c: R. Weissbard
M. Khaja-Moinuddin
T. Estesen
M. Wimbish
S. Shellooe - DCP
M. Bertini - OER

Environmental Protection

Rohit T. Aggarwala
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Deputy Commissioner of Sustainability

59-17 Junction Boulevard
Flushing, NY 11373

T: (718) 595-4398
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MEMORANDUM

To: Stacey Barron
DCP - EARD

From: Mitchell Wimbish
DEP - BEPA

Subject: Reform Temple of Forest Hills Rezoning
CEQR # 22DCP188Q

Date: July 22, 2022

The New York City Department of Environmental Protection (DEP) has reviewed the Environmental Assessment Statement for the above referenced project and has the following comments on the *Water and Sewer Infrastructure* section:

Sewer System

Sanitary Sewer

- The proposed actions would result in an increase of sanitary flow entering the sewer system. Existing infrastructure should be able to accommodate the increased flow, but there are concerns regarding the capability of the nearby existing pump station to accommodate the incremental increase in flow. Therefore, DEP advises that site connections for the proposed development be made into the existing 10" sanitary sewer within 112th Street and into the existing 8" sanitary sewer within 71st Road.
- A hydraulic analysis of the existing sewer system will likely be required prior to the submittal of the Site Connection Proposal Application (SCP) to determine whether the existing sewer system is capable of supporting higher density development and related increase in wastewater flow, or whether there will be a need to upgrade the existing sewer system.
- In addition, there might be a need to amend the existing drainage plan based on the hydraulic analysis calculations.

Storm Sewer

- As part of the DEP site connection approval process, the development must be in compliance with the required stormwater release rate.

Water System

The existing water mains surrounding the development site should be capable to handle the estimated increase in water demand.

cc: Steve Carrea, BWSO; Lillian Cheng, BWSO; John Bazik, BWSO; Philip Simmons, BWSO; Terrell Estesen, BEPA

APPENDIX II

PHASE I ENVIRONMENTAL SITE ASSESSMENT

1.0 EXECUTIVE SUMMARY

ALC Environmental (ALC) was contracted by Philip Habib & Associates, the Client, to conduct a Phase I Environmental Site Assessment (ESA) of the property located at 71-11 112th Street, Forest Hills, NY 11375 (the "**Subject Property"**). The Subject Property is improved with a two-story community building, occupied by a synagogue and school facility known as 'The Reform Temple of Forest Hills'. The subject building is located on an irregular-shaped parcel of land that is approximately 0.52-acres in size, and is identified by the New York City (NYC) Department of Finance as Block 2246 and Lot 31.

The Subject Property is located on the northeastern corner formed by the intersection of 112th Street and 71st Road.

The objective of this assessment was to evaluate past and current environmental conditions at the Subject Property and to identify any potential areas of environmental concern or recognized environmental conditions that could affect the property's environmental integrity. This Phase I ESA was performed in general conformance with the scope and limitations of the ASTM International Practice E1527-13.

On August 4, 2020, ALC's Project Manager Emily King Matson conducted a site reconnaissance at the Subject Property. The information included in this report was gathered from state and municipal offices and officials, the environmental database search, onsite interviews, and from the site inspection.

The Subject Property is located in the Forest Hills neighborhood of the NYC Borough of Queens. The general vicinity of the property consists mainly of multi-family residential buildings, residential homes, and community buildings. The current adjoining properties do not appear to pose an environmental risk to the Subject Property. Below is a summary of the Phase I ESA findings:

	Acceptable	Corrective Action	Further Investigation	Reference Section
USER PROVIDED INFORMATION				
Environmental Cleanup Liens	✓			**4.2**
Activity & Land Use Limitations (AULs)	✓			**4.3**
Specialized Knowledge or Experience	✓			**4.3**
Relationship of Purchase Price to Fair Market Value	✓			**4.0**
Commonly Known or Reasonable Ascertainable Information	✓			**4.0**
Degree of Obviousness	✓			**4.0**
RECORDS REVIEW				
Standard Environmental Record	✓			**7.0**

	Acceptable	Corrective Action	Further Investigation	Reference Section
Physical Setting Records	✓			5.3
HISTORICAL USE INFORMATION				
Subject Property	✓			5.4
Adjoining Properties	✓			5.3
Surrounding Areas	✓			5.3
GENERAL SITE SETTING				
Current Use(s) of the Subject Property	✓			3.3
Current Use(s) of Adjoining Properties	✓			3.6
Current or Past Use of the Surrounding Area	✓			5.3
Surficial & Subsurface Physical Conditions	✓			5.4
INTERIOR & EXTERIOR OBSERVATIONS				
Lead-Based Paint	✓			6.3.1
Asbestos Containing Materials	✓			6.3.2
Hazardous Substance & Petroleum Products	✓			6.3.3
Storage Tanks			✓	6.3.4
Solid Waste	✓			6.3.5
Odors	✓			6.3.6
Hazardous Waste	✓			6.3.6
Vapor Encroachment			✓	6.3.7
Polychlorinated Biphenyls (PCBs)	✓			6.3.8
Wastewater	✓			6.3.9
Wetlands	✓			6.3.10
Flood Maps	✓			6.3.11
Radon	✓			6.3.12
Air Emissions	✓			6.3.13
Stressed Vegetation	✓			6.3.14

	Acceptable	Corrective Action	Further Investigation	Reference Section
INTERIOR & EXTERIOR OBSERVATIONS				
Heating/Cooling	✓			**6.3.15**
Stains or Corrosion	✓			**6.3.16**
Drains & Sumps	✓			**6.3.17**
Mold	✓			**6.3.18**

1.1 FINDINGS

RECOGNIZED ENVIRONMENTAL CONDITIONS

A recognized environmental condition (REC) is defined as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property 1) due to a release of any hazardous substances or petroleum products; 2) under conditions indicative of a release to the environment; or 3) under conditions that pose a material threat of a future release to the environment.

- No underground or aboveground storage tanks, were observed at the Subject Property during the site visit. However, the Subject Property was listed in the Underground Storage Tanks (UST) database. As per the database report, one 10,000-gallon No. 2 heating oil underground storage tank was closed in-place on the Subject Property on June 1, 1999. This tank was permitted under the New York State Department of Environmental Conservation (NYSDEC) Petroleum Bulk Storage (PBS) No. 2-400262. The date of installation was not provided. The Fire Department of the City of New York (FDNY) records indicated that one 10,000-gallon No. 4 heating oil tank was associated with the Subject Property (Account No. 07018286). The FDNY permit associated with the tank expired in December of 1992 and the account was noted to have been closed on December 28, 1992 due to a natural gas conversion. The records indicate that the account was established in October of 1983 by Temple Sinai.

  ALC conducted a file review with the NYSDEC for the Subject Property. The available NYSDEC file review records included a 1992 PBS Renewal Application associated with the former 10,000-gallon fuel oil tank, which indicated that the tank was in-service with secondary containment in the form of an excavation liner. The 1992 PBS Certificate for the tank was also provided, which expired on October 15, 1997. Lastly, a 1999 PBS Substantial Tank Modification Application associated with the former tank was provided which indicated that the status of the 10,000-gallon fuel oil UST was changed to 'closed in-place' as of June 1999. No additional pertinent documentation or information regarding the proper closure of the former UST was available.

  Property management could not provide ALC with any information regarding the former UST and was unaware of the location of the former tank. No closure documentation regarding this former UST could be identified by property management. ALC observed a fill port in the sidewalk fronting the subject property building to the northwest, along 112th Street. Signs of the former UST and heating oil usage were also identified in the basement in the form of a petrometer mounted on the westernmost cellar wall, with the associated transmission

line also traced to the westernmost foundation wall. Based on the location of the observed fill port and petrometer transmission line, it is likely that the closed in-place UST is located to the northwest of the subject property building. Given that no closure documentation was provided or available for review, this former UST represents a REC.

HISTORICAL RECOGNIZED ENVIRONMENTAL CONDITION

An historical recognized environmental condition (HREC) is defined as an environmental condition which in the past would have been considered a *recognized environmental condition*, but which may or may not be considered a *recognized environmental condition* currently. The final decision rests with the environmental professional and will be influenced by the current impact of the historical recognized environmental condition on the property.

- The Subject Property was listed in the LTANKS (Leaking Tanks) database in regards to a tank test failure incident reported on January 24, 1990, associated with a 10,000-gallon No. 4 fuel UST (Spill No. 8910194). As per the database, the tank failed a Horner EZY Check test with a gross leak. The records indicate that the tank was planned to be isolated and retested. This case was closed by the NYSDEC on July 26, 1993. The regulatory agency awards a 'case closed' status only when contamination, if any, has been investigated and/or remediated in accordance with currently accepted regulatory standards. The available NYSDEC records included the NYSDEC Spill Report Form which confirmed that the case was closed by the NYSDEC. Further notes indicated that less than one gallon of No. 4 fuel oil was released and groundwater was listed as being the resource affected. No other pertinent documentation was available for review. However, based on the case closed status issued by the regulatory agencies, this listing in of itself is considered to be a HREC.

CONTROLLED RECOGNIZED ENVIRONMENTAL CONDITION

Controlled recognized environmental conditions (CRECs) refer to sites that have achieved regulatory closure, where no further remediation is required but residual contamination still exists and the site is subject to some sort of control or use restrictions.

- No CRECs associated with the Subject Property were identified during the course of this assessment.

ASBESTOS CONTAINING MATERIALS

- Suspect asbestos containing materials in the form of roofing materials (roof membrane and flashing), sheetrock and joint compound, pipe elbow insulation, ceiling tiles, and 9"x9" vinyl floor tiles were observed at the Subject Property. The referenced materials appeared in overall good condition.

