ENVIRONMENTAL ASSESSMENT STATEMENT

312 Coney Island Ave-Caton Place EAS

PREPARED FOR

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PREPARED BY

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December 2019

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

Please fill out and submit to the appropriate agency (see instructions)

Part I: GENERAL INFORMATION

PROJECT NAME 312 Coney Island Ave-Caton Place

1. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
20DCP036K	
ULURP REFERENCE NUMBER (if applicable)	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)
200092ZMK, N200093ZRK, 200094ZSK	

2a. *Lead Agency Information*			**2b. *Applicant Information***		
NAME OF LEAD AGENCY			NAME OF APPLICANT		
New York City Department of City Planning			312 Coney Island Avenue LLC		
NAME OF LEAD AGENCY CONTACT PERSON			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON		
Olga Abinader, Director, EARD			Zachary Bernstein		
ADDRESS 120 Broadway, 31st Floor			ADDRESS One New York Plaza		
CITY New York	STATE NY	ZIP 10271	CITY New York	STATE NY	ZIP 10004
TELEPHONE 212-720-3493	EMAIL OABINAD@planning.nyc.gov		TELEPHONE 212-859-8239	EMAIL Zachary.Bernstein@friedfrank.com	

3. *Action Classification and Type*

SEQRA Classification

☐ UNLISTED ☒ TYPE I: Specify Category (see 6 NYCRR 617.4 and NYC Executive Order 91 of 1977, as amended):

Action Type (refer to Chapter 2, "Establishing the Analysis Framework" for guidance)

☒ LOCALIZED ACTION, SITE SPECIFIC ☐ LOCALIZED ACTION, SMALL AREA ☐ GENERIC ACTION

4. *Project Description*

The applicant, 312 Coney Island Avenue LLC, is seeking: (1) a zoning map amendment to rezone the project site, Lots 10 and 20 on Brooklyn Block 5322, from C8-2 to R8A with a C2-4 commercial overlay, (2) a zoning text amendment to Zoning Resolution Section 113-10 to modify building setback requirements, (3) a zoning text amendment to Zoning Resolution Appendix F to establish a Mandatory Inclusionary Housing Area that is conterminous with the project site, and (4) a waiver of all required accessory off-street parking pursuant to Zoning Resolution Section 74-533. These actions are sought to facilitate the development of a new mixed-use building with a total floor area of approximately 387,465 gross square feet (gsf) including 41,380 gsf of community facility uses, 5,000 gsf of retail, and 309,898 gsf of residential uses, with a proposed 310 dwelling units of which the applicant anticipates 78 will be affordable utilizing Option 1 of the MIH program.

Project Location

BOROUGH Brooklyn	COMMUNITY DISTRICT(S) 7	STREET ADDRESS 11 Ocean Parkway (aka 312 Coney Island Avenue)
TAX BLOCK(S) AND LOT(S) Block 5322, Lots 10 and 20		ZIP CODE 11218
DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS Bounded by Ocean Parkway, Park Circle, Coney Island Avenue, and Caton Place		
EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY C8-2, OP		ZONING SECTIONAL MAP NUMBER 16d

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

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

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

☒ SPECIAL PERMIT (if appropriate, specify type: ☒ modification; ☐ renewal; ☐ other); EXPIRATION DATE:

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION 113-10, 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 If "yes," specify:

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:

6. *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.): 43,438
Waterbody area (sq. ft.) and type: 0
Roads, buildings, and other paved surfaces (sq. ft.): ~ 28,000
Other, describe (sq. ft.): ~15,438 landscaped area

7. *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): 387,465
NUMBER OF BUILDINGS: 1
GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): 387,464
HEIGHT OF EACH BUILDING (ft.): 145
NUMBER OF STORIES OF EACH BUILDING: 13

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: 43,438
The total square feet not owned or controlled by the applicant: 52,511

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 disturbance (if known):
AREA OF TEMPORARY DISTURBANCE: 43,438 sq. ft. (width x length)
VOLUME OF DISTURBANCE: 400,800 cubic ft. (width x length x depth)
AREA OF PERMANENT DISTURBANCE: 33,400 sq. ft. (width x length)

8. *Analysis Year* CEQR Technical Manual Chapter 2

ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2023

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 29 months

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

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE:

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

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

DESCRIPTION OF EXISTING AND PROPOSED CONDITIONS

The information requested in this table applies to the directly affected area. The directly affected area consists of the project site and the area subject to any change in regulatory control. The increment is the difference between the No-Action and the With-Action conditions.

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
LAND USE				
Residential	☐ YES ☒ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Describe type of residential structures	N/A	N/A	Market rate and affordable multi-family	
No. of dwelling units	N/A	N/A	310	310 units
No. of low- to moderate-income units	N/A	N/A	78	78 units
Gross floor area (sq. ft.)	N/A	N/A	309,898	309,898 gsf
Commercial	☐ YES ☒ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Describe type (retail, office, other)	N/A	hotel	retail	
Gross floor area (sq. ft.)	N/A	88,707	5,000	-83,707 gsf
Manufacturing/Industrial	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Type of use	N/A	N/A	N/A	
Gross floor area (sq. ft.)	N/A	N/A	N/A	
Open storage area (sq. ft.)	N/A	N/A	N/A	
If any unenclosed activities, specify:	N/A	N/A	N/A	
Community Facility	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Type	House of worship with school	House of worship with school; Medical Office	House of worship with school	
Gross floor area (sq. ft.)	27,000 (Church and School)	45,175 (medical office) 35,046 (Church and school)	0 (medical office) 41,380 (Church and school)	- 45,175 gsf (medical office) 6,334 gsf (Church and School)
Vacant Land	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:	N/A	N/A	N/A	
Publicly Accessible Open Space	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify type (mapped City, State, or Federal parkland, wetland—mapped or otherwise known, other):	N/A	N/A	N/A	
Other Land Uses	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:	N/A	N/A	N/A	
PARKING				
Garages	☐ YES ☒ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
No. of public spaces	N/A	0	0	0
No. of accessory spaces	N/A	146	at least 36 anticipated, 0 required	-146
Operating hours	N/A	n/a	n/a	
Attended or non-attended	N/A	partial attended and partial non-attended	attended	
Lots	☒ YES ☐ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
No. of public spaces	0	N/A	N/A	
No. of accessory spaces	36	N/A	N/A	
Operating hours	n/a	N/A	N/A	
Other (includes street parking)	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
If "yes," describe:	Street parking	Street parking	Street parking	
POPULATION				
Residents	☐ YES ☒ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If "yes," specify number:	N/A	0	872	+872 residents
Briefly explain how the number of residents was calculated:	Based on the blended average household size for the Brooklyn Windsor Terrace, Kensington-Ocean Parkway, and Flatbush neighborhoods (NYC Population Factfinder) - 2.81			
Businesses	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
No. and type	church and school	1 Hotel; Medical Offices, Church and School	Retail businesses, church and school	
No. and type of workers by business	23	287	51	-236 workers
No. and type of non-residents who are not workers		n/a	n/a	
Briefly explain how the number of businesses was calculated:	Assumes 1 employee per 400 SF Hotel, 1 employee per 250 SF medical office space, 1 employee per 25 residential units, 1 employee per 1,000 sf retail, 3 per 1,000 sf community facility uses, and school and church numbers provided by applicant			
Other (students, visitors, concert-goers, *etc.*)	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If any, specify type and number:	Students and visitors (135)	students and visitors (135), Hotel guests (386), and medical office visitors	Students and visitors (135), and retail customers	386 other visitors
Briefly explain how the number was calculated:	School/church numbers based on existing conditions; hotel guests assumes 400 sf per room with an average occupancy of 2 guests per room and 87% occupancy rate			
ZONING				
Zoning classification	C8-2; OP district	C8-2; OP district	R8A/C2-4; OP district	
Maximum amount of floor area that can be developed	208,502	208,502	312,754	104,252 gsf
Predominant land use and zoning classifications within land use study area(s) or a 400 ft. radius of proposed project	Park; Residential; Institutional C8-2, R8B; R7A; Park, R6	Park; Residential; Institutional C8-2, R8B; R7A; Park, R6	Park; Residential; Institutional C8-2, R8B; R7A; Park, R6	
Attach any additional information that may be needed to describe the project. If your project involves changes that affect one or more sites not associated with a specific development, it is generally appropriate to include total development projections in the above table and attach separate tables outlining the reasonable development scenarios for each site.				

Figure 1 Site Location Map

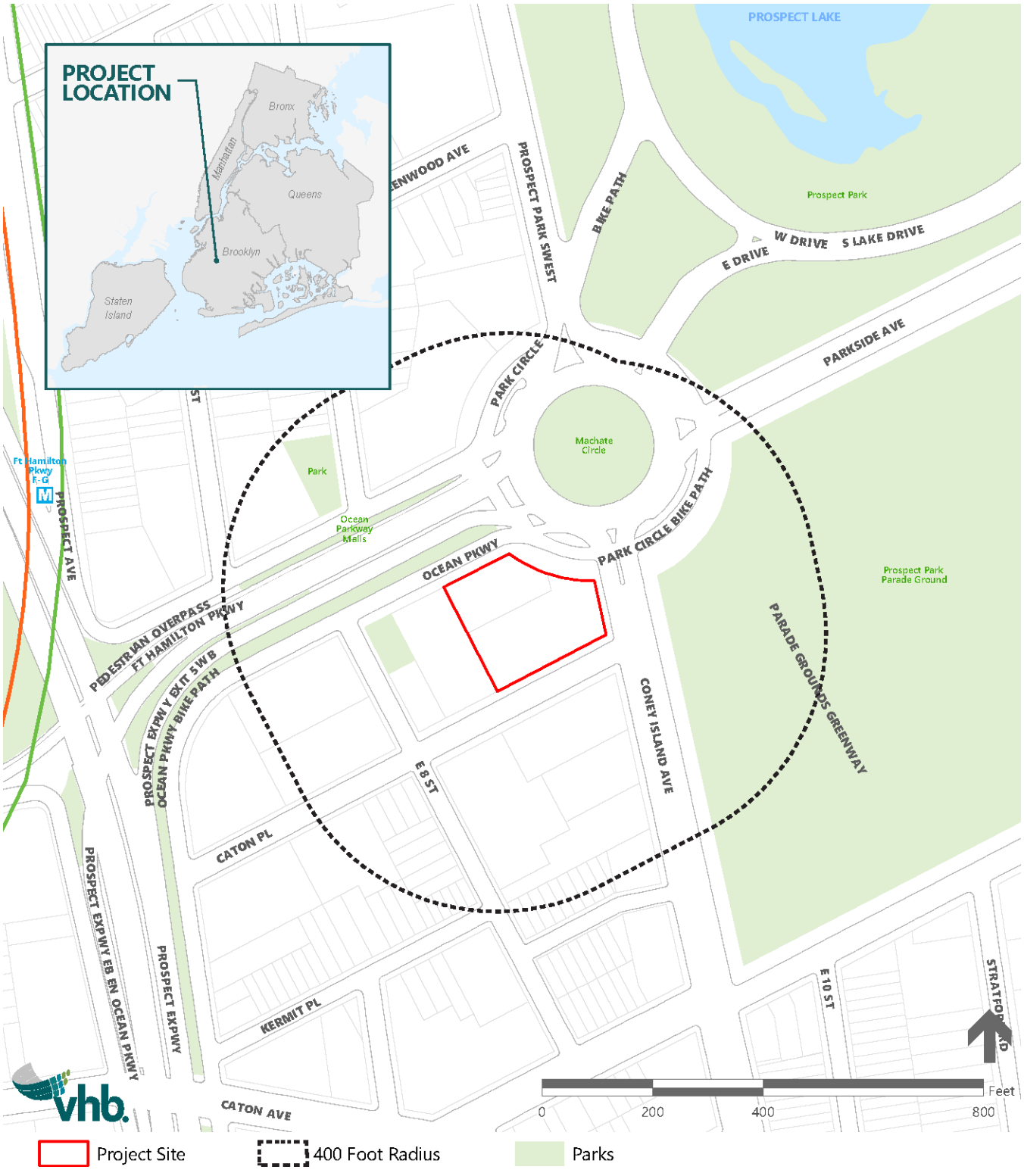


Figure 2 Tax Map

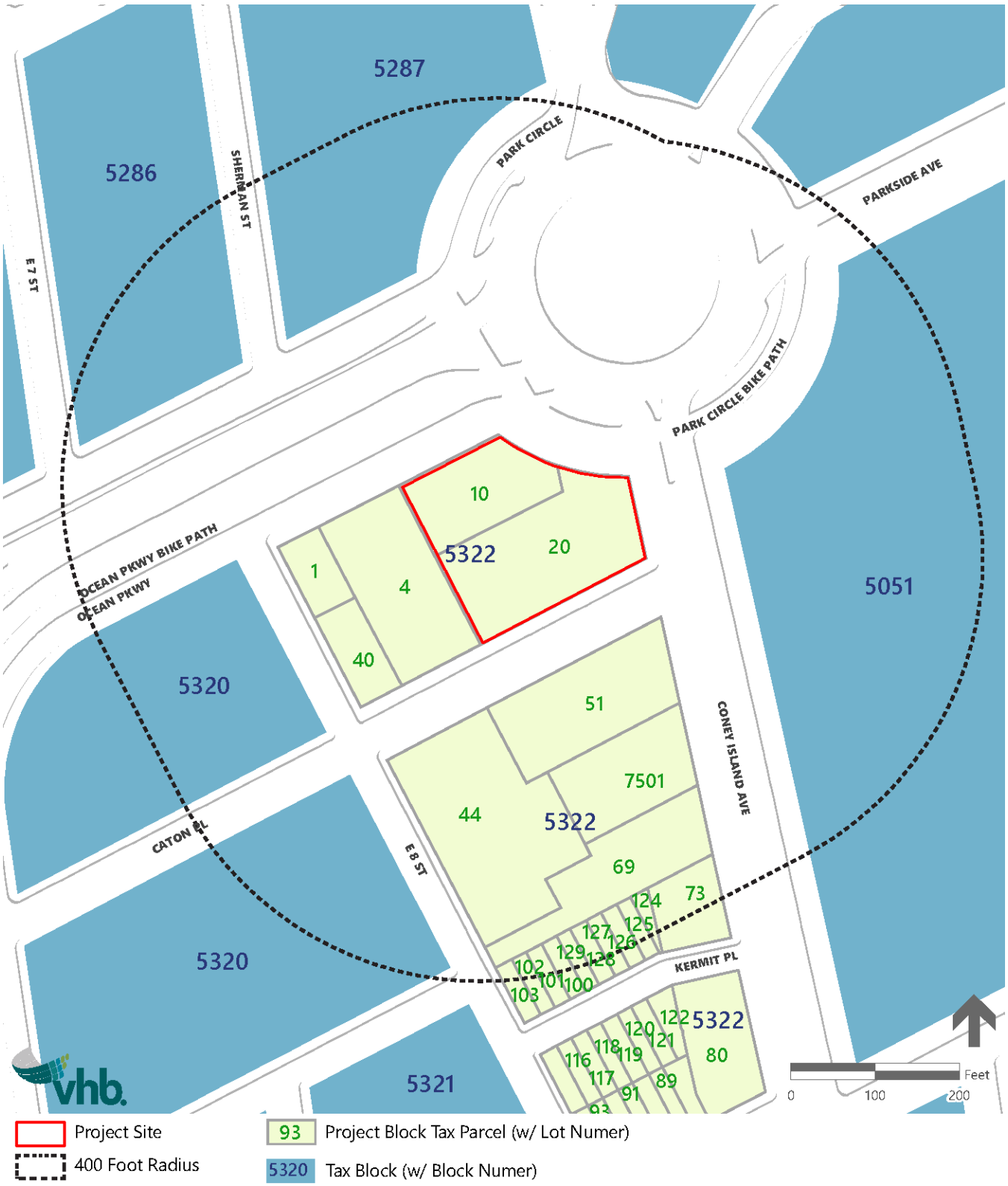


Figure 3.1 Existing Zoning Map

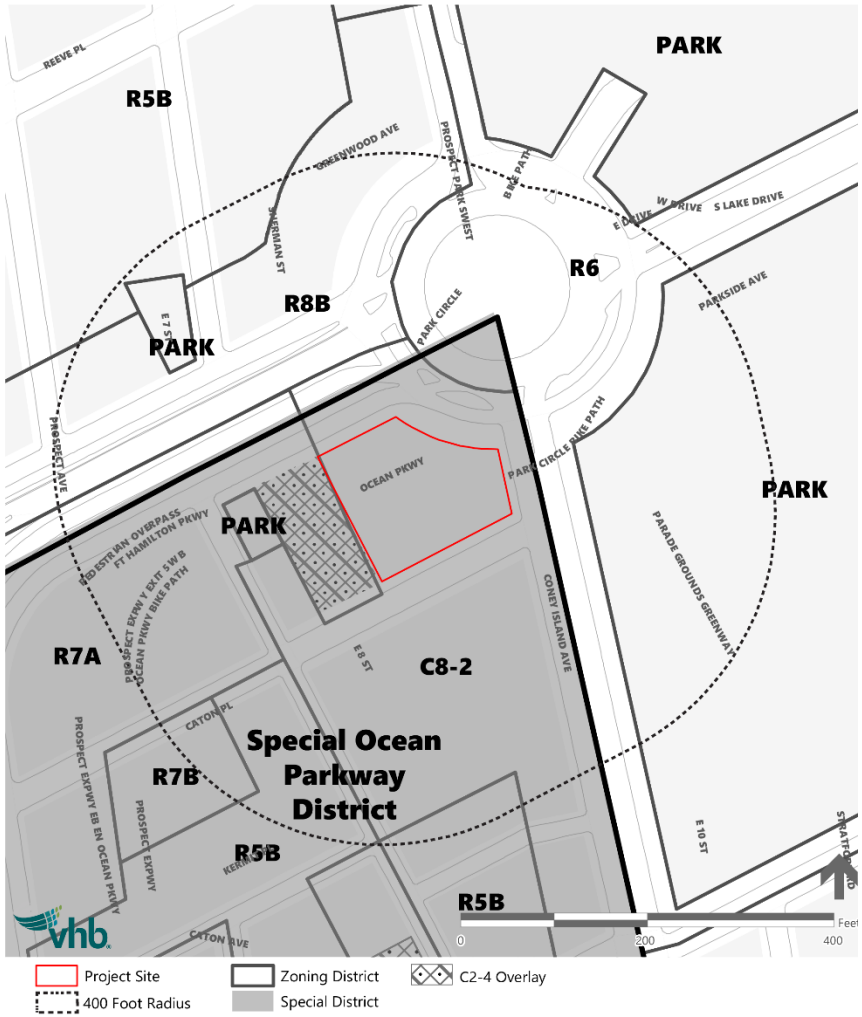


Figure 3.2 Proposed Zoning Map

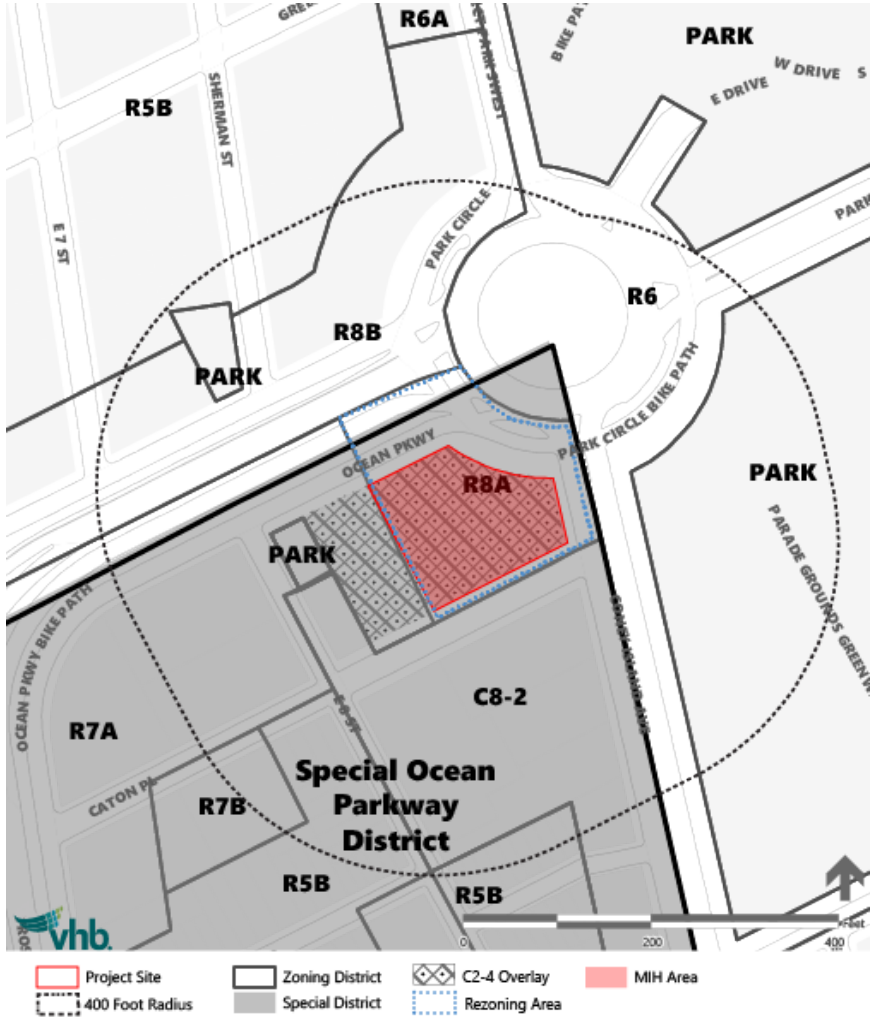


Figure 4 Land Use Map

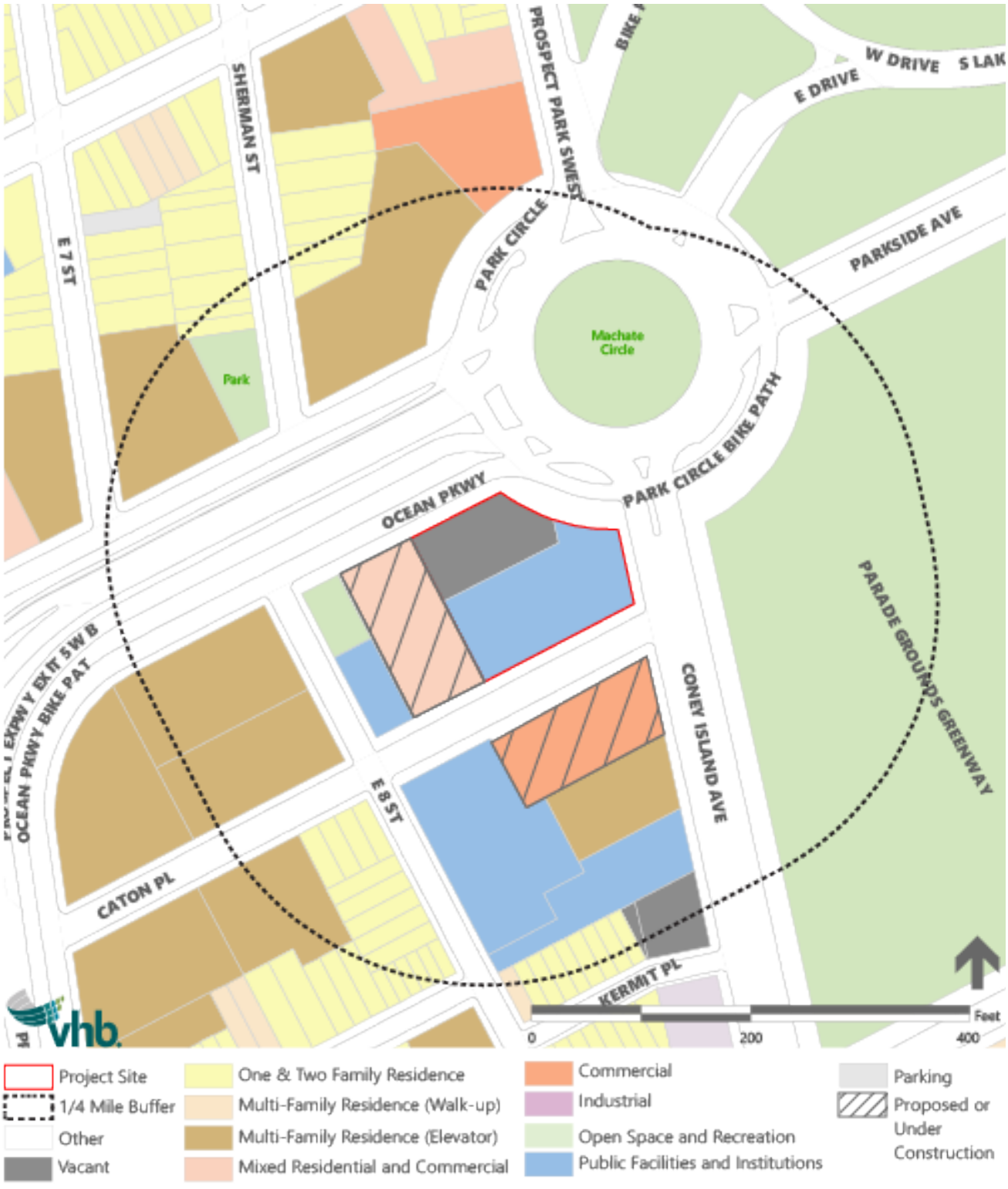


Figure 5 Photo Key Map



Figure 5a Project Site Photos

All photos captured 04/16/19 (confirmed as of 10/28/19 that conditions remain the same)

Photo 1 View of project site facing northeast from Caton Place



Photo 2 View of the project site facing west from Coney Island Avenue



Photo 3 View of the project site facing south from Ocean Parkway



Photo 4 View of the project site facing south from Ocean Parkway



Photo 5 View of the project site facing the Parade Ground



Photo 6 View of the project site from Machate Circle



Photo 7 View of the project site and adjacent property (57 Caton Place) from Caton Place



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 Full EAS Form. For example, if a question is answered "no," an agency may request a short explanation for this response.

	YES	NO
1. *LAND USE, ZONING, AND PUBLIC POLICY*: CEQR Technical Manual Chapter 4		
(a) Would the proposed project result in a change in land use different from surrounding land uses?	☐	☒
(b) Would the proposed project result in a change in zoning different from surrounding zoning?	☒	☐
(c) Is there the potential to affect an applicable public policy?	☒	☐
(d) If "yes," to (a), (b), and/or (c), complete a preliminary assessment and attach. See attached.		
(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 more than 200 residential units *or* 200,000 square feet of commercial space?	☒	☐
▪ If "yes," answer *both* questions 2(b)(ii) and 2(b)(iv) below.		
○ Directly displace 500 or more residents?	☐	☒
▪ If "yes," answer questions 2(b)(i), 2(b)(ii), and 2(b)(iv) below.		
○ Directly displace more than 100 employees?	☐	☒
▪ If "yes," answer questions under 2(b)(iii) and 2(b)(iv) below.		
○ Affect conditions in a specific industry?	☐	☒
▪ If "yes," answer question 2(b)(v) below.		
(b) If "yes" to any of the above, attach supporting information to answer the relevant questions below. If "no" was checked for each category above, the remaining questions in this technical area do not need to be answered.		
i. Direct Residential Displacement		
○ If more than 500 residents would be displaced, would these residents represent more than 5% of the primary study area population?	☐	☐
○ If "yes," is the average income of the directly displaced population markedly lower than the average income of the rest of the study area population?	☐	☐
ii. Indirect Residential Displacement		
○ Would expected average incomes of the new population exceed the average incomes of study area populations?	☐	☒
○ If "yes:"		
▪ Would the population of the primary study area increase by more than 10 percent?	☐	☐
▪ Would the population of the primary study area increase by more than 5 percent in an area where there is the potential to accelerate trends toward increasing rents?	☐	☐
○ If "yes" to either of the preceding questions, would more than 5 percent of all housing units be renter-occupied and unprotected?	☐	☐
iii. Direct Business Displacement		
○ Do any of the displaced businesses provide goods or services that otherwise would not be found within the trade area, either under existing conditions or in the future with the proposed project?	☐	☐
○ Is any category of business to be displaced the subject of other regulations or publicly adopted plans to preserve,	☐	☐

	YES	NO
enhance, or otherwise protect it?		
iv. Indirect Business Displacement		
○ Would the project potentially introduce trends that make it difficult for businesses to remain in the area?	☐	☒
○ Would the project capture retail sales in a particular category of goods to the extent that the market for such goods would become saturated, potentially resulting in vacancies and disinvestment on neighborhood commercial streets?	☐	☒
v. Effects on Industry		
○ Would the project significantly affect business conditions in any industry or any category of businesses within or outside the study area?	☐	☒
○ Would the project indirectly substantially reduce employment or impair the economic viability in the industry or category of businesses?	☐	☒
3. *COMMUNITY FACILITIES*: CEQR Technical Manual Chapter 6		
(a) Direct Effects *Note that the existing school on the development site is not publicly funded.*		
○ Would the project directly eliminate, displace, or alter public or publicly funded community facilities such as educational facilities, libraries, health care facilities, day care centers, police stations, or fire stations?	☐	☒
(b) Indirect Effects		
i. Child Care Centers		
○ 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)	☐	☒
○ If "yes," would the project result in a collective utilization rate of the group child care/Head Start centers in the study area that is greater than 100 percent?	☐	☐
○ If "yes," would the project increase the collective utilization rate by 5 percent or more from the No-Action scenario?	☐	☐
ii. 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)	☐	☒
○ If "yes," would the project increase the study area population by 5 percent or more from the No-Action levels?	☐	☐
○ If "yes," would the additional population impair the delivery of library services in the study area?	☐	☐
iii. 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)	☒	☐
○ If "yes," would the project result in a collective utilization rate of the elementary and/or intermediate schools in the study area that is equal to or greater than 100 percent?	☒	☐
○ If "yes," would the project increase this collective utilization rate by 5 percent or more from the No-Action scenario?	☐	☒
iv. Health Care Facilities		
○ Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
○ If "yes," would the project affect the operation of health care facilities in the area?	☐	☐
v. Fire and Police Protection		
○ Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
○ If "yes," would the project affect the operation of fire or police protection in the area?	☐	☐
4. *OPEN SPACE*: CEQR Technical Manual Chapter 7		
(a) Would the project change or eliminate existing open space?	☐	☒
(b) Is the project located within an under-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☐	☒
(c) If "yes," would the project generate more than 50 additional residents or 125 additional employees?	☐	☐
(d) Is the project located within a well-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☒	☐
(e) If "yes," would the project generate more than 350 additional residents or 750 additional employees?	☒	☐
(f) If the project is located in an area that is neither under-served nor well-served, would it generate more than 200 additional residents or 500 additional employees?	☐	☐
(g) If "yes" to questions (c), (e), or (f) above, attach supporting information to answer the following:		
○ If in an under-served area, would the project result in a decrease in the open space ratio by more than 1 percent?	☐	☐
○ If in an area that is not under-served, would the project result in a decrease in the open space ratio by more than 5	☐	☒

	YES	NO
percent?		
○ If "yes," are there qualitative considerations, such as the quality of open space, that need to be considered? Please specify:	☐	☐
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?	☒	☐
(c) If "yes" to either of the above questions, attach supporting information explaining whether the project's shadow would reach any sunlight-sensitive resource at any time of the year. See attached.		
6. *HISTORIC AND CULTURAL RESOURCES*: CEQR Technical Manual Chapter 9		
(a) Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; that is listed or eligible for listing on the New York State or National Register of Historic Places; or that is within a designated or eligible New York City, New York State or National Register Historic District? (See the GIS System for Archaeology and National Register to confirm)	☒	☐
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	☒	☐
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting information on whether the proposed project would potentially affect any architectural or archeological resources. See attached		
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?	☐	☒
(c) If "yes" to either of the above, please provide the information requested in Chapter 10.		
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 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 Form and submit according to its instructions. See attached		
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) 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?	☐	☒
(c) 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 Appendix 1 (including nonconforming uses)?	☒	☐
(d) 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?	☒	☐
(e) 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)?	☒	☐
(f) 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?	☐	☒
(g) 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?	☐	☒
(h) Has a Phase I Environmental Site Assessment been performed for the site?	☒	☐
○ If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: See attached.	☒	☐
(i) 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?	☐	☒

	YES	NO
(c) If the proposed project located in a separately sewered area, would it result in the same or greater development than that listed in Table 13-1 in Chapter 13?	☐	☐
(d) Would the project involve development on a site that is 5 acres or larger where the amount of impervious surface would increase?	☐	☒
(e) If the project is located within the Jamaica Bay Watershed or in certain specific drainage areas, including Bronx River, Coney Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, or Westchester Creek, would it involve development on a site that is 1 acre or larger where the amount of impervious surface would increase?	☐	☒
(f) Would the proposed project be located in an area that is partially sewered or currently unsewered?	☐	☒
(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or contribute contaminated stormwater to a separate storm sewer system?	☐	☒
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	☐	☒
(i) If "yes" to any of the above, conduct the appropriate preliminary analyses and attach supporting documentation.		
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): 5,330		
○ 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?	☐	☒
○ If "yes," would the proposed project comply with the City's Solid Waste Management Plan?	☐	☐
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): 11,420,813 MBTU/SF		
(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 appropriate screening analyses, attach 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 or bus 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) or 200 subway/rail trips per station or line?	☐	☐
○ 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?	☐	☐
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 attached	☐	☒
(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?	☐	☒
(f) If "yes" to any of the above, conduct the appropriate analyses and attach any supporting documentation.		
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) Would the proposed project result in the development of 350,000 square feet or more?	☒	☐
(d) If "yes" to any of the above, would the project require a GHG emissions assessment based on guidance in Chapter 18?	☐	☒

	YES	NO
○ If "yes," would the project result in inconsistencies with the City's GHG reduction goal? (See Local Law 22 of 2008; § 24-803 of the Administrative Code of the City of New York). Please attach supporting documentation.	☐	☐
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 124 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?	☐	☒
(e) If "yes" to any of the above, conduct the appropriate analyses and attach any supporting documentation. See attached		
17. *PUBLIC HEALTH*: CEQR Technical Manual Chapter 20		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality; Hazardous Materials; Noise?	☒	☐
(b) If "yes," explain why an assessment of public health is or is not warranted based on the guidance in Chapter 20, "Public Health." Attach a preliminary analysis, if necessary. The proposed project does not have the potential for a significant adverse impact in the technical areas above as noted in the attached analyses. In addition, the project would not result in the combination of moderate adverse impacts in the technical areas to have the potential to significantly affect public health. Therefore, an assessment of public health is not warranted.		
18. *NEIGHBORHOOD CHARACTER*: CEQR Technical Manual Chapter 21		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Open Space; Historic and Cultural Resources; Urban Design and Visual Resources; Shadows; Transportation; Noise?	☒	☐
(b) If "yes," explain why an assessment of neighborhood character is or is not warranted based on the guidance in Chapter 21, "Neighborhood Character." Attach a preliminary analysis, if necessary. See attached		
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 attached.		

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	SIGNATURE	DATE
David Quart, AICP		12/11/19

PLEASE NOTE THAT APPLICANTS MAY BE REQUIRED TO SUBSTANTIATE RESPONSES IN THIS FORM AT THE

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	Department of City Planning, acting on behalf of the City Planning Commission
NAME: Olga Abinader	DATE: 12/13/2019

SIGNATURE

NEGATIVE DECLARATION (Use of this form is optional)

Statement of No Significant Effect

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

Reasons Supporting this Determination

The above determination is based on information contained in this EAS, which finds that the proposed project and related actions sought before the City Planning Commission would have no significant effect on the quality of the environment. Reasons supporting this Determination are noted below.

1. Hazardous Materials, Air Quality, and Noise

An (E) designation (E-555) for hazardous materials, air quality, and noise has been incorporated into the proposed actions. Refer to Appendix 1: (E) Designation", attached to this Determination of Significance, for a list of sites affected by the (E) designation and applicable (E) designation requirements. The analyses conducted for hazardous materials, air quality, and noise conclude that with the (E) Designation requirements in place, the proposed actions would not result in significant adverse impacts to hazardous materials, air quality, or noise.

2. Land Use, Zoning, and Public Policy

The EAS includes a Land Use, Zoning, and Public Policy section. The proposed actions include (1) a zoning map amendment to rezone the project site, Lots 10 and 20 on Brooklyn Block 5322, from C8-2 to R8A with a C2-4 commercial overlay, (2) a zoning text amendment to Zoning Resolution Section 113-10 to modify building setback requirements, (3) a zoning text amendment to Zoning Resolution Appendix F to establish a Mandatory Inclusionary Housing Area that is conterminous with the project site, and (4) a waiver of all required accessory off-street parking pursuant to Zoning Resolution Section 74-533. These actions would facilitate the development of a new mixed-use building with a total floor area of approximately 387,465 gross square feet (gsf) including 41,380 gsf of community facility uses, 5,000 gsf of retail, and 309,898 gsf of residential uses, with a proposed 310 dwelling units. The existing affected area currently permits residential, community facility, and commercial uses. The proposed action would not introduce any new land uses to the area that are not permitted under existing or no-action condition, which represents the thresholds of impact significance in the CEQR Technical Manual. The analysis concludes that no significant adverse impacts related to Land Use, Zoning, and Public Policy would result from the proposed actions.

3. Shadows

The EAS includes a detailed Tier 3 Shadows Analysis. The Tier 3 analysis indicates that the proposed project could cast shadows on six open space resources in the study area. The CEQR Technical Manual says a Shadows Impact would occur if shadows resulted in the complete elimination of all direct sunlight-sensitive features of the resources, when the complete elimination results in substantial effects on the survival, enjoyment, or, in the case of open space or natural resources, the use of the resource. The detailed analysis indicates that the incremental shadow from the proposed project would fall on portions of Prospect Park, on an unnamed park located at 318 Sherman Street, in short durations (18 mins. and 24-29 mins., respectively) such that no significant adverse shadow impacts would occur on these resources. Incremental shadows which would be cast on Machate Circle, would occur during the December 21 analysis day, when vegetation is dormant, and the public is less likely to use the resource. The detailed analysis also indicates that incremental shadow could fall on an unnamed plaza at 1 East 8th Street. However, incremental shadows would generally occur in the early mornings when the public is less likely to use the resource, and therefore would not detract from public use of this resource. The detailed analysis indicates that incremental shadows would fall on Parade Ground (PG) and Ocean Parkway Landscaped Malls (OP) for long durations on the December 21 (PG: 53 mins., OP: 1hr 55 mins), March 21 (PG: 2hr 59 mins., OP: 5hr 59 mins.), May 6 (PG: 3hrs 28 mins., OP: 4hrs 30 mins.), and June 21 (PG: 3hrs 46mins., OP: 1hr 30 mins.) analysis days. However, these shadows would fall on the portions of Parade Ground that contain limited sunlight-sensitive elements such as seating, tables, field, and courts, an area that is occupied by a police station building and an associated parking lot and fenced green areas. Incremental shadow that would fall on the Ocean Parkway Landscaped Malls would cover only small (~10%) portions of both malls at any given time.

Further, as the angle of the sun continuously changes throughout the day and incremental shadows move in a clockwise direction, no portion of the Ocean Parkway Landscaped Malls would be shaded permanently. Overall, the proposed project is not likely to result in significant adverse shadow impacts to potential sunlight-sensitive resources located within the shadow study area.

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). 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 Laura Kenny at (212) 720-3419.

TITLE	LEAD AGENCY
Director, Environmental Assessment and Review Division	Department of City Planning, acting on behalf of the City Planning Commission 120 Broadway, 31st Fl. New York, NY 10271 | (212) 720-3493
NAME Olga Abinader	DATE 12/13/2019
SIGNATURE Olga Abi	

TITLE	
Chair, City Planning Commission	
NAME Marisa Lago	DATE 12/16/2019
SIGNATURE	

Determination of Significance Appendix: (E) Designation

An (E) Designation (**E-555**) related to hazardous materials, air quality, and noise will be assigned to Projected Development Site 1 (Block 5322, Lots 10 & 20) in order to preclude significant adverse impacts, as noted below.

Hazardous Materials:

The (E) Designation requirements for hazardous materials are as follows:

Task 1-Sampling Protocol

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

No sampling should begin until written approval of a protocol is received from OER. The number and location of sample sites should be selected to adequately characterize the site, the specific source of suspected contamination (i.e., petroleum-based contamination and non-petroleum-based contamination), and the remainder of the site's condition. The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of the sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.

Task 2-Remediation Determination and Protocol

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

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

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

Air Quality:

The (E) Designation requirements for Air Quality are as follows:

Block 5322, Lots 10 and 20
Any new development or enlargement on Block 5322 Lots 10 and 20 must ensure that the heating, ventilating, and air conditioning (HVAC) and hot water heating system's stack is located at the highest tier or at least 148 feet above grade to avoid any potential significant adverse air quality impacts.

Noise:

The (E) Designation requirements for Noise are as follows:

Block 5322, Lots 10 and 20
In order to ensure an acceptable interior noise environment, future residential/commercial office/community facility uses must provide a closed-window condition with a minimum of 33 dB(A) window/wall attenuation on facades facing Park Circle and 31 dB(A) of attenuation on all facades facing Coney Island Avenue or portions of facades facing Caton Place within 50 feet of Coney Island Avenue to maintain an interior noise level not greater than 45 dB(A) for residential and community facility uses or not greater than 50 dB(A) for commercial office uses. To maintain a closed-window condition, an alternate means of ventilation must also be included. Alternate means of ventilation includes, but is not limited to, air conditioning.

1.0

Project Description

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

1.1 Introduction

The applicant, 312 Coney Island Avenue LLC, is seeking the following actions from the City Planning Commission: a zoning map amendment to rezone two lots (Brooklyn Block 5322, Lots 10 and 20) located at 312 Coney Island Avenue (the "project site") from a C8-2 zoning district to an R8A zoning district with a C2-4 commercial overlay; a zoning text amendment to Zoning Resolution (ZR) Section 113-10 to modify building setback requirements; a zoning text amendment to Appendix F to designate the project site as a Mandatory Inclusionary Housing (MIH) area; and a waiver of all required accessory off-street parking pursuant to ZR Section 74-533 (collectively the "proposed actions").

The proposed actions would facilitate the development of a new mixed-use building with a total floor area of approximately 387,465 gross square feet (gsf), including 41,380 gsf of community facility uses, 5,000 gsf of retail, and 309,898 gsf of residential uses (the "proposed project"). The proposed project would contain 310 dwelling units (assuming 1,000

gsf/unit). The applicant anticipates utilizing Option 1 of the MIH program, which would result in approximately 78 units.[1]

1.2 Project Site

The project site (Brooklyn Block 5322, Lots 10 and 20) is an irregularly shaped parcel located at 312 Coney Island Avenue, in the Windsor Terrace neighborhood of Brooklyn, Community District 7. The project site is on the eastern portion of the block bounded by Ocean Parkway to the north, Park Circle to the northeast, Coney Island Avenue to the east, Caton Place to the south, and East 8th Street to the west. See **EAS Figure 1**. The lot area of the project site is 43,438 square feet (sf), with approximately 130 feet of frontage along Ocean Parkway, 171 feet along Park Circle, 97 feet along Coney Island Avenue, and 225 feet along Caton Place.

As shown in **EAS Figure 3.1**, the project site is zoned C8-2 and is located within the Special Ocean Parkway (OP) District. It is occupied by 27,000 gsf of community facility uses, including the four-story (50 feet in height) International Baptist Church, an affiliated school, and an accessory surface parking lot with 36 spaces.

The project site is located across Coney Island Avenue from the Prospect Park Parade Ground and across Park Circle from Machate Circle, a greenspace within the Park Circle traffic circle at the southwest entrance of Prospect Park. Machate Circle was designated a scenic landmark as part of the Prospect Park scenic landmark designation in 1975. The project site is also located immediately adjacent to the recently rezoned Lots 1 and 4 on the project block. These lots were rezoned in 2018 to facilitate the development of a new nine-story mixed-use development on Lot 1, to the west of the project site. Lot 40 on the project block houses the Kensington Stables, a horse stable for equestrian activities in and around Prospect Park.

1.3 Proposed Actions

The proposed actions would consist of:

- A zoning map amendment to rezone the project site from a C8-2 to R8A with a C2-4 commercial overlay;
- A zoning text amendment to ZR Section 113-10 to modify building setback requirements;

[1] Per New York City Department of City Planning (DCP) guidance, for the purposes of the technical analyses, a range of affordable units is analyzed between 25 percent of the proposed units (78 units) affordable to households earning an average of 60 percent AMI (MIH Option 1) and 30 percent (93 units) affordable to households earning an average of 80 percent AMI (MIH Option 2).