LEAD-BASED PAINT

- Commercial buildings are not targeted for the identification of lead-based paint (LBP) and therefore LBP was not addressed. Based on available information on the Department of Education website, the Winter 2019 LBP inspections for all NYC classrooms, serving students in first grade and under, indicated that no deteriorated paint was identified in 'P.S. 196 Annex–Queens' located at 112-15 71st Road in Rooms 1A, 2A, 3A, 4A, 5A, 6A, and Cafeteria. Therefore, no sampling was conducted as part of this evaluation.

VAPOR ENCROACHMENT

- Based on the lack of tank closure documentation pertaining to the closed-in-place 10,000-gallon UST associated with the Subject Property, a vapor encroachment condition at the Subject Property cannot be ruled out. A Vapor Encroachment Screen report is included in Appendix 14.5.

2.0 INTRODUCTION

The following sections discuss the purpose, scope of services, limitations, and exceptions of assessment, and the information sources and methodology used in the preparation of this report.

2.1 PURPOSE

The purpose of a Phase I ESA is to evaluate a particular property for contamination that might have arisen from past property uses and assess whether any of these uses might have resulted in property contamination.

2.2 DETAILED SCOPE-OF-SERVICES

The purpose of this study was to evaluate past and existing environmental conditions at the Subject Property, including the storage, release, or disposal of hazardous substances on the property. In accordance with the ASTM Standard E1527-13, ALC has conducted the following scope of services:

- Interviews with ownership, operators and occupants;
- Reviews of historical sources of information;
- Reviews of federal, state, and local government records;
- Visual inspections of the facility and adjoining properties;
- Commonly known or reasonably ascertainable information;
- Degree of obviousness of the presence or likely presence of contamination at the property and the ability to detect the contamination;
- Assessments of any specialized knowledge related to environmental concerns at the Subject Property;
- Review of geologic and hydrogeologic literature pertaining to the site vicinity. The purpose of this review was to gain a basic understanding of subsurface conditions at the site;
- Evaluation of any potential sources of off-site contamination within a reasonable distance which may have impacted the site;
- Evaluation of past treatment, recycling, or disposal of hazardous materials on the site. An environmental records search of local, state, and federal environmental files was conducted. A copy of the records search conducted by Environmental Data Resources, Inc. (EDR) is included as Appendix 14.4 of this report;
- An assessment of the relationship of the purchase price to the fair market value of the property, if the property was not contaminated; and
- Recommendations for further study or work at the subject site will be made should potential problem areas be uncovered that could negatively impact property value. The client will be made aware of these conditions as soon as possible if they should arise.

2.3 *SIGNIFICANT ASSUMPTIONS*

This study is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with the Subject Property, within reasonable limits of time and cost. It is assumed that the user has provided ALC with any specialized knowledge or experience that is material to recognized environmental conditions in connection with the property, including the reason why the property may have a significantly lower purchase price than comparable properties, if applicable. In general, groundwater flow direction has been determined based on topography in the vicinity of the Subject Property, i.e. the assumption that shallow groundwater flow will follow topography, or on other available resources. No site-specific field measurements of groundwater flow direction (e.g. installation of groundwater monitoring wells) have been performed.

Based on this interpretation, ALC has reviewed regulatory agency information for sites that are located in a presumed up-gradient direction, which based on proximity and knowledge of potential contaminant fate and transport, may present a potential to impact the Subject Property.

2.4 *LIMITATIONS AND EXCEPTIONS*

This assessment meets the requirements of the ASTM Standard E1527-13. The following limitations should be noted:

- Results of this investigation are valid as of the dates on which the investigation was performed;
- A visual inspection for the identification of suspect asbestos containing materials and mold growth was performed only in readily accessible areas of the subject building. No samples were collected as part of this assessment; and
- The report has been prepared in accordance with generally accepted environmental methodologies referred to in ASTM E1527-13, and contains all of the limitations inherent in these methodologies. No other warranties, expressed or implied, are made as to the professional services provided under the terms of our contract and included in this report.

2.5 *SPECIAL TERMS AND CONDITIONS*

There are no special terms and conditions for this assessment. ALC's standard terms and conditions are described in Appendix 14.6.

2.6 *USER RELIANCE*

This Phase I ESA report ("the Report") has been prepared for the benefit of and addressed to Philip Habib & Associates and such other persons as may be designated by Philip Habib & Associates, and their respective successors and assigns, employees and affiliates, and counsel and consultants. The report speaks only as of its date in the absence of a specific written update of the Report.

3.0 SITE DESCRIPTION

This section discusses the site location and description, site vicinity characteristics, description of structures, roads, and other improvements, physical setting, and current uses of the site and adjacent sites.

3.1 LOCATION AND LEGAL DESCRIPTION

Legal Description: A unit of land located in the State of New York, within Queens County, with a legal description of 71-11 112th Street, Forest Hills, NY 11375. As per the NYC Department of Buildings, the Subject Property is alternatively addressed 112-15 71ts Road, Forest Hills, NY 11375. The Subject Property is identified by the NYC Department of Finance as Block 2246 and Lot 31. A site map is included in Appendix 14.1.

3.2 SITE AND VICINITY GENERAL CHARACTERISTICS

As per the NYC Department of City Planning, the Subject Property is zoned R1-2A: Residential. The general vicinity of the Subject Property consists mainly of multi-family residential buildings, residential homes, and community buildings. No heavy manufacturing was observed in immediate proximity to the Subject Property.

3.3 FORMER USE OF THE PROPERTY

As per the historical sources reviewed, the existing two-story building was constructed in 1963 and has always been used as a synagogue with classrooms and offices. The western portion of the Subject Property was previously developed with two residential homes sometime between 1902 and 1914, and a third residential home was built on the southeastern portion of the site between 1914 and 1924. These three former residential homes were demolished circa 1962. It should be noted that of historical significance, from 1917 through 1938, Hellen Keller lived at the residential home formerly located on the southwestern portion of the Subject Property, addressed as 93 Seminole Avenue a.k.a. 71-11 112th Street.

3.4 CURRENT USE OF THE PROPERTY

The Subject Property is occupied by a synagogue and school facility known as The Reform Temple of Forest Hills. The ground level of the southern portion of the subject building is leased to the New York City Department of Education (DOE) and is comprised of seven classrooms. The classrooms are used during normal school hours for kindergarten classes by Public School 196 (Grand Central Parkway School), and during summers and off-hours by the religious school associated with the temple for religious classes and summer camp.

3.5 DESCRIPTIONS OF STRUCTURES, ROADS, OTHER IMPROVEMENTS ON THE SITE

The Subject Property is improved with a two-story community building, occupied by a synagogue and school facility, with a partial northwestern cellar. The building is located on an irregular-shaped parcel of land that is approximately 0.52-acres in size. The property features side (northern and southeastern) concrete-paved driveway areas, a rear (northeastern) asphalt-paved courtyard area, a side (eastern) concrete-paved walkway, and front (southern and western) landscaped areas.

The subject building consists of approximately 26,300 square feet of floor area. The northern portion of the subject property building is comprised of the temple's lobby areas office areas on the ground level, and a kitchen, library and computer room on the upper level. The northwestern partial cellar level contains the boiler room, maintenance office and workshop. The southern portion of the subject building is comprised of the lower level school areas, referred to as the school annex, and upper level sanctuary and ballroom.

As per the historical Fire Insurance (Sanborn) maps reviewed, the subject building was constructed in 1963. The structural improvements consist of a concrete foundation with brick and decorative concrete panel façades, and flat roofs (lower level northern roof and upper level southern roof due to lofted ceilings in southern upper level sanctuary and ballroom areas). The interior finishes of the common areas consist of painted concrete block walls, painted concrete and sheetrock walls and ceilings, ceiling tiles, ceramic floor tiles, hardwood flooring, carpeting, and 9"x9" vinyl floor tiles. The cellar level consists of concrete block walls and concrete flooring.

Cooling and heating is provided to the lobby area, offices, sanctuary, and ballroom areas via a central heating and ventilation air conditioning (HVAC) system consisting of three packaged rooftop mounted HVAC units. Air conditioning is provided to the school areas, library, and kitchen via individual through-window air conditioning units that plug into electrical outlets. Heating is provided by a natural gas-fired boiler observed in the cellar and distributed to the via hot water baseboard radiators. Hot water is generated by a natural gas-fired water heater also located in the cellar. Domestic water is supplied by the municipal authority and overseen by the Department of Environmental Protection (DEP). Sanitary sewer services are tied into the municipal sewer system. No water wells were observed on or in the immediate vicinity of the Subject Property.

3.6 CURRENT USES OF THE ADJOINING PROPERTIES

During the onsite reconnaissance, observations were made of the adjoining properties from the Subject Property. These observations were made to identify recognized environmental conditions that have the potential for impacting the Subject Property. The following is a list of adjoining properties and a summary of the observations made:

Direction	Name/Descriptions	Address	Topography
Northeast	One 3-story institutional building and associated parking lot occupied by Touro College/Bnos Malka Academy	71-02 113th Street a.k.a. 112-20 71st Avenue	The topography of the parcels to the northeast is down-gradient, and at a slightly lower elevation than the Subject Property.
South	71st Road	-	The topography of the parcels to the south is cross-gradient, and appear to be at approximately the same elevation as the Subject Property.
	One 2-story mixed-use building comprised of one residential unit and a professional office occupied by Dr. T's Pediatrics.	112-02 - 112-06 71st Road a.k.a. 71-27 112th Street	

Direction	Name/Descriptions	Address	Topography
South	One 2-story single-family residential home	112-16 71st Road	The topography of the parcels to the south is cross-gradient, and appear to be at approximately the same elevation as the Subject Property.
	One 2.5-story single-family residential home	112-20 71st Road	
Southwest	The intersection of112th Street and 71st Road	-	The topography of the parcels to the southwest is up-gradient, and at a slightly higher elevation than the Subject Property.
	One 10-story apartment building	110-50 71st Road	
West	112th Street	-	The topography of the parcels to the west is up-gradient, and at a slightly higher elevation than the Subject Property.
	One 6-story apartment building	110-45 71st Road a.k.a. 71-12 through 71-18 112th Street	
	One 6-story apartment building	110-56 71st Avenue a.k.a. 71-02 through 71-10 112th Street	

The current adjoining property uses do not appear to pose an environmental risk to the Subject Property.

4.0 USER PROVIDED INFORMATION

The following information is based upon information provided by the client. The type of information provided can include title records, environmental liens, specialized knowledge, reasons for performing the Phase I ESA, and prior environmental reports.

4.1 TITLE RECORDS

Below is a summary of the records obtained from the NYC Department of Finance. No deeds were on-file for the Subject Property.

Name of Property Owner	Year Purchased
Temple Sinai	Not listed

4.2 ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS

The Client did not report the existence of any environmental liens or use limitations for the Subject Property.

4.3 SPECIALIZED KNOWLEDGE

The user of this ESA report is not aware of any activity and use limitations (AULs), such as engineering controls, land use restrictions or institutional controls that are in place at the Subject Property and/or have been filed or recorded in a registry under local, tribal, state, or federal law.

4.4 COMMONLY KNOWN OR REASONABLY ASCERTAINABLE INFORMATION (40 CFR 312.30)

The Client did not report any particular concerns related to environmental issues at the Subject Property.

4.5 VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES

No property valuation reduction relating to environmental concerns was reported by the Client.

4.6 OWNER, PROPERTY MANAGER, AND OCCUPANT INFORMATION

During the site reconnaissance, ALC was accompanied by Mr. Alan Hoberman, Director of Operations & Finance with The Reform Temple of Forest Hills, who has been familiar with the site for approximately two years. Mr. Hoberman stated that the subject building was constructed circa 1965 and has always been used as a synagogue and school. Mr. Hoberman provided ALC with floor plans of the subject building dating 2011. He indicated that residential homes were previously located onsite in the early to mid-1900s, one of which was formerly occupied by Hellen Keller. Mr. Hoberman stated that one natural gas-fired boiler is utilized on-site. He could not provide any information regarding the former 10,000-gallon fuel oil UST associated with the Subject Property, listed in the Underground Storage Tank database. He further noted that lead-based paint (LBP), asbestos, and drinking water sampling for the on-site school areas are handled by the NYC Department of Education. He indicated that LBP testing conducted in February 2020 did not identify any lead in paint above regulatory standards; however, he did not have copies of any sampling documentation in his files. Mr. Hoberman was unaware of any area of

environmental concern, environmental liens, or violations in association with the Subject Property.

4.7 REASON FOR PERFORMING THE PHASE I

This Phase I ESA is being performed as a part of the due diligence process for the Subject Property. The preparation of the report was requested by the Client.

4.8 DEGREE OF OBVIOUSNESS (40 CFR 312.31)

The user of this Phase I ESA did not report any obvious indicators that point to the presence or likely presence of contamination at the Subject Property.

4.9 PREVIOUS REPORTS

No prior Phase I ESAs were provided to ALC during the preparation of this report.

5.0 RECORDS REVIEW

5.1 STANDARD ENVIRONMENTAL RECORD SOURCES

ALC conducted a review of the regulatory status of the Subject Property and surrounding properties within a 1 mile radius as it pertains to regulated activities involving the use of hazardous chemicals; the generation of hazardous waste; the treatment, storage, or disposal of hazardous waste; or the release of regulated substances. ALC utilized EDR to conduct the appropriate searches of federal and state sites identified within the radii specified by ASTM 1527-13.

The following is a summary of the databases reviewed for this assessment. The regulatory database report is provided in Appendix 14.4:

Database	Search Radius	Site Listed	Adjacent	0-1/8 miles	1/8-¼ miles	¼-½ miles	½-1 miles
Federal Databases							
NPL	1 mile	No	0	0	0	0	0
SEMS	½ mile	No	0	0	0	0	
SEMS-ARCHIVE	½ mile	No	0	0	0	0	
CORRACTS	1 mile	No	0	0	0	0	0
RCRA LQG	¼ mile	No	0	0	2		
RCRA SQG	¼ mile	No	0	1	0		
RCRA VSQG	¼ mile	No	0	1	0		
RCRA NonGen/NLR	¼ mile	No	1	4	28		
ERNS	Site	No					
FINDS	Site	No					
State Databases							
NY UST	¼ mile	**Yes**	1	6	16		
NY AST	¼ mile	No	3	13	24		
LTANKS	½ mile	**Yes**	0	2	6	26	
NY Spills	⅛ mile	No	2	12			
NY E Designation	⅛ mile	No	0	1			
SHWS	1 mile	No	0	0	0	0	0
NY VCP	½ mile	No	0	0	0	0	
BROWNFIELDS	½ mile	No	0	1	0	0	
SWF/LF	½ mile	No	0	0	0	0	
DRYCLEANERS	¼ mile	No	0	0	3		
NY MANIFEST	¼ mile	No	1	6	41		
NJ MANIFEST	¼ mile	No	0	1	2		
EDR Property Records							
MGP	1 mile	No	0	0	0	0	0
Hist Cleaners	⅛ mile	No	0	0			
Hist Auto Stations	⅛ mile	No	0	0			

- **The Subject Property was listed in the following databases searched by EDR:**

THE REFORM TEMPLE O FOREST HILLS
Address: 71-11 112th Street
Databases: UST
The Subject Property was listed on the UST (Underground Storage Tanks) database in regards one 10,000-gallon No. 2 heating oil UST noted to have been closed in-place on June 1, 1999. The referenced tank was permitted under the New York State Department of Environmental Conservation (NYSDEC) Petroleum Bulk Storage (PBS) No. 2-400262. The date of installation was not provided. The UST was noted to be of steel construction with overfill protection in the form of a product level gauge. The available NYSDEC file review records for the Subject Property included a 1992 PBS Renewal Application associated with the former 10,000-gallon fuel oil tank, which indicated that the tank was in-service with secondary containment in the form of an excavation liner. The 1992 PBS Certificate for the tank was also provided, which expired on October 15, 1997. Lastly, a 1999 PBS Substantial Tank Modification Application associated with the former tank was provided, which indicated that the status of the 10,000-gallon fuel oil UST was changed to 'closed in-place' as of June 1999. No additional pertinent documentation or information regarding the proper closure of the former UST was available. Please see Section 6.3.4 for a further discussion regarding this former tank.

71-11 112th STREET/QUEENS
Address: 71-11 112th Street
Databases: LTANKS
The Subject Property was listed in the LTANKS (Leaking Storage Tanks) database in regards to a tank test failure incident associated with a 10,000-gallon No. 4 fuel UST, which was reported on January 24, 1990 (Spill No. 8910194). As per the database, the tank failed a Horner EZY Check test with a gross leak. The records indicate that the tank was planned to be isolated and retested. This case was closed by the NYSDEC on July 26, 1993. The regulatory agency awards a 'case closed' status only when contamination, if any, has been investigated and/or remediated in accordance with currently accepted regulatory standards. The available NYSDEC records included the NYSDEC Spill Report Form which confirmed that the case was closed by the NYSDEC. Further notes indicated that less than one gallon of No. 4 fuel oil was released and groundwater was listed as being the resource affected. No other pertinent documentation was available for review. However, based on the case closed status issued by the regulatory agency, this listing in of itself is considered to be a historical recognized environmental condition (HREC).

5.1.1 FEDERAL RECORDS

National Priority List (NPL)
The NPL is the Environmental Protection Agency's (EPA) database of some of the most serious uncontrolled or abandoned hazardous waste sites identified for probable remedial action under the Superfund Program. These sites may constitute an immediate threat to human health and the environment. Due to the amount of public attention focused on NPL sites, they pose a significant risk of stigmatizing surrounding properties and potentially impacting property values.

- No NPL sites were identified within a 1 mile radius of the Subject Property.

Superfund Enterprise Management System (SEMS)
SEMS is a compilation of hazardous wastes sites, potentially hazardous wastes sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list

was formerly known as the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), renamed to SEMS by the EPA in 2015. In addition, SEMS lists sites which are either proposed to or on the NPL and sites which are in the screening and assessment phase for the possible inclusion on the NPL.

- No SEMS sites were identified within a 0.5 mile radius of the Subject Property.

Resource Conservation and Recovery Act (RCRA)
The RCRA database is compiled by the EPA and contains notification, permitting, compliance, and corrective action data on facilities that generate, transport, store, treat, and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Facilities that receive hazardous waste from generators and other facilities for treatment, storage, or disposal of waste are known as TSDF's.

- The adjacent property to the west (across 112th Street), known as 110-45 71st Road, was listed in the RCRA-NonGen/NLR (Non Generators/No Longer Regulated) database. This listing is associated with Consolidated Edison Service Box 57320 (the utility company). The database report indicates that this facility was a former conditionally exempt small quantity generator, however, no RCRA violations were identified. Additionally, at the present time RCRA-NonGen/NLR facilities do not generated hazardous waste. This site was cross listed in the NY Manifest database, as detailed below, however, given that no RCRA violations were identified and that this site is not cross listed on any databases indicative of a spill or release, no impacts to the Subject Property are anticipated from this site.
- The search also identified two (2) RCRA-LQG (Large Quantity Generators), one (1) RCRA-SQG (Small Quantity Generators), one (1) RCRA-VSQG (Very Small Quantity Generators), and 32 additional RCRA-NonGen/NLR facilities within a 0.25-mile radius of the Subject Property. There are no reported violations associated with any of the listed sites located within a 0.125 mile radius of the Subject Property. No further action or investigation is recommended.