- A zoning text amendment to designate the project site as a Mandatory Inclusionary Housing (MIH) Area, coterminous with the rezoning area, pursuant ZR Appendix F; and
- A waiver of all required accessory off-street parking pursuant to ZR Section 74-533.

1.4 Proposed Project and With-Action Condition

The proposed project would consist of a new 387,465-gsf mixed-use building containing 41,380 gsf of community facility uses, 5,000 gsf of retail, and 309,898 gsf of residential uses.[2] The residential component of the proposed project would include 310 dwelling units (an average of 1,000 gsf per dwelling unit) and 78 affordable units under Option 1 of the MIH program. The proposed project would have a total zoning floor area of 312,754 zoning square feet (zsf), with a Floor Area Ratio (FAR) of 7.2.

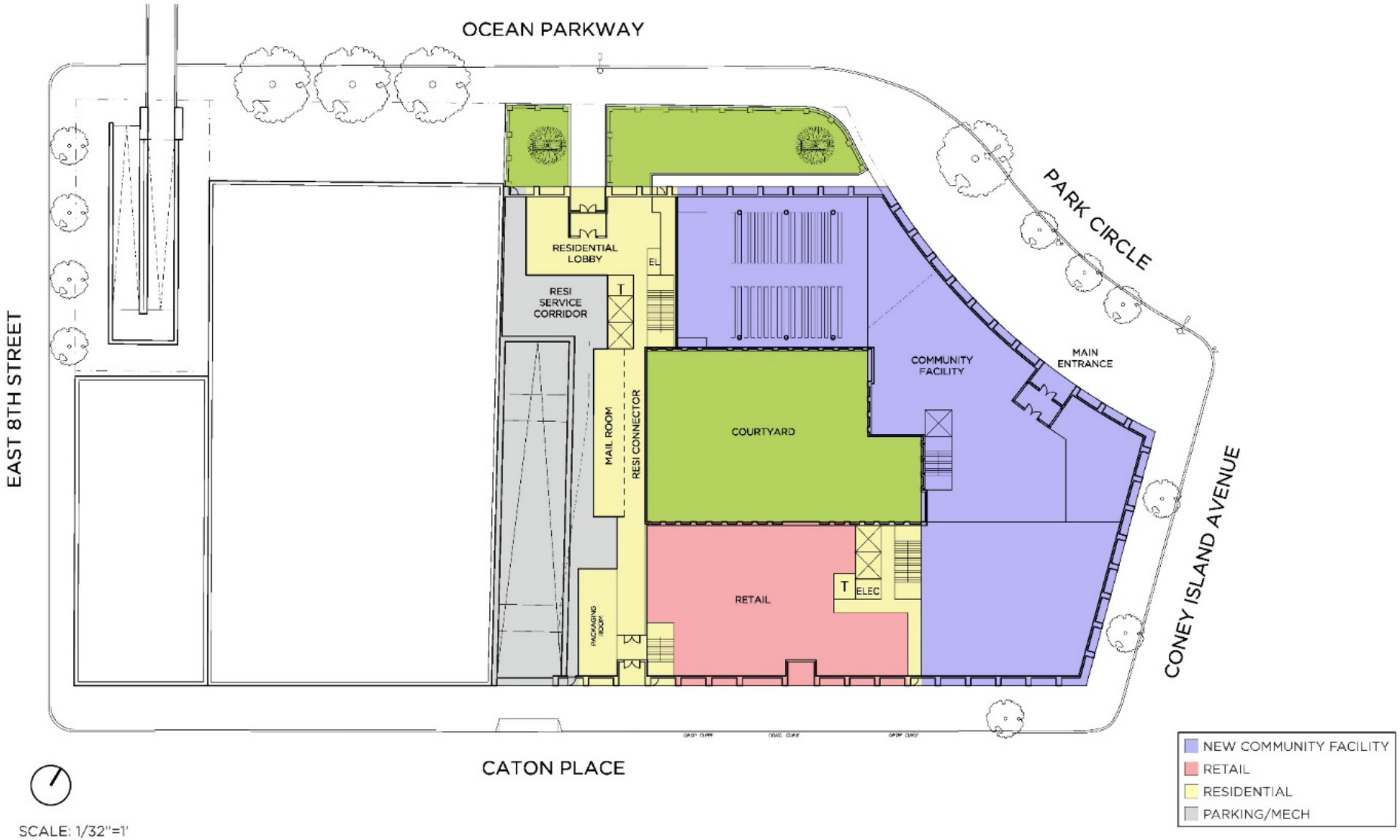
A site plan and massing diagram for the With-Action condition are provided in **Figures 1-1** and **1-2**. The existing International Baptist Church and school building would be demolished, and new and improved facilities would be relocated to the first and second floors of the proposed project. Retail would be located on the first floor along Caton Place. Residential apartments would be located on the upper floors, to be accessed from the main residential entrance on Ocean Parkway. As described above, the proposed actions would include a waiver of all of the required accessory off-street parking spaces pursuant to ZR Section 74-533 (see Section 1.5, Project Purpose and Need, below). However, at least 36 accessory parking spaces are anticipated below grade as a replacement of the existing surface parking lot that services the community facility uses. Parking would be accessed from Caton Place.

The building would be 13 stories and 145 feet tall to the roofline along Park Circle and Coney Island Avenue. In accordance with OP district regulations, the building would be set back 30 feet from Ocean Parkway. From the tallest portion of the building along Park Circle and Coney Island Avenue, the building would step down to 11 stories (121 feet high) along Caton Place, and then to nine stories (100 feet high) along both Caton Place and Ocean Parkway, matching the height of the building to be constructed immediately adjacent to the project site on Lot 1. The proposed actions would permit this transfer of the building bulk away from the adjacent building on Caton Place to be concentrated along the eastern edge of the project site, allowing for the tiered transition from the project site to its surroundings to the west and south. The building would also have an interior courtyard.

The proposed R8A district is a high-density, contextual residential district that allows residential (Use Groups 1 and 2) and community facility uses (Use Groups 3 and 4). Following the quality housing regulations, R8A districts permit a maximum FAR of 7.20 with MIH. The maximum base height in an R8A district is 105 feet with MIH and the maximum building height permitted is 145 feet and 14 stories for buildings with a qualifying ground floor. Parking is required for 40 percent of market-rate dwelling units in an R8A district.

[2] The With-Action condition is congruent with the intended project anticipated by the applicant.

Figure 1-1 With-Action Ground Floor Plan



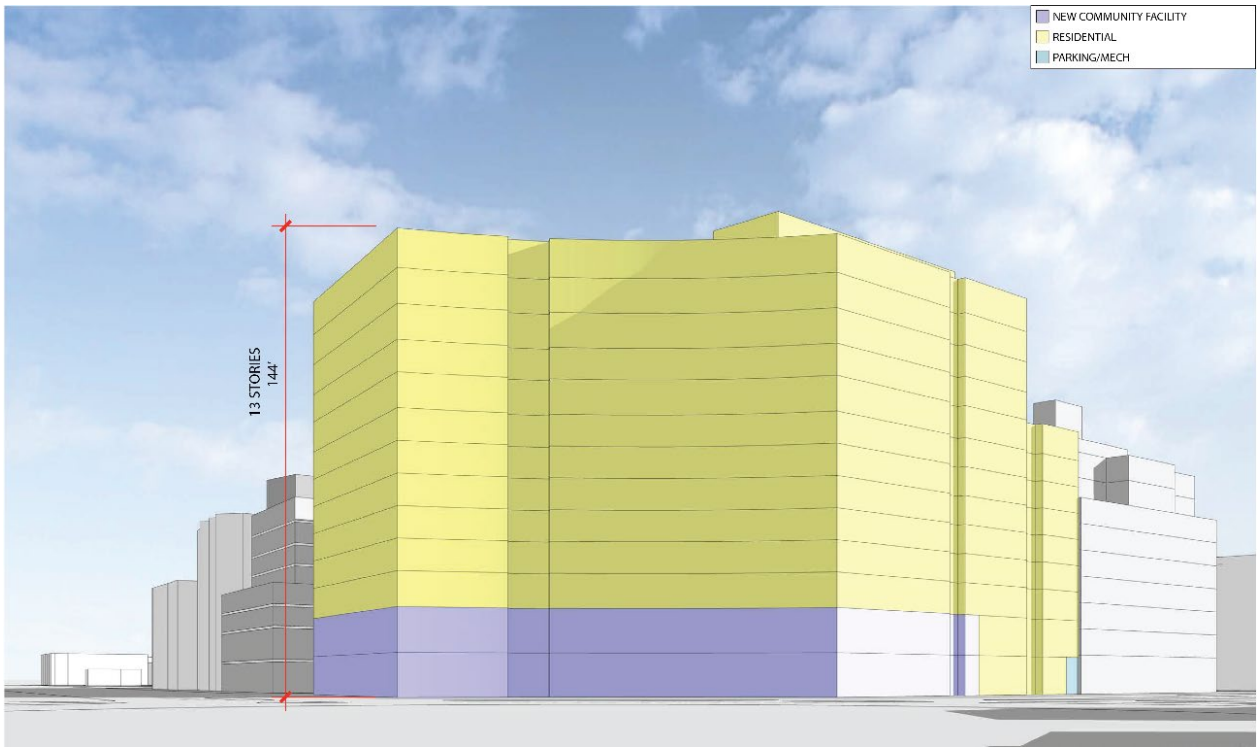
SCALE: 1/32"=1'

Source: FX Collaborative

For Illustrative Purposes Only

Figure 1-2 Project Massing: With-Action and No-Action Conditions

With-Action Massing



Source: FX Collaborative *For Illustrative Purposes Only*

No-Action Massing



Source: FX Collaborative *For Illustrative Purposes Only*

The proposed C2-4 commercial overlay is typically mapped along streets in residential districts to serve local retail needs; it allows a variety of neighborhood-serving commercial uses including Use Groups 5-9 and 14. C2-4 commercial overlays have a maximum FAR of 2.0 when mapped in an R6 or higher district. Commercial parking requirements in a C2-4 are 1 space per 1,000 square feet of floor area, which can be waived if the total number of spaces required for all uses is below 40.

1.5 Project Purpose and Need

The project site is currently substantially underbuilt to 0.62 FAR as compared to the 4.8 FAR that is allowed. In addition, the existing C8-2 zoning district, which is meant to bridge commercial and manufacturing districts, is geared toward heavy commercial and automotive uses. The C8-2 district no longer reflects the surrounding context of residential, community facility and park uses, and would not permit residential uses as-of-right.

The applicant believes the proposed R8A district would permit residential and community facility uses that are consistent with the surrounding area. Moreover, the R8A district would allow for development at a density that the applicant believes is appropriate for the project site, which is uniquely situated at the intersection of three wide streets and across from Prospect Park. The proposed C2-4 commercial overlay would allow the project to include neighborhood retail uses on the ground floor, which would serve area residents and enliven the streetscape along the project site.

In accordance with the MIH Program, the proposed project would dedicate 25 percent of the residential floor area to affordable housing. This would contribute to the Mayor's Housing New York Plan goal of building 300,000 affordable housing units by 2026. Without the proposed actions, no affordable housing or housing of any kind would be created on the project site because the commercial zoning does not currently allow for residential uses.

The proposed parking waiver pursuant to ZR Section 74-533 would permit the applicant flexibility to make some of the parking spaces in the building available to users other than the building residents. It is anticipated that the cellar level of the proposed project would be used for parking. To replace the existing surface parking used by the church, the applicant intends to designate 36 of the parking spaces in the cellar as shared spaces available to congregants on Sunday mornings and residents at other times. The remaining spaces in the cellar could be made available for building residents, residents in the surrounding area, and car sharing services. If the requirement for residential accessory parking spaces was applied, the parking facility in the cellar would need to be reserved for building residents and the applicant would not be able to make spaces available to congregants or local residents. Including the required number of parking spaces dedicated exclusively to the residential units *in addition* to the 36 parking spaces accessory to the community facility use would require constructing an additional below-grade level, but such excavation is cost-prohibitive and not feasible.

Finally, the project would replace the existing school and church buildings on the project site, providing new facilities for these long-standing community institutions. The church and school would be displaced for the full 29-month construction period, but have developed a

temporary relocation plan to ensure continuous operation of these uses throughout that period.

1.6 Analysis Framework and Reasonable Worst-Case Development Scenario

Future No-Action Condition

The future No-Action condition would include the development of a 3.69 FAR, 231,667-gsf mixed-use building with 88,707 gsf of hotel and 80,221 gsf of community facility uses. The community facility uses would include 26,011 gsf of school space to remain in its existing facilities on the project site, 9,035 gsf of church space to be relocated to the No-Action development, and 45,175 gsf of medical offices. The future No-Action condition would be developed as-of-right within the current zoning regulations; it does not utilize the full 4.8 FAR permitted at the project site. This reflects the program that would be developed absent the proposed actions as it (i) meets the requirements of the church by providing a new chapel and maintaining the existing school building; (ii) maximizes the permitted commercial development with a 2 FAR hotel; and (iii) maximizes the additional community facility floor area that could be viable based on similar facilities in the area. A massing diagram and site plan for the future No-Action condition are provided in **Figures 1-2** and **1-3**.

The future No-Action development would be 17 stories and 195 feet tall at its tallest portion along Park Circle and would step down to five stories along Ocean Parkway and two stories along Caton Place. Hotel uses would occupy floors six through 17 and medical office uses would occupy floors two through five along Ocean Parkway. The existing four-story school building would be maintained along Coney Island Avenue. The Church would be located on the ground floor next to the school building and would be constructed with a double height to accommodate the use. Access to the hotel and medical office uses would be provided from Ocean Parkway. Approximately 62,739 gsf of parking, accommodating 146 spaces, would be located on the cellar level, ground floor and second floor, and would include partial self-parking and partial attended parking.

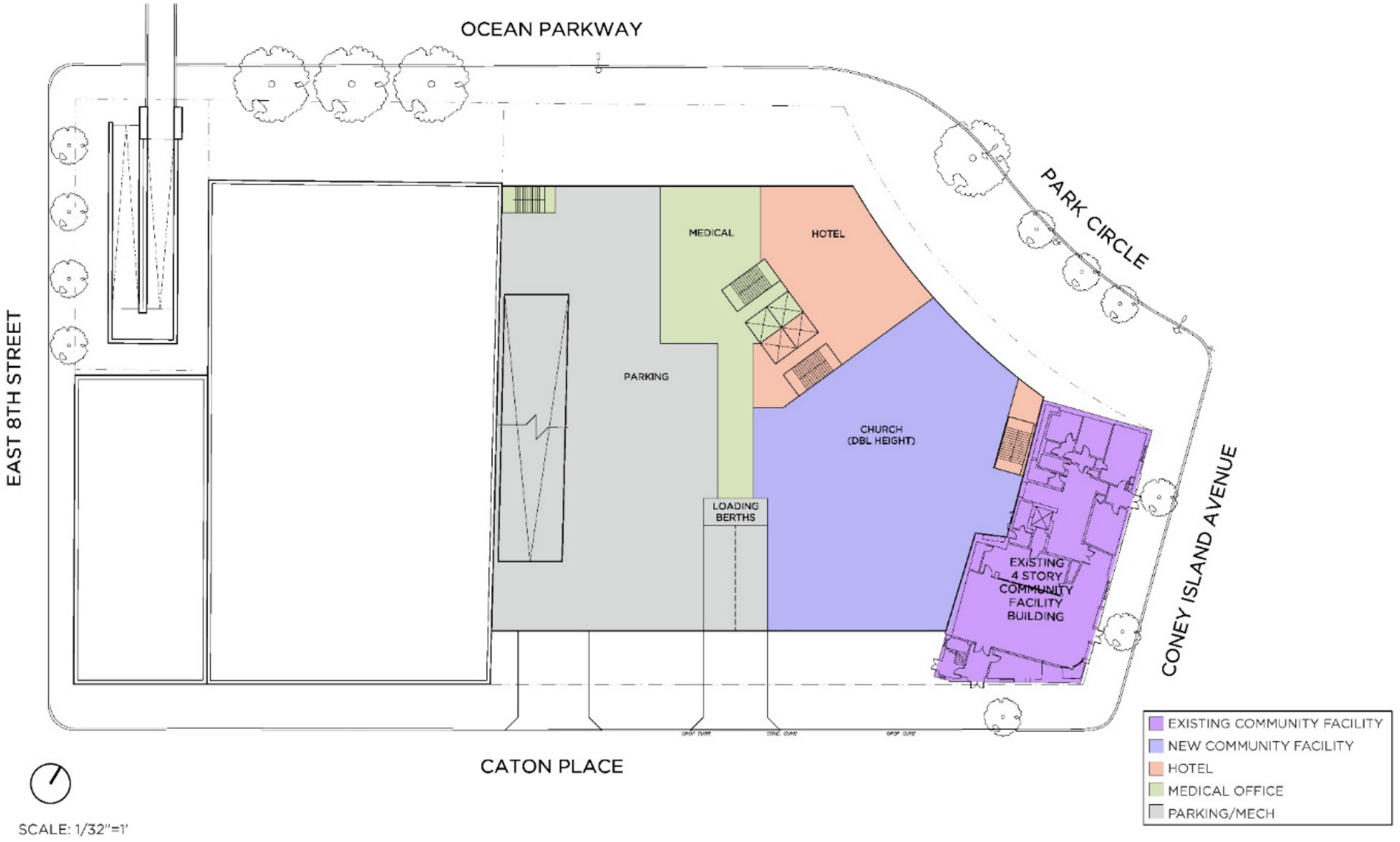
Future With-Action Condition

As noted above, the proposed actions would facilitate the development of a 387,465-gsf mixed-use building with 5,000 gsf of neighborhood-serving retail, 309,898 gsf of residential, and 41,380 gsf of community facility uses. The proposed development would be 13 stories and 145 feet in height, with a proposed FAR of 7.2, maximizing the available FAR and height permitted by proposed zoning. The proposed development would contain 310 residential units (assuming 1,000 gsf per unit), of which approximately 78 would be affordable.

The existing church and school uses would be maintained on the project site and incorporated into the first and second floors of the proposed development. The church use, which requires a double height space on the lower levels of the proposed development, displaces floor area and bulk to the upper levels, creating a steeper transition in height from the adjacent building on Caton Place and Ocean Parkway. The proposed actions would

permit the transfer of some of the building bulk away from the adjacent building on Caton Place to be concentrated along Park Circle, providing a tiered transition from the project site to its surroundings. It is anticipated that at least 36 accessory parking spaces would be provided below grade to replace the existing surface parking lot that services the community facility uses.

Figure 1-3 No-Action Ground Floor Plan



Source: FX Collaborative
For Illustrative Purposes Only

Increment for Analysis

In total, the future With-Action condition would result in a net increase of 155,797 gsf over the future No-Action condition, with an increase of 309,898 gsf of residential space and a decrease of 38,841 gsf of community facility and retail, and 83,707 gsf of commercial.

Table 1.0-1 Increment for Analysis

	No-Action Condition GSF (ZSF)	With-Action Condition GSF (ZSF)	Increment GSF
Residential	0	309,898 (277,848)	+ 309,898
Number of Dwelling Units	0	310	+ 310
Low- to Moderate-Income Units	0	78	+78
Community Facility	80,221 (73,230)	41,380 (29,906)	- 38,841
School/Church	*35,046 (29,906)*	*41,380 (29,906)**	*+ 6,334*
Medical Office	*45,175 (43,324)*	*0*	*- 45,175*
Commercial	88,707 (86,876)	5,000 (5,000)	- 83,707
Hotel	*88,707 (86,876)*	*0*	*- 88,707*
Hotel Rooms	*221*	*0*	*- 221*
Retail	*0*	*5,000 (5,000)*	*+ 5,000*
Parking GSF	62,739	31,187	- 31,552
Parking Spaces	*146*	*0*[3]	*- 146*
TOTAL	231,667 (160,106)	387,465 (312,754)	+ 155,798
Building Height (stories)	17	13	- 4
Building Height (ft)	195′	145′	- 52′

**Additional gsf would be located in the cellar level in the With-Action condition, and therefore there is no contribution to zsf*

Analysis (Build) Year

Assuming approval of the project in 2020 and then an anticipated construction period of 29 months, the proposed project would be completed and occupied by the year 2023.

[3] Although 36 spaces are anticipated as part of the proposed project, for analysis purposes the EAS will study conditions with 0 on-site parking to reflect the parking waiver.

2.0

Technical Screening

This section provides additional information for potential impacts as they relate to natural resources, water and sewer infrastructure, and greenhouse gas emissions.

2.1 Introduction

Provided below are preliminary screening analyses that were conducted for the proposed actions based on the guidelines presented in the *2014 CEQR Technical Manual* to determine whether further analysis of a given technical area is necessary to determine the potential for significant adverse impacts to the environment in that area. This section is included for the areas for which no further analysis was required, including Natural Resources, Water and Sewer Infrastructure, and Greenhouse Gas Emissions. Technical areas that required further analysis were excluded from this section and have designated sections for analysis within this document.

2.2 Natural Resources

An assessment of a project's effects on natural resources may be appropriate if a natural resource is present on or near the site of the project and disturbance of that resource may be caused by the proposed action. The project site and immediately adjacent area is substantially devoid of natural resources, as defined in the *2014 CEQR Technical Manual*. The project site is located within the Jamaica Bay Watershed. A completed Jamaica Bay

Watershed Form is included in Appendix B. The proposed project is not expected to affect the Jamaica Bay Watershed. Therefore, further analysis is not warranted.

2.3 Water and Sewer Infrastructure

A preliminary analysis of a project's effects on the water supply system is warranted if a project would result in an exceptionally large demand for water (e.g., those that would use more than one million gallons per day [gpd]), would be in an area that experiences low water pressure (e.g., Rockaway Peninsula or Coney Island), or if the project is located within the Jamaica Bay Watershed and would involve development on a site that is one acre or larger where the amount of impervious surface would increase. The project is located within the Jamaica Bay Watershed, however a site conditions survey from Langan dated August 4, 2017 determined the lot area to be 43,438 square feet (0.997 acres), confirming that the development site is under one acre. Therefore, further analysis is not warranted.

2.4 Greenhouse Gas Emissions

The need for a greenhouse gas (GHG) emissions assessment is highly dependent on the nature of an action and its potential impacts. The GHG consistency assessment is generally only necessary for city capital projects, projects proposing power generation or a fundamental change to the City's solid waste management system, and projects requiring an EIS and which would result in development of 350,000 gsf or more (or smaller projects that would result in the construction of a building that is particularly energy-intense, such as a data processing center or health care facility). This project does not fit these criteria and does not require an EIS, and therefore a GHG emissions assessment is not warranted.

2.1

Land Use, Zoning, and Public Policy

This section considers the potential for the proposed project to result in significant adverse impacts to land use, zoning, and public policy. Under the guidelines of the *2014 City Environmental Quality Review (CEQR) Technical Manual*, this analysis evaluates the uses in the area that may be affected by the proposed project and determines whether the proposed project is compatible with land use, zoning, and public policy conditions, or may otherwise affect them. The analysis also considers the proposed project's compatibility with zoning regulations and other public policies applicable to the area.

2.1.1 Introduction

This analysis of land use, zoning and public policy follows the guidelines set forth in the *2014 CEQR Technical Manual*. It characterizes the existing conditions in the area surrounding the project site and addresses potential impacts to land use, zoning, and public policy that would be associated with the proposed actions.

2.1.2 Methodology

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

the *CEQR Technical Manual*, a preliminary land use and zoning assessment includes a basic description of existing and future land uses and zoning information and describes any changes in zoning that could result in changes in land use. It also characterizes the land use development trends in the area surrounding the project site that might be affected by the proposed actions and determines whether the proposed project is compatible with those trends or may affect them.

For public policy, the *CEQR Technical Manual* stipulates that a preliminary assessment should identify and describe any public polices (formal plans, published reports) that pertain to the study area, and should determine whether the proposed project could alter or conflict with identified policies. If so, a detailed assessment should be conducted; otherwise, no further assessment is needed.

The following land use, zoning and public policy assessment follows this guidance and provides a description of existing conditions of the project site and surrounding area. This is followed by an assessment of the future No-Action condition and the future With-Action condition, and a determination that no further analysis is needed.

The study area for this analysis is the area within 400-feet of the project site which, for the proposed project, is generally bounded by Ocean Parkway to the west, Kermit Place to the south, the Parade Grounds/Prospect Park to the east, and mid-block between Ocean Parkway and Greenwood Avenue to the north (see **EAS Figure 1**). This is the area in which the proposed project would be most likely to have effects in terms of land use, zoning, and public policy.

2.1.3 Assessment

Existing Conditions

Land Use

Project Site

The project site, located at 312 Coney Island Avenue (aka 11 Ocean Parkway) is a through lot located at the eastern end of the project block, which is bounded by Ocean Parkway to the north, Park Circle to the northeast, Coney Island Avenue to the east, Caton Place to the south, and East 8th Street to the west. The project site has a total lot area of approximately 43,438 square feet (sf), with approximately 97 feet of frontage along Coney Island Avenue, 225 feet along Caton Place, 171 feet along Park Circle and 130 along Ocean Parkway. The project site is developed with a four-story building that was originally built in 1957 (altered in 1999) and serves as the International Baptist Church and affiliated International Christian School. The building shares the lot with a 36-space parking lot for patrons and workers at the church and school, accessed from Caton Place, and a lawn on the northern side of the building. The building has entrances from the parking lot and along Caton Place, Coney Island Avenue, and Park Circle. The proposed rezoning is conterminous with the project site boundaries.

Study Area

The project site is located in the Windsor Terrace neighborhood of Brooklyn. As shown in **EAS Figure 2**, the study area is predominantly characterized by residential, institutional, and parkland uses. Other than the project site lots, the project block contains a warehouse on Lot 4 which is being redeveloped into a mixed-use residential and commercial building. Kensington Stables, a horse table for equestrian activities in and around Prospect Park, which was constructed in 1930, is located on Lot 40 at the southwest corner of the block. Lot 1, on the northwest corner of the project block, is a City-owned lot mapped as parkland. Lot 1 has an area of 5,075 sf and currently contains several park benches and the off-ramp/landing of an Ocean Parkway pedestrian overpass, which connects this lot to another City-owned lot on the north side of Ocean Parkway.

The block immediately to the south of the project block also contains several large institutional uses, including the Cavalry Cathedral of Praise located at the northwest corner of the block, and the Brooklyn College Academy which fronts along Coney Island Avenue. The Brooklyn College Academy building also has a self-storage facility on the ground floor. What was once a large surface parking lot associated with the Cavalry Cathedral of Praise, located at the northeast corner of the block across the street from the International Christian Church, is currently being converted to an eight-story commercial facility. Just south of this lot is a large multi-family residential building (346 Coney Island Avenue). The southern edge of the block, along Kermit Place, contains a row of single-family homes anchored by a multi-family walkup building at the southwest corner of the block and a lot marked as vacant on the southeast corner containing parked cars.

Residential elevator buildings are prevalent within the study area and are generally located along either side of Ocean Parkway, a major thoroughfare which curves in this area so that it is oriented both east-west along the northern side of the project site and north-south to the west of the study area. Smaller scale one- and two-family residential buildings are located beyond the immediate frontage along Ocean Parkway along East 8th street, Sherman Street, and Kermit Place.

The study area contains a large section of parkland east of Coney Island Avenue, known as the Prospect Park Parade Ground. The Parade Ground provides numerous recreational fields and courts, with a recreation building along Coney Island Avenue that houses several NYC Department of Parks and Recreation offices and Brooklyn's 74th Police Precinct. Northwest of the Parade Ground is Machate Circle, a center green space within a traffic circle located at the southwest corner of Prospect Park that is also a primary entrance to the park. Prospect Park is a defining land use feature immediately outside of the study area to the northeast. Additionally, the Ocean Parkway pedestrian overpass located within on Lot 1 on the project block connects the project block to a small open space on the north side of Ocean Parkway. Similar to Lot 1, this park is largely occupied by the landing and ramp to the overpass, with park benches featured in the remaining area around the landing structure.

Commercial space is limited within the study area. There is one commercial building, a TD Bank branch, located just north of Machate Circle at the northern boundary of the study area.

Zoning

Project Site

The project site is located in a C8-2 commercial zoning district within the large Special Purpose Ocean Parkway District (see **EAS Figure 4**). The C8-2 zoning district is bounded by Ocean Parkway to the north and generally follows Coney Island Avenue south. The district extends well beyond the study area to its southern boundary at Beverly Road.

The C8-2 district allows for a maximum floor area ratio (FAR) of 2.0 for commercial uses and 4.8 for allowed community facility uses. C8-2 districts allow automotive and other heavy commercial services that often require large amounts of land such as automobile showrooms and repair shops, warehouses, gas stations and car washes. However, all commercial uses as well as certain community facilities (Use Group 4) are permitted in C8 districts. Residential uses are not permitted, and performance standards are imposed on certain semi-industrial uses. C8 districts are mapped mainly along major traffic arteries (in this instance, Coney Island Avenue) where concentrations of automotive uses have developed, and generally bridge commercial and industrial uses. Building heights in C8-2 districts are governed by a sky exposure plane beginning at a height of 60 feet or four stories (whichever is less). Parking is required within C8-2 districts.

The Special Ocean Parkway District was established in 1977 to promote the scenic landmark designation of Ocean Parkway and off-street loading for certain community facilities and regulate use to conserve the value of land. The portion of Ocean Parkway that is within the project area is not designated a scenic landmark.

For the project site, the bulk regulations of the Special District supersede those of the underlying C8-2 district and include the following pertinent regulations for all developments having frontage on Ocean Parkway: a 30-foot front yard (balconies may penetrate the front yard to a depth of not more than six feet) and enclosed accessory off-street parking spaces.

Study Area

As shown in **EAS Figure 4**, in addition to the C8-2 zoning district, the study area is also mapped with R5B, R6, R7A (with and without a C2-4 overlay), R7B, and R8B residential zoning districts (located north and south of the project area), parkland (generally to the east of Coney Island Avenue). The locations of these zoning districts within the study area are illustrated on **EAS Figure 4**.

The R5B contextual district is mapped in several locations within the study area. In 2009, the southern and eastern portion of the block bounded by Caton Place to the north, Ocean Parkway to the west, Kermit Place to the south, and East 8th Street to the east, was rezoned from R6 to R5B (C 090197 ZMK). Additionally, R5B is mapped approximately 100 feet north of Ocean Parkway (above the R8B district, described below). This moderate density residential district allows an FAR of 1.35 for residential uses and 2.0 for community facility uses, with a maximum building height of 33 feet and maximum street wall height of 30 feet. A minimum five-foot front yard is required.

The study area is also mapped with R7A and R7B contextual residential districts. R7A is mapped on the block immediately to the west of the project site as well as on the northwest

corner of the block bounded by Caton Place, East 8th Street, Kermit Place, and Ocean Parkway. A small portion of the same block, immediately to the east of the R7A district, is mapped R7B. Both of these contextual districts are subject to Quality Housing bulk regulations. R7A allows a maximum FAR of 4.0 for residential uses and a maximum building height of 80 feet after a setback from the maximum street wall height of 65 feet. R7B allows a maximum FAR of 3.0 for residential uses and a maximum building height of 75 feet with a maximum street wall height of 65 feet, Recently, Lots 1 and 4 on the project block were rezoned to R7A from C8-2, with a C2-4 overlay on the development site (Lot 4). This action extended the neighboring R7A district to the west to include the project site and city owned parkland. It also amended the zoning text to establish Mandatory Inclusionary Housing (MIH) Area over the project area and amended the Special Ocean Parkway District (Zoning Resolution (ZR) Section 113-00) to extend applicability of the MIH program to the designated areas. With this rezoning a nine-story mixed-use residential building with ground floor commercial will be developed.

The contextual R8B district, mapped along the north side of Ocean Parkway within the study area, permits a maximum residential and community facility FAR of 4.0, with mandatory Quality Housing bulk regulations which encourage six-story apartment buildings with a setback at the top story. The district requires a base height between 55 and 65 feet and a maximum building height of 75 feet.

Machate Circle is zoned R6, a medium density residential zoning district. R6 districts are subject to the height factor regulations and permit a maximum FAR of 2.43 for residential buildings and 4.8 for community facilities. Building envelopes are regulated by the sky exposure plane. Prospect Park Parade Ground at the eastern edge of the study area is designated as parkland.

Public Policy

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

On May 5, 2014, the de Blasio administration released Housing New York: A Five-Borough, Ten-Year Housing Plan ("Housing New York"), a plan to build or preserve 200,000 affordable residential units. To achieve this goal, the plan aims to double the New York City Department of Housing Preservation and Development (HPD)'s capital budget, target vacant and underused land for new development, protect tenants in rent-regulated apartments, streamline rules and processes to unlock new development opportunities, contain costs, and accelerate affordable construction. The plan details the key policies and programs for implementation, including developing affordable housing on underused public and private sites. In 2017, Housing New York 2.0 was released as an update to the original 10-year plan, which increased this number from 200,000 to 300,000 homes.

New York City Landmarks Law

The New York City Landmarks Law of 1965 established the New York City Landmarks Preservation Commission (LPC) and authorized the Commission to designate individual buildings, historic districts, interior landmarks and scenic landmarks of historical, cultural and architectural significance. Prospect Park, including Machate Circle, the southwestern park circle, is a scenic landmark, designated by the LPC in 1975 (LPC No. LP-00901). A portion of

Machate Circle is located within the boundaries of the study area. Constructed from 1865-1867, Prospect Park was designed by Frederick Law Olmsted and Calvert Vaux as a response to the open space needs of the people of Brooklyn. Prospect Park, the heart of the Brooklyn park system, encompasses approximately 526 acres of open space and is notable for its varied landscape effects of meadow, woods, and lake; its extensive variety of native and exotic plants and trees; and its successful circulation system separating pedestrian and vehicular traffic. The Prospect Park Parade Ground is not a designated scenic landmark.

Fresh Zones

The Food Retail Expansion to Support Health (FRESH) program is a program that provides both zoning incentives and financial benefits to communities that are underserved by neighborhood grocery stores. Its goal is to encourage the development and retention of convenient, accessible stores that provide fresh perishable goods. The program offers additional floor area in mixed-use buildings, parking reductions, and exemption from certain taxes by the NYC Industrial Development Agency, The project site falls within an area that provides financial, but not zoning, incentives for fresh food retail space.

No other public policies govern the project site or surrounding study area.

No-Action Condition

Absent the proposed project (the future No-Action condition), a portion of the existing buildings would be knocked down to facilitate the development of a hotel and medical offices alongside the existing community facilities uses. This would be done as-of-right within the current zoning regulations.

The as-of-right development would be a 3.69 FAR, 231,667-gsf mixed-use building with 88,707 gsf of hotel and 80,221 gsf of community facility uses. The community facility uses would include 26,011 gsf of school space to remain in its existing facilities on the project site, 9,035 gsf of church space to be relocated to the No-Action development, and 45,175 gsf of medical office with approximately 62,739 gsf of parking.

Land Use

The future No-Action condition would introduce a new land use to the project site: commercial. Within the past several years, two large multi-family residential projects, 22 Caton Place and 33 Caton Place, have been completed near the project site and another, 57 Caton, is in development. This exhibits a trend toward residential development within the study area. The future No-Action condition would diverge from this development pattern by introducing one of the few commercial uses in the study area.

There are two planned developments within the 400-foot study area that are expected to be completed by the 2021 analysis year. Construction has started for a 157,600 gsf, eight-story commercial self-storage facility at 72 Caton Place (aka 68 Caton Place), which is currently an existing surface parking lot associated with the Cavalry Cathedral, to the block south of the project site. This is a permitted use in the C8-2 zoning district and, as mentioned above, there is an existing self-storage business located on the ground floor of the Brooklyn College Academy, on the same block. Therefore, though it would be one of only a few commercial

buildings within the study area, the use would be similar to land uses already present in the study area.

The second planned development is that of 57 Caton Place, a 166,191-gsf mixed-use residential and commercial building consisting of two nine-story wings over a shared base. The development at 57 Caton was facilitated by a rezoning of Lots 1 and 4 on the project block in 2018 (C170213ZMK). It will contain affordable and market rate residential space, ground floor retail, and 74 parking spaces in a below-grade garage. As discussed, the study area is characterized by predominantly residential uses and ground floor retail is scarce within the study area. The local retail to be provided as part of the 57 Caton Place development is expected to fill a need for this type of local amenity.

Zoning

There are no anticipated zoning changes within the study area under the No-Action condition. The project site and study area would continue to be governed by the various zoning regulations found in the area, as described in the existing conditions section above. The proposed future No-Action project would conform to zoning in full.

Public Policy

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

With-Action Condition

The proposed actions would facilitate the development of a 387,465-gsf mixed-use building with 5,000 gsf of retail, 309,898 gsf of residential, and 41,380 gsf of community facility uses. The proposed project would be 13 stories and 145 feet in height, with a proposed FAR of 7.2. It would contain 310 residential units and it is anticipated that 78 units within the proposed project would be affordable units utilizing Option 1 of the MIH program. The existing church and school uses would be maintained on the project site and incorporated into the proposed project, and 36 accessory parking spaces would be provided below grade to replace the existing surface parking lot that serves the community facility uses.

Land Use

The proposed actions would facilitate a change in land use under the future With-Action condition, as compared to the future No-Action condition, with the introduction of residential uses on the project site. As discussed above, the study area is characterized predominantly by residential and institutional uses, with multi-family residential uses prevalent along Caton Place to the west of East 8th Street, as well as along Ocean Parkway. Two relatively large-scale residential developments, 22 Caton Place and 33 Caton Place, have been completed within the past several years. In addition, though ground floor retail is scarce within the study area, the proposed neighborhood-serving retail on the project site would fill a need for this type of local amenity, adding to the retail to be developed as part of the 57 Caton Place project.

The proposed project would be consistent with the mixed-use residential, commercial, and community facility character of the project block and its immediate surroundings. As

mentioned above, an eight-story commercial self-storage facility is under construction at 72 Caton Place, across the street from the project site to the south. That project would be located immediately adjacent to the existing multi-family residential building along Coney Island Avenue. There is also the mixed-use residential and commercial building proposed for 57 Caton Place, which is consistent with surrounding residential land uses. Based on these conditions, the proposed project would be consistent with the surrounding land uses and with recent development trends within the study area.

Zoning

As detailed in Section 1.0, "Project Description," the applicant is seeking a zoning map amendment to rezone the project site from C8-2 commercial to R8A residential with a C2-4 commercial overlay and a zoning text amendment to the Special Ocean Parkway District, ZR Section 113-00 (Special Bulk Regulations) and Appendix F of the Zoning Resolution, to modify bulk regulations and establish an MIH Area on the project site. These actions would increase the permitted density on the project site and allow new residential uses.

The applicant believes the proposed actions would be in keeping with recent rezonings and recent development on the same street as the project site. While the proposed actions would change the zoning designation of the project site, the proposed project is in keeping with the purpose and goals of the Special Ocean Parkway District, as it modifies bulk and setback regulations to provide a transfer of some of the buildings bulk away from the adjacent building on Caton Place to be concentrated along Park Circle, providing a tiered transition from the development site to its surroundings. From the tallest portion of the building along Park Circle and Coney Island Avenue, the building would step down to 11 stories along Caton Place, and then to nine stores along both Caton Place and Ocean Parkway, matching the height of the building being constructed in the adjacent lot. Compared to the future No-Action condition, the proposed project would provide substantial benefits to the surrounding community, including affordable housing and more quality space for the school and church currently occupying the project site.

The proposed actions include the following zoning changes:

Proposed Zoning Map Amendment

A zoning map amendment to Zoning Map 16d would change the zoning of the project site from a C8-2 commercial district on Lots 10 and 20 to an R8A residential district with a C2-4 commercial overlay. The proposed R8A district is a high-density residential district that allows residential (Use Groups 1 and 2) and community facility land uses (Use Groups 3 and 4) with a maximum residential FAR of 6.02 (7.2 with Inclusionary allowances). The maximum base height in an R8A is 95 feet or 105 feet with Inclusionary Housing, and the maximum building height is 125 feet or 145 ft with Inclusionary Housing. Parking is required for 40 percent of market-rate dwelling units and is waived for income restricted housing units because the project site is in a Transit Zone.

The proposed C2-4 commercial overlay is typically mapped along streets in residential districts to serve local retail needs allowing a variety of neighborhood serving commercial uses, including Use Groups 5-9 and 14. C2-4 commercial overlays have a maximum FAR of

2.0. Commercial parking requirements in a C2-4 district are 1 space per 1,000 square feet of floor area and can be waived if the total number of spaces required for all uses is below 40.

As described above, the underlying R8A and C2-4 zoning controls would be superseded by the controls of the Special Ocean Parkway District, where applicable.

Proposed Zoning Text Amendment

ZR Section 113-10

A zoning text amendment to ZR Section 113-10 is proposed to modify building bulk and setback requirements. This would permit the transfer of the building bulk away from the adjacent building on Caton Place to be concentrated along the eastern edge of the project site and allow for an appropriate transition from the development site to its surroundings.

Establish a Mandatory Inclusionary Housing Area

A zoning text amendment to Appendix F of the Zoning Resolution, "Mandatory Inclusionary Housing Areas," would establish an MIH Area that is coterminous with the project site. The applicant anticipates utilizing Option 1 of the MIH program, which would result in approximately 78 affordable units.

Special Permit

Waiver pursuant to ZR Section 74-533

A waiver of all the required accessory off-street parking spaces pursuant to ZR Section 74-533, which outlines the reduction of parking spaces to facilitate affordable housing. As required, the proposed project is located in a Transit Zone and the waiver would facilitate the development of the building with an anticipated 78 income-restricted housing units.

The proposed zoning would be compatible with the zoning district directly adjacent to the project site to the west, as well as the other surrounding residential zoning districts within the study area. The setback modifications would allow for the building bulk to have a tiered transition from the project site to its surroundings to the west and south. Waiving the parking to facilitate affordable housing development is also appropriate, since the project is in a Transit Zone and will maintain sufficient parking for the community facility uses. In addition, under the With-Action condition, the proposed project would conform to the proposed zoning in full. Therefore, the proposed actions would not result in a significant adverse impact to zoning.

Public Policy

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

The proposed actions would be consistent with the Housing New York plan and would result in approximately 78 new affordable housing units in the Windsor Terrace neighborhood of Brooklyn. Therefore, the proposed actions would be supportive of this public policy goal.

New York City Landmarks

The proposed actions would result in new development immediately adjacent to an LPC-designated scenic landmark. However, as analyzed in detail in Section 2.7, "Urban Design and Visual Resources," no impacts to the scenic landmark, Prospect Park and Machate Circle, are anticipated as a result of the proposed project.

FRESH Zones

As describe above, the project site falls within an area that provides financial, but not zoning, incentives for fresh food retail space. Available retail space within the proposed project is limited to 5,000 sf and would not support a supermarket or grocery store. Therefore, this public policy is not applicable to the proposed project.

2.1.3 Conclusion

As described above, the proposed actions would result in the redevelopment of the project site as a mixed-use commercial and residential building with a 7.2 FAR. The applicant believes the development resulting from the proposed actions would be consistent with the area's development patterns and proposed zoning regulations for the project site. The applicant believes the proposed project would maintain and enhance the existing land use character within the study area (defined by a mix of institutional uses and low- to high-density residential uses). The applicant believes the proposed neighborhood-serving retail would complement the area's growing residential population. The community facility uses that are currently on the project site would be maintained and enhanced. In addition, the proposed project would provide additional affordable housing units to the neighborhood. Therefore, the proposed project would not result in any significant adverse impacts to land use, zoning, or public policy and further analysis is not needed.\

2.2

Socioeconomic Conditions

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

2.2.1 Introduction

According to the *2014 CEQR Technical Manual*, an analysis of socioeconomic conditions may be necessary when a project would directly or indirectly change an area's socioeconomic character (population, housing, and economic activity); the assessment usually considers the socioeconomic conditions of area residents separately from those of area businesses, although projects may affect both in similar ways. An assessment of socioeconomic conditions is warranted when a project would result in:

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

For the proposed project, a preliminary analysis of indirect residential displacement was warranted. The preliminary analysis determined the proposed actions would not result in significant adverse impacts to socioeconomic conditions.