CORRACTS
CORRACTS is a list of handlers with RCRA Corrective Action Activity.

- No CORRACTS sites were identified within a 1 mile radius of the Subject Property.

5.1.2 STATE RECORDS

Underground Storage Tanks (UST)
The UST database is compiled by the NYSDEC, and contains an inventory of facilities that have petroleum storage capacities in excess of 1,100 gallons and less than 400,000 gallons.

- The adjacent property to the west (across 112th Street), known as 110-45 71st Road, was listed in regards to a 7,500-gallon No. 6 fuel oil UST noted to have been closed in-place in July of 2008. This site is cross listed in the NY Spills database, however based on the information reviewed and regulatory closure issued, as further detailed below, no significant impacts to the Subject Property are anticipated from this site.
- The search did not identify any additional registered USTs associated with the adjacent properties. No further action or investigation is recommended.

Aboveground Storage Tanks (AST)
The AST database is compiled by the NYSDEC and contains an inventory of registered aboveground storage tanks. The AST database lists facilities that have aboveground petroleum storage capacities in excess of 1,100-gallons and less than 400,000 gallons.

- One of the adjacent properties to the west (across 112th Street), known as 110-56 71st Avenue, was listed in regards to an active 3,000-gallon No. 4 fuel oil AST. As per the database, the NYSDEC PBS Certificate for this tank expires in January of 2021. This site is cross listed on the NY Spills database, however based on the regulatory closures issued to the two associated NY Spills cases as further detailed below, the cross-gradient location in relation to the Subject Property, and the fact that the tank is located aboveground and visually accessible, no significant impacts to the Subject Property are anticipated from this site.
- The remaining adjacent property to the west (across 112th Street), known as 110-45 71st Road, was listed in regards to an active 5,000-gallon No. 6 fuel oil AST, noted to have been installed in May 2009. The tank is properly registered with the NYSDEC and the records indicate that the tank registration certificate expires in January of 2022. This site is cross listed on the NY Spills database, however based on the regulatory closure, as further detailed below, and the fact that the tank is located aboveground and visually accessible, no significant impacts to the Subject Property are anticipated from this site.
- The adjacent property to the southwest across the intersection of 112th Street and 71st Road, known as 110-50 71st Road Avenue, was listed in regards to an active 10,000-gallon No. 2 fuel oil AST. The tank is properly registered with the NYSDEC and the records indicate that the tank registration certificate expires in July of 2022. There are no reported releases associated with this site. Based on the lack of reported releases and the fact that the tank is located aboveground and visually accessible, no significant impacts to the Subject Property are anticipated from this site.
- The search did not identify any additional registered AST sites associated with the adjacent properties. No further action or investigation is required.

Leaking Storage Tanks (LTANKS)
The LTANKS database is compiled by the NYSDEC and contains an inventory of leaking aboveground or underground tanks reported since April 1, 1986. The causes of the incidents are tank test failures, tank failure or overfill.

- None of the adjacent properties were listed on the NY LTANKS database, however the search identified 34 NY LTANKS sites within a 0.5 mile radius of the Subject Property. Further review indicates that all 34 listed sites have been granted a 'case closed' status. The regulatory agency awards a 'case closed' status only when contamination, if any, has been investigated and/or remediated in accordance with currently accepted regulatory standards.
- The nearest listed closed site, known as P.S. 196 School and located at 71-25 113th Street, is approximately 204 feet to the east/northeast of the Subject Property and down-gradient. This site is listed in regards to the following six incidents:
    - The first incident was reported on March 18, 1993 due to a tank test failure (Spill No. 9213887). As per the database, a No. 4 fuel oil tank (capacity not specified) failed a tightness test. The tank was planned to be repaired and retested. The case was

administratively closed by the NYSDEC on March 10, 2003 due to the lack of any recent information, and based on the nature and extent of the spill report.

- The next incident was reported on April 3, 1993 due to a tank test failure (Spill No. 9300223). As per the database, a No. 4 fuel oil tank (capacity not specified) failed a tightness test. The tank was planned to be excavated, isolated, and retested. Further notes indicated that this case was closed by the NYSDEC on March 14, 2005 and consolidated with Spill No. 9912950, as detailed below.
- The next incident was reported on August 25, 1993 due to a tank test failure (Spill No. 9306484). As per the database, a tightness test failure occurred. The records indicate that the tank would likely be excavated. Further notes indicated that this case was closed by the NYSDEC on March 14, 2005 and consolidated with Spill No. 9912950, as detailed below.
- The next incident was reported on April 14, 1994 due to a tank test failure (Spill No. 9400747). As per the database, a tightness test failure occurred. The case was administratively closed by the NYSDEC on March 14, 2003 due to the lack of any recent information.
- The next incident was reported on February 8, 1995 due to a tank overfill (Spill No. 9414723). As per the database, 10-gallons of No. 6 fuel oil was spilled. Further notes indicates that two tanks were present at the facility and the fuel oil delivery truck driver was advised to fill the wrong tank. The case was closed on the same day it was reported by the NYSDEC.
- The remaining incident was reported on February 14, 2000 due to a tank test failure (Spill No. 9912950). As per the database, a 10,000-gallon No. 4 fuel oil tank (Tank No. 1) failed a tightness test. The tank was planned to be pumped out and investigated. The facility was noted to have a two tank system. Further notes indicated that both tanks (Tanks No. 1 and 2) at this facility passed tightness tests in 2005. The case was closed by the NYSDEC on January 5, 2006.

Based on the regulatory closures, gradient location, the urban character of the surrounding area, and the presence of intervening subsurface anomalies (i.e., basements), no impacts to the Subject Property are anticipated from this site.

- The remaining closed listed sites are located over 400 feet away. Based on a combination of factors such as information reviewed, topographic relations and distances, no impacts to the Subject Property are anticipated from the listed LTANKS sites**.**

Spills Information Database (NY Spills)

The NY Spills database contains data regarding chemical and petroleum spill incidents reported to the NYSDEC. It includes spills that took place from April 1, 1986 to present.

- The adjacent property to the west, located across 112th Street and known as 110-56 71st Avenue, was listed in regards to two incidents:
  - The first incident was reported on December 31, 2009 and involved a release of No. 6 fuel oil (Spill No. 0910697). As per the database, approximately 5-gallons of No. 6 fuel oil were spilled onto the grass area in front of the building, in vicinity of the vent pipe, due to a faulty gauge associated with the onsite 3,000-gallon fuel oil AST. The spill was noted to have been cleaned up, and impacted soil was removed. This spill case was subsequently

closed on January 6, 2010. The available NYSDEC records included the NYSDEC Spill Report Form which confirmed that the case was closed by the NYSDEC.

  - The remaining listing involved a release of No. 6 fuel oil on March 9, 2012 (Spill No. 1113742). As per the database, approximately 10-gallons of No. 6 fuel oil were spilled onto the grass area on the side of the building due to a tank overfill. A cleanup crew was noted to be enroute and this spill case was subsequently closed on the same day it was reported. The available NYSDEC records included the NYSDEC Spill Report Form which confirmed that the case was closed by the NYSDEC. Based on the information reviewed and regulatory closures, no impacts to the Subject Property are anticipated from this site.

- The adjacent property to the west, located across 112th Street and known as 110-45 71st Road, was listed in regards to an incident reported on April 11, 2008 (Spill No. 0800584). As per the database, a 7,500-gallon No. 6 fuel oil UST failed a tightness test. The tank was noted to have been emptied on March 29, 2008 and the lines passed a tightness test, however, the tank failed. Four soil samples were collected through the bottom of the tank and the lines were exposed with no contamination identified in those areas. Soil sampling analysis indicated that all results were below applicable NYSDEC criteria. It was further noted that the UST was to be filled with foam. This spill case was subsequently closed on June 25, 2008. The available NYSDEC records included the NYSDEC Spill Report Form which confirmed that the case was closed by the NYSDEC, as well as a June 2008 UST Tank Closure Letter issued by Petroleum Tank Cleaners, Ltd. in association with the former 7,500-gallon No. 6 fuel oil UST. The letter indicated that the interior of the tank was free of any rust and no holes were identified. No penetration of oil or water was found in the tank in the one month period between the time it was emptied and the time that the samples were collected. Soil samples were noted to have been analyzed for EPA STARS 8260 and 8270 with all analytes found to be below detectable levels. Due to the proximity of the tank to the building, abandoning the tank in-place (filling with foam) was considered to be prudent. Petroleum Tank Cleaners requested that the spill number be closed out. Based on the information reviewed and regulatory closure, no impacts to the Subject Property are anticipated from this site.
- The search identified 12 additional NY Spills sites within a 0.125 mile radius of the Subject Property. Further review indicates that 11 of the 12 sites have been granted a 'case closed' status.
- The open listed site, identified as 70-35 113th Street, is located approximately 290 feet to the north-northeast and down-gradient in relation to the Subject Property. The site is listed in regards to an incident on June 4, 2015 (Spill No. 1502996). As per the database, during the removal of one 20,000-gallon No. 2 fuel oil UST, discolored soil and staining was identified and the tank was found to be full of an oil and water mixture. Approximately 20 yards of contaminated soil was removed and endpoint samples were to be collected. A groundwater investigation was subsequently required by the NYSDEC in 2017 and laboratory results showed elevated levels of POCs (pollutants of concern) and PHs in the groundwater. Cleanup activities were noted to be pending contractor quotes. This site was cross listed in the NY Brownfields database, as further detailed below. No additional information was listed, however, based on the distance and down-gradient location, no impacts to the Subject Property are anticipated from this site.
- The nearest closed site is associated with Manhole 610, located at 112th Street and 71st Road, located approximately 85 feet to the northwest and cross-gradient of the Subject Property.