2.2.2 Methodology

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

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

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

Analysis Format

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

2.2.3 Initial Screening Assessment

According to the *CEQR Technical Manual*, a socioeconomic assessment should be conducted if a project may be reasonably expected to create substantial socioeconomic changes within the area affected by the project that would not be expected to occur without the project. The following screening assessment considers threshold circumstances identified in the *CEQR Technical Manual* and enumerated below that can lead to socioeconomic changes warranting further assessment.

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

  The project site is currently occupied by community facility uses and a parking lot, with no residents living on the site. Therefore, no analysis of direct residential displacement is warranted.

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

  The proposed project entails demolishing and rebuilding the current community facilities, which employ approximately 23 workers. Therefore, further assessment of direct business displacement is not warranted.

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

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

  The proposed project would not result in an addition of more than 200,000 square feet of commercial space. Therefore, there is no potential for indirect business displacement, and further assessment of this concern is not warranted.

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

  The proposed project would not result in retail space exceeding 200,000 square feet, and thus, an assessment of potential indirect business displacement due to retail market saturation is not warranted.

- **Adverse Effects on Specific Industries:** Is the project expected to affect conditions within a specific industry?

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

Based on the screening assessment presented above, the proposed actions warrant an analysis of indirect residential displacement but do not warrant additional analysis for the potential for direct residential displacement, direct business displacement, indirect business displacement due to retail market saturation or adverse effects on specific industries.

2.2.4 Preliminary Assessment of Indirect Residential Displacement

Indirect Residential Displacement Methodology

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

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

Study Area Definition

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

The project site is located within Brooklyn Census Tract 504. A quarter-mile study area would contain Brooklyn Census Tracts 500, 502.02, 504, and 506. Census Tract 177 is also located within the quarter-mile radius, but contains only Prospect Park and does not have any residences, and therefore, would not be included in the study area. Combined, these census tracts have a population of 16,822.[1] Six new residential development projects are anticipated in the quarter-mile study area in the future No-Action condition, resulting in the construction of 174 new residential units. Using a blended average household size for the

[1] 2013-2017 American Community Survey (ACS), compiled through the NYC Population FactFinder.

Brooklyn Windsor Terrace, Kensington-Ocean Parkway, and Flatbush neighborhoods of 2.81 people per household, the new residential units will generate approximately 436 new residents for a total population of 17,258 in the future No-Action condition of a quarter-mile study area. The proposed project would generate an additional 872 new residents[2] and is estimated to result in a residential population increase of 5.1 percent within a quarter-mile study area. According to the *CEQR Technical Manual,* if the population increase in a quarter-mile study area is over 5 percent, the project could potentially impact a larger area and a half-mile study area is appropriate. Therefore, a half-mile study area is used for this analysis.

The half-mile study area contains Brooklyn Census Tracts 494, 500, 502.02, 504, 506, 508.04, 1502 and 1522 (see **Figure 2.2-1**). As noted above, Census Tract 177 is also located within the half-mile radius, but contains only Prospect Park and does not have any residences, and therefore, is not included in the study area. Combined, the study area census tracts have a population of 35,802.[3] Eight new residential development projects are anticipated in the half-mile study area in the future No-Action condition, resulting in the construction of 174 new residential units. Using a blended average household size for the Brooklyn Windsor Terrace, Kensington-Ocean Parkway, and Flatbush neighborhoods of 2.81 people per household, the new residential units will generate approximately 489 residents for a total population of 36,291 in the future No-Action condition of the half-mile study area.[4] The proposed project would generate an additional 872 new residents to the study area and is estimated to result in a residential population increase of 2.4 percent within the study area. This half-mile study area is generally bounded by Prospect Park West and Seeley Street to the north, Ocean Avenue and East 16th Street to the east, Cortelyou Road and Avenue C to the south, and McDonald Avenue to the west. A portion of the study area also extends northwest along the Prospect Expressway, including properties to the west of the Expressway up to 7th Avenue.

Data Sources

Information used in the socioeconomic analysis includes data from the U.S. Census Bureau's 2006-2010 American Community Survey (ACS) and 2013-2017 ACS, compiled through the NYC Population FactFinder. The 2013-2017 data reflects five-year averages of income distribution, mean income and median rent for the trailing 12 months in 2017 inflation-adjusted dollars. The mean income and median gross rent of each census tract were compiled by the NYC Population FactFinder.

All income and rent data were adjusted to 2018 dollars to account for inflation based on New York-Northern New Jersey-Long Island, NY-NJ-CT-PT Consumer Price Index for All Urban Consumers so that income and rent trends were observed to change based on normalized figures.

[2] Calculated using the blended average household size of 2.81 persons per household for the Brooklyn Windsor Terrace, Kensington-Ocean Parkway, and Flatbush neighborhoods, multiplied by the proposed 310 residential units.

[3] 2013-2017 American Community Survey (ACS), compiled through the NYC Population FactFinder.

[4] Given the project site's location proximate to three Neighborhood Tabulation Areas, this analysis uses the blended average household size for the Brooklyn Windsor Terrace, Kensington-Ocean Parkway, and Flatbush neighborhoods.

Real estate property listing data was obtained from a representative of Compass, a real estate company. Area Median Income (AMI) for the New York City region was obtained from the U.S. Department of Housing and Urban Development (HUD).

Existing Conditions

The existing population of the socioeconomic study area is 35,802, as per the 2013-2017 ACS 5-year Estimate (see **Table 2.2-1**). The population of both Brooklyn and New York City, as a whole, have increased over the same time period by 6.8 percent and 4.2 percent, respectively.

Table 2.2-1 Population

Area	Population 2006-2010	Population 2013-2017	% Change
Study Area	36,304	35,802	-[1]
Brooklyn	2,466,782	2,635,121	6.8%
New York City	8,214,436	8,560,072	4.2%

Source: 2006-2010 American Community Survey (ACS) 5-year Estimate for Years 2006-2010 data and 2013-2017 ACS 5-year Estimate for Years 2013-2017.

Notes: [1] The Margin of Error (MOE) of the difference between 2006-2010 ACS 5-year Estimates and 2013-2017 ACS 5-year Estimates is greater than one-third of the estimated difference. Therefore, a percentage change cannot be estimated with confidence.

The number of housing units decreased in the study area between 2010 and 2017. Brooklyn and New York City showed increases in both the number of households and the number of housing units, corresponding to an increase in population in both areas. Brooklyn households and housing units increased by 4.5 percent and 4.2 percent, respectively. New York City households and housing units increased by 4.0 percent and 3.3 percent, respectively.

Table 2.2-2 Household and Housing Data

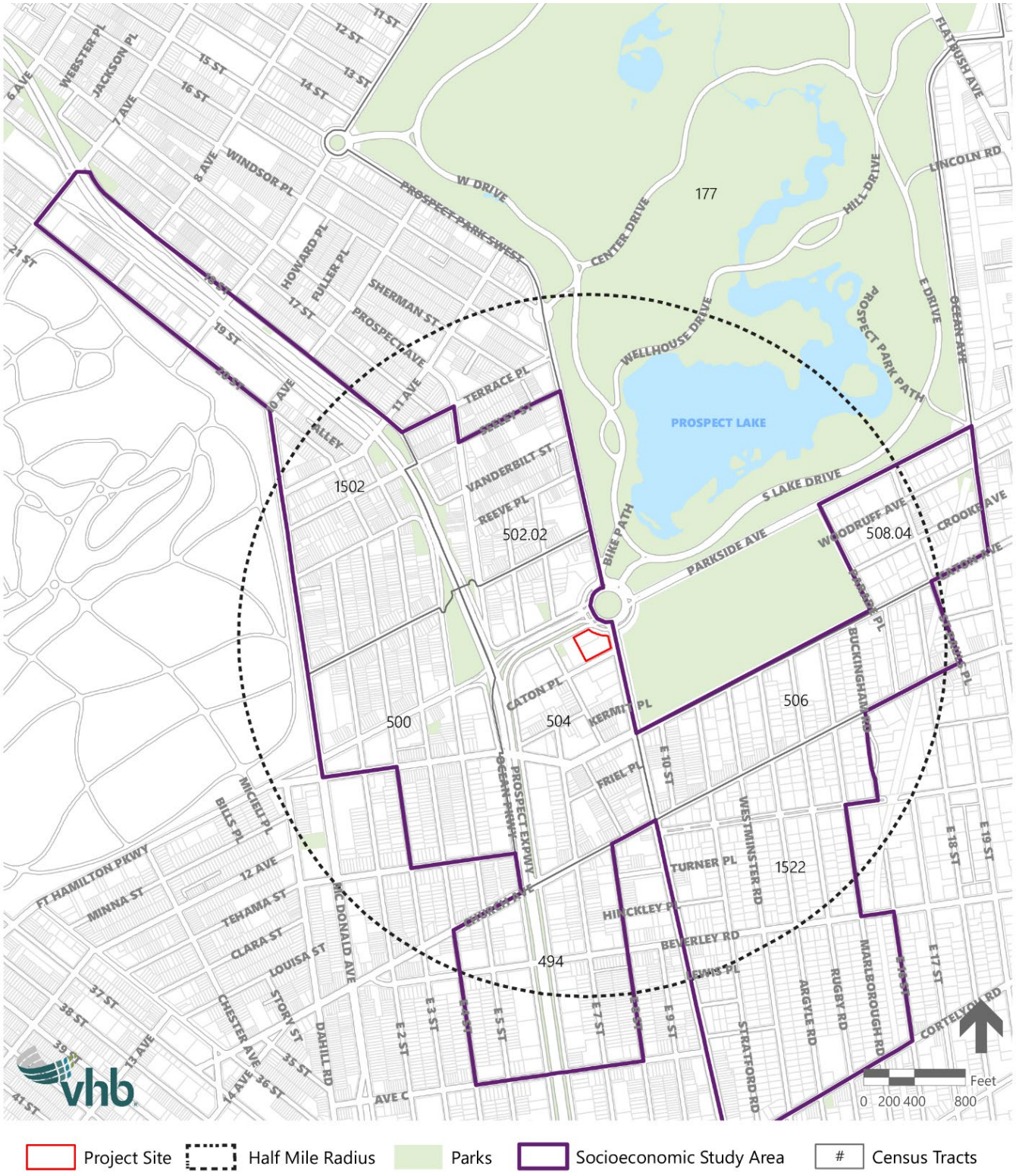
Area	2006-2010 Households	2013-2017 Households	% Change	2006-2010 Housing Units	2013-2017 Housing Units	% Change
Study Area	13,305	13,067	-[1]	14,034	13,778	Decrease[1]
Brooklyn	903,991	944,650	4.5%	986,482	1,028,383	4.2%
New York City	3,020,284	3,142,405	4.0%	3,343,424	3,455,117	3.3%

Source: 2006-2010 American Community Survey (ACS) 5-year Estimate for Years 2006-2010 data and 2013-2017 ACS 5-year Estimate for Years 2013-2017 data.

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

[1] The Margin of Error (MOE) of the difference between 2006-2010 ACS 5-year Estimates and 2013-2017 ACS 5-year Estimates is greater than one-third of the estimated difference. Therefore, a percentage change cannot be estimated with confidence.

Figure 2.2-1 Socioeconomic Study Area



The majority of occupied housing units in the study area are rented (67.9 percent) rather than owned (32.1 percent). New York City has similar tenure rates compared to the study area with 67.4 percent of housing tenure being renter occupied units and 32.6 percent owner occupied. Brooklyn has a 70.0 percent rate of renter occupied units.

Table 2.2-3 Housing Tenure

Area	% Vacant	% Renter Occupied Units	% Owner Occupied Units
Study Area	5.2%	67.9%	32.1%
Brooklyn	8.1%	70.0%	30.0%
New York City	9.1%	67.4%	32.6%

Source: 2013-2017 U.S. American Community Survey (ACS) 5-year Estimate.

Median gross rent in the study area is $1,529. Median gross rent in Brooklyn is $1,365, a 12.6 percent increase from 2010, and $1,392 in New York City, a 20.4 percent increase from 2010. See **Table 2.2-4**.

Table 2.2-4 Median Gross Rent

Area	Years 2006-2010	Years 2013-2017	Change	Percent Change
Study Area	$1,254	$1,529	$275	Increase[1]
Brooklyn	$1,213	$1,365	$153	12.6%
New York City	$1,156	$1,392	$236	20.4%

Source: 2006-2010 American Community Survey (ACS) 5-year Estimate for Years 2006-2010 data and 2013-2017 American Community Survey (ACS) 5-year Estimate for Years 2013-2017 data.

Notes: Income levels presented in inflation-adjusted 2018 dollars (Annual NY-Northern NJ-Long Island).

[1] The Margin of Error (MOE) of the difference between 2006-2010 ACS 5-year Estimates and 2013-2017 ACS 5-year Estimates (also adjusted for inflation) is greater than one-third of the estimated difference. Therefore, a percentage change cannot be estimated with confidence.

According to a local real estate broker, the asking rents in the study area are approximately $1,500 to $1,800 for a studio or small one-bedroom unit, $1,800 to $2,100 for a regular one-bedroom unit, $2,600 for a two-bedroom unit, and $2,700 to $3,200 for a three-bedroom unit.[5] A review of rents on www.streeteasy.com revealed an average of $2,300 for one-bedroom units, $2,700 for two-bedroom units, and $3,400 for three-bedroom units. Note that no studio apartments or units with four or more bedrooms were listed for rent on www.streeteasy.com.[6]

There are no public housing developments in the study area.[7]

The average household income in the study area is $99,736, as per the 2013-2017 ACS 5-year Estimate, which is higher than the average income in Brooklyn, $83,934, and in New York City, $96,832. See **Table 2.2-5**. While average income in Brooklyn increased by 17.2

[5] Telephone conversation with Abigail Palanca from Compass on May 6, 2019.

[6] www.streeteasy.com, accessed May 6, 2019.

[7] https://www1.nyc.gov/assets/nycha/downloads/pdf/officialmap-2019.pdf, accessed May 6, 2019.

percent from 2010, the average income in New York City increased by 1.3 percent. Average household income in the study area also increased since 2010.

Table 2.2-6 shows the distribution of household income. In the study area, 37.0 percent of households earn below $50,000 and 32.9 percent of households earn $100,000 or more, compared to 47.9 percent of households in Brooklyn and 44.8 percent in Manhattan who earn less than $50,000, and 26.2 percent of households in Brooklyn and 29.3 percent in Manhattan who earn $100,000 or more.

Table 2.2-5 Average Household Income

Area	Years 2006-2010	Years 2013-2017	Percent Change
Study Area	$80,304	$99,736	Increase[1]
Brooklyn	$71,646	$83,934	17.2%
New York City	$95,558	$96,832	1.3%

Source: 2006-2010 American Community Survey (ACS) 5-year Estimate for Years 2006-2010 data and 2013-2017 American Community Survey (ACS) 5-year Estimate for Years 2013-2017 data.

Notes: Income levels presented in inflation-adjusted 2018 dollars (Annual NY-Northern NJ-Long Island).

[1] The Margin of Error (MOE) of the difference between 2006-2010 ACS 5-year Estimates and 2013-2017 ACS 5-year Estimates is greater than one-third of the estimated difference. Therefore, a percentage change cannot be estimated with confidence.

Table 2.2-6 Household Income Distribution

Area	<$25,000	$25,000-$49,999	$50,000-$99,999	$100,000-$149,999	$150,000+
Study Area	20.2%	16.8%	30.2%	15.4%	17.5%
Brooklyn	27.5%	20.4%	26%	13%	13.2%
New York City	25.5%	19.3%	25.9%	13.5%	15.8%

Source: 2013-2017 American Community Survey (ACS) 5-year Estimate for Years 2012-2016 data.

No-Action Condition

Under the No-Action Condition, the project site would be developed as-of-right within current zoning regulations with hotel and community facility uses. No new residential units would be constructed. Eight new residential developments are currently planned or under construction within the study area. Combined, these developments are expected to introduce 174 new residential units to the half-mile study area. **Table 2.2-7** lists the residential projects.

Table 2.2-7 No-Action Condition Residential Development

Location	Residential Units
1901 10th Avenue	27
4 East 4th Street	3
8 East 4th Street	3
10 East 4th Street	3
57 Caton Place	107
190 East 7th Street	12
1035 Cortelyou Road	10
309 Ocean Parkway	9
Total Residential Units	**174**

57 Caton Place was recently rezoned and established as a Mandatory Inclusionary Housing Area. 57 Caton Place was mapped with MIH Option 1, requiring 25 percent of the new units to be developed as affordable at an average of 60 percent AMI, with at least 10 percent affordable at 40 percent AMI. It is not known at this time whether the other No-Action developments will contain affordable or market-rate residential units. It is assumed that the other developments would contain only market-rate units.

The eight residential developments will add 174 residential units with a population of approximately 489 (assuming 2.81 people per household, the blended average household size for the Brooklyn Windsor Terrace, Kensington-Ocean Parkway, and Flatbush neighborhoods). The new population would result in a 1.4 percent increase in population over existing conditions which is not likely to significantly increase average income levels within the half-mile study.

With-Action Condition

The proposed actions would facilitate the construction of a new mixed-use building containing 310 dwelling units. The applicant anticipates utilizing Option 1 of the MIH program, which would result in 78 affordable units. However, because the MIH Option is not yet determined for this project, it is assumed for the purposes of analysis that the proposed actions may result in a number of units ranging from 78 units at an average of 60 percent AMI (MIH Option 1) to 93 units at an average of 80 percent AMI (MIH Option 2). The levels of affordability are established by HUD and are subject to change. The 60 percent AMI income limit per HUD is $44,820 for a family of one, $51,240 for a family of two, $57,660 for a family of three, $64,020 for a family of four, and $69,180 for a family of five. The 80 percent AMI income limit per HUD is $59,760 for a family of one, $68,320 for a family of two, $76,880 for a family of three, $85,360 for a family of four, and $92,240 for a family of five.[8]

As described in the Existing Conditions section above, average market-rate listed rents for the study area range from $1,800 for a studio apartment to $3,400 for a three-bedroom apartment. The market-rate unit mix for the proposed development is not yet known, however, a range of average incomes for the new tenants can be estimated by assuming that the new households would pay 30 percent of their income on housing. This ratio is based on

[8] FY 2019 Income Limits Summary for New York, NY HUD Metro FMR Area.

the HUD definition of cost-burdened families which states that those paying more than 30 percent of their income on housing may have difficulty affording other necessities. Using these assumptions, it is estimated that households in the market-rate units would have average annual incomes ranging from $72,000 to $136,000 (see **Table 2.2-8**).

Table 2.2-8 Estimated Income for Market-Rate Units

Unit Type	Average Rent	Estimated Average Monthly Income	Estimated Average Annual Income
Studio	$1,800	$6,000	$72,000
1-Bedroom	$2,300	$7,667	$92,000
2-Bedroom	$2,700	$9,000	$108,000
3-Bedroom	$3,400	$11,333	$136,000

Notes: Average rent is based on rental listings as described in the Existing Conditions section; the higher estimates are used for this table. Estimated average monthly income and annual income assumes that the household pays 30 percent of income on rent.

The average income in the study area is $99,736. Approximately 25 percent of the proposed units would be affordable to households earning an average of 60 percent AMI under MIH Option 1 and approximately 30 percent would be affordable to households earning an average of 80 percent AMI under MIH Option 2. The estimated average annual income for households renting the market-rate studio and one-bedroom apartments would be lower than the average income in the study area, however, the estimated average annual income for households renting the market-rate two- and three-bedroom units would be higher than the average income in the study area. The unit mix is not known; therefore, it is estimated that the average incomes of the new population could be higher than the average incomes of the study area populations.

According to the *CEQR Technical Manual*, if the proposed project is expected to introduce new population with higher average incomes than the existing average income of the study area, Step 2 of the preliminary assessment should be conducted.

Step 2 of a preliminary assessment of indirect residential displacement, as outlined in the *CEQR Technical Manual,* is to determine the proposed project's increase in population relative to the study area. The proposed development would generate approximately 872 residents, resulting in a population increase of 2.4 percent in the study area. The guidance set forth in the *CEQR Technical Manual* indicates that a population increase less than five percent would not be expected to affect real estate market conditions. Therefore, the proposed project would not result in significant adverse impacts as a result of indirect residential displacement and no further analysis is warranted.

2.2.5 Conclusion

This preliminary analysis finds that the proposed actions would not result in significant adverse impacts to the socioeconomic conditions of the study area. The proposed actions would not result in the direct displacement of any residents or businesses or in adverse effects on specific industries, and the incremental commercial uses would not represent a substantial new use warranting assessment of potential indirect business displacement.

With respect to potential indirect residential displacement, the proposed actions would spur development of both affordable and market-rate housing units. Although the estimated average incomes of the new population could be greater than the average incomes of the study area populations, the population change due to the proposed actions would result in a population increase of 2.4 percent which is not enough to be expected to affect real estate market conditions. Therefore, the proposed actions would not be expected to introduce or accelerate a trend that would potentially lead to the displacement of vulnerable populations or create a significant indirect residential displacement adverse impact, and no further analysis is warranted.

2.3

Community Facilities

This section assesses the potential impacts of the proposed actions on community facilities and services. The *2014 City Environmental Quality Review (CEQR) Technical Manual* defines community facilities as public or publicly-funded facilities including schools, libraries, child care centers, health care facilities, and fire and police protection services.

2.3.1 Introduction

This section assesses the potential impacts of the proposed project on community facilities and services.

The proposed actions would facilitate the development of a new 387,464-gsf mixed-use residential building on Brooklyn Block 5322, Lots 10 and 20 (the "proposed project"). The proposed project would introduce 310 dwelling units, of which 78 are anticipated to be affordable under the Mandatory Inclusionary Housing (MIH) program. The number of residential units introduced by the proposed actions would not meet the CEQR threshold to warrant detailed analyses for high schools, libraries, police and fire services, healthcare facilities, or childcare centers but would warrant further analysis of primary and intermediate public schools. Therefore, this analysis focuses on the potential effects of the proposed project on primary and intermediate public schools.

2.3.2 Methodology

The *CEQR Technical Manual* provides thresholds to make an initial determination of whether detailed studies are necessary to determine potential indirect impacts on public schools, libraries, child care centers, health care facilities, and fire and police protection services. According to CEQR guidelines, a project would need to introduce a sizeable new neighborhood to trigger further analysis on police/fire services and health care facilities. A project introducing 110 units affordable to residents earning not more than 80 percent of the area median income would introduce 20 or more eligible children under age six and would warrant further analysis on child care centers. Finally, a project would need to introduce 734 total units to trigger a detailed analysis on libraries. Using the CEQR App, an analysis tool developed by the New York City Department of City Planning (DCP), the need for detailed analysis was assessed for these areas. As stated previously, the proposed project would introduce 310 dwelling units, of which 78 are anticipated to be affordable units under MIH Option 1. For the purposes of this technical analyses, a range of affordable units is analyzed between 25 percent of the proposed units (78 units) affordable to households earning an average of 60 percent AMI (MIH Option 1) and 30 percent (93 units) affordable to households earning an average of 80 percent AMI (MIH Option 2). The proposed project would not exceed CEQR thresholds for police/fire services and health care facilities, child care centers and libraries. As such, further analysis of these areas is not warranted.

For projects that introduce more than 50 primary/intermediate school students or 150 high school students, a public school analysis is warranted. In Brooklyn, 220 units is the minimum number of residential units that would trigger a detailed analysis of primary and intermediary schools, according to the CEQR App. The project would introduce 310 units. Based on CEQR multipliers provided by the CEQR App of 0.18 primary students, 0.05 intermediate school students, and 0.09 high school students, the proposed project would introduce 56 primary, 16 intermediate, and 28 high school students.[1] Therefore, a detailed analysis of primary and intermediate schools is warranted. The existing school on the development site is not publicly funded, and would operate offsite during the project construction period. Therefore, direct effects to publicly-funded educational facilities would not occur, and an analysis of direct effects is not warranted.

Study Area

According to the guidelines presented in the *CEQR Technical Manual*, the study area for the analysis of public primary and intermediate schools is the school districts' "subdistrict" (also known as "regions" or "school planning zones") in which the proposed project is located. The

[1] Shortly before the publication of this Environmental Assessment Statement (EAS) in December of 2019, new data was released by the NYC School Construction Authority (SCA) including Projected Public School Ratios (housing multipliers) and utilization rates. The data is available on SCA's website (Capital Plan Reports & Data). Projected Public School Ratios for grades PreK-5 (Elementary Schools) and 6-8 (Middle Schools) were calculated at the Community School District (CSD) level. Projected Public School Ratios for grades 9-12 (High School) were calculated at the borough level. Since the newly released data indicates a decrease in the number of pupils generated for all grade levels by new housing in the Community School District 15 for all grade levels, the Community School district in which this project is situated, the conclusions presented in this EAS, using last year's data, are conservative in that they overestimate the number of pupils anticipated to be generated by the proposed project. The analysis conclusions presented in this EAS, indicating that no significant adverse impacts related to public schools would result from the proposed project, remain unchanged.

project site is in Subdistrict 1 of Community School District (CSD) 15, an intermediate school choice district, which serves as the primary study area for the analysis of primary schools and intermediate schools (see **Figure 2.3-1** and **Table 2.3-1**). The impacts of the proposed project are also analyzed at the District level.

Table 2.3-1 Public Schools Located in CSD 15, Subdistrict 1

Map Number	Organization ID	School Name	School Type	Address
1	K130	P.S. 130 The Parkside	PS	70 Ocean Parkway, 713 Caton Place
2	K230	P.S. 230 Doris L Cohen	PS	1 Albemarle Rd, Annex on McDonald Avenue
3	K131	P.S. 131 Brooklyn	PS	4305 Fort Hamilton Parkway
4	K169	P.S. 169 Sunset Park	PS	4305 7th Avenue
5	K094	P.S. 094 The Henry Longfellow	PS	5010 6th Avenue
6	K001	P.S. 001 The Bergen	PS	309 47 STREET, 411 46th Street
7	K136	I.S. 136 Charles O. Dewey	IS	4004 4th Avenue
8	K821	Sunset Park Prep	IS	4004 4th Avenue
9	K338	P.S 338- K	PS/IS	21 Hinckley Place
10	K839	M.S. 839 Parkside Community Complex	IS	713 Caton Place

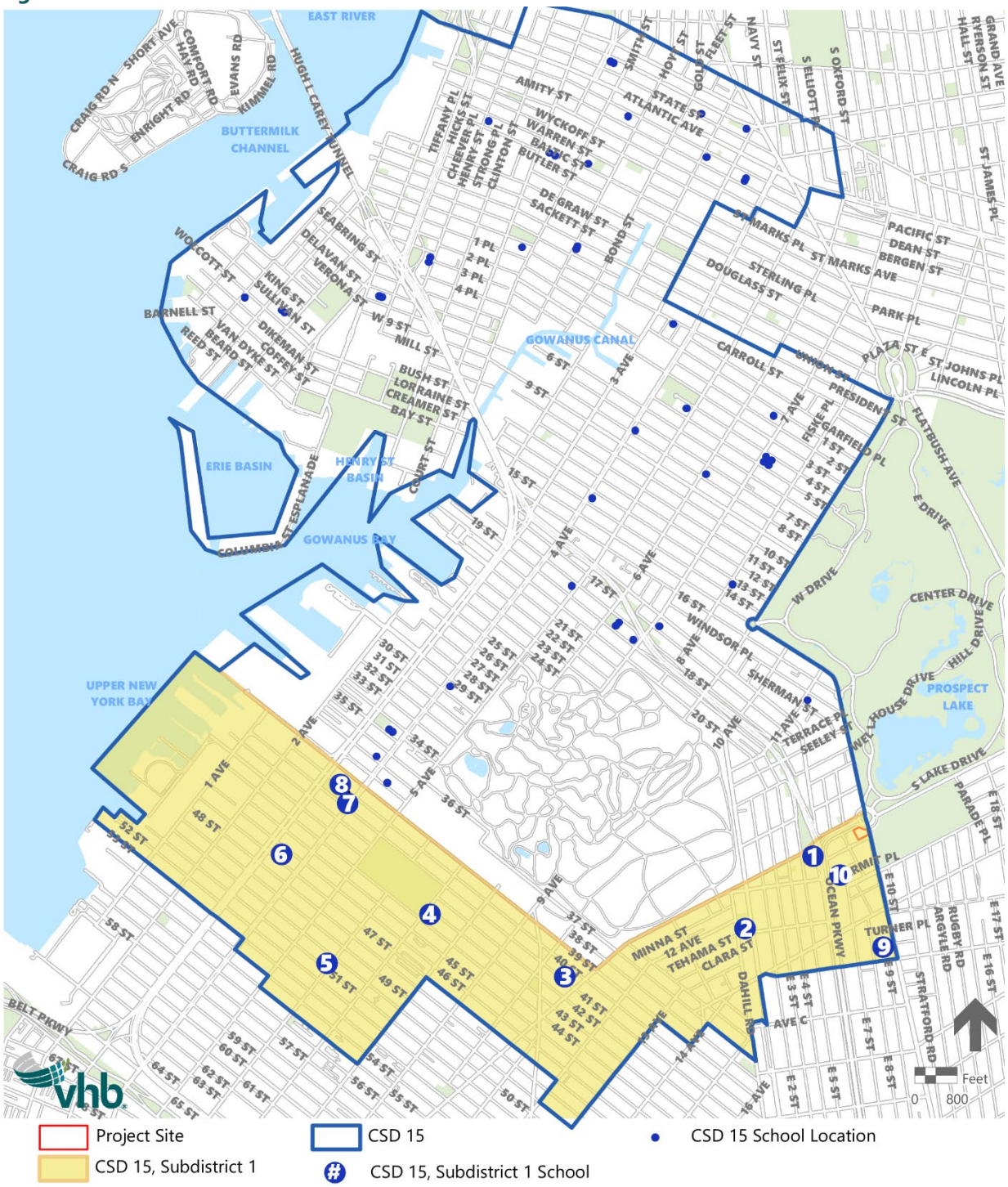
Source: CEQR App, DOE

Data Sources

This analysis presents the most recent New York City Department of Education (DOE) data on school capacity, enrollment and utilization rates for primary and intermediate schools and the New York City School Construction Authority (SCA) projections of future enrollment in the respective study areas, as provided and guided by DCP and the CEQR App.[2] The existing conditions analysis uses data provided in the DOE's *Utilization Profiles: Enrollment/Capacity/ Utilization, 2017- 2018 Edition*. Future conditions are predicted based on SCA enrollment and capacity projections for current schools and schools under construction as provided by the CEQR App. In the No-Action condition, the future utilization rate for school facilities is calculated by adding DOE's projected enrollment for the subdistrict study area and the school district, and then comparing that number with projected school capacity. DOE's enrollment projections for years 2018-2027, the most recent data currently available, were provided by DCP through the CEQR App. These enrollment projections are based on broad demographic trends and do not explicitly account for discrete new residential projects planned for the study area. In addition, new capacity from any new school projects identified in the DOE Five Year Capital Plan are included if construction has begun or if deemed appropriate to include in the analysis by the lead agency and SCA.

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

Figure 2.3-1 Public Schools Located in CSD 15



In the With-Action condition, the number of school children generated by the proposed project is added to DOE's projected enrollment for the subdistrict study area and the school district in the No-Action condition. If the proposed project would include the construction of new schools or other measures that result in additional seats, such seats would be included in the future capacity estimates.

Impact Criteria

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

- A collective utilization rate of primary schools or intermediate schools in the subdistrict study area equal to or greater than 100 percent in the future With-Action condition; and
- An increase of five percent or more in the collective utilization rate between the future No-Action and the future With-Action conditions.

2.3.3 Preliminary Assessment

Existing Conditions

Primary Schools

The project site is located within CSD 15, Subdistrict 1. Primary schools serve either pre-kindergarten (or kindergarten) through 5th grades (PS) or pre-kindergarten (or kindergarten) through 8th grades (PS/IS). There are currently seven public primary schools located within CSD 15, Subdistrict 1. In the whole district, there are an additional 22 primary schools for a total of 29.

As shown in **Table 2.3-2**, in total during the 2017-2018 academic year, primary schools within the subdistrict had an enrollment of 7,683 and operated at 110 percent utilization with a deficit of 703 seats. At the district level, there was an enrollment of 19,356 students, meaning the district was operating at 114 percent utilization with a deficit of 2,391 seats.

Table 2.3-2 Existing Primary School Enrollment, Capacity, and Utilization, Existing Conditions

Study Area	Enrollment	Capacity	Available Seats	Utilization Rate[1] (%)
Subdistrict 1, CSD 15	7,683	6,980	-703	110
CSD 15	19,356	16,965	-2,391	114

1: Utilization rates shown are calculated by the CEQR App.
Source: CEQR App

Intermediate Schools

Intermediate schools serve pre-kindergarten (or kindergarten) through 8th grades (PS/IS), 6th grade through 8th grade (IS), or 6th grade through 12th grade (IS/HS). Four intermediate schools are located within CSD 15, Subdistrict 1. In the district there are 23 additional intermediate schools for a total of 27.

As shown in **Table 2.3-3**, in total during the 2017-2018 academic year, public intermediate schools within the subdistrict had an enrollment of 1,432 students and operated at 82 percent utilization with a surplus of 318 seats. Intermediate schools within the overall district had an enrollment of 6,120 students and operated at 93 percent capacity with 487 available seats.

Table 2.3-3 Existing Intermediate School Enrollment, Capacity, and Utilization, Existing Conditions

Study Area	Enrollment	Capacity	Available Seats	Utilization Rate[1] (%)
Subdistrict 1, CSD 15	1,432	1,750	318	82
CSD 15	6,120	6,607	487	93

1: Utilization rates shown are calculated by the CEQR App.
Source: CEQR App

Future No-Action Condition

Projected Capacity Changes

Projected capacity changes were determined for the future 2023 No-Action condition as described below using SCA's *Enrollment Projections for the New York City Public Schools, 2018 - 2027*, which references DOE's projected New Housing Starts, as well as Panel for Educational Policy (PEP) proposals for changes in school utilization.

There are four primary schools, two completely funded and two over 90 percent funded, that are estimated to be completed by the proposed project build year within Subdistrict 1 of CSD 15. These include P.S. 516, a new P.S. at 736 48th Street, a new P.S. at 4302 4th Avenue, and a new P.S. at 4302 4th Avenue. These schools are projected to add 997 seats by the analysis year.

On November 25, 2014, PEP approved the proposed re-siting and co-location of a portion of P.S. 130 with a New District Middle School (K839) and a District 75 program in a new building (K437) beginning in the 2015-2016 academic year. As a result, there will be an addition of 520 to 540 primary school seats and 315 to 345 intermediate school seats.

In the overall District, Subdistrict 2 has a primary school (836-841 5th Avenue) with an estimated 404 seats to be completed by the build year. Subdistrict 3 has an additional two primary schools estimated to be completed, one on Schermerhorn Street with 382 seats and PS 32 with 436 seats. There is also one intermediate school in Subdistrict 2, 500 19th Street, estimated to be completed by the build year and projected to have 378 seats.

Enrollment Projections

The latest available DOE enrollment projections for CSD 15, Subdistrict 1 estimate the expected growth in primary and intermediate school enrollment through 2027. These enrollment projections form the baseline projected enrollment in the future No-Action condition, shown in **Table 2.3-4**, as "Projected 2023 Enrollment." Additional increases in enrollment derived from the SCA's Projected New Housing Starts data are shown under "Students Introduced by No-Action Residential Development" in the table. Together the projected enrollment and the Projected New Housing Starts data form the total future No-Action enrollment projections

As shown in **Table 2.3-4**, primary schools in CSD 15, Subdistrict 1 would operate under capacity (98 percent utilization) with a surplus of 123 seats in the No-Action condition. The overall District would continue to operate over capacity (106 percent utilization) with a deficit of 1,202 seats.

Table 2.3-4 Projected Primary School Enrollment, Capacity, and Utilization, No-Action Conditions

Study Area	Projected 2023 Enrollment	Students Introduced by No-Action Residential Development	Total No Action Enrollment	Capacity	Available Seats	Utilization (%)
Subdistrict 1, CSD 15	7,686	162	7,848	7,971	123	98
CSD 15	19,161	1,219	20,380	19,178	-1,202	106

Source: CEQR App

Intermediate schools in CSD 15, Subdistrict 1 would operate under capacity (80 percent utilization) with a surplus of 373 seats in the No-Action condition, as shown in **Table 2.3-5**. The overall District would also operate under capacity (85 percent utilization) with a surplus of 1,143 seats.

Table 2.3-5 Projected Intermediate School Enrollment, Capacity, and Utilization, No-Action Conditions

Study Area	Projected 2023 Enrollment	Students Introduced by No Action Residential Development	Total No Action Enrollment	Capacity	Available Seats	Utilization (%)
Subdistrict 1, CSD 15	1,425	40	1,465	1,838	373	80
CSD 15	6,090	300	6,390	7,533	1,143	85

Source: CEQR App

Future With-Action Condition

As stated previously, the proposed actions would facilitate the construction of approximately 310 dwelling units, resulting in 56 primary school students and 16 intermediate school students, and 28 high school students.

Primary Schools

As shown in **Table 2.3-6**, the addition of 56 primary school students generated by the proposed project would increase the utilization in CSD 15, Subdistrict 1 by 0.70 percent from the No-Action to the With-Action Condition. As a result, the projected utilization would be 99 percent. Therefore, proposed project would not result in a significant adverse impact on primary schools within CSD 15, Subdistrict 1. For the overall District, the proposed project would increase the utilization of CSD 15 from 106 percent to 107 percent (a 0.29 percent increase). The District utilization rate is over 100 percent under existing conditions and would remain as such in the No-Action condition. Therefore, although utilization is over 100 percent in the With-Action condition for the overall District, the proposed project increases the District utilization by less than one percent and would not result in a significant adverse impact on primary schools within CSD 15.

Table 2.3-6 Projected Primary School Enrollment, Capacity, and Utilization, With-Action Conditions

Study Area	Projected Enrollment without Project	Students Generated by Project	Projected Enrollment with Project	Projected Capacity	Available Seats	Utilization (%) with Project[1]	Change in Utilization (%) from No Action
Subdistrict 1, CSD 15	7,848	56	7,904	7,971	67	99	0.70
CSD 15	20,380	56	20,436	19,178	-1,258	107	0.29

Source: CEQR App

Intermediate Schools

In the future With-Action condition, the addition of 16 intermediate school students generated by the proposed project would increase the utilization in CSD 15, Subdistrict 1 from 80 percent to 81 percent (a 0.87 percent increase) from the future No-Action to With-Action conditions, as shown in **Table 2.3-7**. As such, the proposed project would not result in a significant adverse impact on intermediate schools within CSD 15, Subdistrict 1. In the District, the proposed project would increase utilization by 0.21 percent, maintaining utilization at 85 percent. Therefore, the proposed project would not result in a significant adverse impact on intermediate schools within CSD 15.

Table 2.3-7 Projected Intermediate School Enrollment, Capacity, and Utilization, With-Action Conditions

Study Area	Projected Enrollment without Project	Students Generated by Project	Projected Enrollment with Project	Projected Capacity	Available Seats	Utilization (%) with Project[1]	Change in Utilization (%) from No Action
Subdistrict 1, CSD 15	1,465	16	1,481	1,838	357	81	.87
CSD 15	6,390	16	6,406	7,533	1,127	85	0.21

Source: CEQR App

2.3.4 Conclusion

The *CEQR Technical Manual* indicates that a significant adverse impact on public schools would occur when: (1) the collective utilization rate of public schools in the study area is greater than 100 percent in the With-Action condition, and (2) the proposed project would result in an increase of five percentage points or more in the collective utilization rate of public schools in the study area between the No-Action and the With-Action conditions. The proposed project would not result in a collective utilization rate of greater than 100 percent and would not result in an increase of five percentage points or more in the collective utilization rate between the future No-Action and With-Action conditions. As such, the proposed project would not result in significant adverse impacts to public schools and further analysis is not necessary.

2.4

Open Space

This section assesses the potential impacts of the proposed actions on open space. The *2014 City Environmental Quality Review (CEQR) Technical Manual* defines open space as publicly or privately-owned land that is publicly accessible and available for leisure, play, or sport, or is set aside for the protection and/or enhancement of the natural environment.

2.4.1 Introduction

The proposed project would introduce new residents and workers to the project site, creating new demands for open space in the area. Therefore, this chapter examines the potential direct and indirect impacts on open space resources from the proposed project.

2.4.2 Methodology

Direct Effects Analysis

Consistent with the *CEQR Technical Manual*, a direct effects analysis should be performed if a proposed project would directly affect open space conditions by causing the loss of public open space, changing the use of an open space so that it no longer serves the same user population, limiting public access to an open space, or increasing noise or air pollutant

emissions, odor, or shadows that would temporarily or permanently affect the usefulness of a public open space. A proposed project can also directly affect an open space by enhancing its design or increasing its accessibility to the public. The proposed project would not result in the physical loss or direct displacement of publicly accessible open space. The potential of the proposed project to result in direct effects from shadows is analyzed in Section 2.5, "Shadows."

Indirect Effects Analysis

An indirect effects analysis should be performed if a project would add sufficient population, either residents or non-residents, to noticeably diminish the capacity of open space in an area to serve the future population. The proposed project is located within a well-served area because it has an open space ratio of at least 2.5 acres per 1,000 residents and is located within a .25 mile walk from developed and publicly accessible portions of regional parks, in this case Prospect Park. Therefore, the threshold for such an analysis is whether the proposed project would introduce more than 350 residents or 750 workers to the area.[1] Compared to the future No-Action condition, the proposed actions would add more than 200 residents to the area and fewer than 350 workers; therefore, following *CEQR Technical Manual* guidance, an indirect effects open space analysis was conducted for the residential populations, as described below.

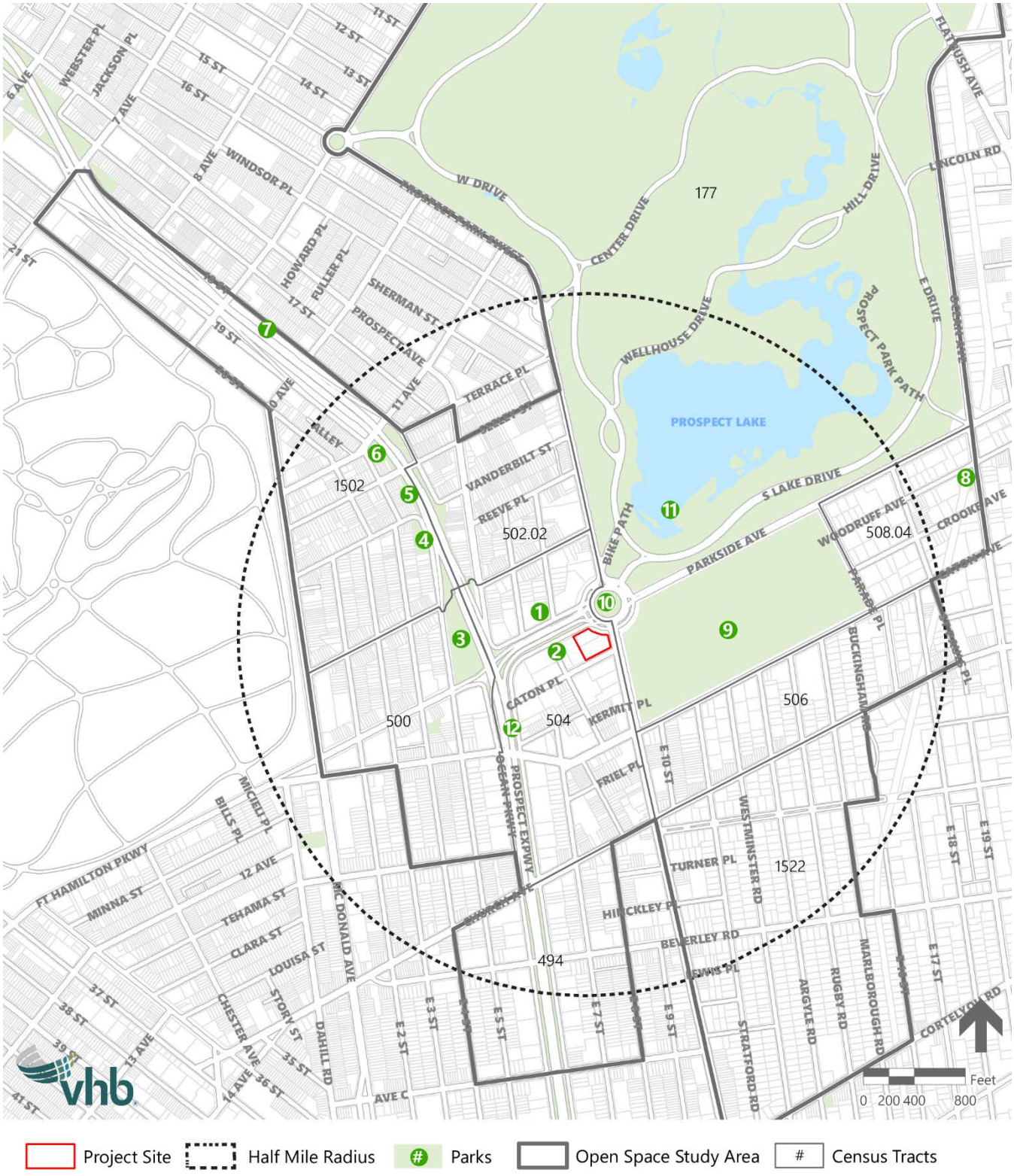
Study Area

As described in the *CEQR Technical Manual*, an open space study area is defined by the reasonable walking distance users would travel to reach open spaces and recreational areas—typically a half-mile for residential populations. All census tracts that have at least 50 percent of their area within the half-mile radius are entirely included in the residential study area, and all census tracts with less than 50 percent within the radii are entirely excluded.

Based on this methodology, the residential open space study area comprises eight census tracts: Kings County Census Tracts 494, 500, 502.02, 504, 506, 508.04, 1502, and 1522. However, Census Tract 177 containing Machate Circle, the Parade Ground, and Prospect Park is also included because Machate Circle and the Parade Ground are well within the study area, as is a portion of Prospect Park that is larger than all of the other open spaces in the study area combined (see **Figure 2.4-1**).

[1] This is for areas identified as well-served by existing open space resources. See page 7-4 of the *CEQR Technical Manual.*

Figure 2.4-1: Residential Open Space Study Area



Open Space User Populations

Existing Conditions

Data from the U.S. Census 2013-2017 American Community Survey (ACS) for the study area census tracts were used to determine the number of residents currently located within the half-mile study area.

The Future No-Action Condition

Within a half-mile study area, eight new developments ("No-Action" projects) are anticipated to be constructed by 2023, the proposed project build year. To estimate the population in the No-Action condition, the blended average household size for the Brooklyn Windsor Terrace, Kensington-Ocean Parkway, and Flatbush neighborhoods (2.81 people per household) was applied to the number of new housing units projected from the No-Action projects and added to the existing study area population[2].

The Future With-Action Condition

The residential population introduced by the proposed project was estimated by multiplying the number of units by the average household size for Brooklyn Windsor Terrace neighborhood (2.81 people per household). The residential population introduced by the proposed project was added to the No-Action study area population to calculate the total residential populations in the future with the proposed project.

Inventory of Open Space Resources

The *CEQR Technical Manual* defines public open space as open space that is publicly or privately owned and is accessible to the public on a regular basis, either constantly or for designated daily periods of time. Open spaces that are only available for limited users or are not available to the public on a regular or constant basis are not considered public open space but may be considered in a qualitative assessment of open space impacts.

Existing Conditions

Publicly accessible open space resources in the study area were inventoried through the latest available data obtained from the NYC Department of Parks and Recreation (NYC Parks) and New York City Geographic Information System (GIS) data. Open space may be characterized as passive, active, or a mixture of active and passive. Active open space is used for exercise, sports, or active children's play. Examples include playgrounds, athletic fields or courts, pools, and greenways. Passive open spaces allow for activities such as strolling, reading, sunbathing, and people watching. Examples include plazas, walking paths, gardens, and certain lawns with restricted uses. Esplanades are an example of open space that may be used for active uses such as running and biking or passive uses such as dog walking.

[2] Source: NYC DCP Population Fact Finder

Playgrounds that are jointly owned by NYC Parks and the Department of Education (DOE) are included in the inventory of open spaces. While public use of these playgrounds is prohibited during school hours, they are still included in the quantitative analysis as they serve the public in the after-school hours. Similarly, those spaces jointly owned and operated by the New York City Housing Authority (NYCHA) and NYC Parks are included in the inventory. The open space within a public housing development is primarily meant for use by residents of that housing development.

The inventory does not include the study area's community gardens as these gardens are restricted with limited hours of accessibility.

No-Action Condition

There are no NYC Parks or private projects planned that will add new open space to the study area.

With-Action Condition

The proposed project would not provide publicly-accessible open spaces on the project site.

Adequacy of Open Space Resources

Comparison to City Guidelines

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

- The City attempts to achieve a ratio of 2.5 acres per 1,000 residents for large-scale proposals. Ideally, this would consist of 0.50 acres of passive space and 2.0 acres of active open space per 1,000 residents. However, these goals are often not feasible for many areas of the city and they do not constitute an impact threshold. Rather, it is a benchmark that represents how well an area is served by its open space.
- A ratio that meets the Citywide Community District median ratio of 1.5 acres of open space per 1,000 residents is also recommended.

Impact Assessment

The determination of significant adverse impacts is based on how a project would change the open space ratios in the study area, as well as qualitative factors not reflected in the quantitative assessment. According to the *CEQR Technical Manual*, if a proposed project would reduce an open space ratio and consequently result in overburdening existing facilities, or if it would substantially exacerbate an existing deficiency in open space, it may result in a significant impact on open space resources. In general, if (1) a study area's open space ratios fall below City guidelines, and (2) a proposed project would result in a decrease in the open space ratio of more than five percent, it could be considered a substantial change requiring additional analysis. However, in areas that have been determined to be extremely lacking in open space, a reduction as small as one percent may be considered significant, warranting further analysis.

2.4.3 Preliminary Assessment

Existing Conditions

As outlined in **Table 2.4-1**, the estimated current residential population in the residential study area is 35,802.

Table 2.4-1 Existing Population in the Residential Study Area

Census Tract	Residential Population
177	0
494	5,930
500	3,964
502.02	2,246
504	4,646
506	5,986
508.04	6,297
1502	2,876
1522	3,877
Total	**35,802**

Source: 2013-2017 ACS 5-year estimates.

Study Area Open Space Resources

The study area includes a variety of parks and playgrounds that are accessible for use by the public, as outlined in **Table 2.4-2**.

Table 2.4-2 Existing Residential Study Area Open Spaces

Map No.	Name	Owner/ Agency	Features and Amenities	Total Acres	Active (Acres)	Passive (Acres)
1	318 Sherman Street (8th Street Footbridge)	NYC Parks	Footbridge, trees, benches and chess tables	.21	0.0	.21
2	1 East 8th Street (8th Street Footbridge)	NYC Parks	Footbridge, benches, trees	.12	0.0	.12
3	Greenwood Playground	NYC Parks	Courts, playground, benches, trees, restrooms, dog park	3.39	3.39	0
4	Captain John McKenna, IV Park	NYC Parks	Trees, benches	.50	0	.50
5	Seeley Park	NYC Parks	Play equipment, game tables, benches, landscaping, trees	.34	.17	.17
6	Thomas J Cuite Park	NYC Parks	Playground, benches, trees	.49	.25	.24
7	Plaza	NYC Parks	Benches, trees	.06	0	.06
8	Umma Park	NYC Parks	Playground, mural, benches	.22	.11	.11
9	Parade Ground	NYC Parks	Courts, ballfields, playground, splash fountain, snack bar, restroom, benches, tables	39.50	39.50	0
10	Machate Circle	NYC Parks	Landscaping, trees	0.89	0	.89
11	Prospect Park	NYC Parks	Lake, greenway, ballfields, zoo, carousel, playgrounds, Audubon center, trees, benches, meadows	526 (88.33 in Study Area)	263 (44.16 in Study Area)	263 (44.16 in Study Area)
12	Ocean Park Malls Bike Path (Parkside Avenue to Church Avenue)	NYC Park	Bike Path	2.87	2.87	0
			Residential Study Area Total	574.59 (136.92 In Study Area)	309.29 (90.45 in Study Area)	265.3 (46.46 in Study Area)
			Percent of Study Area Open Space	100%	53% (66%)	46% (34%)

Source: NYC Department of Parks and Recreation

As depicted in **Figure 2.4-1**, and as described in **Table 2.4-2**, there are eleven publicly accessible open spaces within the study area totaling 130.14 acres of passive and active open spaces. This total only includes the portion of Prospect Park (Census Tract 177) that is located within the study area.

Open spaces within the study area include playgrounds, neighborhood parks, and public gardens. The most significant park space lies immediately to the east of the project site, and contains the network of Prospect Park, the Parade Ground, and Machate Circle that lies generally east of Prospect Park South and north of Caton Avenue. Amenities of these parks that lie within the study area include courts, ballfields, playgrounds, a lake, and meadows. The next largest park in the study area is Greenwood playground which is located west of the project site across the Prospect Expressway and is bounded by the Expressway, East 5th Street, and Fort Hamilton Parkway. The park contains courts, a playground, and a dog run.

Only the portion of Prospect Park that falls within the half-mile study area is included in the analysis in order to give a conservative estimate of the park space that is accessible to people who live in the study area. This was calculated through spatial analysis.

Though not included in this quantitative analysis, located just outside the study area to the west is Greenwood Cemetery, a 478-acre cemetery with walking paths and landscaping that is free and open to the public the same hours as many parks. The cemetery welcomes visitors for bird watching or to take walking tours for those interested in its history.

Adequacy of Open Spaces

The residential study area has an overall open space ratio of 3.63 acres per 1,000 residents (see **Table 2.4-3**), which is greater than the City's guideline of 2.5 acres of open space per 1,000 residents and the citywide average of 1.5 acres per 1,000 residents.

Table 2.4-3 Existing Conditions – Adequacy of Open Space Resources

	Open Space Acreage			Open Space Ratios (Acres per 1,000 People)			DCP Open Space Guidelines		
Total Population	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
Residential (0.5-Mile) Study Area									
35,802	136.92	90.45	46.46	3.82	2.53	1.30	2.5	2.0	0.50

The study area's current residential passive open space ratio is 1.3 acres per 1,000 residents, which is above the City's goal of 0.5 acres per 1,000 residents. The study area's residential active open space ratio is 2.53 acres per 1,000 residents, which is also above the City's guideline of 2.0 acres per 1,000 residents.

No-Action Condition

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

Study Area Population

New development in the residential study area would result in an additional 174 residential units, increasing the residential population by 489 for a total residential population of 36,291 persons in 2023.

Study Area Open Spaces

In the No-Action condition, there are three proposed park improvement projects planned within the study area. However, none of the proposed improvements would add new park space and therefore these improvements are not included in the quantitative analysis. The proposed park improvement projects are as follows:

- Green infrastructure to capture stormwater will be constructed at Greenwood playground by January 2020
- A dog run will be constructed on the southwest lawn of the police precinct in the Parade Ground
- Pavement will be reconstructed in both the Parade Ground and along Parkside Avenue in Prospect Park

Adequacy of Open Spaces

In the No-Action condition, the open space ratios in the residential study area would decrease slightly but would remain above the City's guidelines. The total open space ratio would decrease from 3.82 acres per 1,000 residents to 3.77 acres per 1,000 residents and would remain well above the guideline of 2.5 acres per 1,000 residents. The active open space ratio would also decrease slightly to 2.49 acres per 1,000 residents and the passive open space ratio would decrease to 1.28 acres per 1,000 residents. As in existing conditions, the active and passive open space ratios would remain above the guidelines of 2.0 acres of active space and 0.5 acres of passive open space per 1,000 residents (see **Table 2.4-4**).

Table 2.4-4 No-Action Condition – Adequacy of Open Space Resources

	Open Space Acreage			Open Space Ratios (Acres per 1,000 People)			DCP Open Space Guidelines		
Total Population	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
Residential (0.5-Mile) Study Area									
36,291	136.92	90.45	46.46	3.77	2.49	1.28	2.5	2.0	0.50

With-Action Condition

Study Area Population

In the With-Action condition, the proposed project would result in 310 units, which is estimated to introduce approximately 872 residents for a total residential population of 37,163 in the half-mile study area. No public open space would be created as a result of the proposed project.

Adequacy of Open Spaces

Under the With-Action condition, the open space ratio for the residential population would decrease only slightly from the No-Action condition open space ratio (see **Table 2.4-5**). The total open space ratio would be reduced from 3.77 acres per 1,000 residents in the No-Action condition to 3.68 acres per 1,000 residents in the With-Action condition. The active and passive open space ratios would also be reduced slightly: from 2.49 acres and 1.28 acres per 1,000 residents to 2.43 and 1.25 acres per 1,000 residents, respectively. In terms of percent, the proposed project would result in an approximate 2.41 percent decrease in the active open space ratio and 2.34 percent decrease in passive open space ratio.

Table 2.4-5 With-Action Condition – Adequacy of Open Space Resources

	Open Space Acreage			Open Space Ratios (Acres per 1,000 People)			DCP Open Space Guidelines		
Total Population	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
Residential (0.5-Mile) Study Area									
36,968	136.92	90.45	46.46	3.68	2.43	1.25	2.5	2.0	0.50

As described previously, a proposed project would result in a significant adverse open space impact if it would reduce the open space ratio by more than five percent in areas that are currently below the City's median community district open space ratio of 1.5 acres per 1,000 residents. The proposed development would not result in a reduction in the open space ratio of more than five percent and is in an area where the open space ratio exceeds the City median. Therefore, no significant adverse impact would result.

2.4.4 Conclusion

Under the With-Action condition, the total open space ratio for the residential population would decrease by 2.39 percent compared to the No-Action condition open space ratio: 3.77 to 3.68 acres per 1,000 residents, but would remain well above the guideline of 2.5 acres per 1,000 residents and above the citywide median of 1.5 acres per 1,000 residents. The active and passive open space ratios would also decrease slightly (from 2.49 to 2.43 and 1.28 to 1.25 acres per 1,000 residents, respectively). The proposed project would not result in a greater than five percent decrease in the open space ratio, and therefore no significant adverse impact to open space resources is anticipated.

2.5

Shadows

A shadow is defined in the *2014 CEQR Technical Manual* as the condition that results when a building or other built structure blocks the sunlight that would otherwise directly reach a certain area, space, or feature. The purpose of this section is to assess whether new structures may cast shadows on sunlight sensitive publicly accessible resources or other resources of concern such as natural resources, and to assess the significance of their impact.

2.5.1 Introduction

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

The proposed actions are expected to facilitate the construction of an approximately 160-foot-tall building (with bulkhead) in the With-Action condition. Therefore, further assessment is warranted.

2.5.2 Methodology

In accordance with the *CEQR Technical Manual*, a preliminary screening assessment is conducted to ascertain whether shadows resulting from a project could reach any sunlight-sensitive resource at any time of year. This preliminary screening assessment consists of three tiers of analysis:

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

Detailed Assessment

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

shadows cast by the No-Action development and distinguish the additional (incremental) shadow cast by the project.

For the proposed project, a preliminary assessment (Tiers 1 through 3) and detailed analysis was undertaken.

2.5.3 Preliminary Assessment

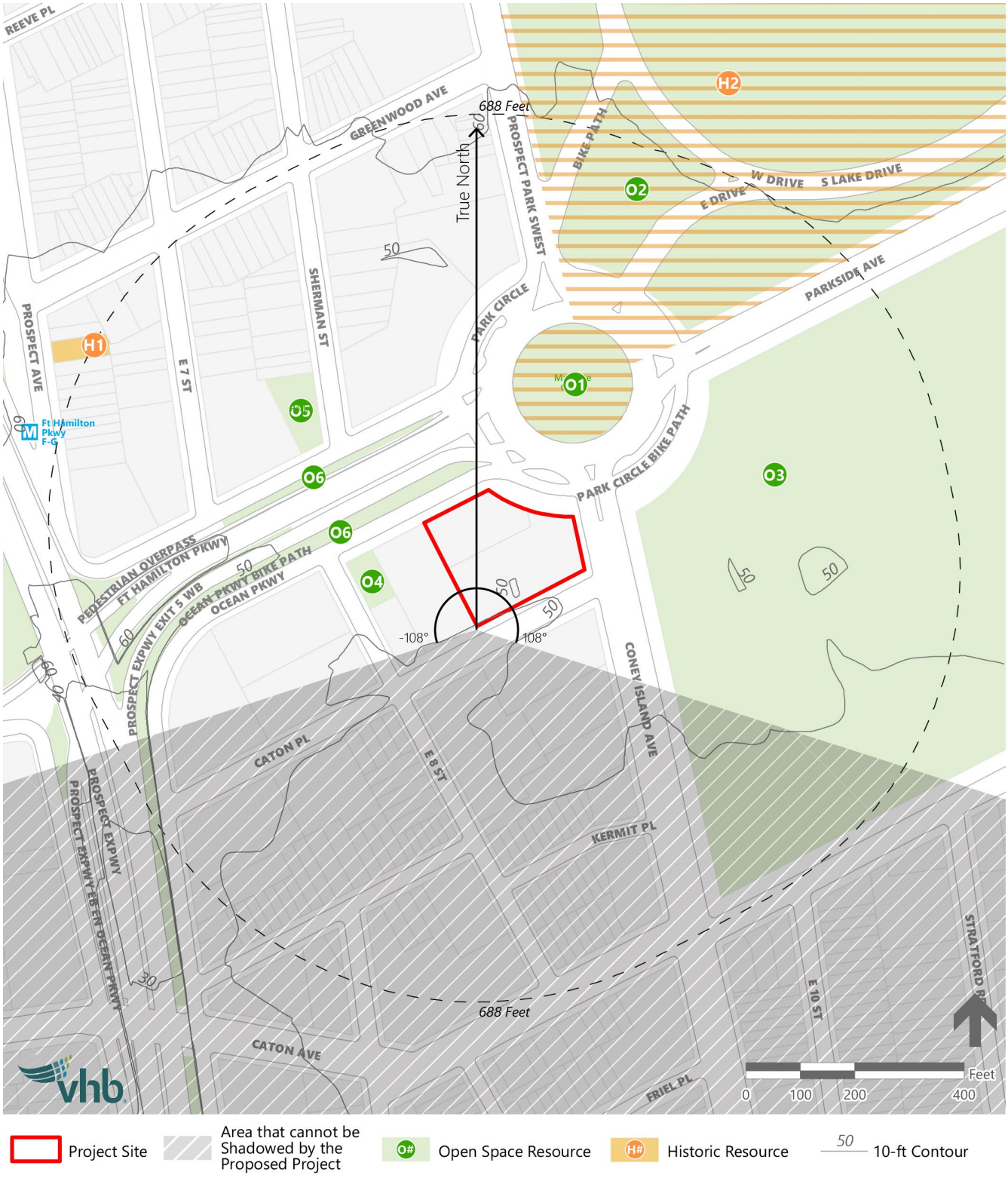
Tier 1 and 2 Screening Assessment

The proposed project would consist of a building approximately 160 feet in height, including bulkhead, and could cast a maximum shadow of approximately 688 feet. As such, a Tier 1 and Tier 2 Screening Assessment was conducted. **Figure 2.5-1** shows the potential sunlight-sensitive resources identified in the Tier 1 and Tier 2 Screening Assessment. Topographic contour lines are included in the figure to demonstrate the change in grade across the study area. As is shown, the study area has a slight change in topography to the north, but otherwise is naturally flat at an elevation of 50 feet. Assessment of the topographic contour lines did not change the results of the analysis.

As shown in the **Figure 2.5-1**, there are a total of six open space resources – Machate Circle (O1), Prospect Park (O2), Parade Ground (O3), an unnamed plaza at 1 East 8th Street (O4), an unnamed park at 318 Sherman Street (O5), and a portion of the Ocean Parkway landscaped malls (O6). There is one additional historic resource within the shadow study area. No natural resources were identified within the study area. The Firehouse Engine Company 40 (H1), does not contain sunlight-sensitive elements. Therefore, no further analysis is warranted for this resource. Prospect Park, including Machate Circle (H2) is also a historic resource. Significant impacts to historic and cultural resources of the portion of the Prospect Park scenic landmark that falls within the study area are not anticipated as a result of the proposed actions (See Section 2.6, "Historic and Cultural Resources". Therefore, the shadow impacts on the park as they pertain to open space resources are analyzed in detail below.

It should be noted that the portion of the Ocean Parkway landscaped malls within the shadow study area functions primarily as permeable, decorative landscaped areas, and the northern and southern malls along Ocean Parkway are also utilized as shared-use paths for cyclists and pedestrians. In summary, the Tier 1 and Tier 2 screenings could not rule out the potential for significant adverse impacts to the six open space resources within the shadow study area, which warranted analysis in a Tier 3 screening.

Figure 2.5-1 Tier 1 and Tier 2 Screening



Tier 3 Screening Assessment

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

The Tier 3 screening assessment was performed for the four representative days of the year set forth in the *CEQR Technical Manual*: December 21, the winter solstice and shortest day of the year; March 21 / September 21, the equinoxes; May 6/August 6, the midpoints between the summer solstice and the equinoxes; and June 21, the summer solstice and the longest day of the year.

In accordance with the *CEQR Technical Manual*, a model of the building in the With-Action condition was developed in a three-dimensional computer program (Sketchup). The model was geo-located and the surrounding terrain was imported into the model to account for differences in topography. As noted above, the Tier 3 shadow screening shows the shadows that could be cast as a result of the proposed project but does not account for existing buildings which may already cast shadows on the identified resources. **Figures 2.5-2** to **2.5-5** below show the Tier 3 screening results.

The Tier 3 screening indicates that in the absence of intervening structures, the proposed project could cast shadows on the Ocean Parkway Landscaped Malls (O6) and the Parade Ground (O3) on all four of the representative analysis days, on the unnamed plaza at 318 Sherman Street (O5) on the December 21 and March/September 21 analysis days, on Machate Circle (O1) and Prospect Park (O2) on the December 21 analysis day, and on the unnamed plaza at 1 East 8th Street (O4) on the March/September 21, May/August 6, and June 21 analysis days. Therefore, a possibility could not be ruled out that project-generated shadows would reach these sunlight-sensitive resources, and a detailed shadow analysis was warranted for these resources.

Figure 2.5-2 Tier 3 Screening December 21 Analysis Day



Figure 2.5-3 Tier 3 Screening March 21 Analysis Day



Figure 2.5-4 Tier 3 Screening May 6 Analysis Day

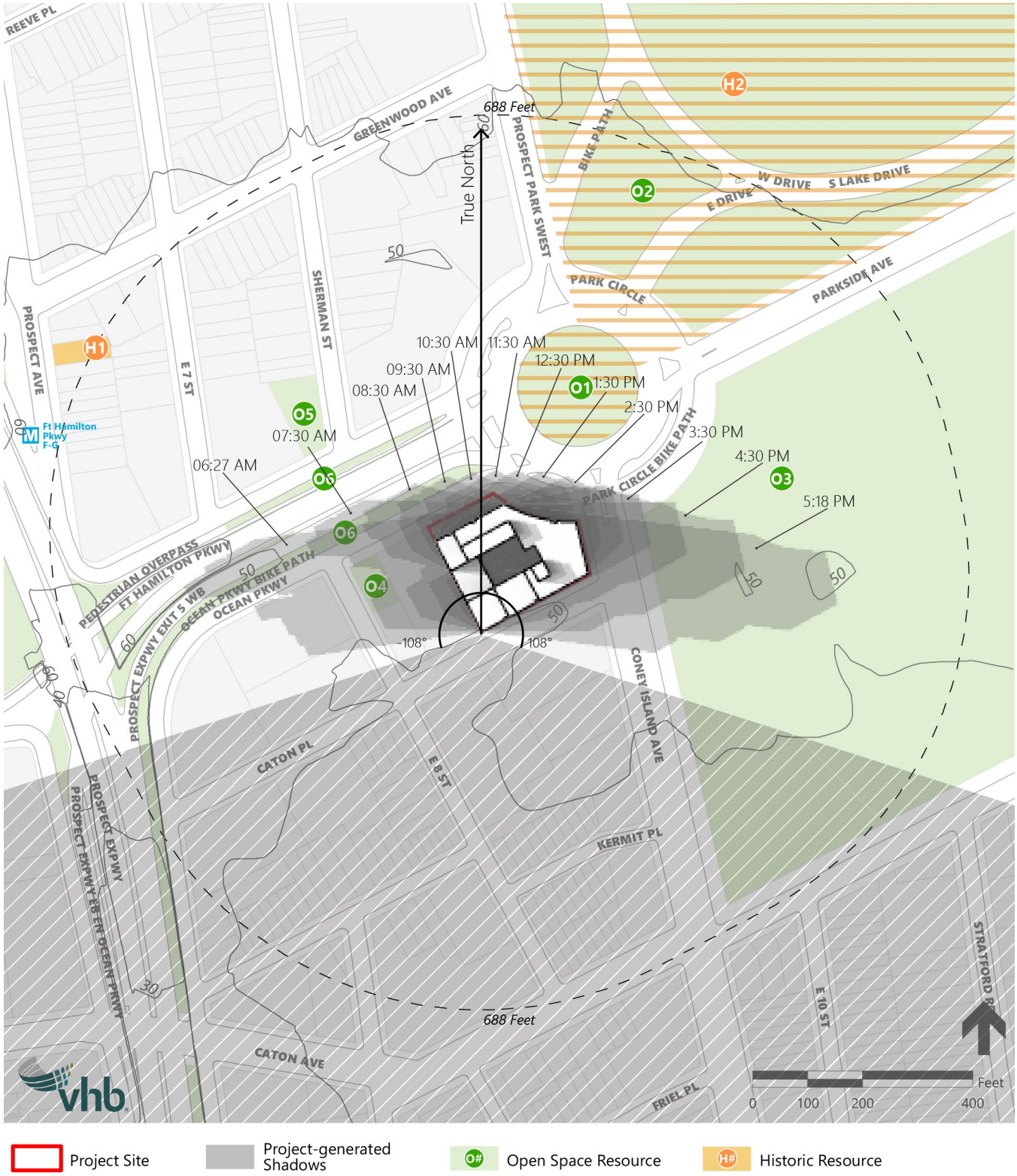


Figure 2.5-5 Tier 3 Screening June 21 Analysis Day



Detailed Shadow Analysis

The detailed shadow analysis builds on the three-dimensional modeling used in the Tier 3 analysis to identify whether the No-Action development that would be constructed on the project site could cast shadows on the identified resources of concern. Any new shadows projected to be cast onto the identified resources from the proposed project are considered "incremental shadows."

Table 2.5-1 provides the modeled incremental shadow entry/exit times for the six sunlight-sensitive resources.

Table 2.5-1 Detailed Analysis Summary of Incremental Shadow Entry/Exit Times

	Analysis Day			
Resource	**Dec 21**	**Mar 21/Sept 21**	**May 6/Aug 6**	**Jun 21**
Analysis Timeframe	**08:51A – 02:53P**	**7:36A – 4:29P**	**6:27A – 5:18P**	**5:57A – 6:01P**
O1 – Machate Circle	10:08A – 2:53P (4h, 45m)	N/A	N/A	N/A
O2 – Prospect Park	2:35P – 2:53P (18m)	N/A	N/A	N/A
O3 – Parade Ground	2:00P – 2:53P (53m)	1:30P – 4:29P (2h, 59m)	1:50P – 5:18P (3h, 28m)	2:15P – 6:01P (3h, 46m)
O4 – Unnamed Plaza (1 East 8th Street)	N/A	N/A	6:27A – 7:30A (1h, 3m)	6:25A – 7:23A (58m)
O5 – Unnamed Park (318 Sherman Street)	8:51A – 9:15A (24m)	7:36A – 8:05A (29m)	N/A	N/A
O6 – Ocean Parkway Landscaped Malls	9:35A – 11:30A (1h, 55m)	7:36A – 1:30P (5h, 54m)	6:30A – 11:00A (4h, 30m)	7:30A – 9:00A (1h, 30m)

Note: Daylight Savings Time has not been used

Detailed shadow analyses are discussed for each resource in the relevant sub-sections below.

O1: Machate Circle

The proposed project would not cast incremental shadow on Machate Circle during the March 21, May 6, and June 21 analysis days. Incremental shadows cast by the proposed project on the December 21 analysis day are described below and are shown in approximately 30-minute intervals on **Figure 2.5-10** through **Figure 2.5-20**.

December 21 Analysis Day

The detailed analysis indicates that the December 21 project-generated incremental shadows on Machate Circle would be small compared with the total area of the resource. Incremental shadow would enter the western edge of Machate Circle at 10:08 AM and would shift towards the center of the circle as shadows continue to move in a clockwise direction. From approximately 10:08 AM to 1:35 PM, incremental shadows would be located solely on the eastern and western portions of the circle, nearest the surrounding traffic. Incremental shadow would then continue in a long thin portion across the center of the circle until the end of the analysis day at 2:53 PM, resulting in a total incremental shadow duration of

approximately 4 hours, 45 minutes. Despite the long duration of incremental shadow, vegetation is dormant during the winter months and the cold weather means the public is not likely to use this resource during this analysis day. Furthermore, the Landmarks Preservation Commission (LPC) stated in a letter dated July 22, 2019 that since the incremental shadows of long duration would occur only during the winter analysis period, there are no concerns for Machate Circle (See Appendix A). Therefore, the proposed project would not result in a significant adverse impact on Machate Circle.

O2: Prospect Park

The proposed project would not cast incremental shadow on Prospect Park during the March 21, May 6, and June 21 analysis days. Incremental shadows cast by the proposed project on the December 21 analysis day are described below and are shown in approximately 30-minute intervals on **Figure 2.5-21** and **Figure 2.5-22**.

December 21 Analysis Day

Project-generated incremental shadows are projected to occur on a small portion of Prospect Park on December 21. Incremental shadow would enter Prospect Park at 2:35 PM and would last until the end of the analysis day at 2:53 PM, a duration of approximately 18 minutes. Given this short duration, the proposed project would not result in a significant adverse impact on Prospect Park.

O3: Parade Ground

The proposed project would cast incremental shadow on the Parade Ground during all analysis days. Incremental shadows cast by the proposed project are described below and are shown in approximately 30-minute intervals on **Figure 2.5-23** through **Figure 2.5-50**. **Figure 2.5-6** through **Figure 2.5-9** show an aerial of the portion of the Parade Ground on which project-generated shadows would fall.

December 21 Analysis Day

Project-generated incremental shadows would occur between 2:00 PM and 2:53 PM, a short duration of approximately 53 minutes. In addition, incremental shadow during the December 21 analysis day would fall primarily on the paved portion of the resource that contains only a few benches. For these reasons, the proposed project would not result in a significant adverse impact on the Parade Ground during the December 21 analysis day.

March 21 Analysis Day

The detailed analysis indicates that the March 21 project-generated incremental shadows would affect a small strip of the northwest section of the Parade Ground. This portion of the park is largely occupied by a parking lot and fenced green areas, and therefore contains limited sunlight-sensitive elements such as seating, tables, fields or courts compared with the remainder of the Parade Ground (**Figure 2.5-7** below). As the sun moves across the March sky, the incremental shadow would be limited to these portions of the park, and would occur between 1:30 PM and 4:29 PM, a duration of approximately 2 hours, 59

minutes. Given the relatively small area of the park that would receive incremental shadow compared with the area of the Parade Ground, and the fact that incremental shadow would fall on areas of the park that the public does not have access to or would not likely choose to congregate, the proposed project would not detract from the public's use of the resource. In terms of vegetation, incremental shadows would continue to move in a clockwise direction throughout the day so that planted areas that would be covered by incremental shadow during portions of the day would still receive at least four hours of direct sunlight, which the *CEQR Technical Manual* states is generally a minimum requirement.

May 6 Analysis Day

On the May 6 analysis day, incremental shadow would enter the northwestern portion of Parade Ground at approximately 1:50 PM and would continue to move in a clockwise direction until the end of the analysis day at 5:18 PM. Incremental shadow would fall on the portion of the park that is primarily occupied by a police station building and associated parking lot, and fenced green areas (**Figure 2.5-8** below). As with the March 21 analysis day, most of the incremental shadow would fall on a portion of the park that the public does not have access to or would not likely choose to congregate. In addition, because the angle of the sun continuously changes throughout the day, no area of the park would be permanently in shade or shaded to a degree that would impact vegetation in the park. Planted areas within this portion of the park would receive at least four hours of direct sunlight.

June 21 Analysis Day

On the June 21 analysis day, incremental shadow would enter a small corner of the northwestern portion of Parade Ground at approximately 2:15 PM and would continue to move in a clockwise direction until the end of the analysis day at 6:01 PM, a duration of 3h, 46m. Like the March 21 and May 6 analysis days, incremental shadow would fall on the portion of the park that the public cannot access or where they would not likely congregate (**Figure 2.5-9** below). Further, as the angle of the sun moves in a clockwise direction and continuously changes throughout the day, no portion of the park would be permanently in shade or shaded to a degree that would impact vegetation at the park.

Given the analyses above, the proposed project would not result in significant shadow impacts to Parade Ground during any of the analysis days.

Figure 2.5-6 Aerial of O3 – Parade Ground – December 21 Analysis Day



Figure 2.5-7 Aerial of O3 – Parade Ground – March 21 Analysis Day

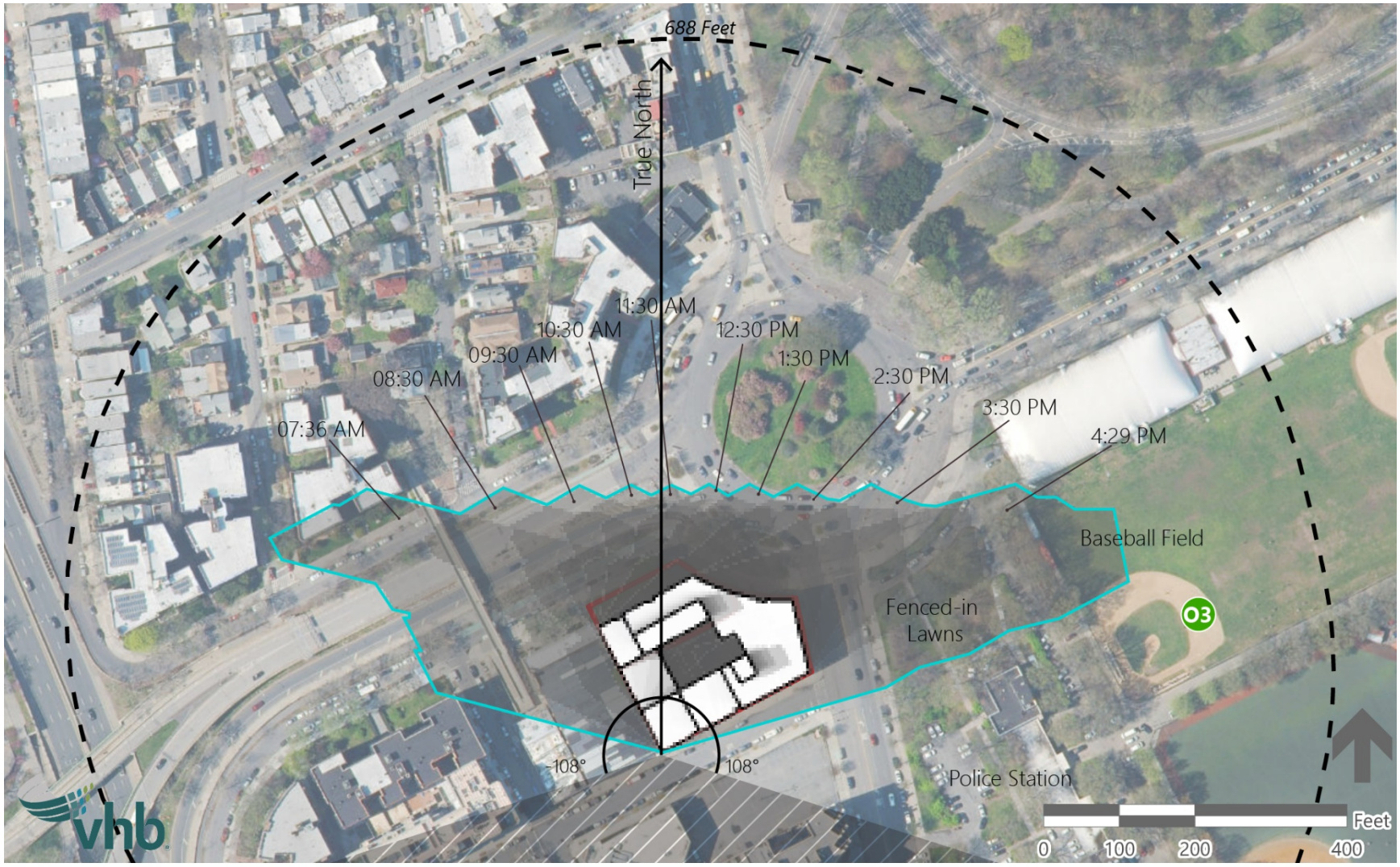


Figure 2.5-8 Aerial of O3 – Parade Ground – May 6 Analysis Day

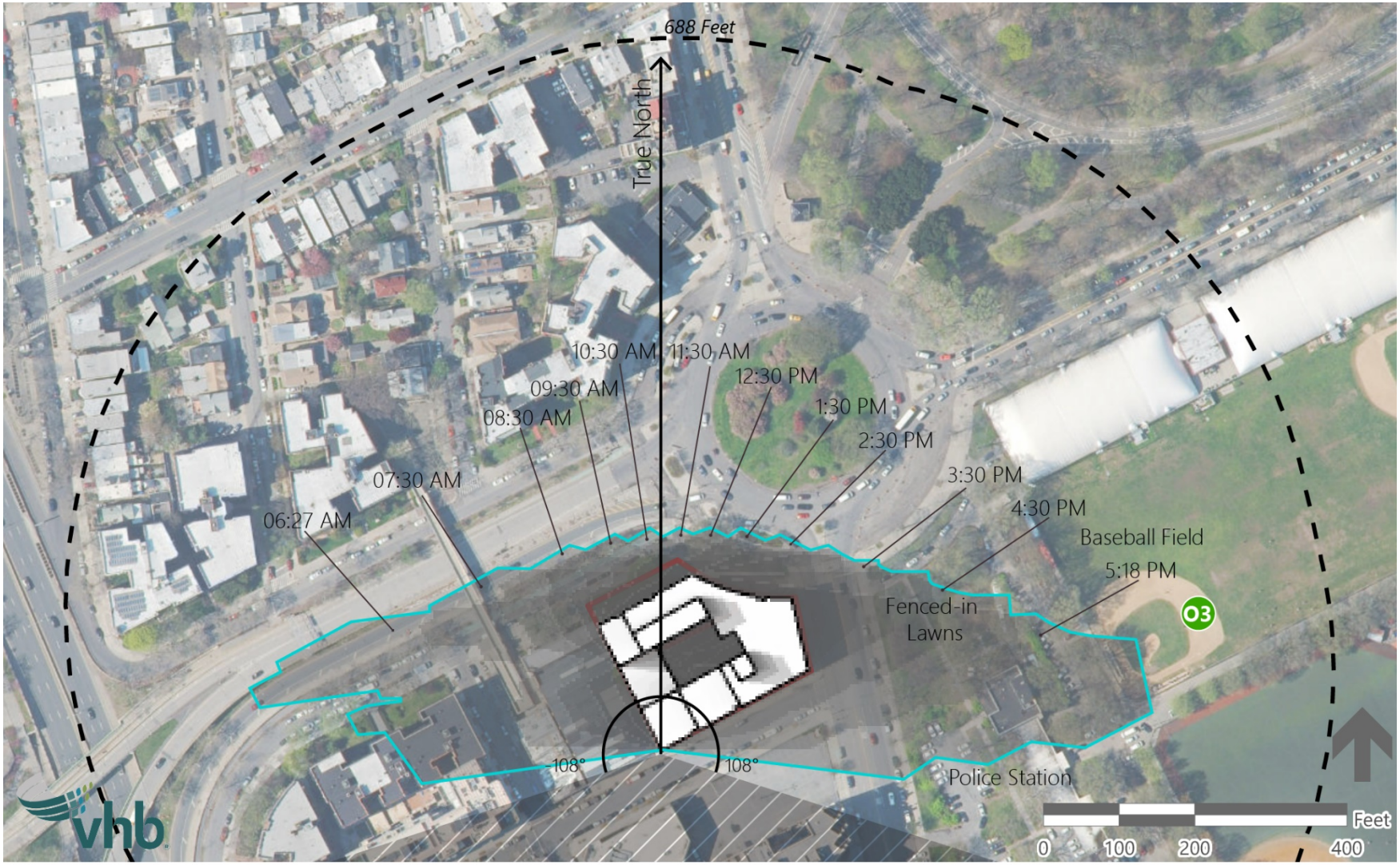


Figure 2.5-9 Aerial of O3 – Parade Ground – June 21 Analysis Day



O4: Unnamed Plaza at 1 East 8th Street

The proposed project would cast incremental shadow on the plaza at 1 East 8th Street during the May 6 and June 21 analysis days. Incremental shadows cast by the proposed project are described below and are shown in approximately 30-minute intervals on **Figure 2.5-51** through **Figure 2.5-574**.

May 6 Analysis Day

On the May 6 analysis day, incremental shadow would fall on the resource from 6:27 AM until approximately 7:30 AM, a duration of approximately 1 hour, 3 minutes. This incremental shadow would cover portions of the plaza during the early morning, when the public is less likely to use the resource. In addition, the Unnamed Park at 318 Sherman Street across the Ocean Parkway pedestrian bridge has benches and would be in sunlight during these times, for those looking for sunlit seating opportunities. While there are a limited number of trees within the plaza, because shadows move continuously in a clockwise direction as the angle of the sun changes throughout the day, no portion of the plaza would remain in shade long enough to impact vegetation in the plaza.

June 21 Analysis Day

Project-generated incremental shadows would occur between 6:25 AM to 7:23 AM, a duration of approximately 58 minutes. Similar to the May 6 analysis days, shadows would occur during the early morning when the public is less likely to use the plaza. In addition, the Unnamed Park at 318 Sherman Street across the Ocean Parkway pedestrian bridge has benches and would be in sunlight during these times, for those looking for sunlit seating opportunities. These incremental shadows are also small compared with the total area of the plaza. Additionally, as shadows continue to move in a clockwise direction throughout the day, none of the trees in the plaza would remain in shade permanently. Therefore, the proposed project is not likely to result in significant adverse shadow impacts to this resource during the May 6 analysis day.

Overall, incremental shadows would fall on the unnamed plaza at 1 East 8th Street during the early morning on each of the analysis days, when the public is less likely to make use of this resource. Therefore, incremental shadow from the proposed project would not detract from the public's appreciation and enjoyment of the resource. Given the analyses above, the proposed project would not result in significant shadow impacts to the unnamed plaza at 1 East 8th Street.

O5: Unnamed Park at 318 Sherman Street

The proposed project would cast incremental shadow on the unnamed park at 318 Sherman Street during the December 21 and March 21 analysis days. Incremental shadows cast by the proposed project are described below and are shown in approximately 30-minute intervals on **Figure 2.5-585** through **Figure 2.5-62**.

December 21 Analysis Day

Project-generated incremental shadows would occur between 8:51 AM and 9:15 AM, a duration of approximately 24 minutes. Given this short duration, the proposed project would not result in a significant adverse impact on the unnamed park at 318 Sherman Street during the December 21 analysis day.

March 21 Analysis Day

Project-generated incremental shadows would occur between 7:36 AM and 8:05 AM, a duration of approximately 29 minutes. Similar to the December 21 analysis day, given the short duration of incremental shadow, the proposed project would not result in a significant adverse impact on the unnamed park at 318 Sherman Street during the March 21 analysis day.

Overall, the proposed project would not result in significant shadow impacts to the unnamed park at 318 Sherman Street.

O6: Ocean Parkway Landscaped Malls

The proposed project would cast incremental shadow on portions of the Ocean Parkway Landscaped Malls during all analysis days. Incremental shadows cast by the proposed project are described below and are shown in approximately 30-minute intervals on **Figure 2.5-630** through **Figure 2.5-95**.

December 21 Analysis Day

The detailed analysis indicates that the December 21 project-generated incremental shadows on the Ocean Parkway Landscaped Malls would be minimal compared with the total area of the resource. Incremental shadow would enter the Ocean Parkway Landscaped Malls at 9:35 AM and would fully exit at approximately 11:30 AM, a duration of approximately 1 hours, 55 minutes. Because the incremental shadow would be located on small portions of the northern and southern malls and would occur in a month that would not affect the vegetation growth cycle, the project-generated incremental shadow would not result in a significant adverse shadows impact on the Ocean Parkway Landscaped Malls on the December 21st analysis day.