This site was listed in regards to an incident reported on July 13, 2000 due to release of an unknown petroleum (Spill No. 0004471). As per the database, approximately 1-gallon of an unknown petroleum was found on 80-gallons of water in the manhole. A sample collected and analyzed indicated that the product spilled contained less than 1ppm (parts per million) of PCB. Cleanup was completed by double washing the structure and the liquids and solids were properly removed. This spill case was closed by the NYSDEC on October 18, 2001. Based on the remedial actions conducted, no further action or investigation is warranted regarding this spill case.

- The next listed closed site, known as P.S. 196 School and located at 71-25 113th Street, is approximately 195 feet to the east-northeast of the Subject Property and down-gradient. This site was listed in regards to an incident reported on March 9, 2008 (Spill No. 0713033). As per the database, stained soil was identified during soil boring activities conducted at this site in association with a possible school extension. Two active 10,000-gallon fuel oil USTs were noted to be located beneath the sidewalk along 113th Street. Five soil borings were installed to a depth of 20 feet as part of a subsurface investigation conducted by TRC and petroleum contamination was encountered in one of the soil borings (SB-1). Some elevated photoionization detector (PID) readings were identified in SB-1 at a depth of 10 to 13 feet and observable black staining was noted. There were no elevated PID readings or odors or staining in the other soil borings collected. No volatile organic compounds (VOCs) were detected above TAGM 4046 and semi-volatile organic compounds (SVOCs) were detected in three of the soil samples. However, it was noted that SVOCs were not detected in deeper soils. TRC concluded that the petroleum impacts observed in SB-1 were likely a result of a limited area of petroleum impacted fill and not related to a discharge from the USTs. Based on the very low levels of contamination present, which were likely due to fill material, the spill case was closed by the NYSDEC on September 3, 2008. Based on the information reviewed and regulatory closure, no impacts to the Subject Property are anticipated from this site.
- The remaining listed closed NY Spills sites are located over 200 feet away. Based on a combination of factors such as information reviewed, topographic relations, distances, and regulatory closure, no impacts to the Subject Property are anticipated from the listed NY Spills sites.

Inactive Hazardous Waste Disposal Sites (SHWS)

The SHWS program, also referred to as the State Superfund Program, is the cleanup program for inactive hazardous waste and now includes hazardous substances sites. These sites may or may not already be listed on the federal CERCLIS list.

- The search did not identify any SHWS sites within a 1 mile radius of the Subject Property.

NY BROWNFIELDS

A Brownfields site is any real property where redevelopment or re-use may be complicated by the presence or potential presence of a hazardous waste, petroleum, pollutant, or contaminant.

- The search identified one NY Brownfield site within a 0.5 mile radius of the Subject Property. The listed site, identified as the former Parkway Hospital Site at 70-35 113th Street, is located approximately 290 feet to the north-northeast and down-gradient of the Subject Property. This site was noted to have been developed circa 1962 as a hospital until the facility was closed

in 2009. Groundwater at the site is noted to flow towards the east (away from the Subject Property). Information submitted with the BCP application regarding the environmental conditions at the site are currently under review. However, impacts associated with potential soil vapor migration are not anticipated since this site is located beyond the critical distance of 100 feet for down-gradient sites, as specified by ASTM International Practice 2600-10.

Voluntary Cleanup Program (VCP)
New York established its VCP to address the environmental, legal and financial barriers that often hinder the redevelopment and reuse of contaminated properties. The Voluntary Cleanup Program was developed to enhance private sector cleanup of brownfields by enabling parties to remediate sites using private rather than public funds and to reduce the development pressures on "greenfield" sites. The search did not identify any dry cleaning facilities within the study radius.

- The search did not identify any VCP sites within a 0.5 mile radius of the Subject Property.

Solid Waste Facilities/ Landfill Sites in New York State (SWF/LF)
SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

- The search did not identify any SWF/LF sites within a 0.5 mile radius of the Subject Property.

DRYCLEANERS
A listing of registered dry cleaning facilities.

- None of the adjacent properties were identified, however the search identified three NY DRYCLEANERS sites within a 0.25 mile radius of the Subject Property. The nearest listed site, identified as 'Smart Dartmouth Cleaners' at 111-11 Queens Boulevard, is located approximately 0.23-mile to the south and cross-gradient of the Subject Property. As per the database, this facility began operating in 1993 and was last inspected in November 2003. There are no reported releases or violations. Given that this site was not cross listed on any databases indicative of an open spill or release, in conjunction with the distance, gradient location, and urban setting, no impacts to the Subject Property are anticipated from this site.
- The next listed site, identified as 'Marvel's/Hana Rockdale Cleaners' at 108-19 Queens Boulevard, is located approximately 0.23-mile to the west-southwest and cross-gradient of the Subject Property. As per the database, this facility began operating in 1992 and was last inspected in September 2011. There are no reported releases or violations, and the records indicate that this facility has been closed. Given that this site was not cross listed on any databases indicative of an open spill or release, in conjunction with the distance, gradient location, and urban setting, no impacts to the Subject Property are anticipated from this site.
- The remaining listed site, identified as 'Jacques French Cleaners' at 110-70 Queens Boulevard, is located approximately 0.24-mile to the south and cross-gradient of the Subject Property. As per the database, this facility began operating in 1994 and was last inspected in November 2003. There are no reported releases or violations, and the records indicate that this facility has been closed. Given that this site was not cross listed on any databases indicative of an

open spill or release, in conjunction with the distance, gradient location, and urban setting, no impacts to the Subject Property are anticipated from this site.

E DESIGNATION
Lots with an E-Designation on the Zoning Maps of the City of New York for potential hazardous material contamination, air and/or noise quality impacts.

- One E-Designation site was identified within a 0.125-mile radius of the Subject Property. The listed site, known as 70-25 113th Street, is located approximately 290 feet to the north-northeast and down-gradient of the Subject Property. The database report indicates that as of April 2019, the following four requirements would pertain to the site prior to any new construction or change in use: Air Quality (HVAC fuel would be limited to natural gas); Exhaust Stack Location Limitations; Hazardous Materials Phase I and Phase II Testing Protocol; and Window Wall Attenuation and Alternate Ventilation. This site was cross listed in the NY Brownfields and NY Spills databases, as further detailed above, however, based on the distance and gradient location, no impacts to the Subject Property are anticipated from this site.

Facility and Manifest data (NY & NJ MANIFEST)
The manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

- The adjacent property to the west across 112th Street, known as 110-45 71st Road, was listed in the NY Manifest database. This listing is associated with Consolidated Edison Service Box 57320 and pertains to 250-gallons of lead waste (Waste Code D008) that were transported from this site in a cargo tank in August of 2013. There are no reported violations. No additional pertinent information is listed, however, given that this site is not cross listed on any databases associated with a spill or release, no impacts to the Subject Property are anticipated from this site.
- The search did not identify any MANIFEST sites associated with the remaining adjacent properties. Based on the nature of the MANIFEST database, which is not necessarily indicative of an environmental concern but rather the types of activities occurring, the listed NY and NJ MANIFEST sites are not considered to represent an environmental concern.

5.2 ADDITIONAL ENVIRONMENTAL RECORD SOURCES

1. ALC reviewed available records maintained by the NYSDEC for information concerning the Subject Property. The records review identified a 1992 PBS Certificate, and 1992 and 1999 PBS Applications for the former onsite 10,000-gallon heating oil UST. In addition the NYSDEC Spill Report Form for the NY LTANKS case reported at the Subject Property in 1990 was identified, as detailed in Section 5.1 above.

2. NYC Department of Buildings records were reviewed to determine whether there were any violations or other conditions that would pose an environmental risk to the Subject Property. The following pertinent records were located:

    - A Certificate of Occupancy (CO) issued on April 9, 1945 indicates that a two-story, two family residential home with an attic was on-site.

- Two new building permits dating 1961.
- Six demolition permits dating 1962.
- A Temporary CO issued on November 20, 1963 describes the subject building as a 2-story public building with a mechanical equipment room, classrooms, offices, and toilets on the first floor.
- Four Temporary COs issued on May 2, 1967, September 5, 1967, December 14, 1967 and March 27, 1968 describe the subject building as a 2-story public building with a mechanical equipment room, classrooms, offices, and toilets on the first floor, and a synagogue and banquet hall to be used for religious purposes on High Holy Days only on the second floor.
- A CO issued on June 4, 1970 describes the subject building as a 2-story public building with a mechanical equipment room, classrooms, offices, and toilets on the first floor, and a synagogue, auditoriums, lobby, toilets, check room, storage, superintendent's apartment, and kitchen on the second floor.
- A CO issued on July 12, 1982 describes the subject building as a 2-story public building with a mechanical equipment room, classrooms (home economics, business, typing, and workshop), offices, and toilets on the first floor and a synagogue, auditoriums, lobby, toilets, check room, storage, superintendent's apartment, and kitchen on the second floor.
- A permit signed-off on August 24, 1992 for the installation of a new gas boiler.
- The DEP boiler records reference a fuel oil-fired boiler at the Subject Property with a certificate that expired in 1994, and natural gas-fired boiler with a certificate that expired in 2002.
- No boiler defects were identified during the most recent inspection completed in October 2019.

Copies of the documents reviewed are provided in Appendix 14.5.

3. ALC reviewed the New York City Department of Environmental Protection Citywide Planning for Zoning and E-designation site list. The Subject Property is not listed as having any E-designations. A zoning map is provided in Appendix 14.1.