March 21 Analysis Day

Incremental shadow would fall on portions of the Ocean Parkway Landscaped Malls between 7:36 AM and 1:30 PM on the March 21 analysis day, a duration of approximately 5 hours, 54 minutes. Project-generated shadows would fall on both the northern and southern malls in the early morning until shadows fully exit the northern mall at approximately 9:00 AM. After 9:00 AM, incremental shadow would fall only on the southern mall and would continue to move in a clockwise direction until shadows fully exit the southern mall by 1:30 PM. Although the total duration of project-generated shadows is long, the area of incremental shadow on the northern and southern malls at any given time is relatively small. The vast majority of the landscaped malls would remain unaffected by incremental shadow during this time. Plantings in all areas covered by incremental shadows would continue to receive at

least 6 hours of direct sunlight per day. In addition, after 9:00 AM, the northern mall would be free of incremental shadow. Therefore, the proposed project would not result in significant adverse impacts to this resource on the March 21 analysis day.

May 6 Analysis Day

On the May 6 analysis day, incremental shadow would fall only on small portions of the southern mall between 6:307 AM and 11:00 AM, a duration of approximately 4 hours, 30 minutes. The northern mall would not receive incremental shadow during this analysis day. Although the total duration of incremental shadow from the proposed project on the southern mall is long, only small portions would be in shadow at any given time. The vast majority of the landscaped malls would remain unaffected by incremental shadow during this time. In addition, no planted areas of the southern mall would be permanently in shade as the angles of the sun changes and shadows continue to move in a clockwise direction throughout the day. Therefore, the proposed project would not result in significant adverse impacts to this resource on the May 6 analysis day.

June 21 Analysis Day

On the June 21 analysis day, incremental shadow would begin to appear on the southern mall at approximately 7:30 AM and would fully exit the mall by 9:00 AM, a duration of approximately 1 hour, 30 minutes. Similar to the May 6 analysis day, the northern mall would not receive incremental shadow during this analysis day. In addition, only small strips of the southern mall would receive incremental shadows at any given time; the vast majority of the landscaped malls would remain unaffected by incremental shadow during this time. As such, the proposed project would not likely result in significant adverse shadow impacts to this resource on the June 21 analysis day.

Given the analyses above, the proposed project would not result in significant shadow impacts to the Ocean Parkway Landscaped Malls during any of the analysis days.

Table 2.5-2 shows a summary of the results of the Tier 1 to Detailed Analysis screenings.

Table 2.5-2 Potential Sunlight-Sensitive Resources

Map ID	Resource Name	Potential Resource Summary	Sunlight-Sensitive Elements	Tier 1-3 Results
Open Space Resources				
O1	Machate Circle	4.88-acre plaza with seats and pedestrian paths	Passive recreation, vegetation	Screened at Detailed Analysis – See above
O2	Prospect Park	526.25-acre park with playgrounds, pedestrian bridle paths, courts and fields, a zoo, fitness equipment, bicycling and greenways, fishing areas, historic houses, ice skating rink, spray showers, barbecuing areas, and a nature center	Passive and active recreation, vegetation	Screened at Detailed Analysis – See above
O3	Parade Ground	39.50-acre park (part of Prospect Park) with baseball fields, playgrounds, basketball courts, and soccer fields	Passive and active recreation, vegetation	Screened at Detailed Analysis – See above
O4	Unnamed Plaza (1 East 8 Street)	0.12-acre plaza with seats and tables	Passive recreation	Screened at Detailed Analysis – See above
O5	Unnamed Park (318 Sherman Street)	0.21-acre plaza with seats and tables	Passive recreation	Screened at Detailed Analysis – See above
O6	Ocean Parkway Landscaped Malls	140-acre mall with bicycling and greenways	Passive and active recreation, vegetation	Screened at Detailed Analysis – See above
Historic Resources				
H1	Firehouse Engine Company 40/Hook & Ladder company 21	Romanesque Revival Style firehouse built in 1895 designed by Peter J. Lauritzen	None	Screened at Tier 2 – See above
H2	Prospect Park (Including Machate Circle)	526.25-acre park designed by Frederick Law Olmsted ad Calvert Vaux in 1865	None	Screened at Tier 2, See above

2.5.4 Conclusion

The proposed actions would result in a new building greater than 50 feet in height, and a preliminary shadows assessment (Tier 1, Tier 2, and Tier 3 assessments) was undertaken. The Tier 1 and Tier 2 analyses indicated that there are six open space resources that could potentially receive shadows from the proposed project; therefore, a Tier 3 assessment was conducted for these resources. There is a portion of one individual historic resource located

within the shadow study area. However, the historic resource does not contain sunlight-sensitive elements, and no further analysis of this resource was warranted.

The Tier 3 analysis, which does not account for either existing buildings or the No Action development, indicated that the proposed project could cast shadows on all six open space resources, some of which would be long in duration. Therefore, a detailed analysis was conducted using the No-Action and With-Action developments.

The detailed analysis indicated that the incremental shadow from the proposed project would fall on O2 – Prospect Park, and O5 – the unnamed park at 318 Sherman Street, in such short durations that no significant adverse shadow impacts would occur on these resources. Incremental shadows which would be cast on O1 – Machate Circle, would occur only during the December 21 analysis day, when vegetation is dormant, and the public is not likely to use the resource. The detailed analysis also indicated that incremental shadow could fall on O4 – the unnamed plaza at 1 East 8th Street. However, incremental shadows would generally occur in the early mornings when the public is less likely to use the resource, and therefore would not detract from public use of this resource. Therefore, there would be no significant adverse shadow impacts on resources O1 or O4.

The detailed analysis indicated that incremental shadows would fall on O3 – Parade Ground and O6 – Ocean Parkway Landscaped Malls for long durations on the December 21, March 21, May 6, and June 21 analysis days. However, these shadows would fall on the portion of Parade Ground with limited sunlight-sensitive elements such as seating, tables, field, and courts, an area that is mostly occupied by a police station building and associated parking lot and fenced green areas. Incremental shadow that would fall on the Ocean Parkway Landscaped Malls would cover only small portions of both malls at any given time. Further, as the angle of the sun continuously changes throughout the day and incremental shadows move in a clockwise direction, no portion of the Ocean Parkway Landscaped Malls would be shaded permanently. Therefore, no significant adverse shadow impacts would occur on resources O3 and O6.

Overall, the proposed project is not likely to result in significant adverse shadow impacts to potential sunlight-sensitive resources located within the shadow study area and further analysis is not necessary

O1: Machate Circle

Figure 2.5-10 December 21 – 10:00A

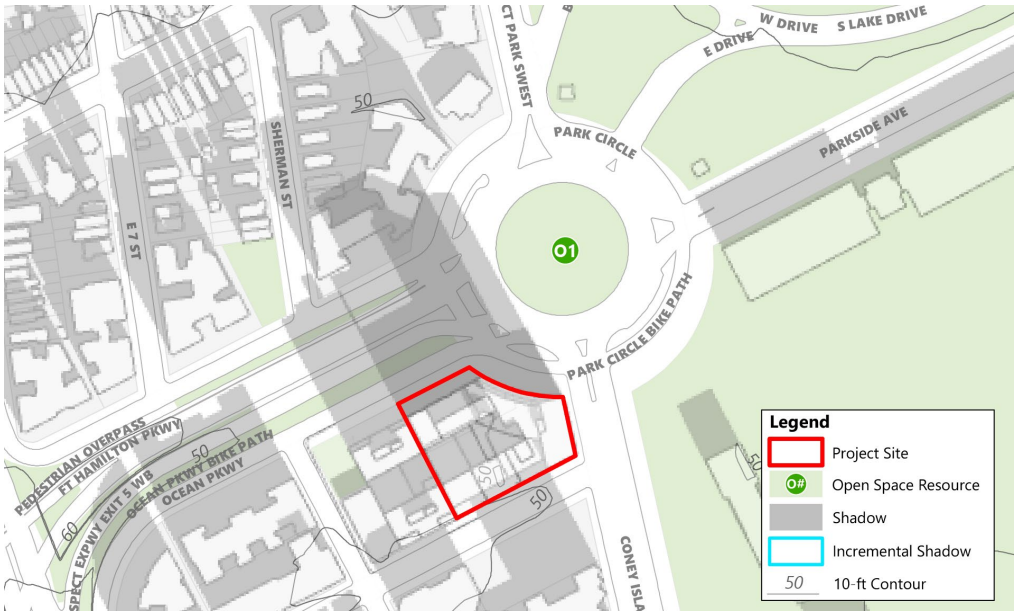


Figure 2.5-11 December 21 – 10:30A

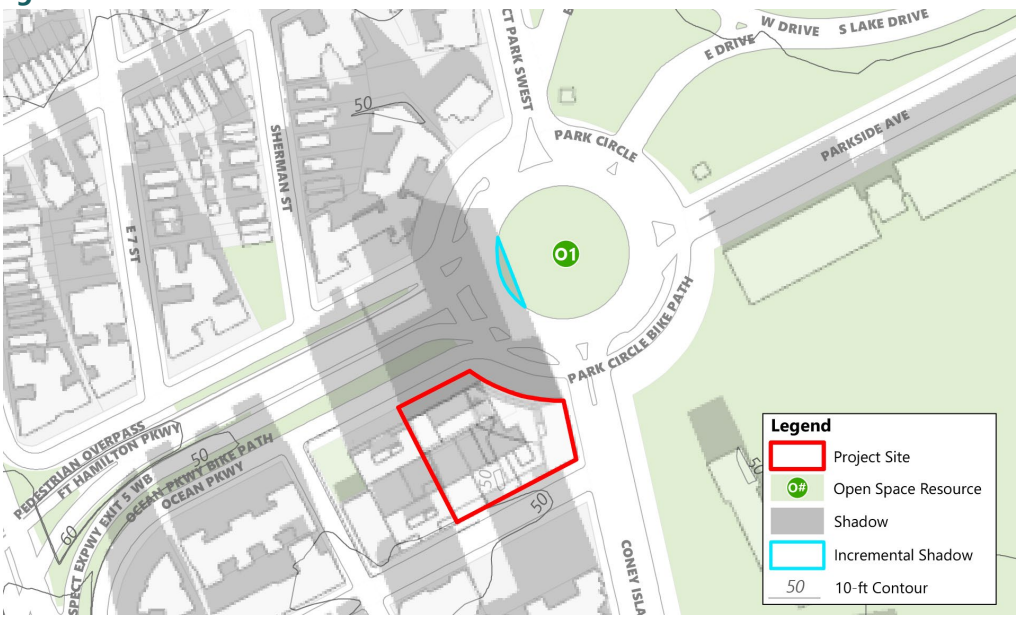


Figure 2.5-12 December 21 – 11:00A

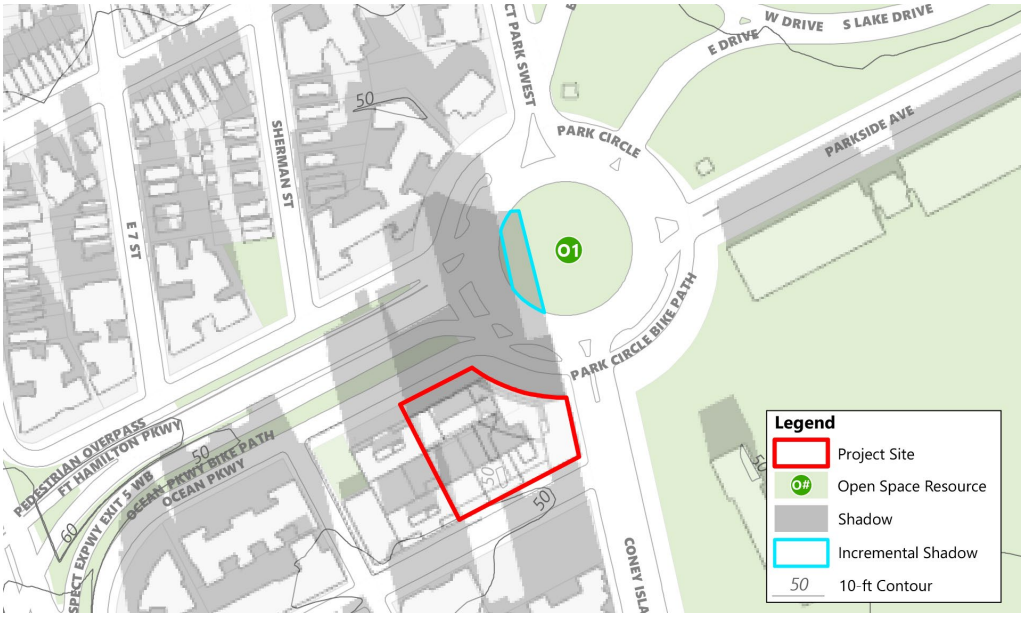


Figure 2.5-13 December 21 – 11:30A

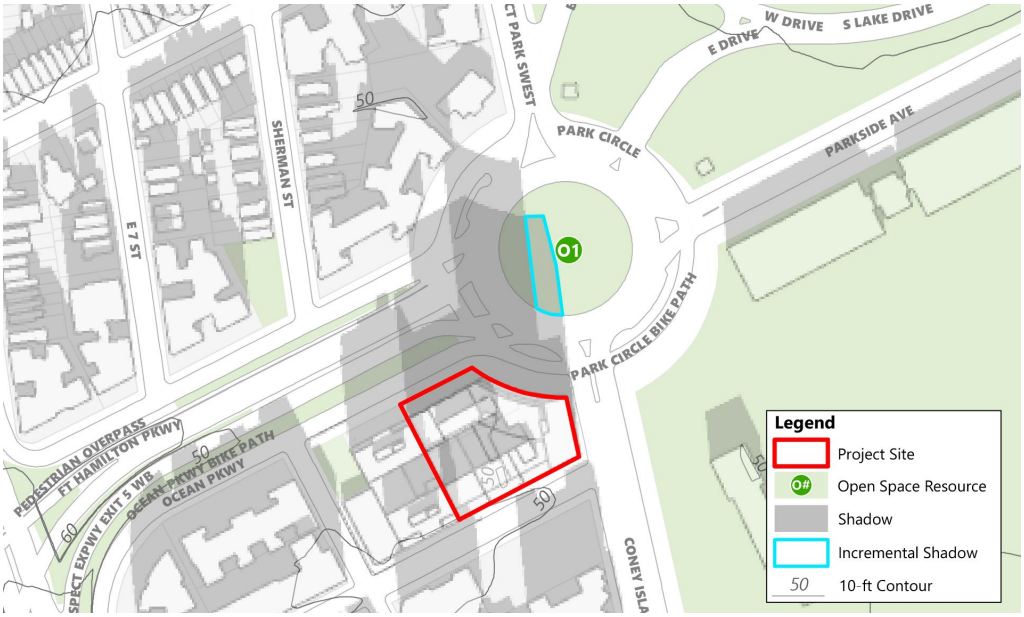


Figure 2.5-14 December 21 – 12:00P

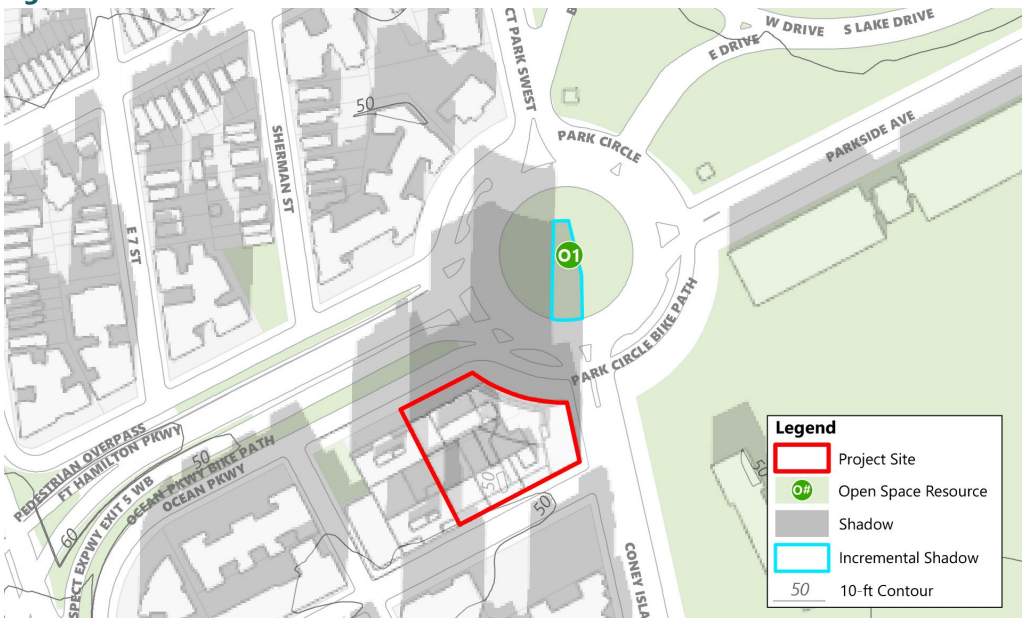


Figure 2.5-15 December 21 – 12:30P

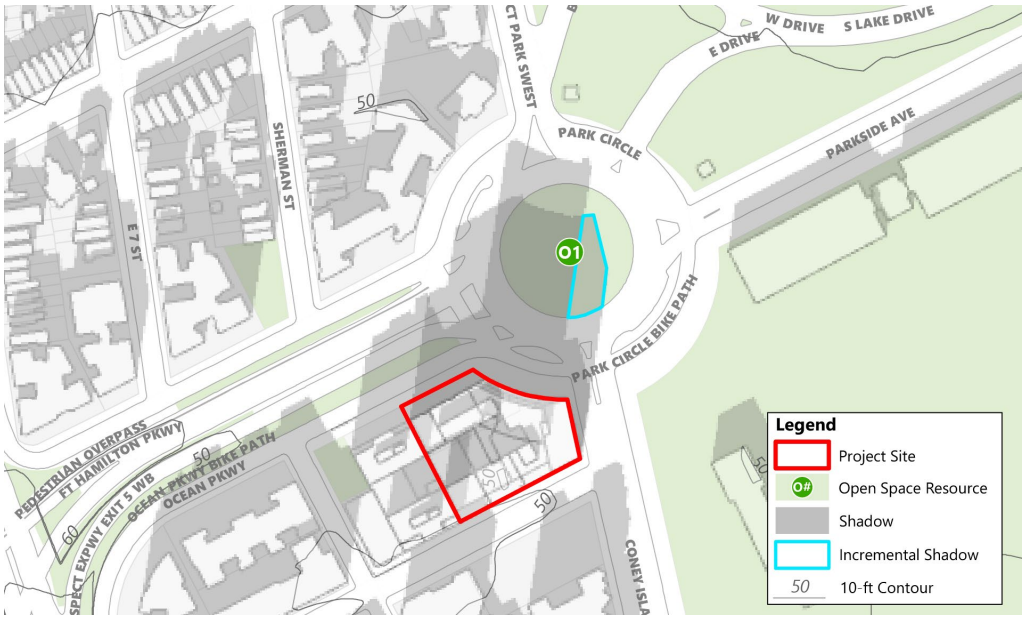


Figure 2.5-16 December 21 – 1:00P

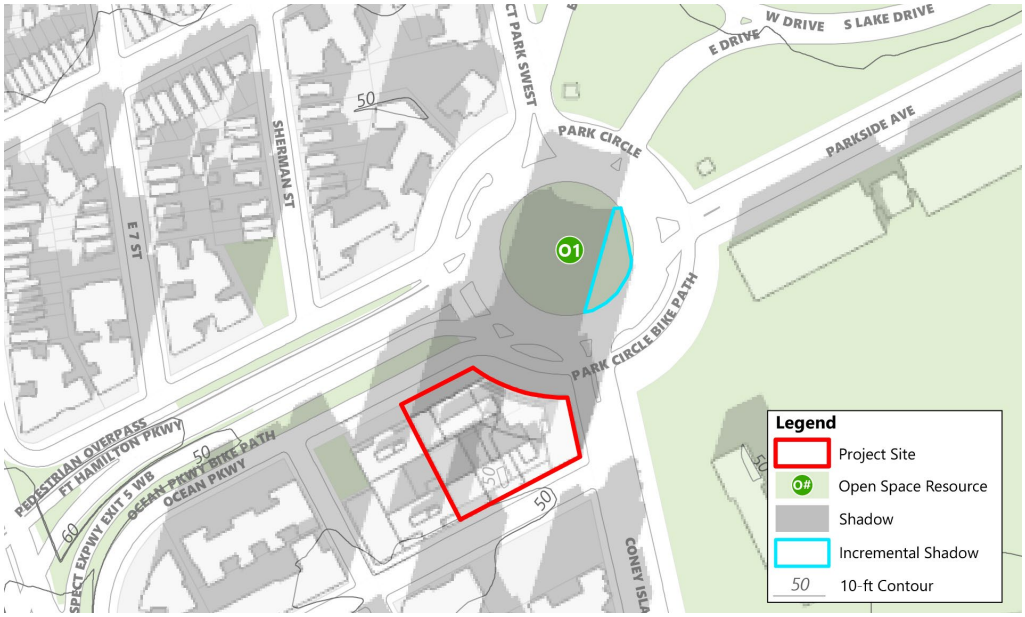


Figure 2.5-17 December 21 – 1:30P

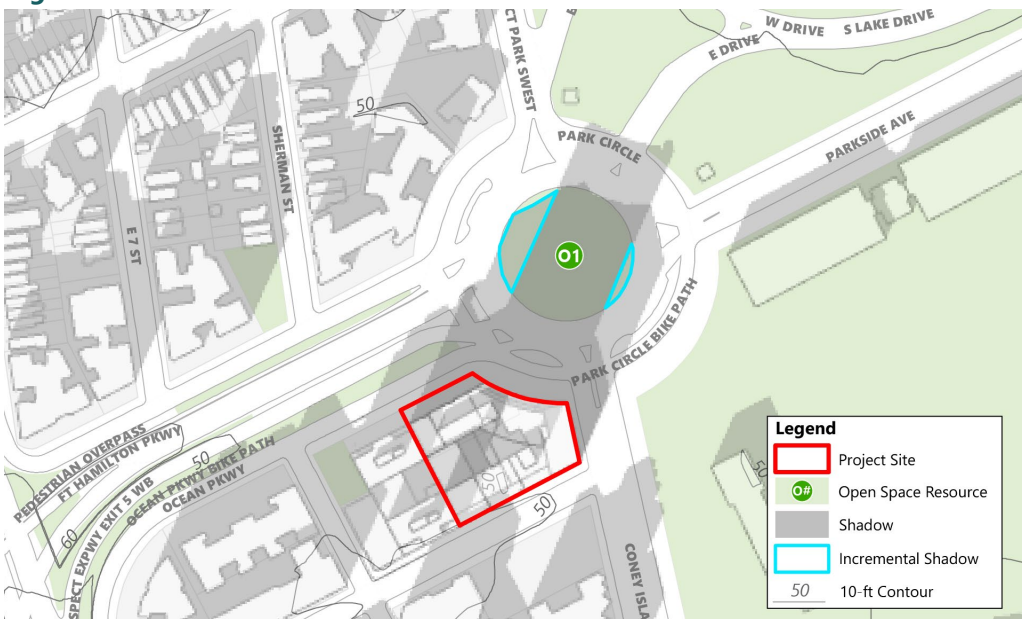


Figure 2.5-18 December 21 – 2:00P

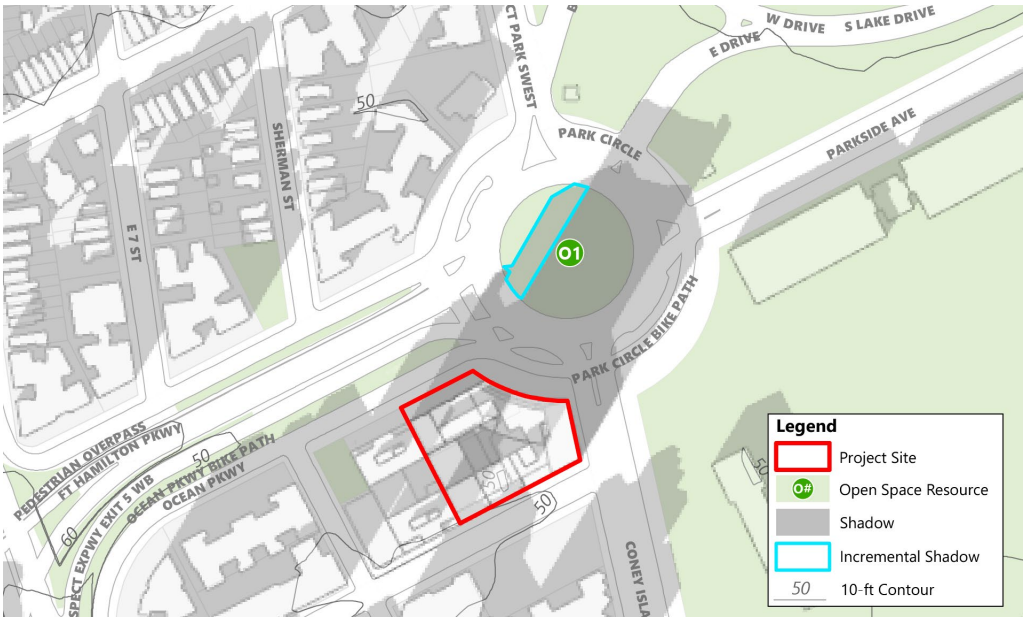


Figure 2.5-19 December 21 – 2:30P

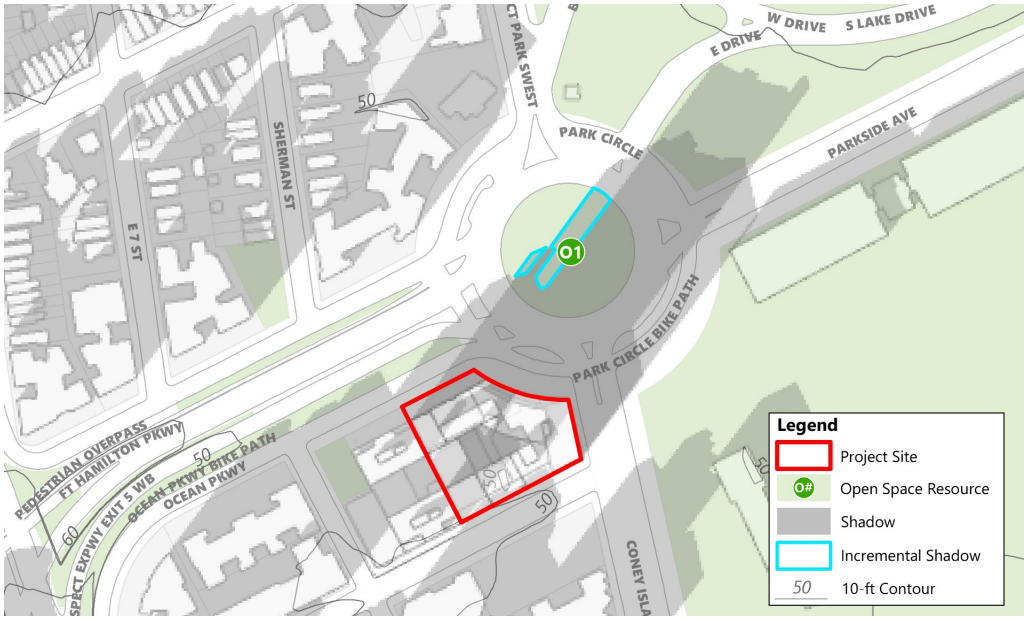
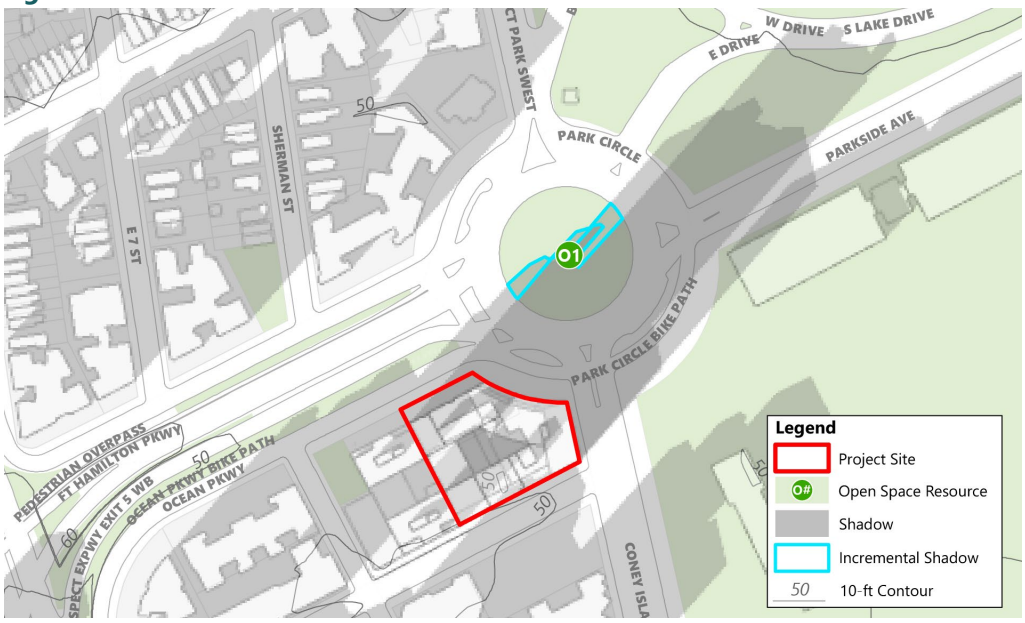


Figure 2.5-20 December 21 – 2:53P



O2: Prospect Park

Figure 2.5-21 December 21 – 2:30P

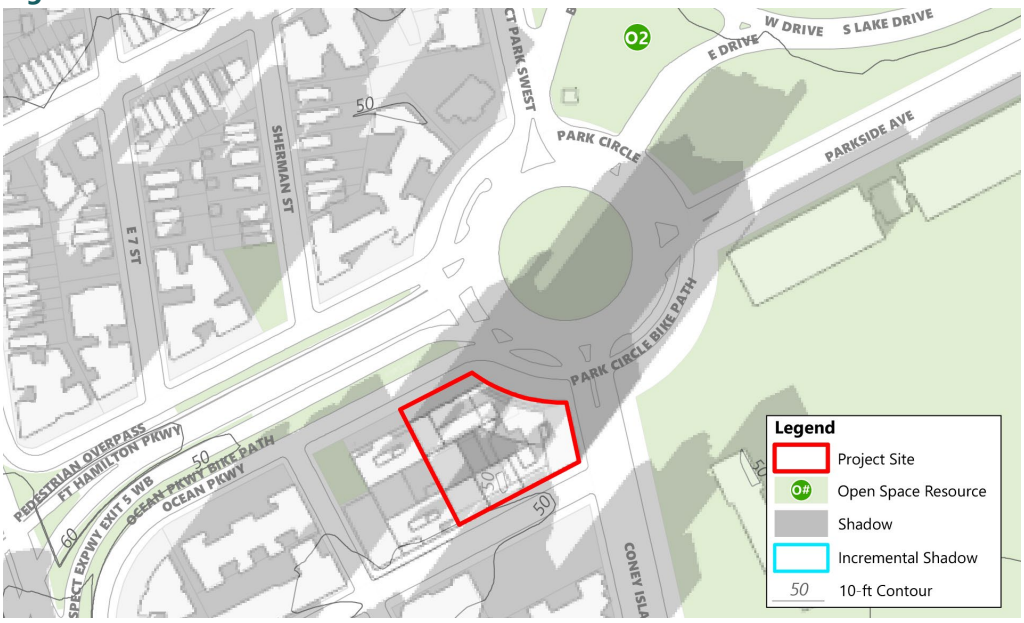
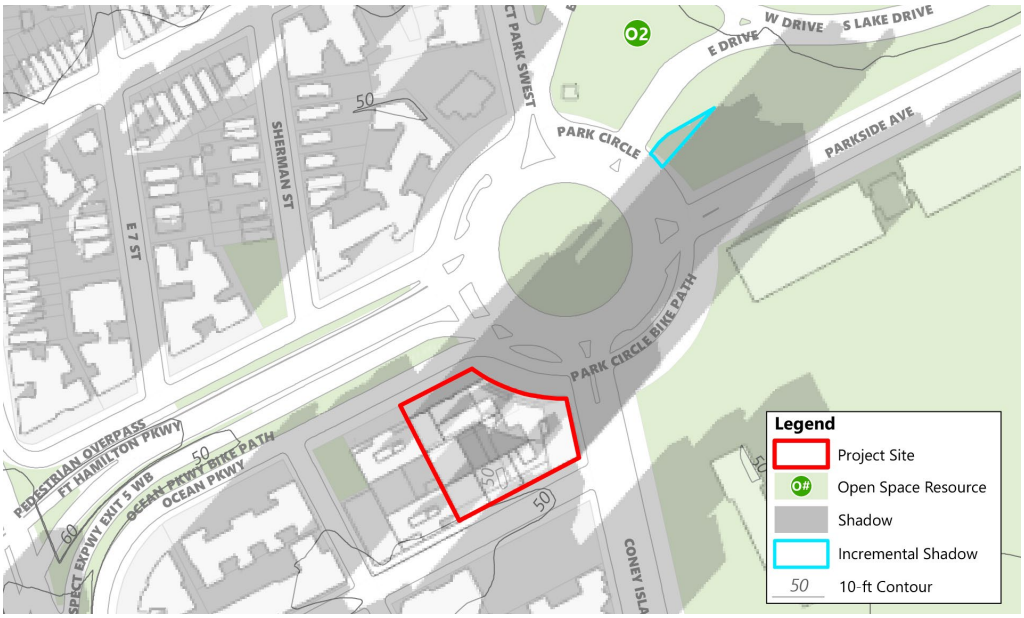


Figure 2.5-22 December 21 – 2:53P



O3: Parade Ground

Figure 2.5-23 December 21 – 2:00P

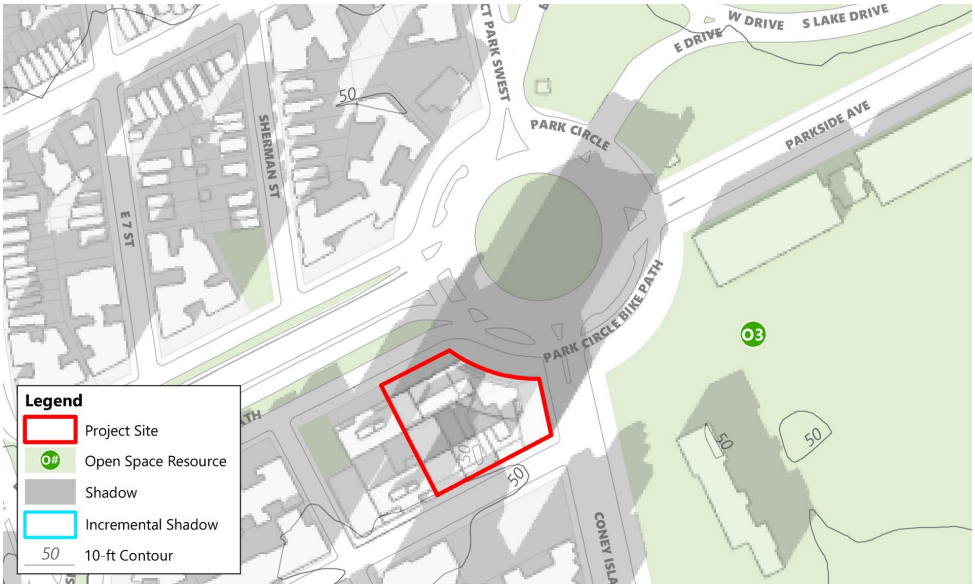


Figure 2.5-24 December 21 – 2:30P

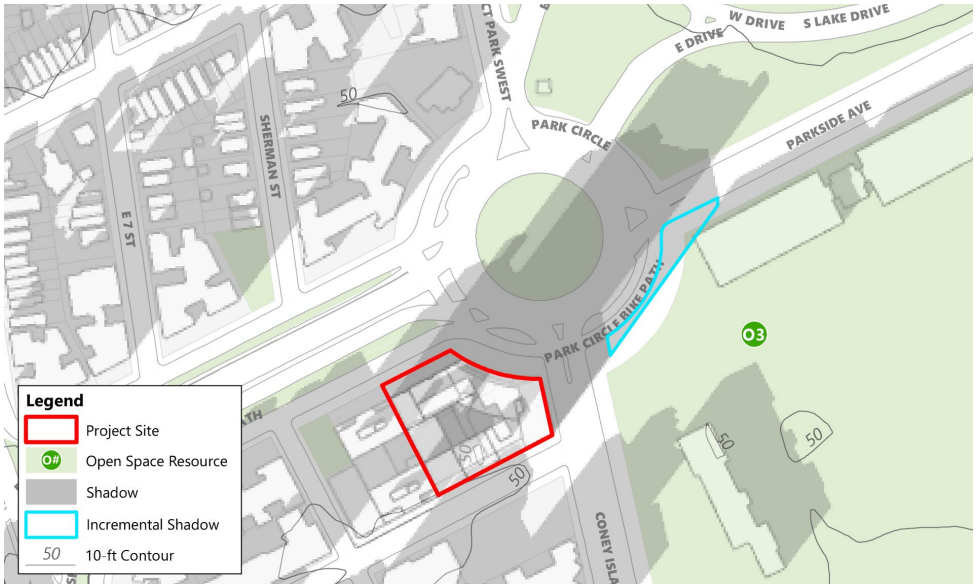


Figure 2.5-25 December 21 – 2:53P



Figure 2.5-26 March 21 – 1:30P

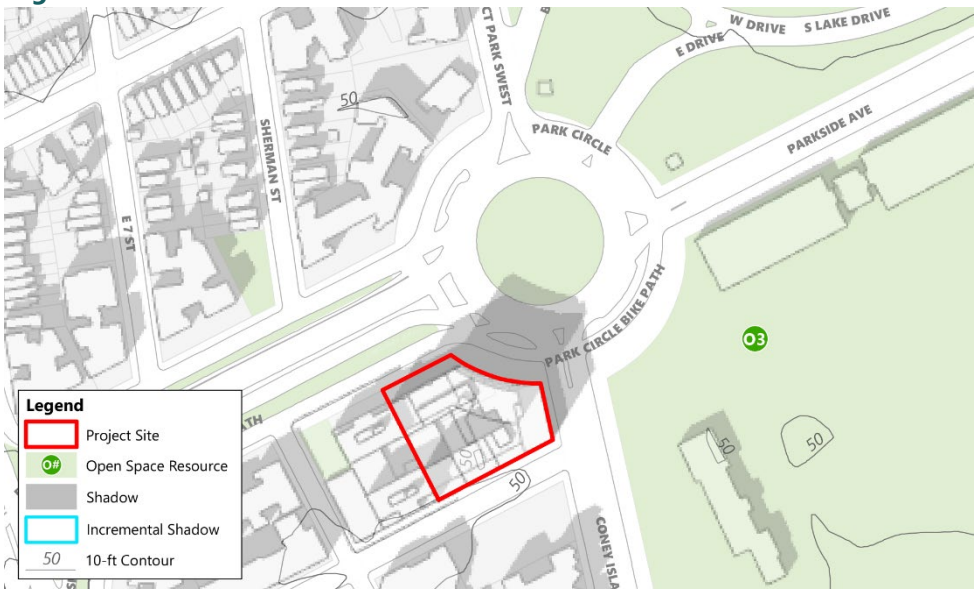


Figure 2.5-27 March 21 – 2:00P

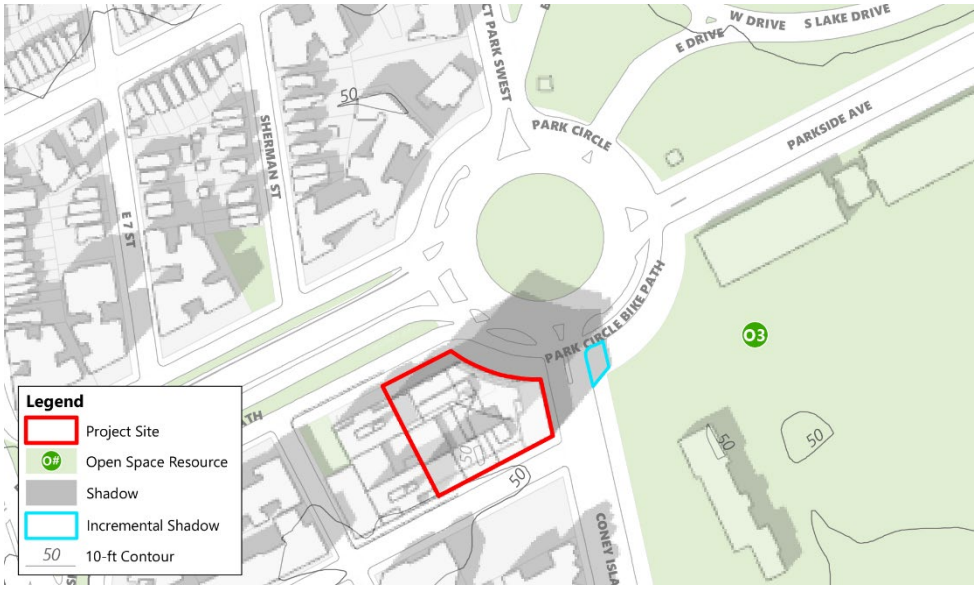


Figure 2.5-28 March 21 – 2:30P

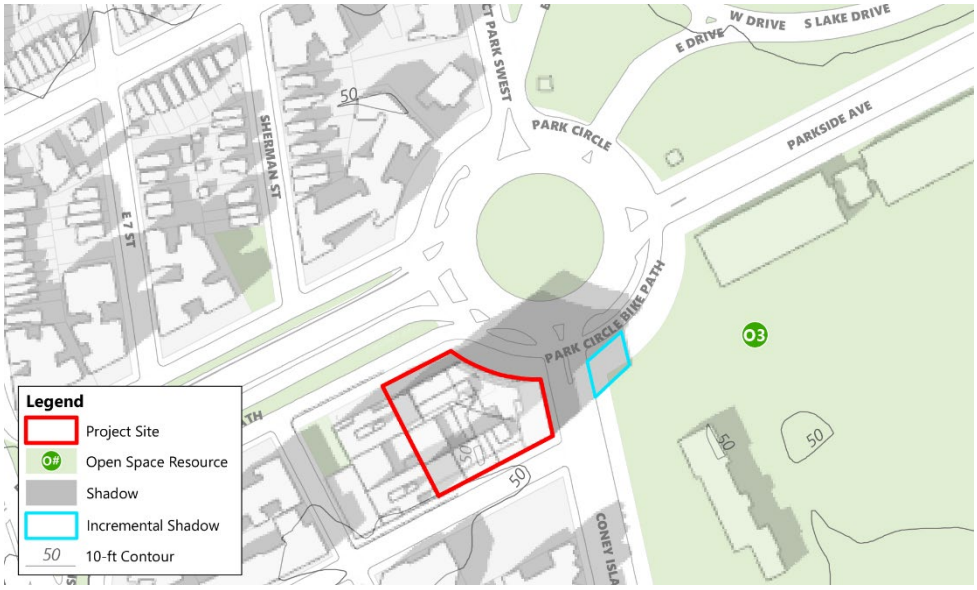


Figure 2.5-29 March 21 – 3:00P

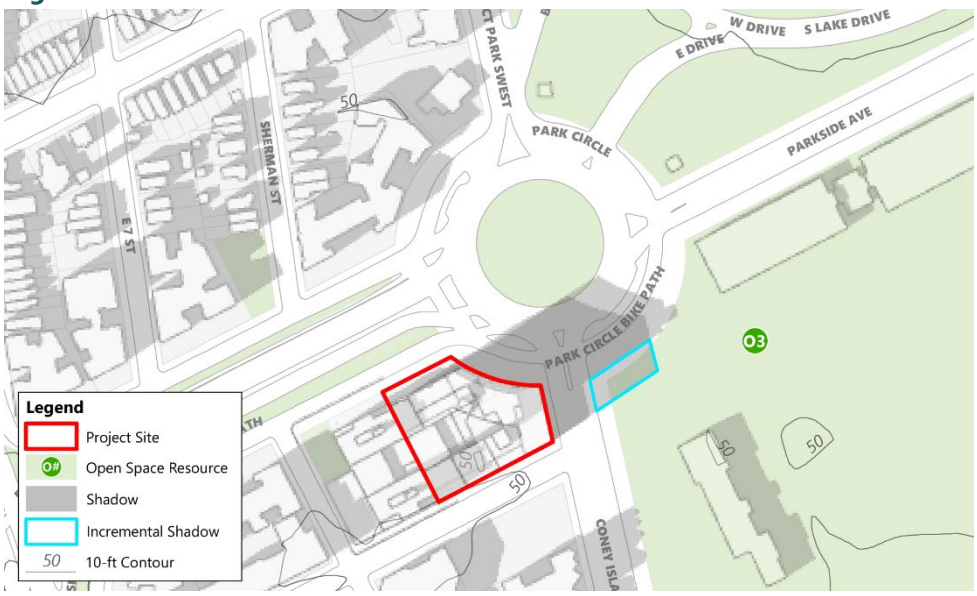


Figure 2.5-30 March 21 – 3:30P

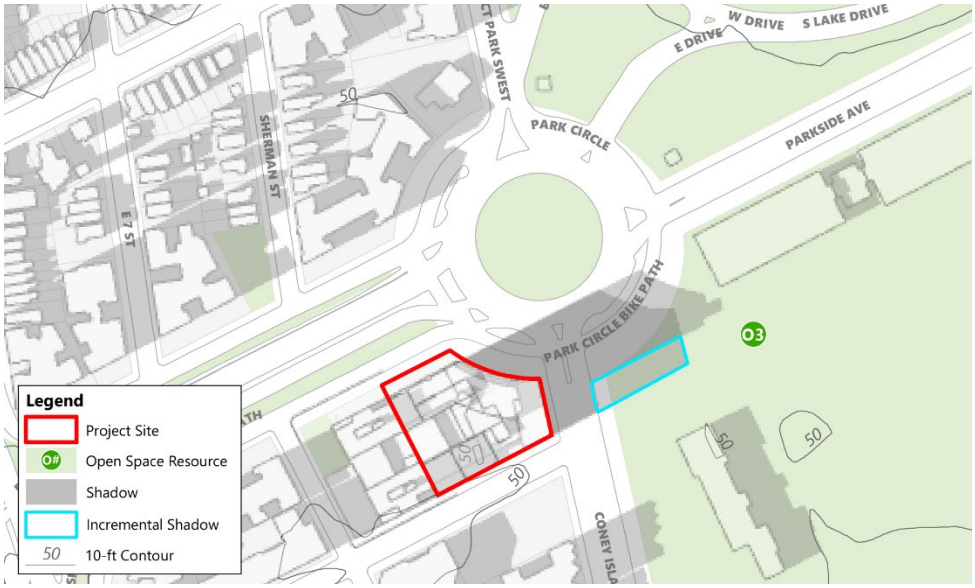


Figure 2.5-31 March 21 – 4:00P

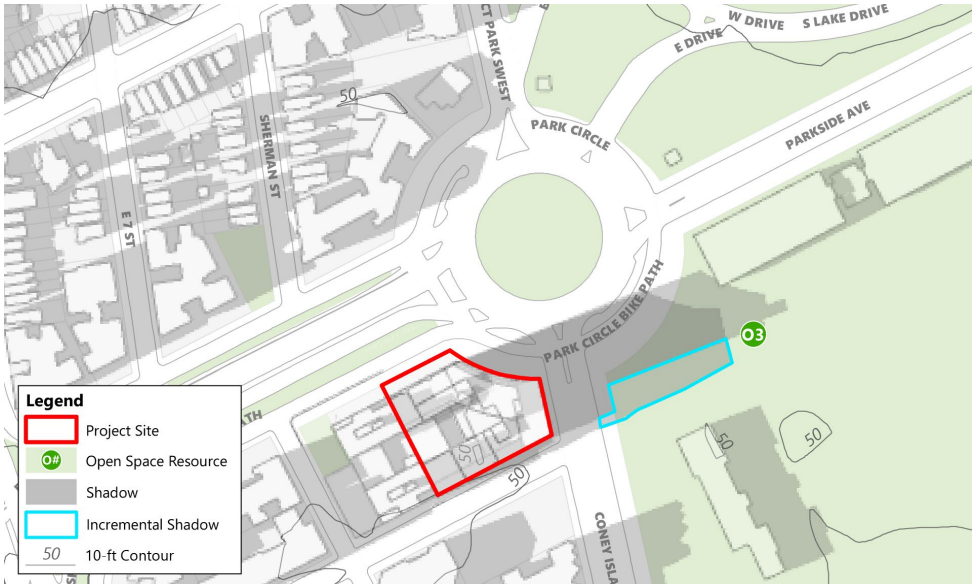


Figure 2.5-32 March 21 – 4:30P

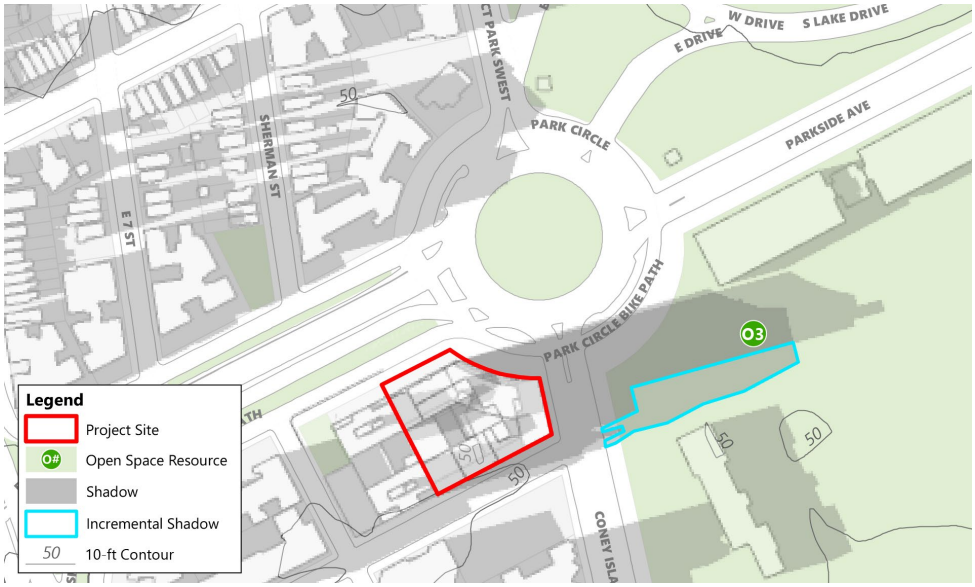


Figure 2.5-33 May 6 – 1:30P

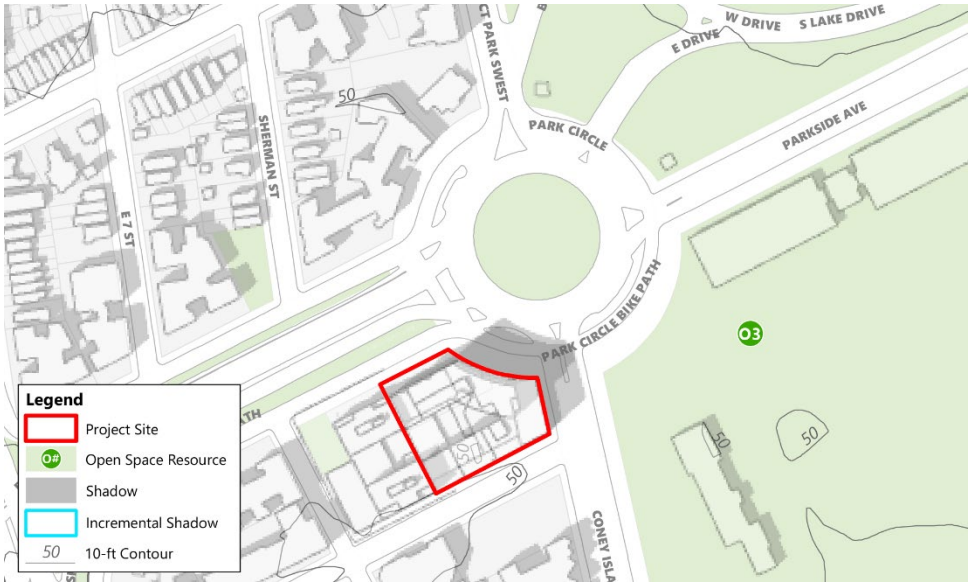


Figure 2.5-34 May 6 – 2:00P

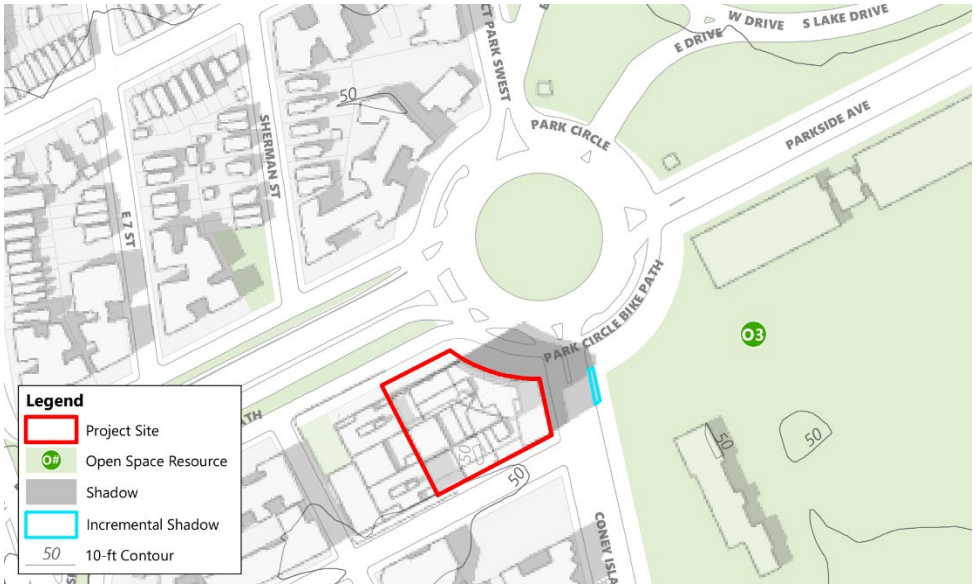


Figure 2.5-35 May 6 – 2:30P

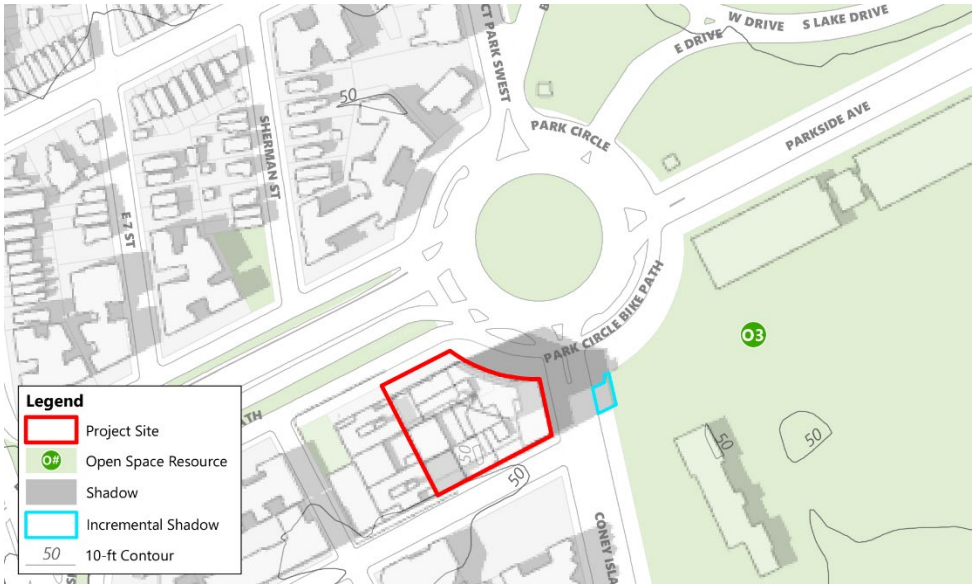


Figure 2.5-36 May 6 – 3:00P

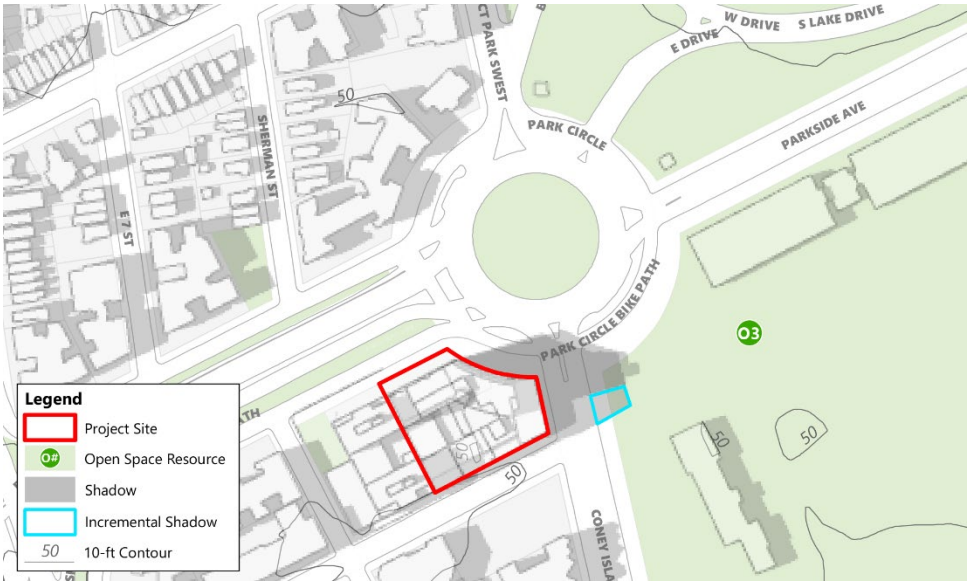


Figure 2.5-37 May 6 – 3:30P

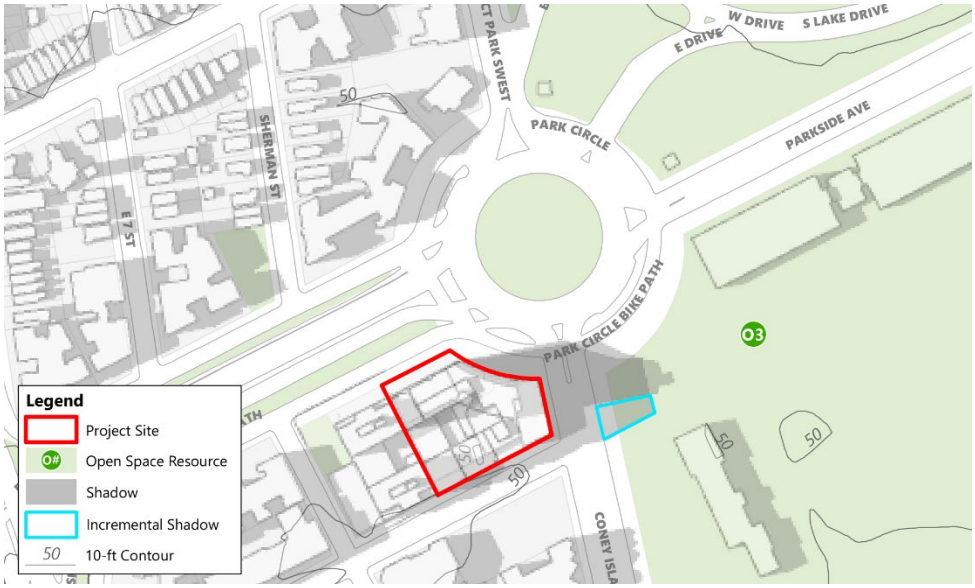


Figure 2.5-38 May 6 – 4:00P

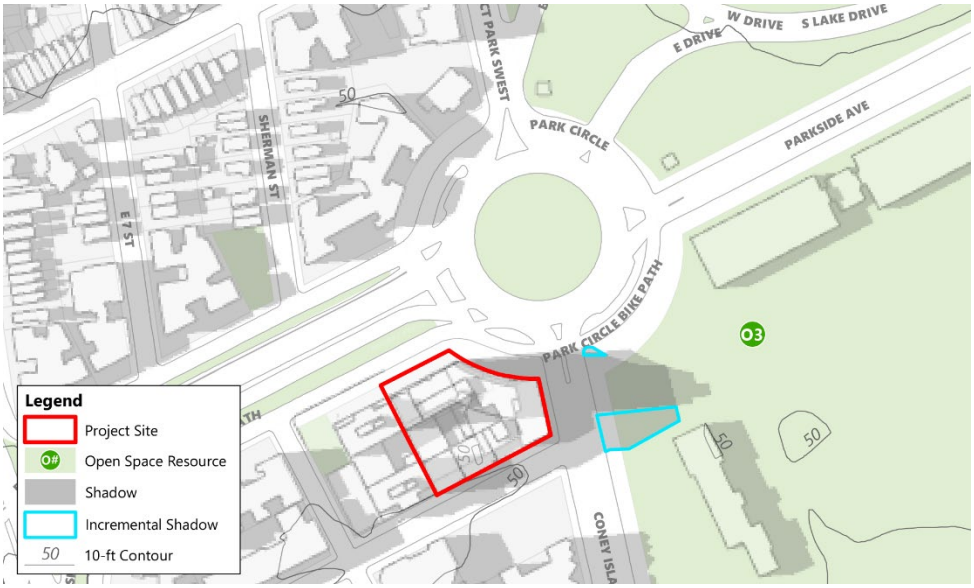


Figure 2.5-39 May 6 – 4:30P

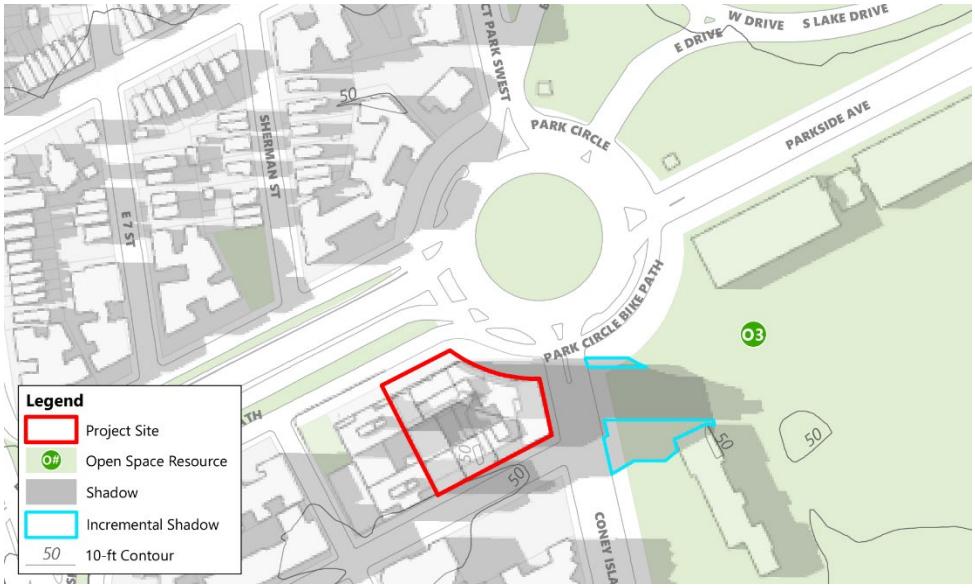


Figure 2.5-40 May 6 – 5:00P

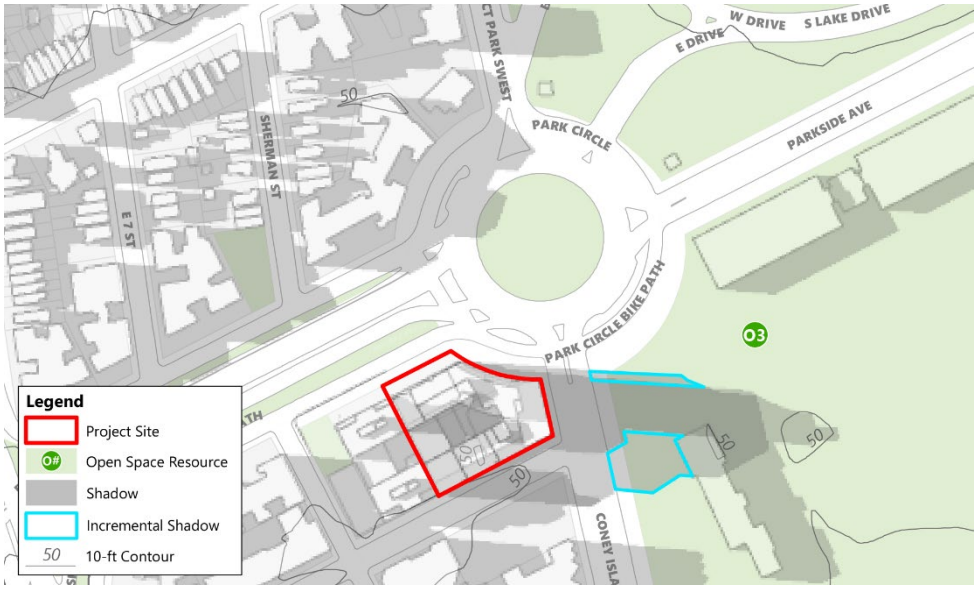


Figure 2.5-41 May 6 – 5:18P

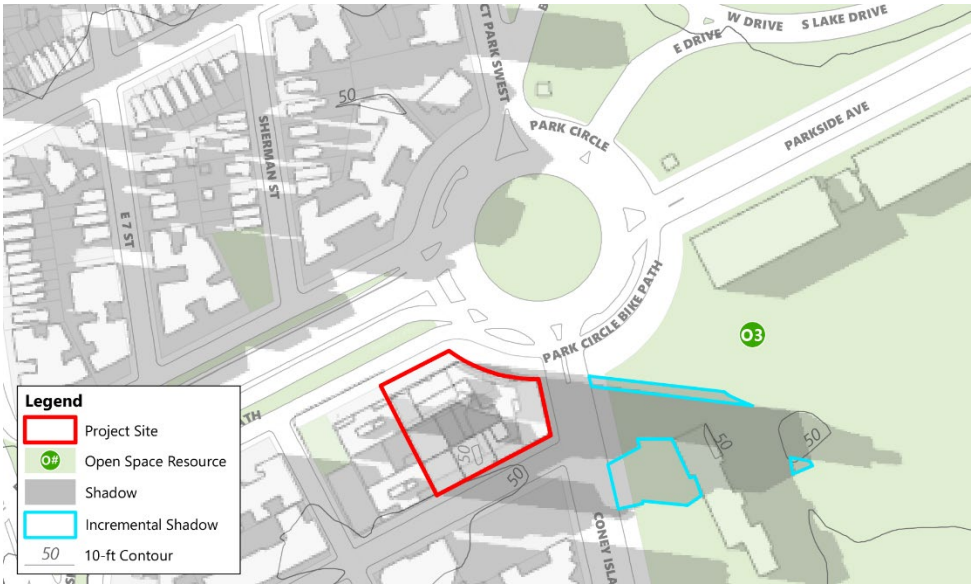


Figure 2.5-42 June 21 – 2:00P

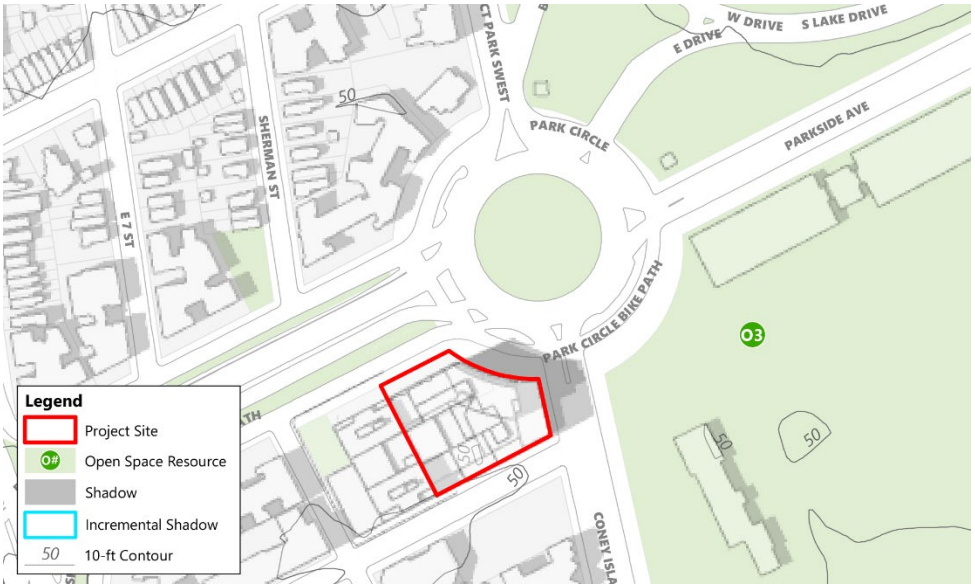


Figure 2.5-43 June 21 – 2:30P

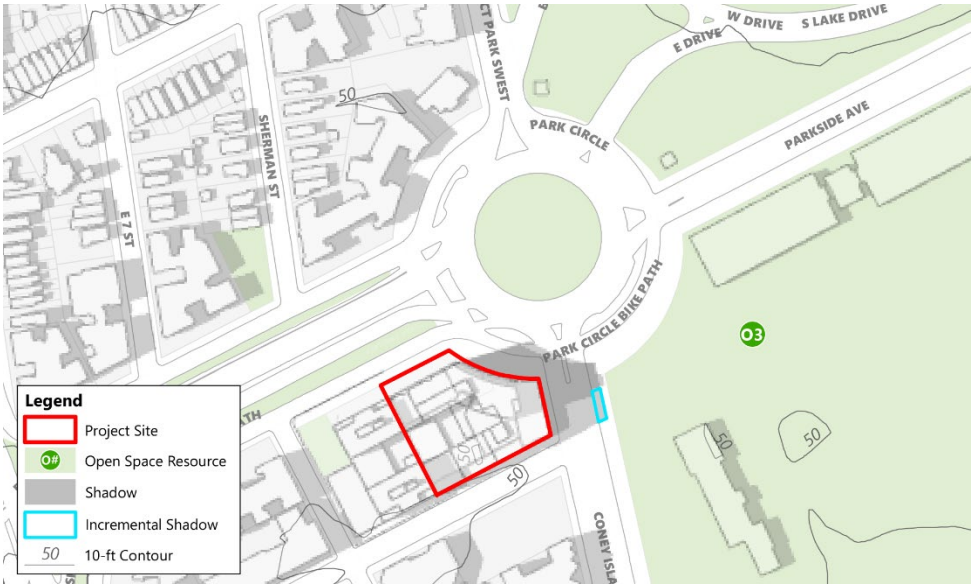


Figure 2.5-44 June 21 – 3:00P

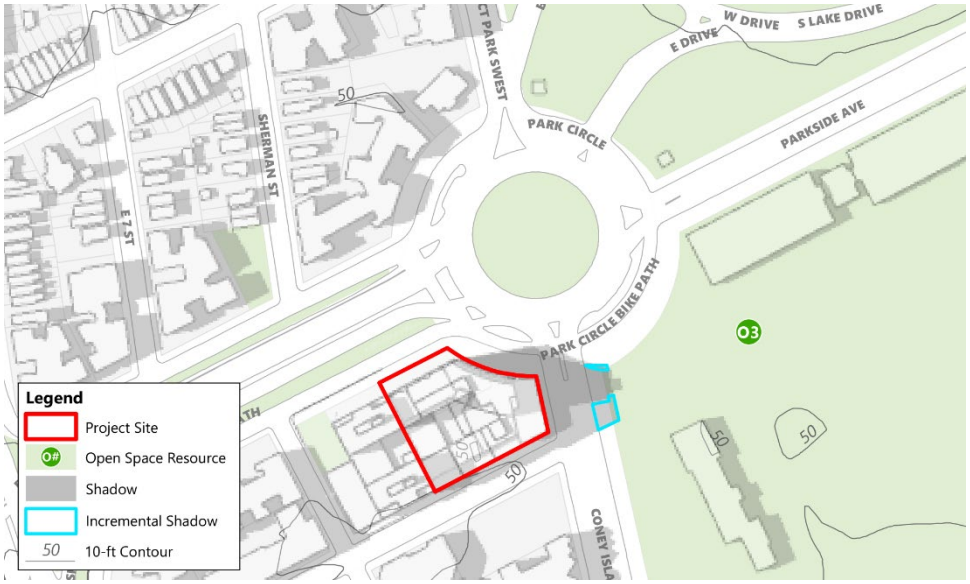


Figure 2.5-45 June 21 – 3:30P

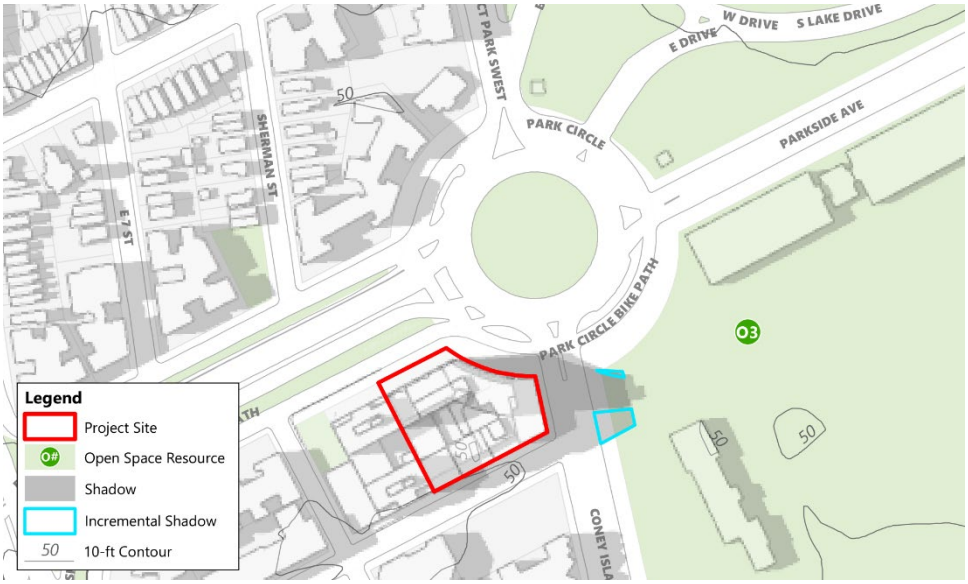


Figure 2.5-46 June 21 – 4:00P

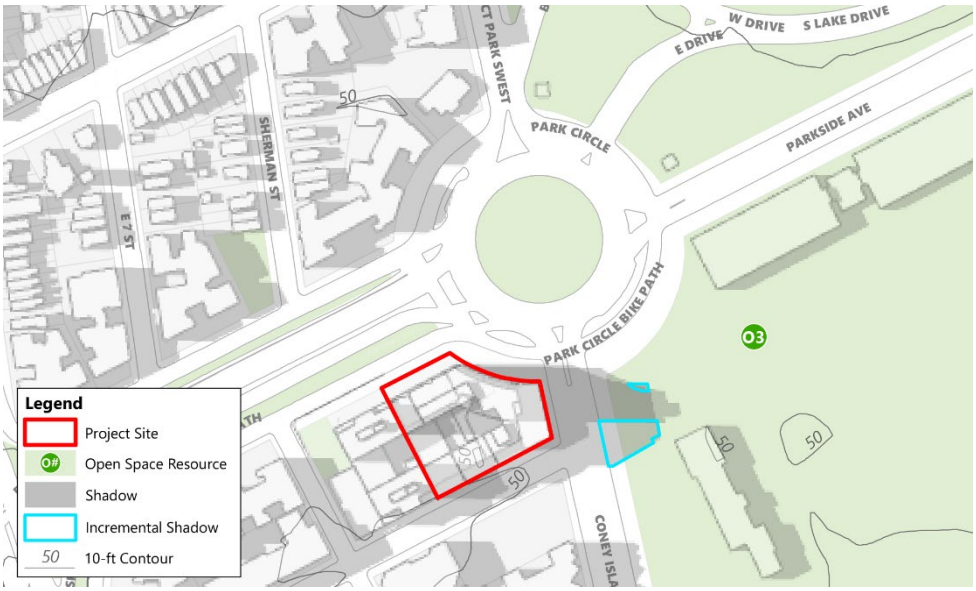


Figure 2.5-47 June 21 – 4:30P

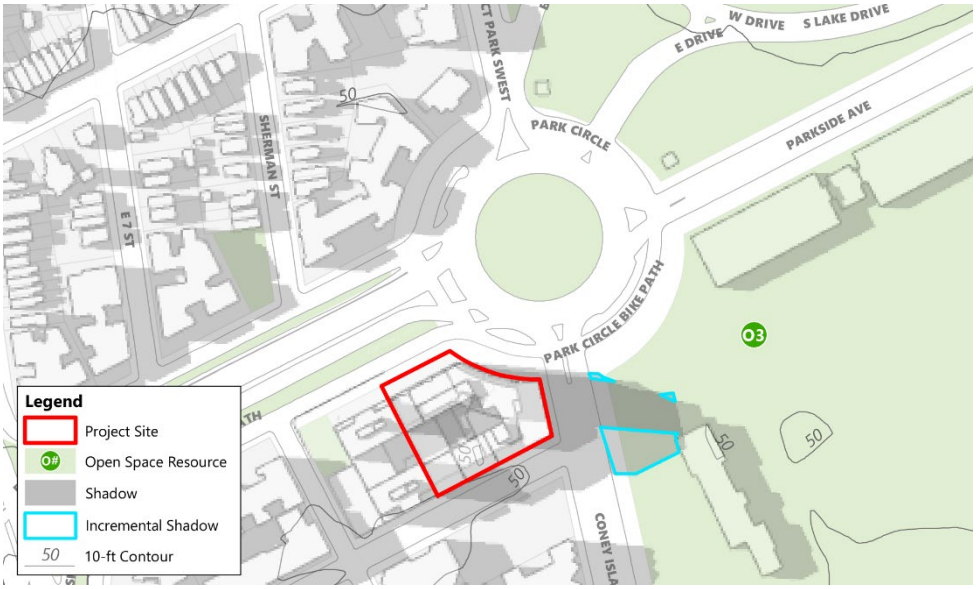


Figure 2.5-48 June 21 – 5:00P

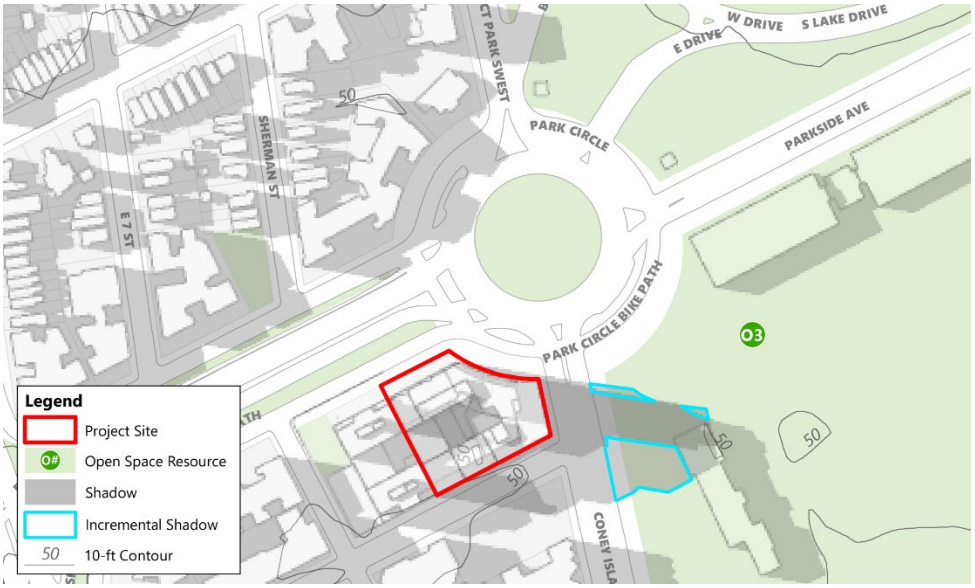


Figure 2.5-49 June 21 – 5:30P

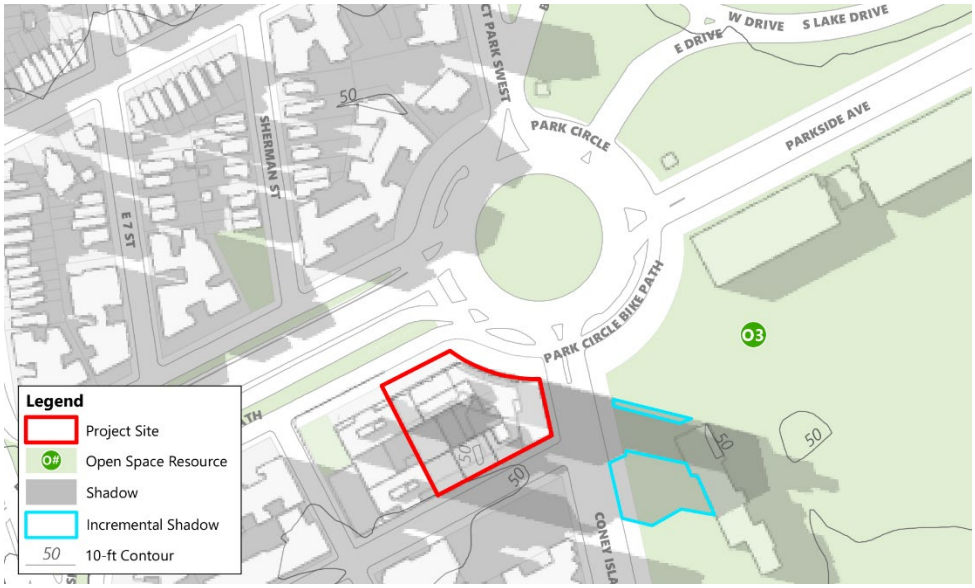


Figure 2.5-50 June 21 – 6:01P



O4: Unnamed Plaza (1 East 8th Street)

Figure 2.5-51 May 6 – 6:27A

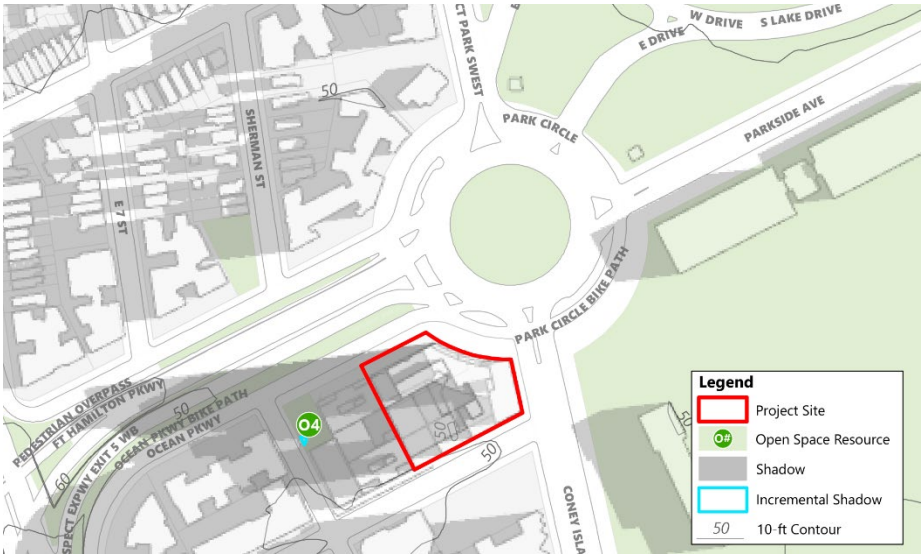


Figure 2.5-52 May 6 – 7:00A

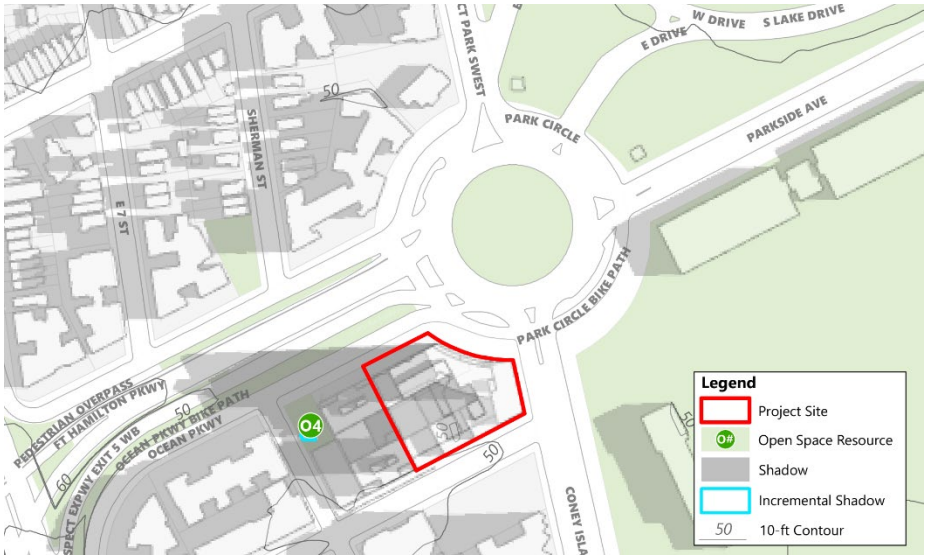


Figure 2.5-53 May 6 – 7:30A

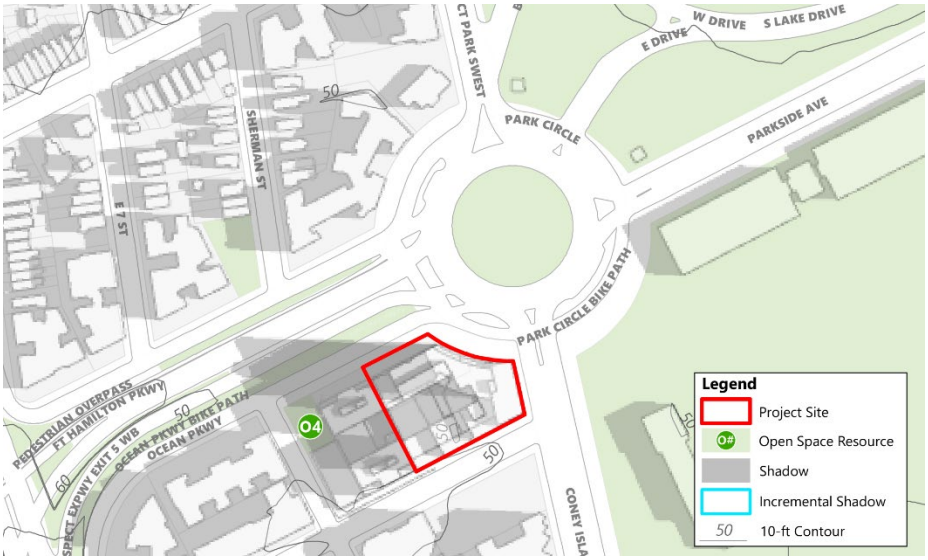


Figure 2.5-54 June 21 – 5:57A

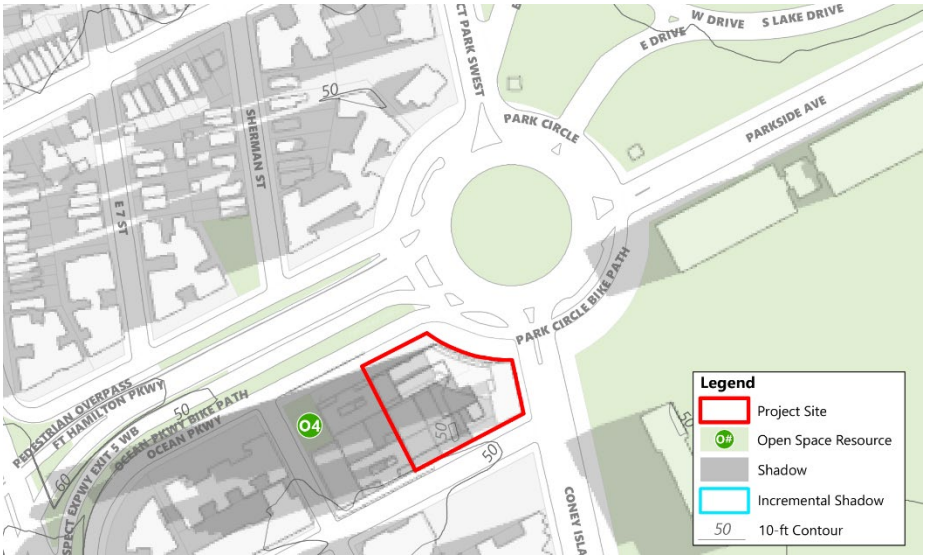


Figure 2.5-55 June 21 – 6:30A

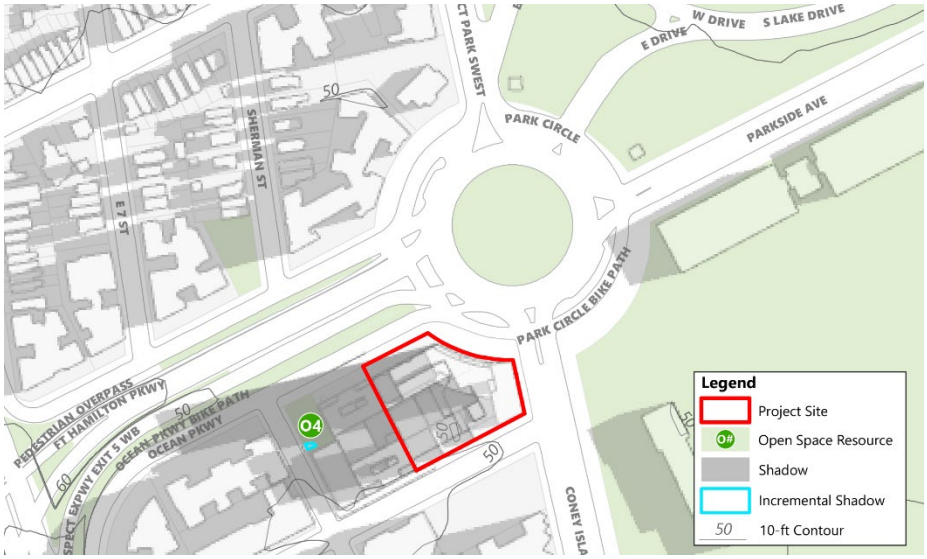


Figure 2.5-56 June 21 – 7:00A

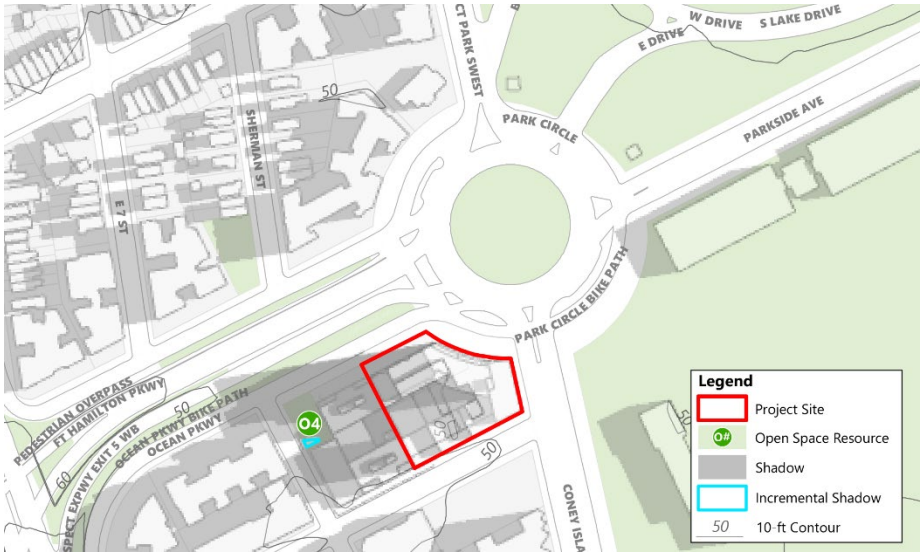
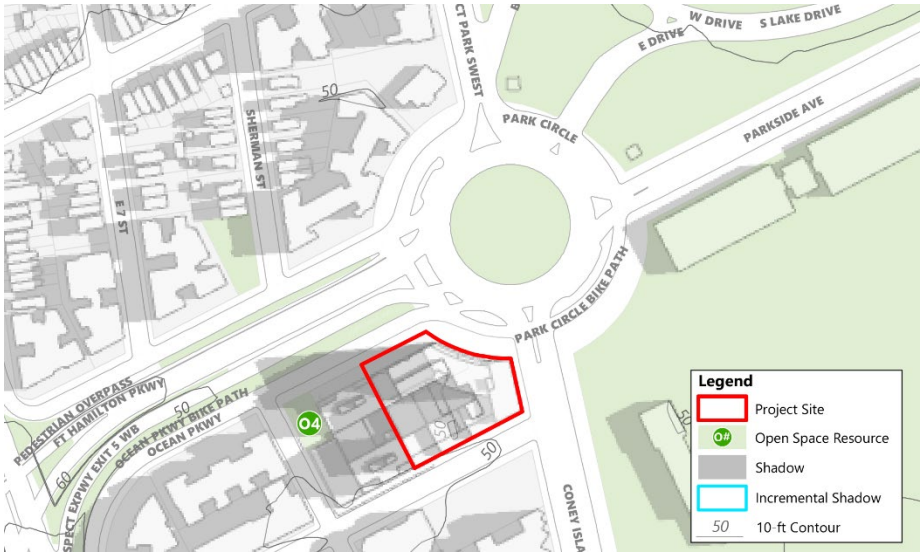