4. ALC contacted the Fire Department of the City of New York (FDNY) to determine whether any fuel oil tanks are registered to the Subject Property. The FDNY records indicated that one 10,000-gallon No. 4 heating oil tank was associated with the Subject Property (Account No. 07018286). The FDNY permit associated with the tank expired in December of 1992 and the account was noted to have been closed on December 28, 1992 due to a natural gas conversion. The account was noted to have been established in October of 1983 with Temple Sinai.

5. ALC reviewed online records maintained by the NYC Office of Environmental Remediation-Searchable Property Environmental E-Database (SPEED). No Voluntary Cleanup Program/Brownfields or hazardous waste sites were identified in the vicinity of the Subject Property. A copy of the NYC SPEED map is included in Appendix 14.1.

5.3 *PHYSICAL SETTING SOURCE*

ALC reviewed the USGS Brooklyn, NY 15 Minute Series topographic map dated 1897 through 1900, and USGS Jamaica, NY 7.5 Minute Series topographic map dated 1947 through 2013, to determine physical setting information associated with the Subject Property. Representative copies of the topographic maps reviewed are included in Appendix 14.3.

5.4 *HISTORICAL USE INFORMATION ON THE PROPERTY AND ADJOINING PROPERTIES*

Historical use information is based on a review of historical aerial photographs (1924, 1951, 1954, 1966, 1976, 1985, 1994, 2006, 2009, and 2017); Sanborn maps (1902, 1914, 1931, 1950, 1981, 1982, 1986, 1988, 1989, 1992, 1993, 1994, 1995, 1999, 2001, 2002, 2003, 2004, 2005, and 2006); historical topographic maps (1897, 1898, 1900, 1947, 1957, 1966, 1979, 1994 and 2013); and city directories (1922, 1934, 1939, 1945, 1950, 1962, 1967, 1970, 1976, 1983, 1991, 1994, 1996, 2000, 2004, 2005, 2009, 2014, and 2017). The historical data is provided in Appendix 14.3.

5.4.1 *AERIAL PHOTOGRAPHS*

1924

- **Subject Property:** The Subject Property is improved with three apparent residential homes.
- **Offsite:** The Subject Property is surrounded by apparent residential homes in all directions, and undeveloped land further northeast.

1951

- **Subject Property:** The Subject Property is improved with three apparent residential homes.
- **Offsite:** The Subject Property is surrounded by apparent residential homes to the north, south, and northeast. An apparent private home and a multi-family residential building is depicted to the west. An apparent residential home and undeveloped land are to the northeast.

1954

- **Subject Property:** The Subject Property is improved with three apparent residential homes.
- **Offsite:** The Subject Property is surrounded by apparent residential homes to the north, south, and southwest. Apparent multi-family residential buildings are depicted to the west. An apparent residential home and undeveloped land are to the northeast.

1966-1985

- **Subject Property:** The Subject Property is improved with the existing community building.
- **Offsite:** The Subject Property is surrounded by an apparent playground to the north; an apparent community building and a residential home to the northeast; apparent residential homes to the south; and apparent multi-family residential buildings to the southwest and west.

1994-2017

- **Subject Property:** The Subject Property is improved with the existing community building.
- **Offsite:** The Subject Property is surrounded by a parking lot to the north; an apparent community building to the northeast; apparent residential homes to the south; and apparent multi-family residential buildings to the southwest and west.

No areas of concern were identified from the aerial photographs reviewed.

5.4.2 HISTORICAL SANBORN MAPS

Subject Property

Year	Description
1902	The Subject Property is undeveloped.
1914	The western portion of the Subject Property is improved with two 2-story residential homes.
1931-1950	The Subject Property is improved with three 2-story residential homes, two of which detached single-story rear auto garages.
1981-1988	The Subject Property is improved with the existing 2-story building occupied by Temple Sinai. The building was noted to be built in 1963.
1999-2006	The Subject Property is improved with the existing 2-story building occupied by The Summit School.

No areas of concern were identified from the Sanborn maps reviewed.

ALC notes that the 1991 through 1995 Sanborn maps do not appear to have property updated for the Subject Property as they depict the three former residential homes on-site verses the current community structure which was built in 1963.

Adjacent Properties

Year	Description
North	
1902	The property consists of vacant land.
1914	The property is improved with one 2-story residential home.
1931-1950	The property is improved with one 2-story residential home with a rear single-story auto garage.
1981-2006	The property consists of a playground associated with the Rabbi Dov Revel Yeshiva.
Northeast	
1902-1914	The property consists of vacant land.
1931-1950	The property consists of one 2-story residential home with a rear single-story auto garage, and vacant land.

Year	Description
Northeast	
1981-2006	The property consists of one 3-story community building occupied by the Rabbi Dov Revel Yeshiva, noted to be built in 1973.
South	
1902	The property consists of vacant land.
1914	A road is depicted to the immediate south, followed by vacant lots
1931	71st Road is depicted to the immediate south, followed by two 2-story residential homes, one small structure and a vacant lot.
1950-2006	71st Road is depicted to the immediate south, followed by three 2-story residential homes with detached garages.
Southwest	
1902	The property consists of vacant land.
1914-1950	The intersection of 112th Street and 71st Road is depicted to the immediate southwest, followed by one 2-story residential home.
1981-2006	The intersection of 112th Street and 71st Road, followed by a 10-story multi-family residential building known as the Sans Souci Apartments.
West	
1902	The property consists of vacant land.
1914-1931	112th Street is depicted to the immediate west, followed by two 2-story residential homes.
1950	112th Street is depicted to the immediate west, followed by one 2-story residential home and one 6-story residential building known as the Westminster Hall Apartments.
1981-2006	112th Street is depicted to the immediate west, followed by one 7-story residential building known as the Versailles Apartments, and one 6-story residential building known as the Westminster Hall Apartments.

No areas of concern were identified from the Sanborn maps reviewed.

5.4.3 CITY DIRECTORIES

City directories can be useful in providing the names of businesses that have operated at a particular site. Historical city directories were obtained from EDR. Below is a summary of the findings:

Subject Property

Year	Uses
71-05 112th Street - 71-11 112th Street/112-15 71st Road	
2014 and 2017	• The Reform Temple of Forest Hills • Q196 Annex
2009	• The Reform Temple of Forest Hills
2005	• The Reform Temple of Forest Hills • Public School
1999, 2000, and 2004	• The Reform Temple of Forest Hills
1991 and 1994	• Summit School/Institute • Temple Sinai • Artemios Pizanias
1983	• Ex Ed Computer Systems Inc. • Summit School • Temple Sinai • Artemios Pizanias
1970	• Summit School • Temple Sinai • Theo S. Ross – Temple Rabbi • Serra Carlos • Study
1967	• Temple Sinai • Theo S. Ross – Temple Rabbi • Study
1920, 1927, 1931, and 1934	• Residential listings
112-15 71st Road	
2005	• Public School
1934, 1939, and 1962	• Residential listings

No areas of concern associated with the historical uses of the Subject Property were identified from the city directories review.

Adjacent Properties

Year	Uses
112-23 71st Road (Northeast)	
1962, 1967, and 1970	• Residential listings
112-02 through 112-20 71st Road (South)	
2017	• Dr. T • Residential listings
2000, 2004, 2005, 2009, and 2014	• Residential listings
1991, 1994, and 1996	• Foreman, Murray & Frimmit • Residential listings
1934, 1939, 1945, 1962, 1967, 1970, 1983, and 1994	• Residential listings

Year	Uses
71-32 112th Street (Southwest)	
1934	• Residential listings
71-18 112th Street (West)	
1945	• Residential listing
71-10 112th Street (West)	
2005	• Residential listing

No areas of concern associated with the historical uses of the adjacent properties were identified from the historical city directories reviewed.

5.4.4 TOPOGRAPHIC MAPS

Historical topographic maps can be useful in determining the nature of historic land use and presence of historical structures at a particular site. The following topographic maps were reviewed:

- **1897-1900**: No development is depicted on the Subject Property or on the adjacent properties.
- **1947**: One apparent residential home is depicted on the southeastern portion of the Subject Property. An apparent residential home is depicted on the adjacent property to the north. An apparent residential home and undeveloped land is to the northeast. The adjacent properties to the south, southwest, and west are located in black-shaded area, which is indicative of built-up, developed areas.
- **1957:** The Subject Property and the surrounding areas are located in a pink-shaded area, indicating the Subject Property is within a densely populated area where only landmark structures are delineated.
- **1966-1994:** A house of worship is depicted on the Subject Property. A house of worship is depicted to the northeast. The remaining surrounding areas are located in a pink-shaded area, indicating the Subject Property is within a densely populated area where only landmark structures are delineated.
- **2013:** The Subject Property is located in a gray-shaded area, indicating the Subject Property is within a built-up area where individual structures are not delineated. A school is also depicted to the adjacent property to the northeast.

6.0 SITE RECONNAISSANCE

The objective of the site reconnaissance is to obtain information indicating the likelihood of identifying recognized environmental conditions in connection with the property.

6.1 METHODOLOGY AND LIMITING CONDITIONS

This Phase I ESA was performed in general conformance with the scope and limitations of American International (ASTM) Practice E1527-13. All areas of the Subject Property were accessible at the time of the inspection.

6.2 GENERAL SITE SETTING

The Subject Property is located on the U.S.G.S. Jamaica, NY 7.5' Quadrangle topographic map. The general site topographic gradient within a 1,000 foot radius of the Subject Property is in the east-northeast direction. Topographic conditions of the site vicinity are shown in Appendix 15.3. The Subject Property is approximately 71 feet above mean sea level. The nearest body of water is the Willow Lake, located approximately 0.2-mile to the east of the Subject Property.

The soils under and in the vicinity of the site are classified by the U.S. Department of Agriculture (USDA) as Urban Land – till substratum (3 to 8 percent slopes). The parent material is described as asphalt over human-transported material and the soils are described as well drained with very low available water storage. Urban land is noted to be comprised of surfaces covered by asphalt, concrete, buildings, or other impervious surfaces. Soils and foundation materials are highly variable. Urban structures and works cover so much of this land type that identification of the soils is not practical. Most areas have been smoothed and the original soil material has been disturbed, filled over, or otherwise destroyed prior to construction.

The Subject Property area is located within the Atlantic Coastal Plain physiographic province. The overburden in the area has been mainly due to the past glacial activities. The rocks underlying the area constitute the New England Upland. The terminal moraine ridge covering a large area in Brooklyn and Queens is composed of the terminal moraine ridge glacial till deposit.

While groundwater in the vicinity of the Subject Property typically flows in an east-northeastern direction, local variations are possible due to intervening subsurface structures that could alter groundwater flow patterns. Groundwater at the Subject Property is not used as a source of drinking water.

6.3 EXTERIOR AND INTERIOR OBSERVATIONS

The periphery of the Subject Property was visually observed, as well as the periphery of the onsite structure in order to identify recognized environmental conditions in connection with the Subject Property. ALC visually inspected exterior areas, including the side drives, walkways, and rear courtyard area; the northwestern partial cellar level boiler room; and interior area including the lobby, office, sanctuary, ballroom areas, school areas, library, and computer room. No recognized environmental conditions were observed in the visually accessible areas of the Subject Property, with the exception of signs of a former heating oil UST, as detailed in *Section 6.3.4* below. The following conditions were observed:

6.3.1 LEAD

Commercial buildings are not targeted for the identification of lead-based paint (LBP) and therefore LBP was not addressed. Based on available information on the Department of Education website, the Winter 2019 LBP inspections for all NYC classrooms, serving students in first grade and under, indicated that no deteriorated paint was identified in 'P.S. 196 Annex–Queens' located at 112-15 71st Road in Rooms 1A, 2A, 3A, 4A, 5A, 6A, and Cafeteria. Therefore, no sampling was conducted as part of this evaluation.

The scope of this study did not include water testing for the presence of lead. However, NYC DEP testing has demonstrated that the water is lead-free when delivered from the reservoir system. Water can absorb lead from solder, fixtures and pipes found in the plumbing of some buildings.

6.3.2 ASBESTOS

Since the subject building was built prior to 1979, there exists the possibility that the original construction materials contained asbestos. According to the Environmental Protection Agency and included in the publication #EPA560/5-85-024 "Guidance for Controlling Asbestos Containing Materials (ACM) in Buildings", asbestos containing materials are found in three forms: (1) Sprayed or toweled on ceilings and walls and structural steel; (2) in insulation around hot and cold piping, ducts, boilers, and tanks; and (3) in a non-friable state in products such as ceilings and floor tiles, wallboards and outside materials such as shingles and roofing materials. In general, ACM in a friable state (the first two categories) is of greatest concern because they are able to release asbestos fibers with only minimal disturbance.

We have used the 4-category system as defined by Asbestos Hazardous Emergency Response Act (AHERA) to designate the different conditions of asbestos noted throughout the areas of the site.

1. **Good Condition**

   Material with no visible damage or deterioration to very limited damage or deterioration.

2. **Fair Condition**

   Material with one or more of the following characteristics:

   A few water stains or less than one tenth of insulation with missing jackets.

   Crushed insulation or water stains, gouges, puncture or mars on up to one tenth of the insulation if the damage is evenly distributed (or up to one quarter if the damage is localized).

3. **Poor Condition**

   Material with one or more of the following characteristics:

   Missing jackets on at least one tenth of the piping equipment.

   Crushed or heavily gouges or punctured insulation on at least one tenth of pipe runs/risers, boiler, tank duct, etc., if the damage is evenly distributed (one quarter if the damage is localized).

4. **Significantly Damaged**

Thermal systems insulation on pipes, boilers, tanks, ducts, and other thermal system insulation equipment which the insulation has lost its structural integrity, or its covering, in whole or in part, is crushed, water-stained, gouged, punctured, missing, or not intact such that is not able to contain fibers. Damage may be further illustrated by occasional puncture, gouges, or other signs of physical injury to ACM; occasional water damage on the protective coverings/jackets; or exposed ACM ends or joints. Asbestos debris, originating from the ACM in question may also indicate damage.

Findings:

ALC observed the following suspect ACM at the Subject Property:

Location	Material	Condition
Roof	Roof membrane & flashing	Good
Electrical Room, storage closet plenum, and cellar boiler room	Pipe elbow insulation	Good
Throughout	Ceiling tiles	Good
	9"x9" vinyl floor tiles	Good
	Sheetrock and joint compound	Good

- Prior to any renovation/remodeling or repair work that will affect the above referenced materials, asbestos sampling should be conducted. If determined to contain asbestos, the referenced materials should be abated by a certified asbestos abatement contractor as per all applicable local, state and federal regulations.
- Suspect asbestos containing materials in good condition can remain in place, and should be managed under an Operations and Maintenance (O&M) Plan.

The inspection was conducted solely to identify any suspect ACM in accessible areas of the Subject Property. Additional asbestos containing materials/quantities may be present in concealed areas of the building, as well as in areas not surveyed during this assessment. Any suspect materials encountered during future construction activities that have not been tested should be assumed to be ACM and treated as such.

6.3.3 NON-ASBESTOS HAZARDOUS MATERIALS

The Subject Property is involved in the use of small quantities of hazardous materials in the form of janitorial and building maintenance supplies. Below is a list of hazardous materials identified at the Subject Property:

Type of Material	Quantity	Location	Use
General cleaning supplies	Five 1-gallon plastic bottles	Lower level electrical room	Building maintenance

Type of Material	Quantity	Location	Use
Paints	Twenty (20) 1-gallon cans and three 5-gallon containers	Lower level electrical room and cellar level boiler room	Building maintenance
Paint thinner, mineral spirits, lubricant sprays	Ten (10) retail-sized containers	Cellar level boiler room	

No evidence of spills or improper handling, storage or disposal of hazardous materials was observed at the time of the site visit. In addition, there is no evidence that former tenants used hazardous materials that may have been improperly disposed of at the Subject Property.

6.3.4 UNDERGROUND/ABOVEGROUND STORAGE TANKS

No underground or aboveground storage tanks, fill pipes, or access ways indicative of underground storage tanks were observed at the Subject Property during the site visit. However, as per the regulatory records reviewed, one 10,000-gallon No. 2 heating oil underground storage tank was closed in-place on the Subject Property on June 1, 1999. This tank was permitted under the NYSDEC PBS No. 2-400262. The date of installation was not provided. The FDNY records indicated that one 10,000-gallon No. 4 heating oil tank was associated with the Subject Property (Account No. 07018286). The FDNY permit associated with the tank expired in December of 1992 and the account was noted to have been closed on December 28, 1992 due to a natural gas conversion. The account was noted to have been established in October of 1983 with Temple Sinai.

ALC conducted a file review with the NYSDEC for the Subject Property. The available NYSDEC file review records included a 1992 PBS Renewal Application associated with the former 10,000-gallon fuel oil tank, which indicated that the tank was in-service with secondary containment in the form of an excavation liner. The 1992 PBS Certificate for the tank was also provided which expired on October 15, 1997. Lastly, a 1999 PBS Substantial Tank Modification Application associated with the former tank was provided, which indicated that the status of the 10,000-gallon fuel oil UST was changed to 'closed in-place' as of June 1999. No additional pertinent documentation or information regarding the proper closure of the former UST was available.

Property management could not provide ALC with any information regarding the former UST and was unaware of the location of the former tank. No closure documentation regarding this former UST could be identified by property management. ALC observed a fill port in the sidewalk fronting the subject property building to the northwest along 112th Street. Signs of the former UST and heating oil usage were also identified in the basement, in the form of a petrometer mounted on the westernmost cellar wall, with the associated transmission line also traced to the westernmost foundation wall. Based on the location of the observed fill port and petrometer transmission line, it is likely that the closed in-place UST is located to the northwest of the subject property building. Given that no closure documentation was provided or available for review, this former UST represents a REC.

No additional aboveground or underground storage tanks were identified from the records reviewed.

6.3.5 *NON-HAZARDOUS SOLID WASTE*

Solid waste generated onsite is stored in a Dumpster located in the street, fronting the Subject Property to the southeast, and is regularly collected by the NYC Sanitation Department. No areas of concern were observed.

6.3.6 *HAZARDOUS WASTE*

Cooking grease was noted to be collected from the onsite kitchen grease trap on an as needed basis by a private contractor (Kiexsy Corporation).

- **ODORS**
  No strong, pungent, or noxious odors were noted at the Subject Property at the time of the site visit.

- **POOLS OF LIQUID**
  No pools or sumps containing liquids likely to be hazardous substances or petroleum products were visually observed at the Subject Property at the time of the site visit.

- **DRUMS**
  No waste drums were observed at the Subject Property at the time of the site visit.

- **UNIDENTIFIED SUBSTANCE CONTAINERS**
  No open or damaged containers containing unidentified substances suspected of being hazardous substances or petroleum products were observed on the Subject Property.