Figure 2.5-57 June 21 – 7:30A



O5: Unnamed Park (318 Sherman Street)

Figure 2.5-58 December 21 – 8:51A

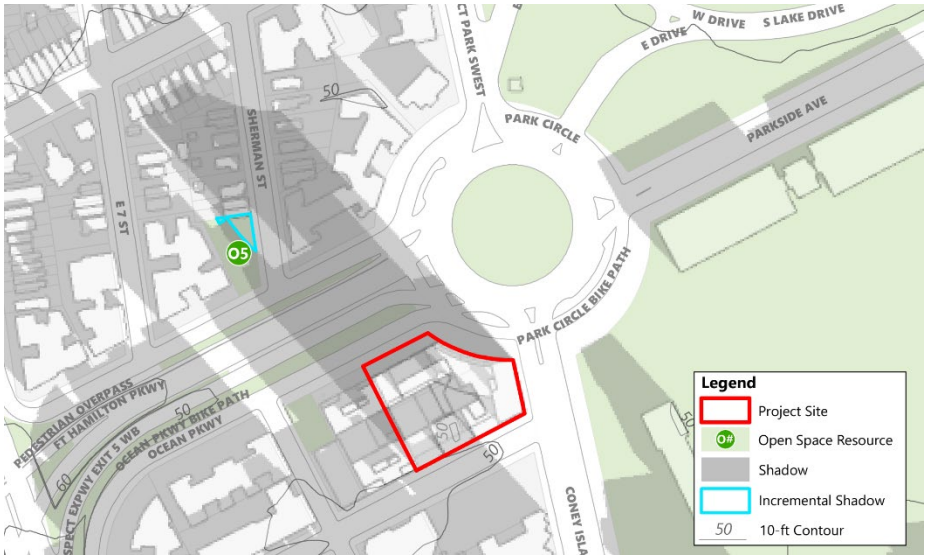


Figure 2.5-59 December 21 – 9:30A

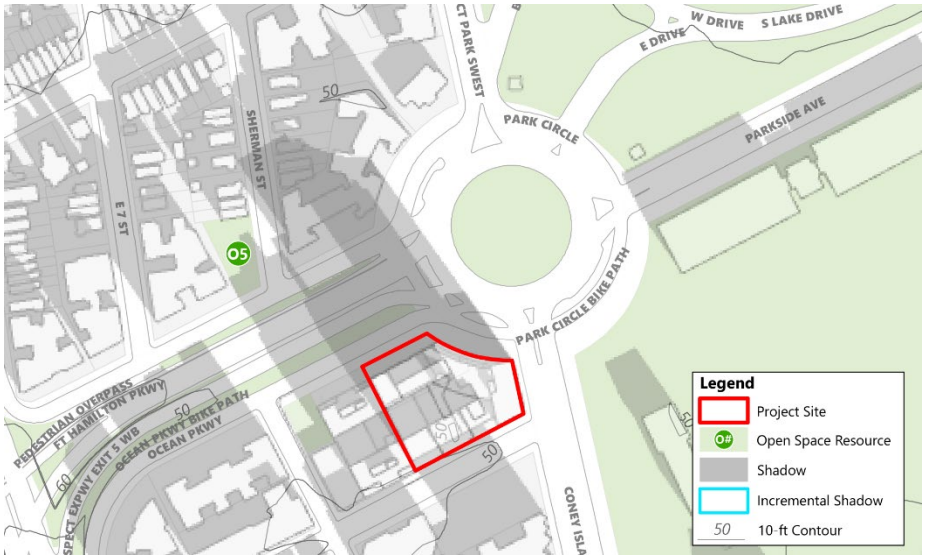


Figure 2.5-60 March 21 – 7:36A

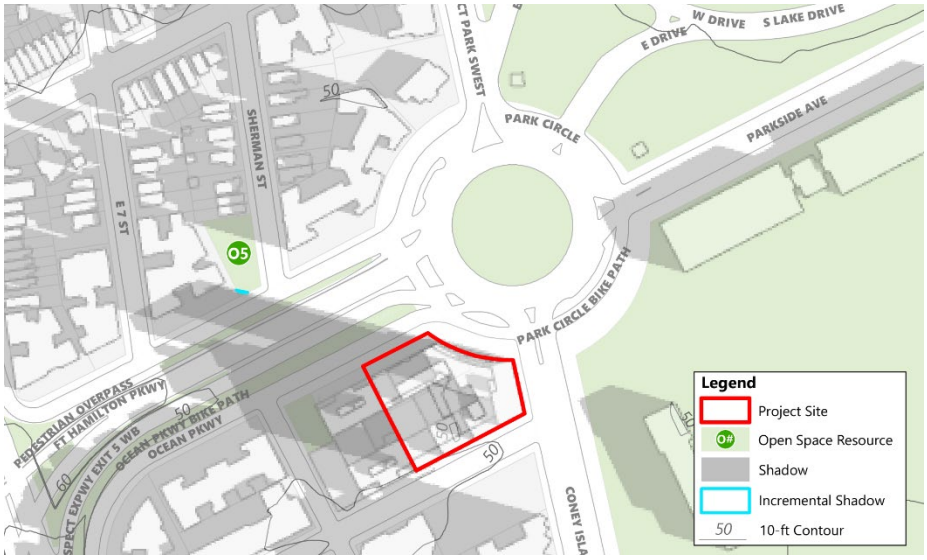


Figure 2.5-61 March 21 – 8:00A

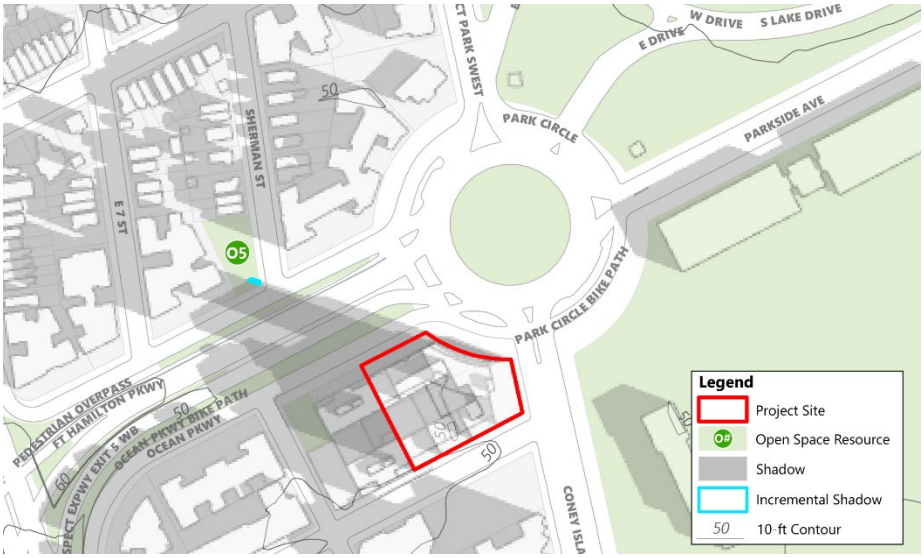
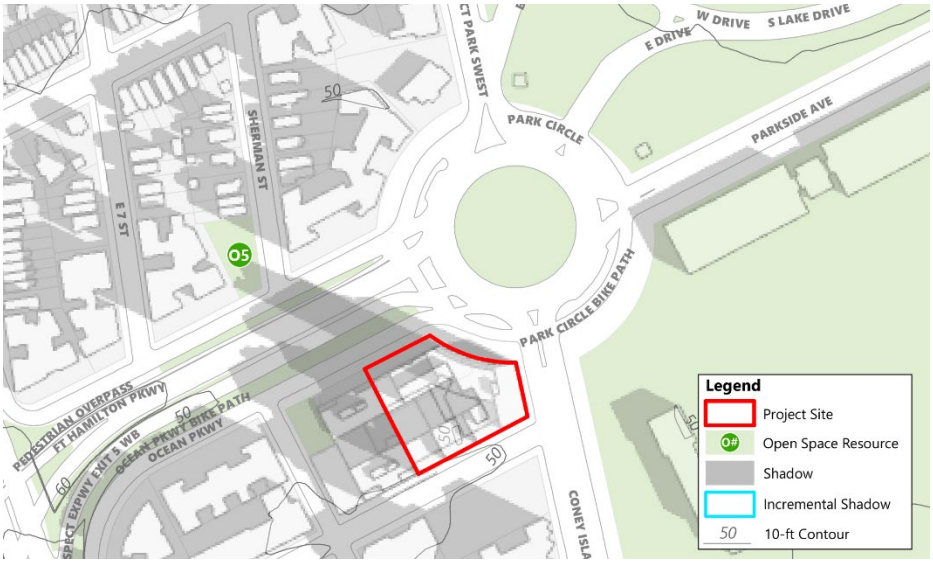


Figure 2.5-62 March 21 – 8:30A



O6: Ocean Parkway Landscaped Malls

Figure 2.5-63 December 21 – 9:30A

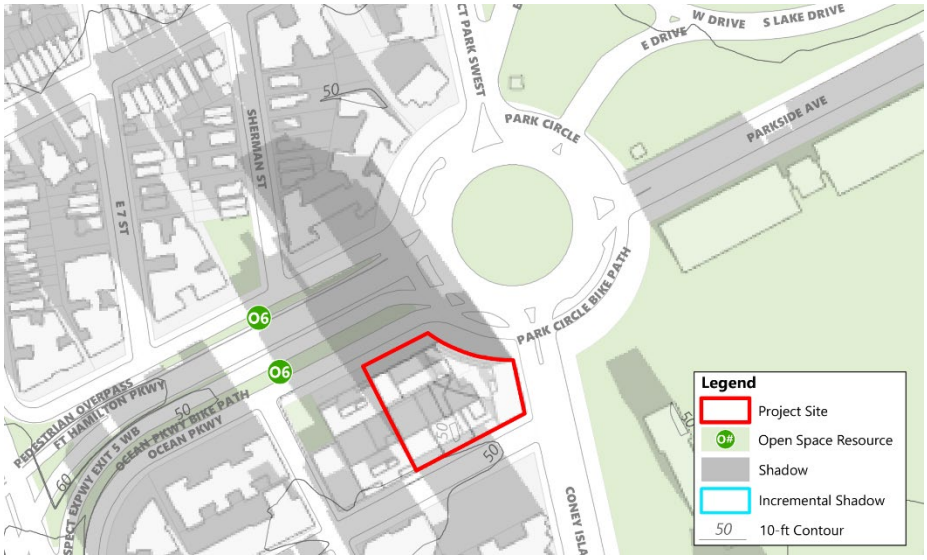


Figure 2.5-64 December 21 – 10:00A

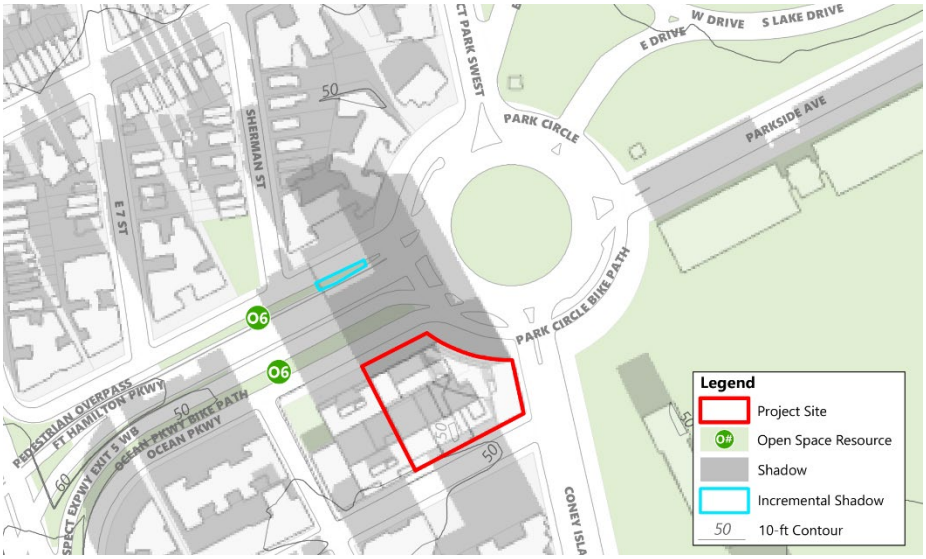


Figure 2.5-65 December 21 – 10:30A

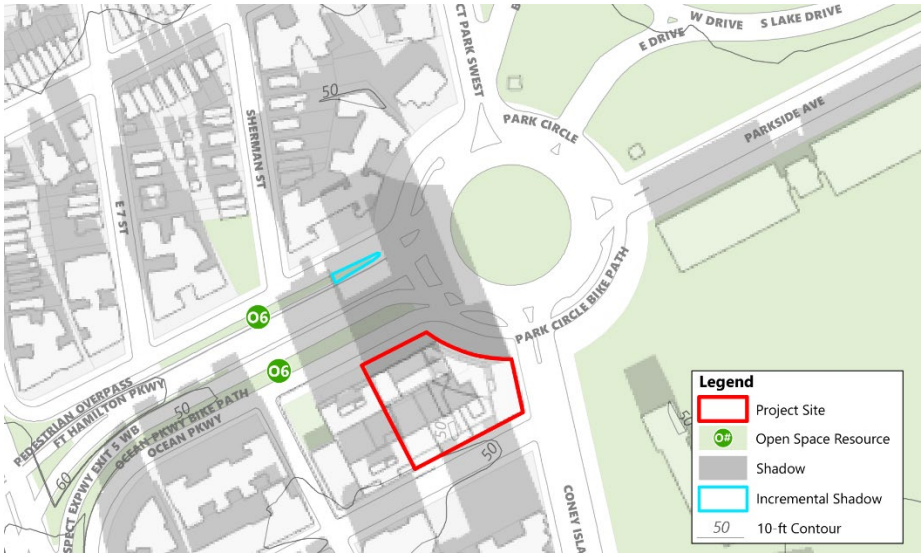


Figure 2.5-66 December 21 – 11:00A

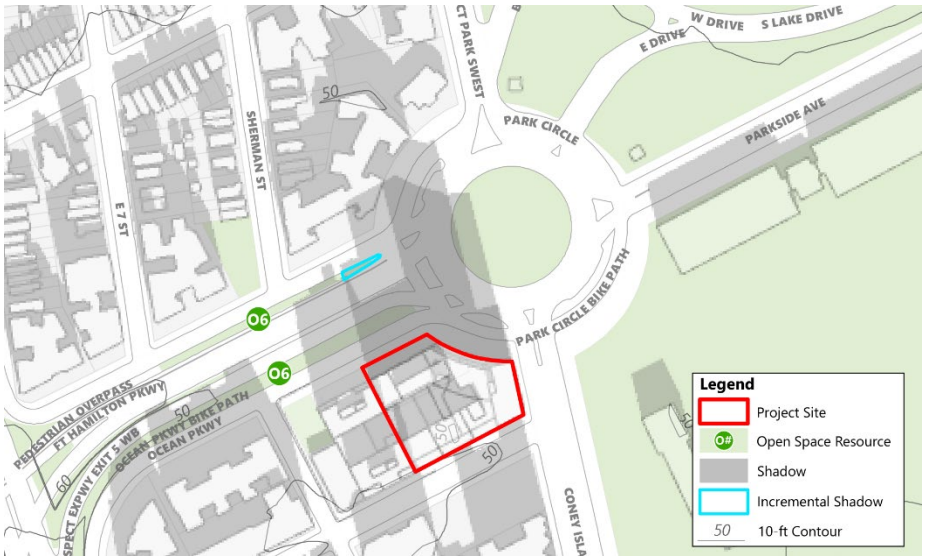


Figure 2.5-67 December 21 – 11:30A

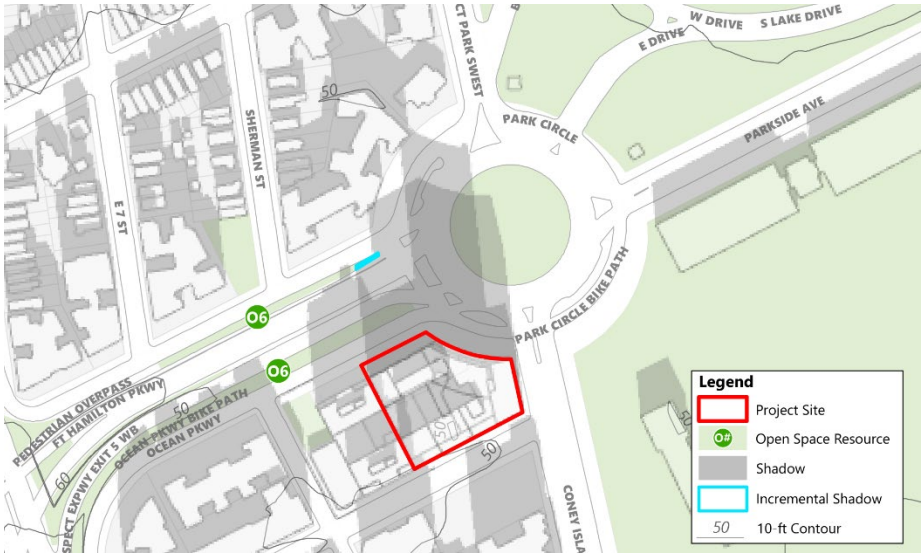


Figure 2.5-68 December 21 – 12:00P

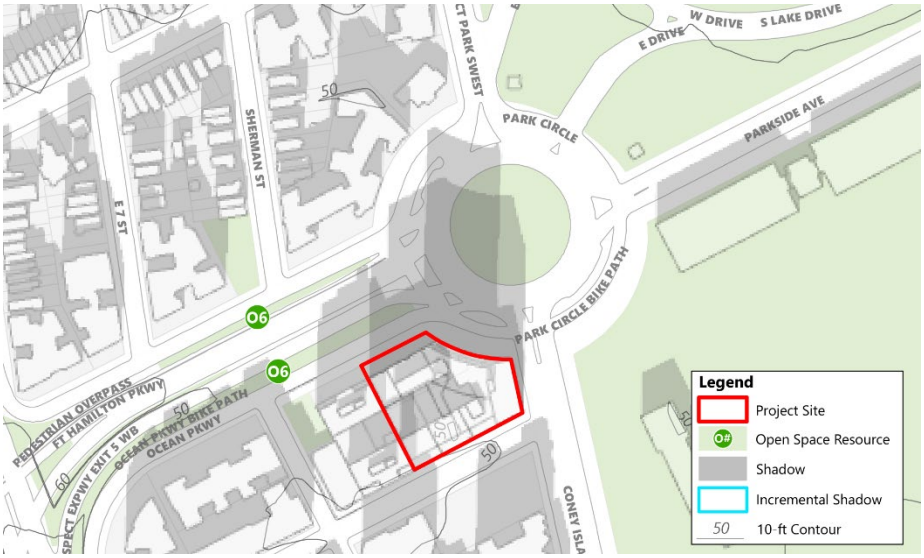
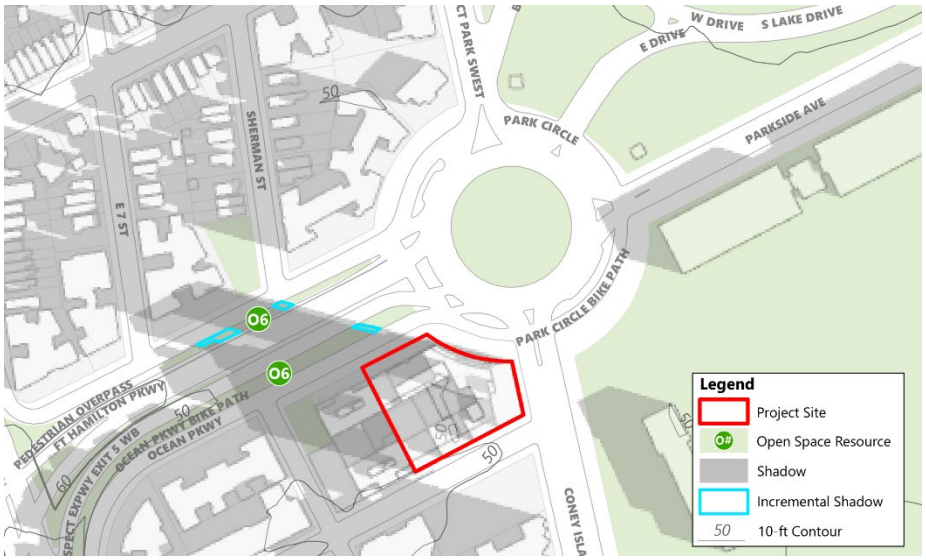


Figure 2.5-69 March 21 – 7:36A



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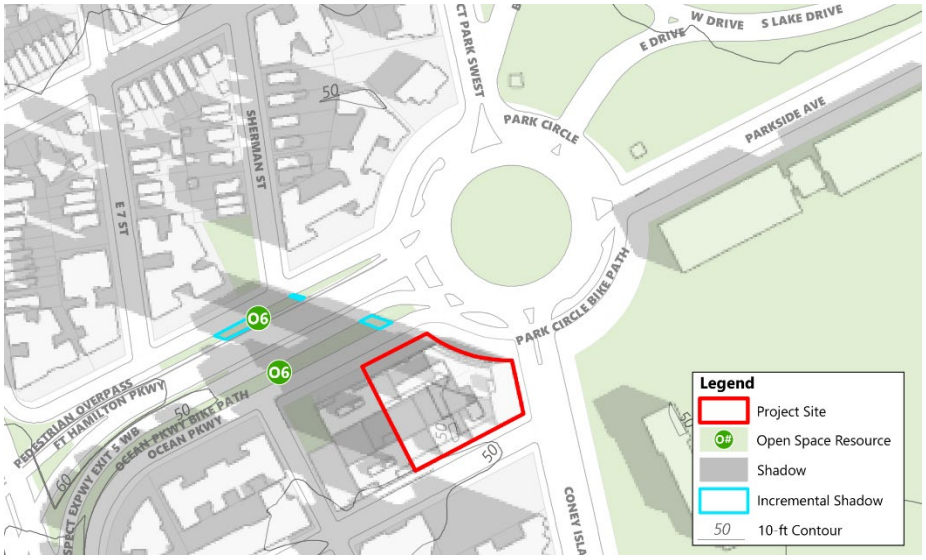

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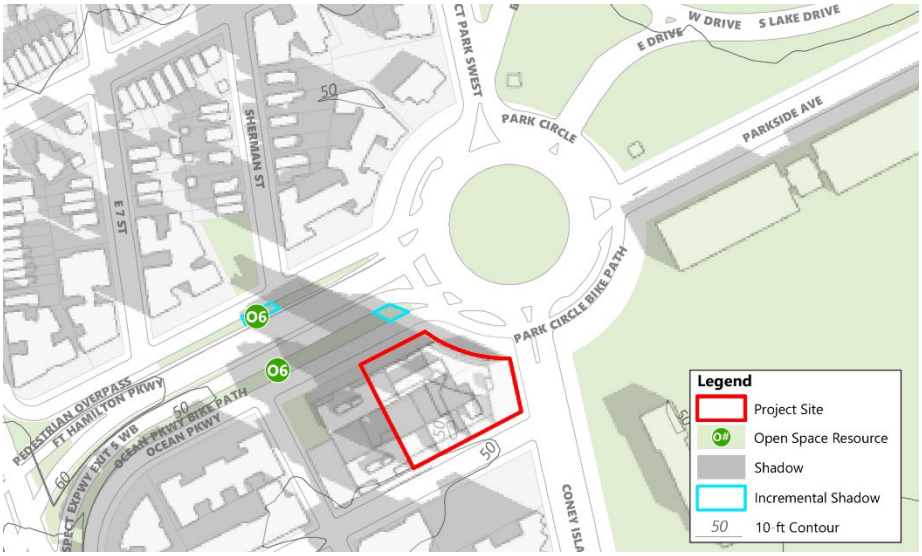

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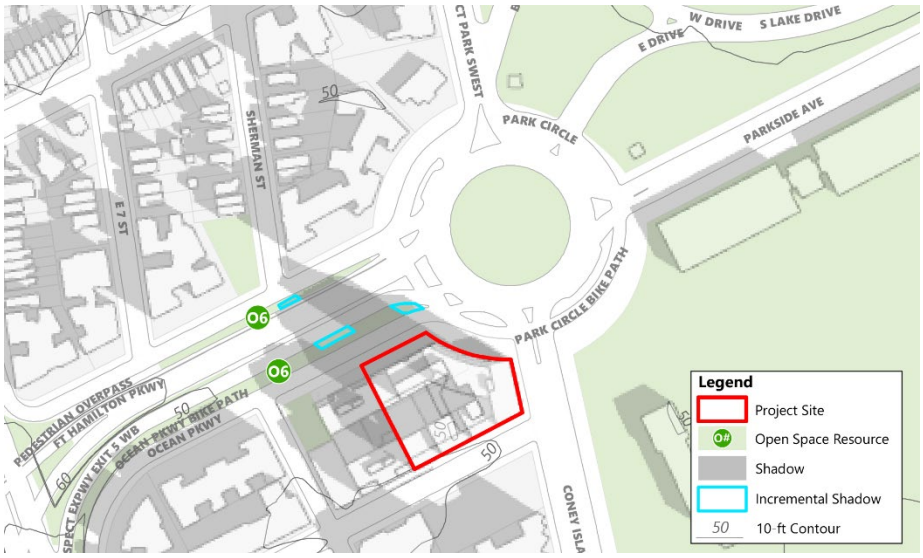

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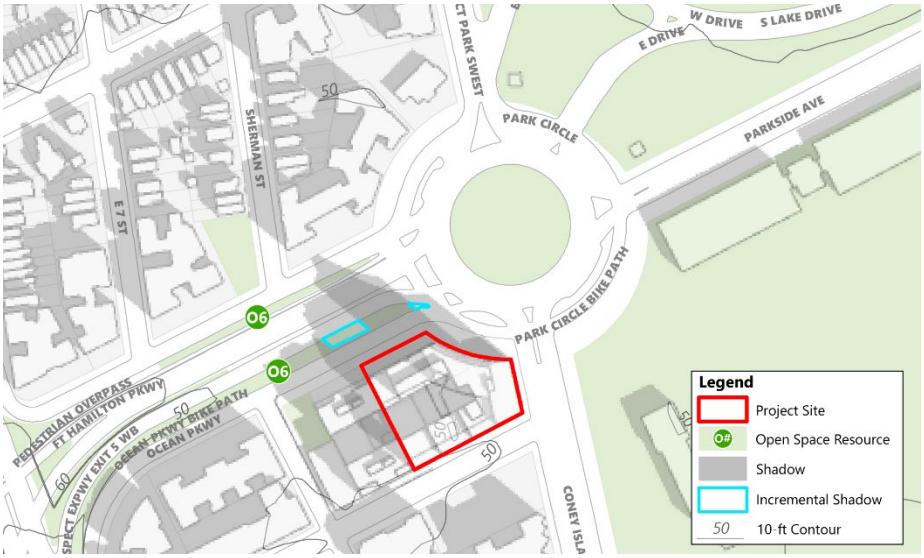

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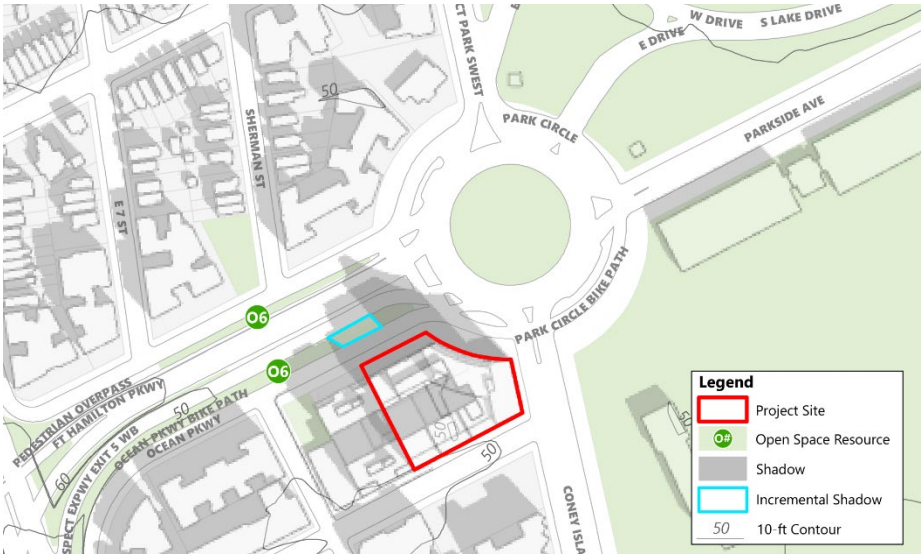

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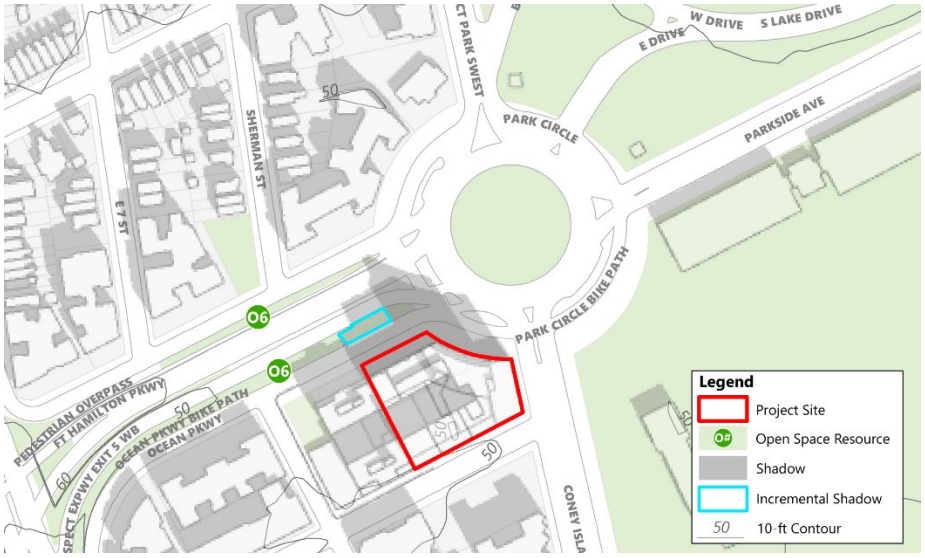

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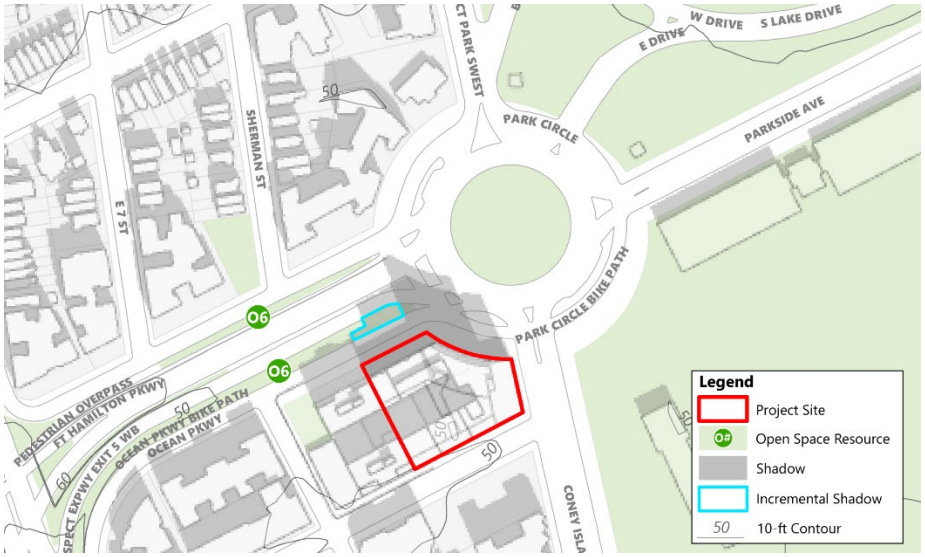

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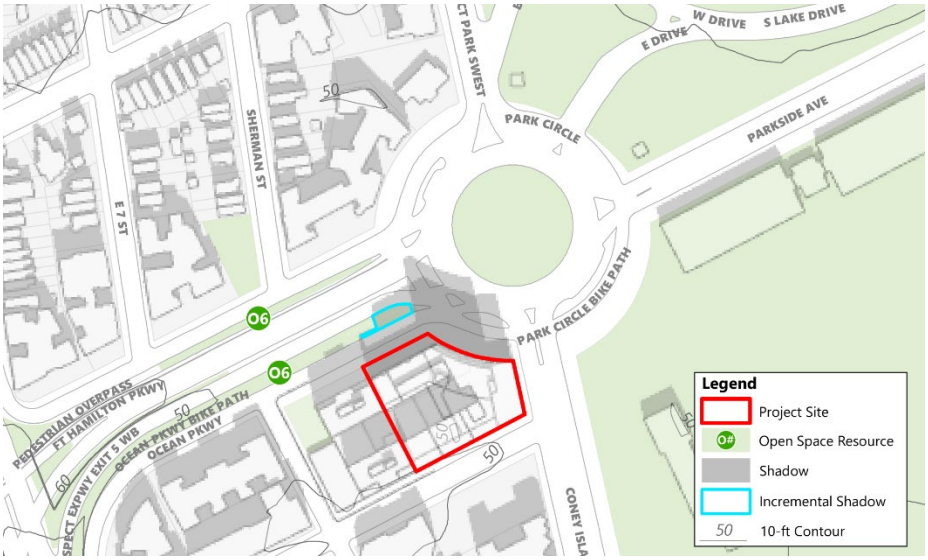

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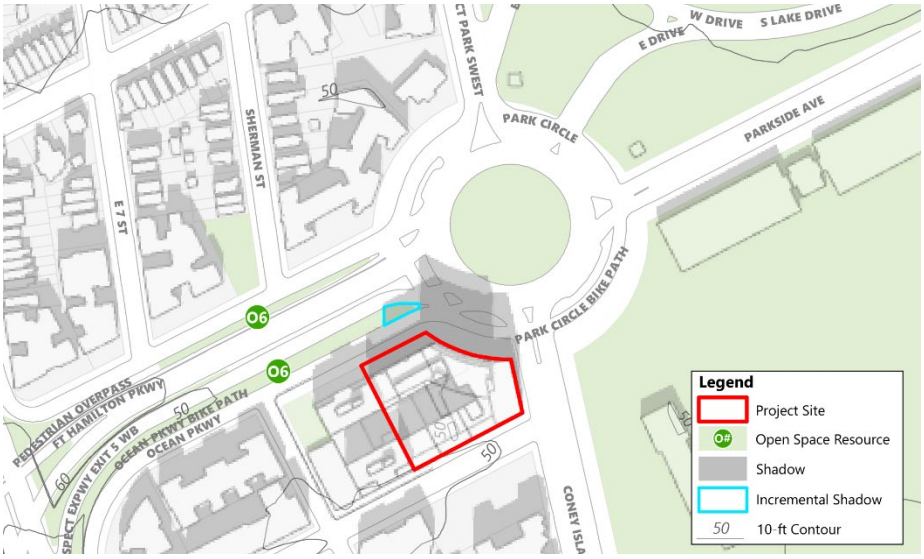

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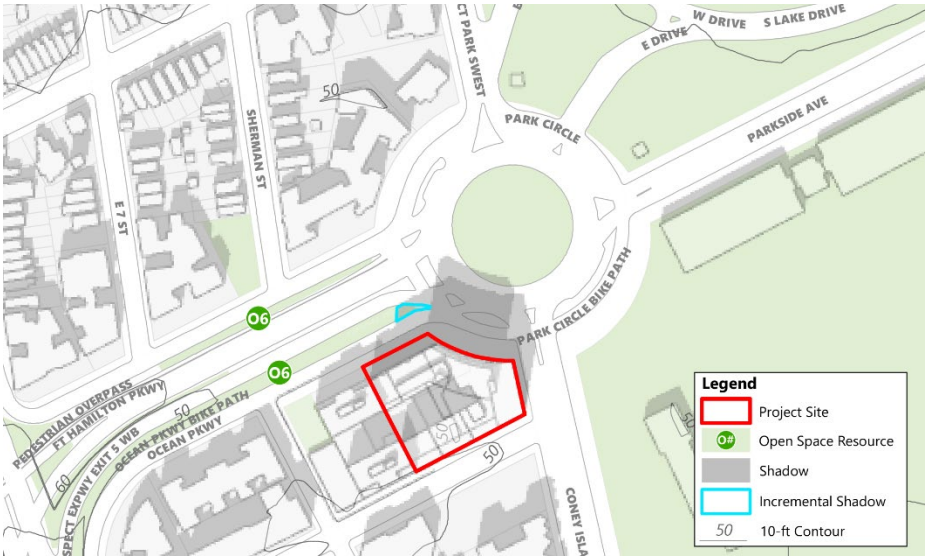

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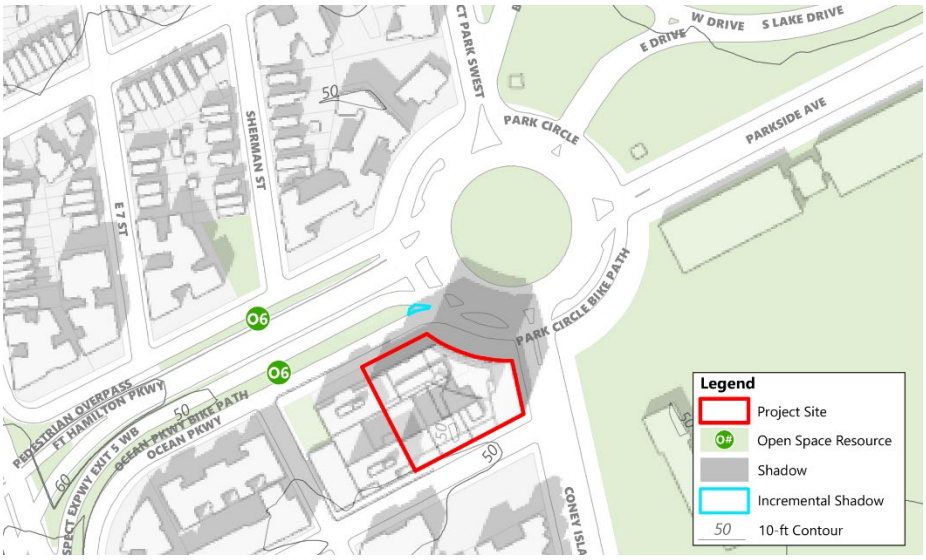

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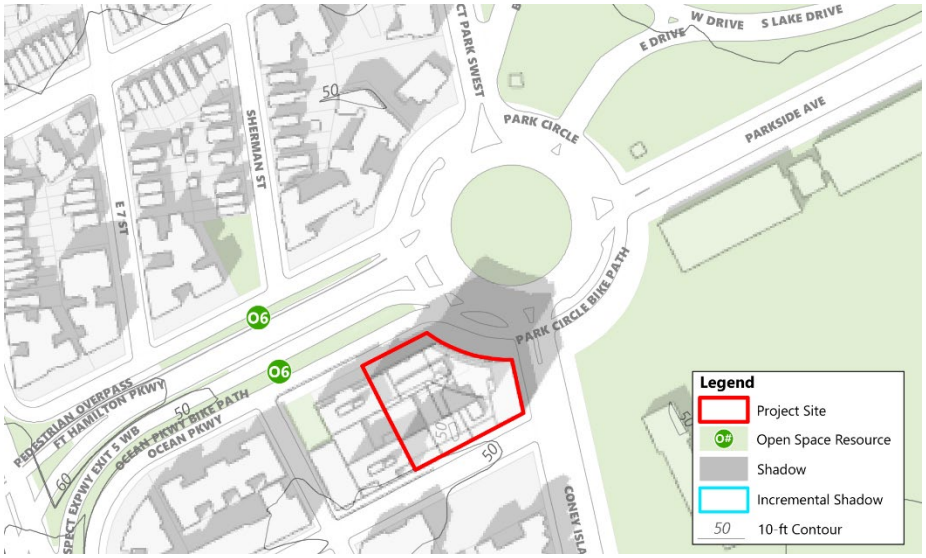