6.3.7 *VAPOR ENCROACHMENT*

A Tier 1 Vapor Encroachment Screening for the Subject Property was performed, in accordance with the ASTM International Practice 2600-10. ALC utilized EDR to conduct the appropriate searches of federal and state sites identified within the area of concern (AOC) specified by ASTM 2600-10. The appropriate minimum search distances surrounding the Subject Property are as follows:

Standard Environmental Record Sources	Chemicals of Concern (miles)	Petroleum Hydrocarbon Chemicals of Concern (miles)
Registered storage tanks	Target property only	Target property only
Emergency Response Notification System (ERNS)	Target property only	Target property only
Federal and state institutional and engineering Controls list	Target property only	Target property only
Federal RCRA Generators	Target property only	Target property only
Federal NPL	1/3	1/10
State- and tribal-equivalent NPL	1/3	1/10
Federal CERCLIS	1/3	1/10
State- and tribal-equivalent CERCLIS	1/3	1/10

Standard Environmental Record Sources	Chemicals of Concern (miles)	Petroleum Hydrocarbon Chemicals of Concern (miles)
Federal RCRA CORRACTS facilities	1/3	1/10
State and tribal landfill and/or solid waste disposal sites	1/3	1/10
State and tribal voluntary cleanup sites (VCP)	1/3	1/10
State and tribal Brownfield sites	1/3	1/10

Minimum search distances when groundwater flow direction can be estimated:		
Up-gradient	**Cross-gradient**	**Down-gradient**
- 1/3 mile for chemicals of concern sources - 1/10 mile for petroleum hydrocarbon sources.	- 100 feet for chemicals of concern sources/petroleum hydrocarbon *Light Non-Aqueous Phase Liquid (LNAPL) sources plus plume width consideration.* - 30 feet for dissolved petroleum hydrocarbon sources *plus plume width consideration.*	- 100 feet for chemicals of concern sources/petroleum hydrocarbon *LNAPL sources.* - 30 feet for dissolved petroleum hydrocarbon sources.

Findings:

- Based on the lack of tank closure documentation pertaining to the closed-in-place 10,000-gallon UST associated with the Subject Property, a vapor encroachment condition at the Subject Property cannot be ruled out. A VEC is defined by ASTM E2600-10 as "the presence or likely presence of chemicals of concern (COC) vapors in the sub-surface of the target property caused by the release of vapors from contaminated soil or groundwater either on or near the target property". No additional VECs that could not be ruled out were identified for the surroundings sites within the distances specified by ASTM International Practice 2600-10. The EDR Vapor Encroachment Screen report is included in Appendix 14.5.

6.3.8 PCB-CONTAINING EQUIPMENT

Observation for electrical equipment or electrical components which contain dielectric fluid with the potential to contain polychlorinated biphenyls (PCBs) in excess of 50 parts per million (ppm) was conducted as part of this assessment. No suspect PCB-containing equipment (i.e. transformers, hydraulic equipment) was observed at the Subject Property.

6.3.9 STORM WATER AND WASTE WATER

The Subject Property is connected to a municipal owned and maintained sewer system. Storm water is drained from the Subject Property primarily by sheet flow action across paved surfaces and into onsite storm water drains and catch basins located along 112th Street and 71st Road. No unusual ponding of storm waters was observed.

Industrial effluent is not known to have been generated at the Subject Property and, in any event, would not have been permitted to be discharged to the sewer system without the requisite

Municipal Utility Authority (MUA) permits. Sanitary effluent discharges to the municipal sewer system generated at the Subject Property originate from the domestic bathroom facilities.

6.3.10 WETLANDS

Review of the National Wetlands Inventory published by USGS indicated that there are no recognized wetlands on or in the immediate vicinity of the Subject Property. A wetlands map is provided in Appendix 14.1.

6.3.11 FLOODPLAINS

As per the FEMA flood map reviewed (FEMA FIRM Panel No. 3604970227F), the Subject Property is located in Flood Zone X, which is defined as areas of minimal flood hazard, typically above the 500-year flood level. A copy of the FEMA flood map is provided in Appendix 14.1.

6.3.12 RADON

Radon is a colorless, odorless gas produced by the radioactive decay of certain elements. The most common sources of radon are igneous and metamorphic rocks containing uranium (such as pitchblende), granite, shale, or phosphate, as well as soils or sediments derived from these parent materials. Radon may also be found in soils contaminated with certain industrial wastes (such as uranium or phosphate mine tailings) or in earth-derived building products which include industrial wastes that contain phosphate slag. In areas where the potential for radon accumulation is high, special ventilation systems may offset potential health hazards.

Review of the EPA Map of Radon Zones places the Subject Property in Zone 3, where average predicted radon levels are less than 2.0 pCi/L (picocuries/liter). The USEPA recommended action level is 4.0 pCi/L. Based on the low predicted radon levels, adverse environmental impacts related to radon gas migration are not anticipated at the Subject Property.

6.3.13 AIR EMISSIONS

No potential sources of permitted air emissions were observed at the Subject Property during the site reconnaissance.

6.3.14 STRESSED VEGETATION

This inspection did not reveal any visual indication of environmental contamination immediately adjacent to the Subject Property nor within the boundaries of the Subject Property.

6.3.15 HEATING/COOLING

Cooling and heating is provided to the lobby area, offices, sanctuary, and ballroom areas via a central HVAC system consisting of three packaged rooftop mounted HVAC units. Air conditioning is provided to the school areas, library, and kitchen via individual through-window air conditioning units that plug into electrical outlets. Heating is provided by a natural gas-fired boiler observed in the cellar and distributed to the via hot water baseboard radiators.

6.3.16 STAINS OR CORROSION

No areas of stained soil or pavement were visually observed at the Subject Property at the time of the site visit.

6.3.17 DRAINS AND SUMPS

Floor drains observed at the subject building are reported to discharge to the municipal sewer system. No evidence of improper disposal of hazardous liquids was observed in the immediate vicinity of the floor drains. No sump pumps were observed at the Subject Property. No further action or investigation is warranted.

6.3.18 MOLD

No obvious indications of mold growth were noted in the visually accessible interior areas of the subject building.

7.0 INTERVIEWS

7.1 INTERVIEW WITH OWNER

The property Owner was not available for interview at the time of the site assessment.

7.2 INTERVIEW WITH SITE MANAGER

During the site reconnaissance, ALC was accompanied by Mr. Alan Hoberman, Director of Operations & Finance with The Reform Temple of Forest Hills, who has been familiar with the site for approximately two years. Mr. Hoberman stated that the subject building was constructed circa 1965 and has always been used as a synagogue and school. Mr. Hoberman provided ALC with floor plans of the subject building dating 2011. He indicated that residential homes were previously located onsite in the early to mid-1900s, one of which was formerly occupied by Hellen Keller. Mr. Hoberman stated that one natural gas-fired boiler is utilized on-site. He could not provide any information regarding the former 10,000-gallon fuel oil UST associated with the Subject Property, listed in the Underground Storage Tank database. He further noted that lead-based paint (LBP), asbestos, and drinking water sampling for the on-site school areas are handled by the NYC Department of Education. He indicated that LBP testing conducted in February 2020 did not identify any lead in paint above regulatory standards; however, he did not have copies of any sampling documentation in his files. Mr. Hoberman was unaware of any area of environmental concern, environmental liens, or violations in association with the Subject Property.

7.3 INTERVIEWS WITH OCCUPANTS

No occupants were available for interview at the time of the site visit.

7.4 INTERVIEWS WITH LOCAL GOVERNMENT OFFICIALS

Freedom of Information Act (FOIL) requests for information associated with the Subject Property were submitted to the NYSDEC. Files located by the NYSDEC are detailed in Section 5.1.

In addition, ALC contacted the Department of Education regarding any potential lead-based paint, asbestos, and drinking water sampling previously conducted for the on-site school areas occupied by P.S. 196, however, a response has not been received to date.

7.5 INTERVIEW WITH OTHERS

No other interviews were conducted during the site visit.

8.0 CONCLUSIONS AND RECOMMENDATIONS

Based on a review of background data, regulatory agency records, aerial photographs, and observations made during the site reconnaissance, the following conclusions and recommendations are presented regarding the Subject Property. The scope of this study did not include subsurface exploration, sampling or analytical laboratory testing.

8.1 CONCLUSIONS

- The Subject Property is not identified as being evaluated by the State of New York or federal government for remedial action under SEMS or any other environmental regulations.

- There were one hundred and seventy-seven (177) sites listed on the regulatory database search within a 1 mile radius of the Subject Property. Based on available information, estimated flow direction of groundwater, and the nature of the database listings, it is unlikely that the Subject Property has been impacted by unauthorized releases of hazardous materials at this time, though it is impossible to entirely rule out the potential for contamination.

- Based on the estimated age of the subject building, it is likely that asbestos containing materials and lead-based paint were used during its construction and/or renovations.

- ALC performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-13 of the property located at 71-11 112th Street, Forest Hills, NY 11375. Any exceptions to, or deletions from, this practice are described in Section 2.0 of this report. This assessment has revealed evidence of a recognized environmental condition (REC) in connection with the Subject Property.

8.2 RECOMMENDATIONS

- In regards to the former closed in-place 10,000-gallon heating oil tank, ALC recommends that the tank closure records be provided for review, to ensure that the tank was properly closed. If no such records are available, a geophysical survey and soil and/or groundwater sampling is recommended to determine the former UST location, and to confirm whether or not subsurface conditions have been impacted.

- Suspect asbestos containing materials in the form roofing materials (roof membrane and flashing), sheetrock panels, wall and ceiling plaster, and vinyl floor tiles are present at the Subject Property. Prior to any repair/renovation work that will affect the referenced materials, asbestos testing should be conducted. If determined to contain asbestos, the materials should be abated by a certified asbestos abatement contractor prior to commencement of the renovation work, as per all applicable local, state and federal regulations.

ALC has no additional recommendations for further study at the Subject Property at this time, other than the recommendations provided above.