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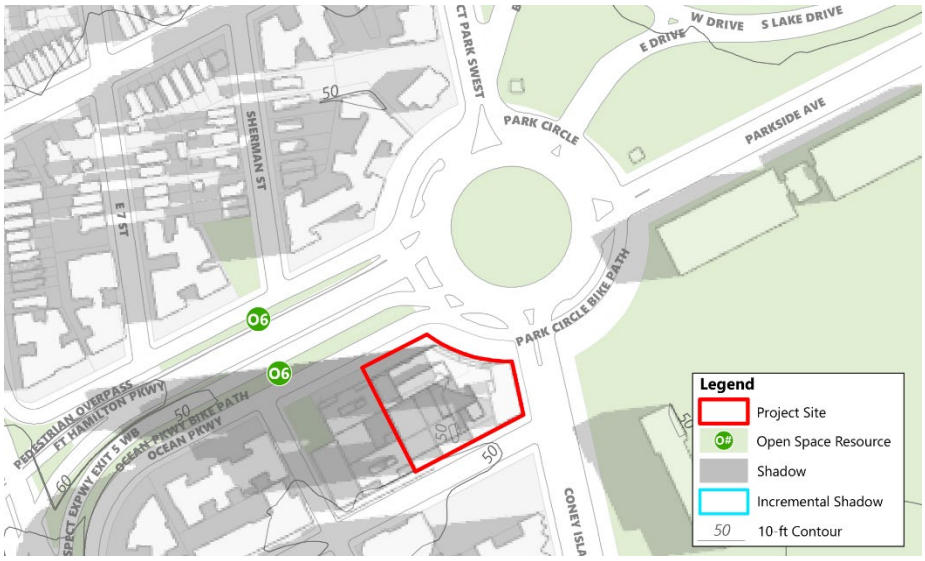

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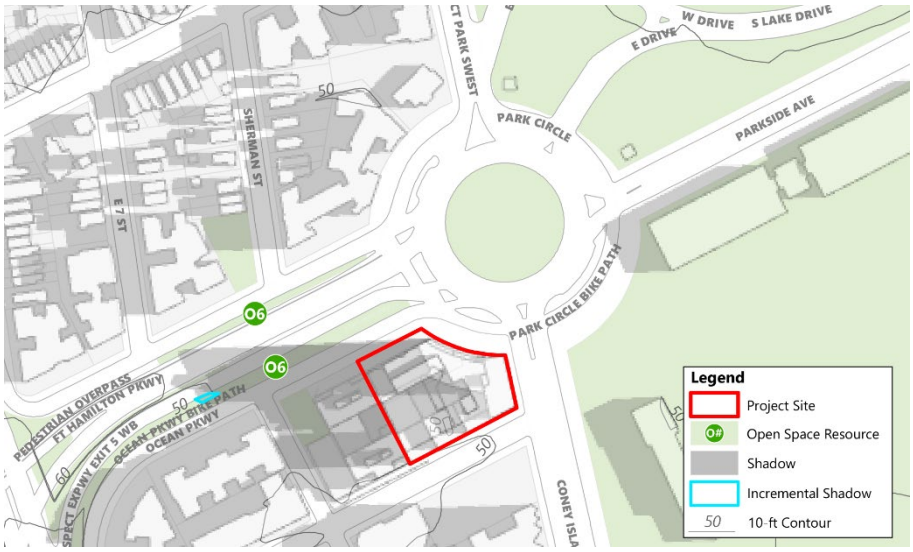

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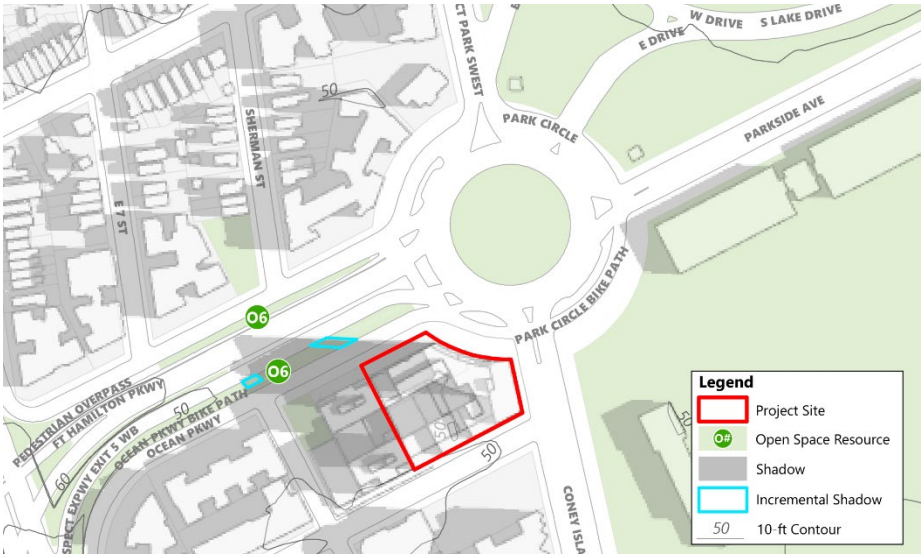

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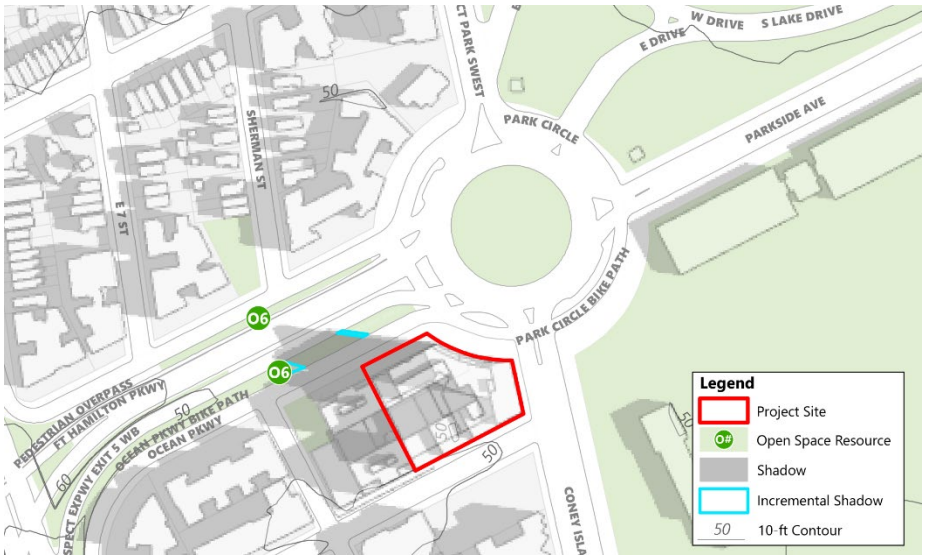

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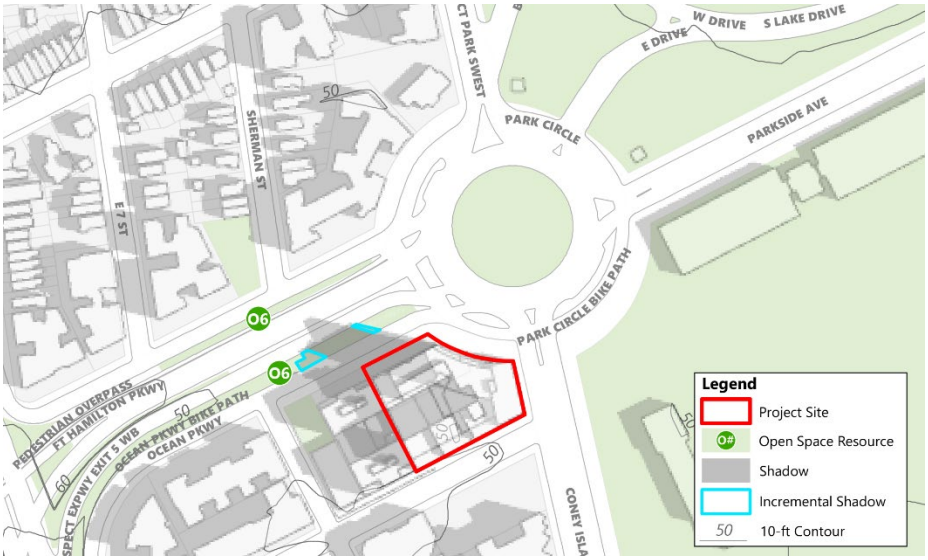

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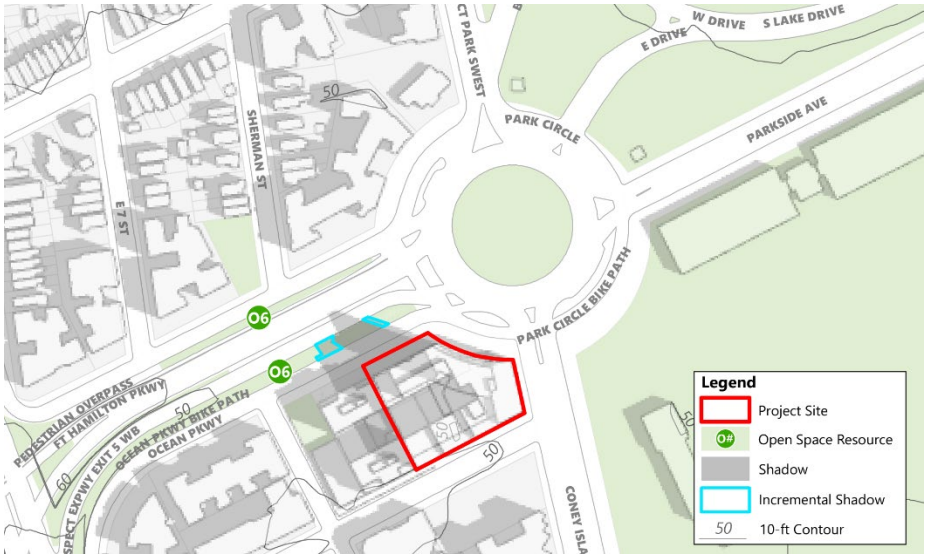

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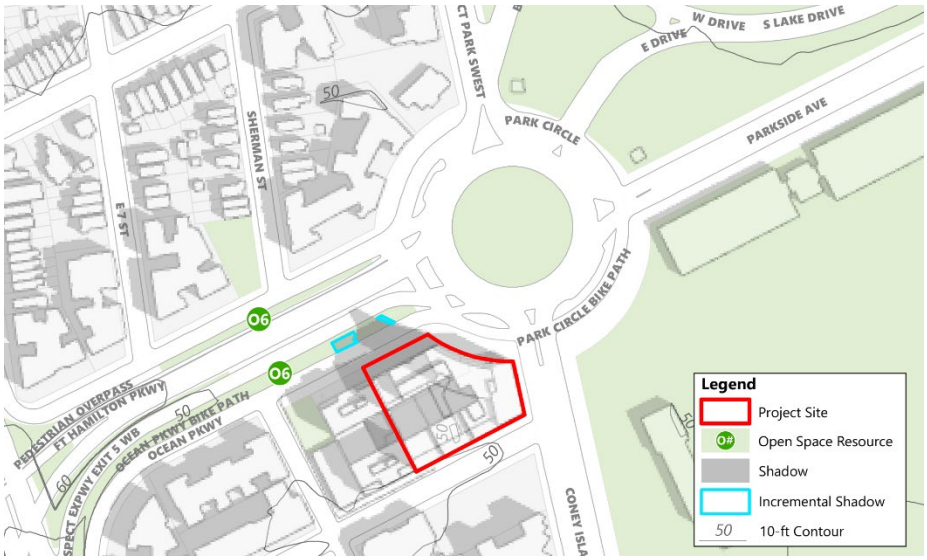

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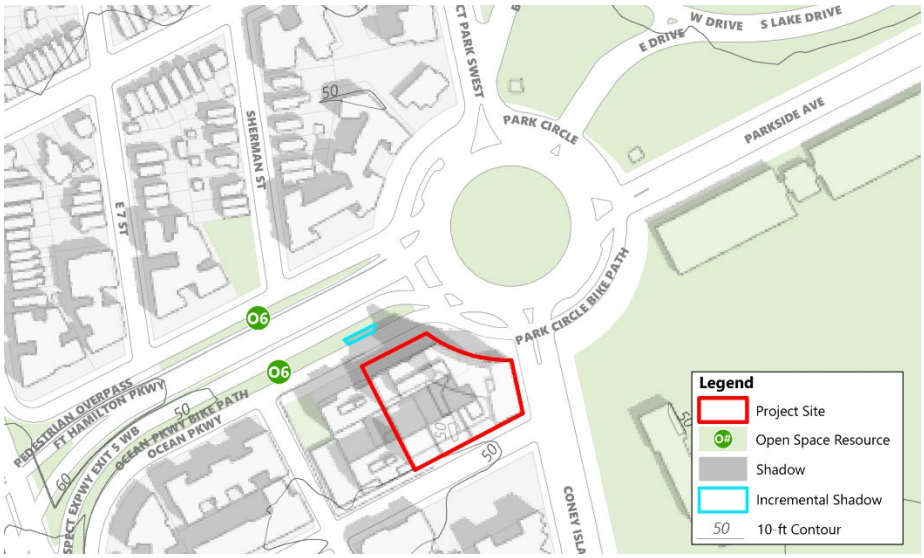

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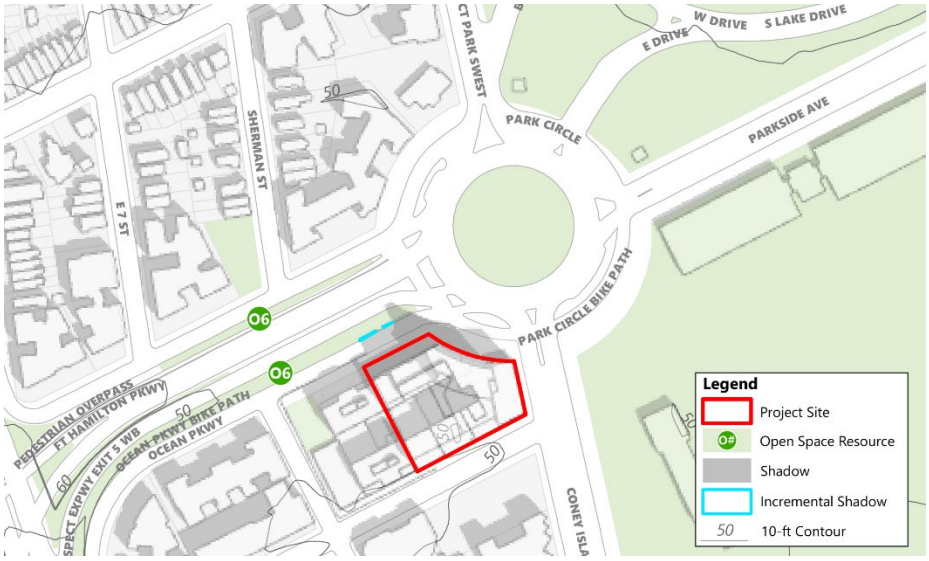

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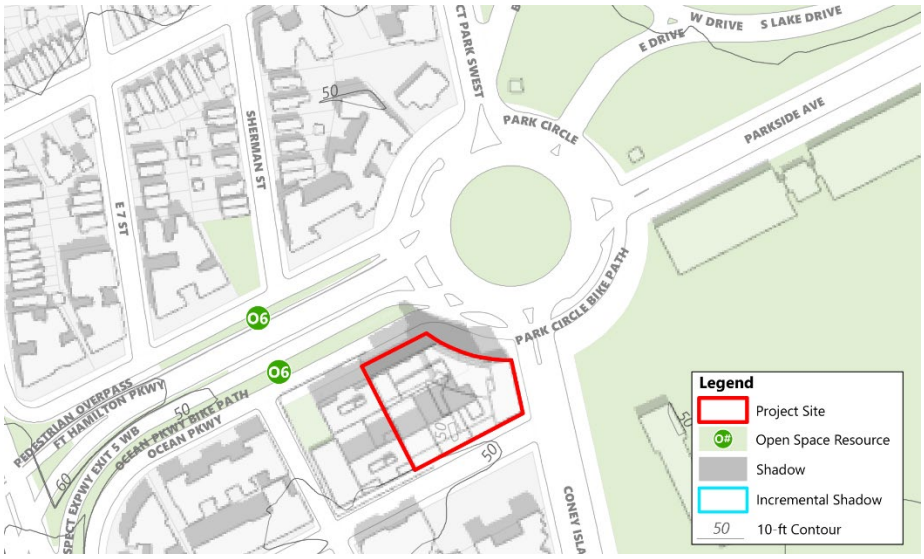
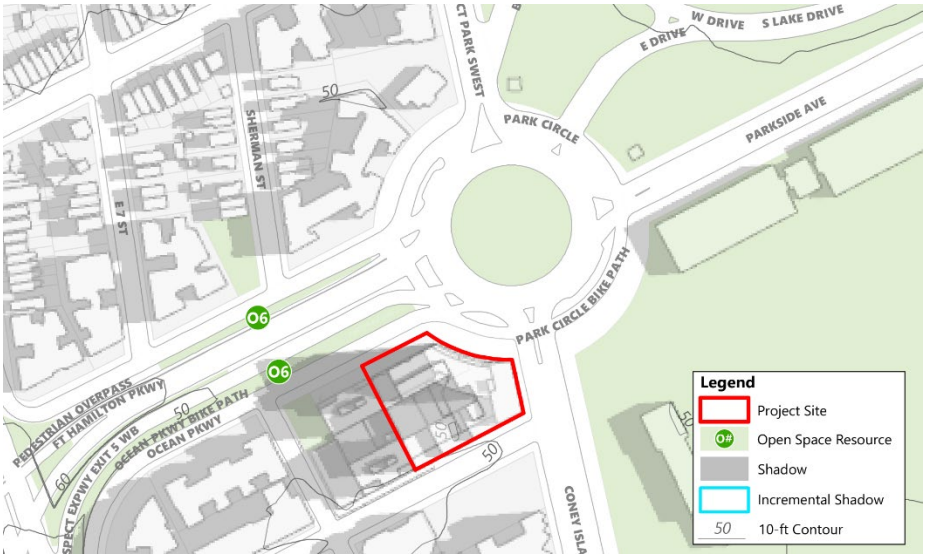


Figure 2.5-92 June 21 – 7:30A



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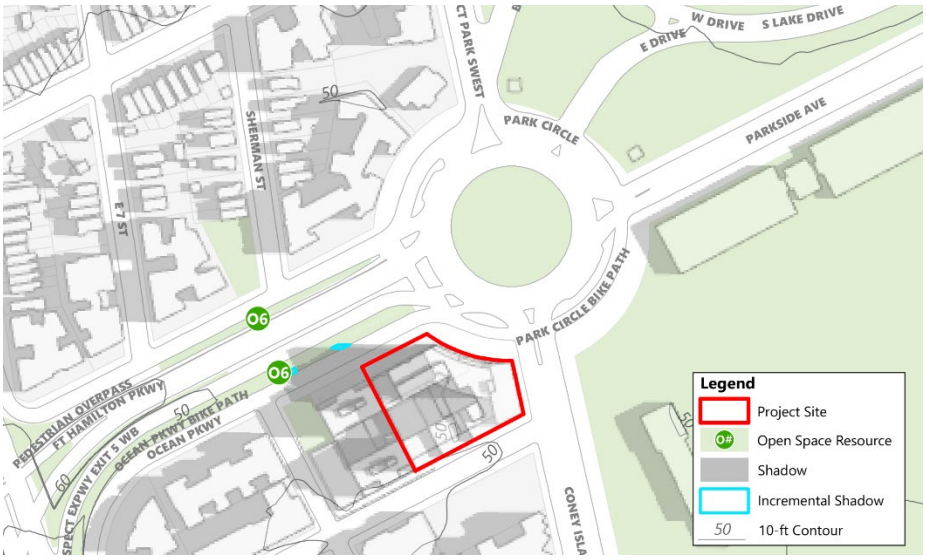

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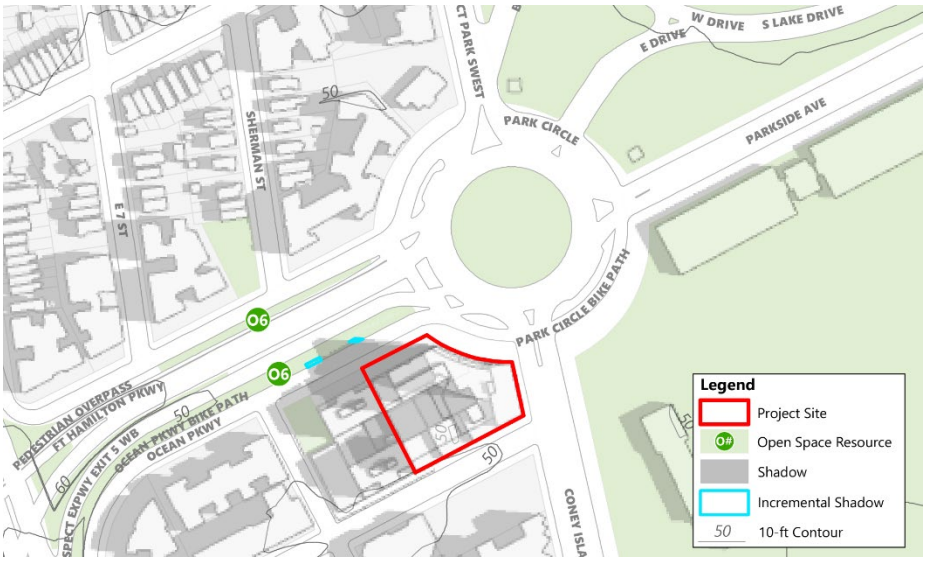

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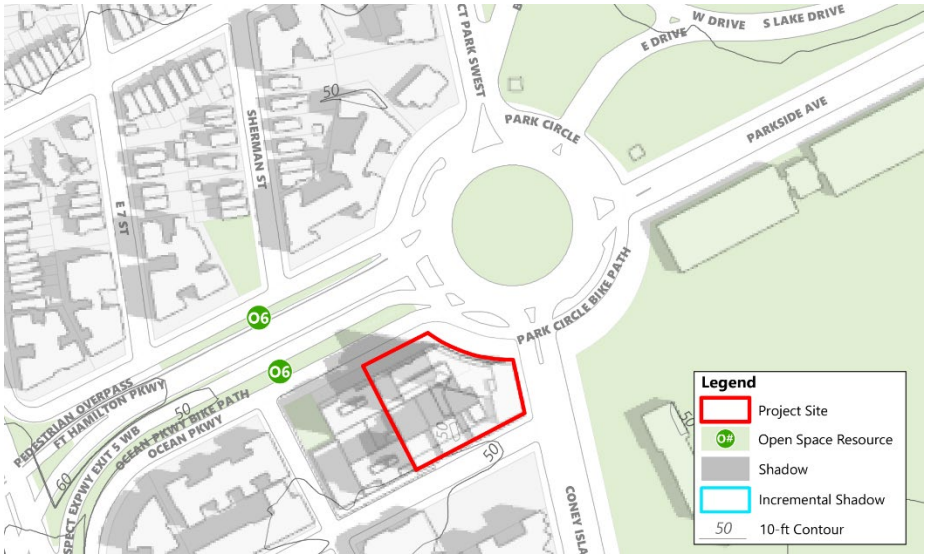


2.6

Historic and Cultural Resources

This section assesses the potential for a proposed action to result in significant adverse impacts on historic and cultural resources, including both archaeological and architectural resources.

2.6.1 Introduction

Historic and cultural resources are defined as districts, buildings, structures, sites and objects of historical, aesthetic, cultural, and archaeological significance. According to the 2014 CEQR Technical Manual, these include properties that have been designated, or are under consideration for being designated, as New York City Landmarks or Scenic Landmarks, or are eligible for such designation; properties within New York City Historic Districts; properties listed in, or determined eligible for listing in, the State and/or National Register of Historic Places (S/NR); and National Historic Landmarks.

2.6.2 Methodology

According to the *2014 CEQR Technical Manual,* archaeological resources usually need to be assessed for projects that would result in any in-ground disturbance. In-ground disturbance is any disturbance to an area not previously excavated, including new excavation that is deeper and/or wider than previous excavation on the same site.

The proposed project would involve the development of up to 36 below-grade parking spaces. Excavation would be limited to the project site. According to the New York State

Historic Preservation Office's (SHPO) Cultural Resources Information System (CRIS), the project site is immediately adjacent to an archaeologically sensitive area. Because of this and because new ground disturbance is proposed, the New York City Landmarks Preservation Commission (LPC) was consulted to identify any potential impacts of the proposed actions on archaeological resources. In response, LPC issued a letter dated May 17, 2019 confirming that the project site has no archaeological significance (see **Appendix A**). Therefore, the proposed actions would not result in any adverse archaeological impacts and no further archaeological analysis is required.

Generally, architectural resources should be surveyed and assessed if the proposed project would result in any of the following, whether any known historic resources are located near the site of the project:

- New construction, demolition, or significant physical alteration to any building, structure, or object;
- A change in scale, visual prominence, or visual context of any building, structure, object or landscape feature. Visual prominence is generally the way in which a building, structure, object, or landscape feature is viewed. For example, a building may be part of an open setting, such as a tower within a plaza, which is either conforming or nonconforming with the street wall in terms of its height, footprint, and/or setback. Visual context is the character of the surrounding built or natural environment. This may include the following: the architectural components of an area's buildings (e.g., height, scale, proportion, massing, fenestration, ground-floor configuration, style), streetscapes, skyline, landforms, vegetation, and openness to the sky;
- Construction, including but not limited to, excavating vibration, subsidence, dewatering, and the possibility of falling objects;
- Additions to or significant removal, grading, or replanting of significant historic landscape features;
- Screening or elimination of publicly accessible views;
- Introduction of significant new shadows or significant lengthening of the duration of existing shadows on an historic landscape or on an historic structure if the features that make the structure significant depend on sunlight. For example, stained glass windows that cannot be seen without sunlight, or buildings containing design elements that are part of a recognized architectural style that depends on the contrast between light and dark design elements, such as deep window reveals and prominent rustication.

In accordance with the *2014 CEQR Technical Manual,* LPC was consulted to identify any potential impacts of the proposed actions on architectural resources. In response, LPC issued a letter dated May 17, 2019 confirming that the project site has no architectural significance (see **Appendix A**).

One historic resource, the LPC-designated scenic landmark and S/NR-listed Prospect Park (LP-0901, 90NR01313) was identified within a 400-foot study area surrounding the project site. Since there is a large scenic landmark near and within view of the proposed project, and since the proposed project would result in a change to the visual prominence of the project site, a preliminary assessment of architectural resources is provided.

2.6.3 Preliminary Assessment

Existing Conditions

Project Site

The project site comprises two tax lots, Lots 10 and 20, on the eastern portion of Brooklyn Block 5322 bounded by East 8th Street to the west, Ocean Parkway to the north, Park Circle to the northeast, Coney Island Avenue to the east, and Caton Place to the south. The project site is a through lot and is developed with 27,000 gross square feet (gsf) of community facility uses, including a four-story building originally built in 1975 (altered in 1999) that houses the International Baptist Church and an affiliated school. Also on the lot is an accessory surface parking lot with 36 spaces that supports these uses.

A review of historic resource records in CRIS and on the LPC website revealed that there is no individual landmark designation for the existing building on the project site. In addition, in response to the aforementioned consultation with LPC regarding the project area, LPC issued a letter dated May 17, 2019, confirming that the project area properties have no architectural or archaeological significance (see **Appendix A**).

Study Area

As shown in **Figure 2.6-1**, a portion of the LPC-designated scenic landmark and N/SR-listed Prospect Park (LP-0901, 90NR01313) falls within the 400-foot study area.

Prospect Park, a 526-acre public park, is the centerpiece of Brooklyn's park system. Prospect Park was designated a scenic landmark by the LPC in 1975, and listed on the S/NR in 1980 under Criterion C for Architecture, Art, and Landscape Architecture. The park was designed by Frederick Law Olmsted and Calvert Vaux in 1865 after the team finished design on Manhattan's Central Park; construction of the park began the following year. In addition to architectural significance, the park is historically significant as the site of the Battle of Long Island, the first major battle between the Continental Army under Washington and the British Army in North America after the Declaration of Independence. The boundaries of the scenic landmark include the inner curb line of Park Circle enclosing the central island, known as Machate Circle. Machate Circle and Park Circle are the only portions of the 526-acre scenic landmark that fall within the 400-foot study area.

Prospect Park features a carefully-planned circulation system, designed by Olmsted and Vaux with a series of arches to keep carriage drives, bridle paths and walks separate from each other. Unlike Central Park, Prospect Park has no transverse roads. Prospect Park features a varied landscape with a meandering water system and formal spaces. The most noteworthy landscape features are the Long Meadow (over a mile in length and bordered by extensive wood areas), and the elevated lands of Quaker Hill, Breeze Hill, and Lookout Hill (the highest point in the park). The meandering water system begins at Swan Boat Lake by the Long Meadow, continuing through a stream in the secluded Ravine, eventually connecting a series of smaller lakes and ending in the 57-acre man-made Prospect Park Lake.

Olmsted and Vaux planned several formal spaces for the park, including the Concert Grove (today known as the Flower Garden) and Grand Army Plaza, the prominent plaza approach to the northern portion of the park. Grand Army Plaza is occupied by a fountain designed by Eugene Savage and the Soldiers' and Sailors' Memorial Arch, designed by John H. Duncan. The classical appearance of the Grand Army Plaza is mirrored in several other park entrances, including the Machate Circle entrance, which is located within the 400-foot study area. At Machete Circle, two Horse Tamers statues designed by Frederick MacMonnies flank the entrance, leading visitors to two tiled-roof pavilions designed by the firm of McKim, Mead & White. Machate Circle is a landscaped central island planted with trees and flowers, accessible to pedestrians crossing the Park Circle roadways via crosswalks with countdown pedestrian signals. Photos of these features are provided in **Figure 2.6-2**.

Within the 526-acre Prospect Park there are several additional buildings, structures, statues and monuments that are located beyond the 400-foot study area, including the Boathouse on the Lullwater, the Grecian Shelter (located along Parkside Avenue across from the Parade Ground, though not visible from the project site), the Lefferts Homestead on Flatbush Avenue, and the Litchfield Villa near Prospect Park West. Additional statues and monuments include the bronze figure of James S. T. Stranahan, three monuments that memorialize the 1776 Battle of Long Island, and a large group of sculptures in the Flower Garden. These, too, are all located outside the 400-foot study area.

Future No-Action Condition

As described in Section 1.0, "Project Description," absent the proposed actions (the future No-Action condition), a portion of the existing four-story building on the project site would be demolished to facilitate the development of a 3.69 FAR, 231,667-gsf mixed-use hotel and medical offices alongside the existing community facilities uses. This would be done as-of-right within current zoning regulations.

In keeping with the Special Ocean Parkway District rear yard equivalent requirements, the building would be set back 30 feet from Ocean Parkway on its north side. The building would also be set back 20 feet from the Caton Place lot line. The building would be constructed to a height of 195 feet at its tallest portion and would be 8 stories taller than the tallest buildings in the study area.

Future With-Action Condition

As described in Section 1.0, "Project Description," in the future With-Action condition, the proposed actions would facilitate the development of a 387,465-gsf mixed-use building with 5,000 gsf of retail, 309,898 gsf of residential, and 41,380 gsf of community facility uses. The proposed project would be 13 stories and 145 feet in height, with a proposed FAR of 7.2, maximizing the available FAR and height permitted by the proposed zoning. The proposed project would contain 310 residential units with an anticipated 78 units affordable to residents under MIH Option 1.

The proposed project, as mentioned, would reach 13 stories (145 feet) along Park Circle, and then would step down to 11 stories (121 feet) on Caton Place and then to nine stories (100 feet) on Caton Place and Ocean Parkway. The project would include new and improved

Figure 2.6-1 Historic Resources Map

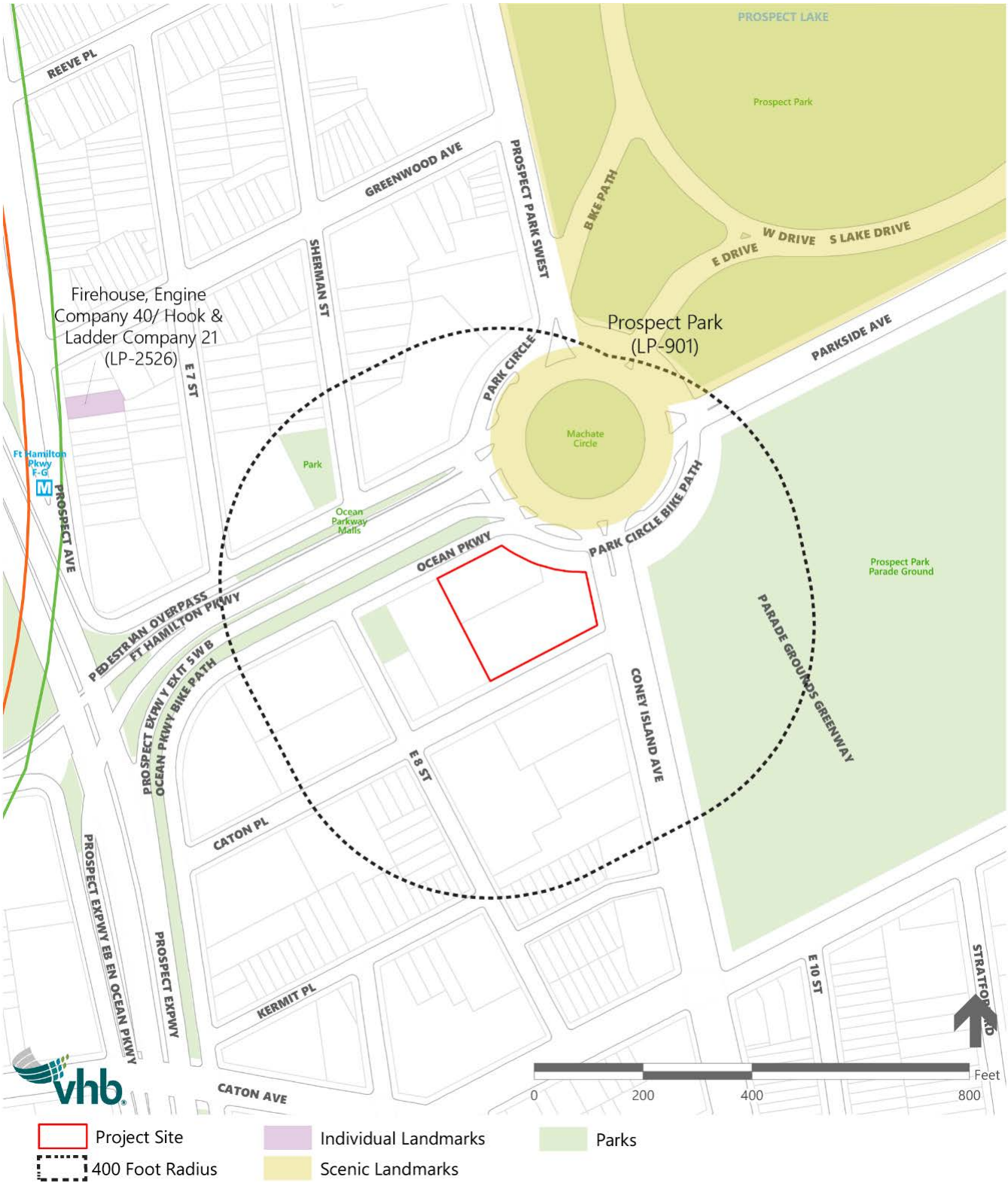


Figure 2.6-2 Study Area Historic Features *All photos captured 04/16/19*

Photo 2 Machate Circle



Photo 2 Tiled Roof Pavilion



Photo 3 Horse Tamers statue with classical-style pedestal



facilities for the existing church and school that would be relocated to the first and second floors, with retail along Caton Place and residential uses on the upper floors. All accessory parking would be waived under the proposed actions, but 36 parking places would be provided below grade to replace the accessory parking currently on the project site.

Project Site

As discussed previously, LPC issued a letter dated May 17, 2019, confirming that the project site properties have no architectural or archaeological significance (See **Appendix A**). Therefore, there would be no direct impacts on archaeological or architectural resources on the project site as a result of the proposed actions, and no further analysis is required.

Study Area Architectural Resources

As shown in **Figure 2.6-1**, Machate Circle, designated as part of the Prospect Park scenic landmark, falls within the 400-foot study area. Potential impacts of the proposed project on this historic resource relating to shadows, urban design and visual resources are analyzed below.

Shadows

As discussed in Section 2.5, "Shadows," shadows from the proposed project would not result in significant incremental shadow impacts on Machate Circle. It was estimated that shadows would fall on Machate Circle for approximately one hour on the March 21 analysis day. Given the relatively short duration of this shadow, it is not anticipated to significantly impair public enjoyment of Machate Circle. Shadows would be present on the December 21 analysis day from 10:10 AM to 2:53 PM, but the vegetation would be dormant and its growth unaffected. There are also few users anticipated at this time of year given the cold temperatures, and therefore shadows are not anticipated to significantly impair public enjoyment.

Urban Design

As discussed in Section 2.7 "Urban Design and Visual Resources," the proposed actions would not result in a significant adverse impact on urban design within a 400-foot study area of the project site.

The proposed actions would allow for greater bulk and density (7.2 FAR compared to 3.7 FAR) than the future No-Action condition. The proposed project would also be taller than neighboring buildings on the project block, specifically Kensington Stables to the west of the project site and the new development proposed for 57 Caton Place.

However, the With-Action condition would be consistent with the urban design character of the study area overall, and particularly with the recent developments that have occurred on Caton Place to the west of the project site, and those that are proposed to include mixed residential and commercial uses such as 57 Caton Place. The With-Action condition would be of a similar character and scale to these developments.

In addition, compared to the future No-Action condition, the With-Action condition would be in keeping with the existing character of Ocean Parkway and the area surrounding Machate Circle. Ocean Parkway and the north side of Machate Circle is largely characterized by six- to eight-story multifamily elevator buildings. The project block presents one exception to an otherwise contiguous street wall along the south side of Ocean Parkway. Compared to the future No-Action condition, the future With-Action condition is more complimentary to the surrounding urban form. This is because it is designed to step down to lower heights along Caton Place and Ocean Parkway to be the same height as the surrounding buildings, and it is designed without a tower form (as would be developed in the future No-Action condition), which is not a design component of any of the buildings in the study area. The With-Action condition would continue contextual development patterns, helping to maintain the existing character surrounding the Machate Circle scenic landmark.

Therefore, the proposed actions would not result in any adverse impacts to the urban design character of the study area nor would it alter or effect the character surrounding the scenic landmark, Machate Circle and Prospect Park.

Visual Resources

As discussed in Section 2.7, "Urban Design and Visual Resources," the visual resources within the 400-foot study area include the prominent features of the Machate Circle entrance to Prospect Park: the two Horse Tamers statues, the curved benches connected to the statues, and the two tiled roof pavilions on either side of the park entrance. Renderings depicting the significant views both from the project site to these visual resources and vice versa are provided in **Figures 2.7-2D** through **2.7-2G**. See **Section 2.7, "Urban Design and Visual Resources"** for detailed assessments of each viewpoint.

The renderings show that changes in the building massing of the proposed project compared to the No-Action condition would be more in keeping with the surrounding context and would not detract from views of Prospect Park and Machate Circle. The proposed project would be most visible from within Machate Circle but is more in character with gateway buildings around entrances to Prospect Park in other areas, and in the style of buildings that are visible in the immediate area. From the Horse Tamers Statues and Pavilions, the views would be partially obstructed by vegetation in Machate Circle and around the entrance to the park, tempering the visual effects of the proposed project.

Therefore, the proposed actions would not result in any adverse impacts to visual resources in the study area.

2.6.4 Conclusion

The project site does not contain any significant architectural or archaeological resources. Although a small portion of the Prospect Park scenic landmark, including Machate Circle, falls within the study area, the proposed project would not impact this historic resource with respect to shadows, urban design or visual resources. In addition, there are no significant views to this historic resource that would be impacted by the proposed project. Therefore, significant impacts to historic and cultural resources are not anticipated as a result of the proposed actions and further analysis is not necessary.

2.7

Urban Design and Visual Resources

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

2.7.1 Introduction

Urban design is the totality of components that may affect a pedestrian's experience of public space. To determine if a proposed action has the potential to change the pedestrian experience, an urban design assessment under CEQR guidelines focuses on the components of a proposed action that may alter the arrangement, appearance, and functionality of the built environment from the pedestrian's perspective. In accordance with the *2014 CEQR Technical Manual*, a preliminary assessment of urban design is appropriate when there is the potential for a pedestrian to observe, from the street level, a physical alteration beyond that allowed by existing zoning regulations.

A visual resource is the connection from the public realm to significant natural or built features, including views of the waterfront, public parks, landmark structures or districts, otherwise distinct buildings or groups of buildings, or natural resources. As defined by the *CEQR Technical Manual*, the project site provides views to the scenic landmark Machate

Circle (part of Prospect Park) and the Prospect Park Parade Ground. No natural features, as defined by the *CEQR Technical Manual*, exist within the 400-foot study area.

2.7.2 Methodology

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

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

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

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

Study Area

The urban design and visual resources study area is typically defined as the area within 400 feet of the project site which, for this project, is generally bounded by Ocean Parkway to the west, Kermit Place to the south, the Parade Grounds/Prospect Park to the east, and mid-block between Ocean Parkway and Greenwood Avenue to the north (see **Figure 2.7-1**). This is the area in which the proposed project would be most likely to have effects in terms of urban design and visual resources. All photos for this assessment were taken on April 16, 2019 and the conditions in the photos were confirmed on October 28, 2019.

Figure 2.7-1 Study Area Photograph Location Map



2.7.3 Preliminary Assessment

Existing Conditions

Project Site

The project site comprises Lots 10 and 20 on Brooklyn Block 5322, located at 320 Coney Island Avenue (aka 11 Ocean Parkway). The project site is a through lot and corner lot located on the eastern end of the project block with approximately 97 feet of frontage along Coney Island Avenue, 225 feet along Caton Place, 171 feet along Park Circle, and 130 feet along Ocean Parkway. The project site is developed with a four-story building that was originally built in 1957 (altered in 1999) and serves as the International Baptist Church and affiliated International Christian School. The building has a brick façade and consists of a two-floor portion facing Ocean Parkway that intersects with a four-floor portion that is built to the lot line along Coney Island Avenue. The front of the building is set back 30 feet from the street line of Ocean Parkway, per the Special Ocean Parkway District front yard requirements. The building shares the lot with a 36-space accessory parking lot that spans Lots 10 and 20 and is accessed from Caton Place. The northern side of the building contains a lawn area with some landscaping and trees. The building has entrances from Caton Place, Coney Island Avenue, Park Circle, and the parking lot. Sidewalks lining Ocean Parkway and Coney Island Avenue are approximately 15 feet wide; sidewalks along Caton Place are approximately 20 feet wide. See **EAS Figure 5A, Photos 1-4** for study area photographs.

Study Area

As described above, the study area is generally bounded by Kermit Place to the south, Prospect Park and the Parade Ground to the east, mid-block between Greenwood Avenue and Ocean Parkway to the north, and mid-block between East 8th and Ocean Parkway to the west. Study area photographs can be found in **Photos 1 – 23** below.

Urban Design

The study area is divided by the roadways of Ocean Parkway, Fort Hamilton Parkway, and an exit off the Prospect Expressway, which converge and run east-west within the study area. Together these roadways total six lanes with two landscaped islands that feed into Park Circle (see **Photo 1**). Park Circle is a three-lane traffic circle in the northeast portion of the study area (see **Photo 2**). A good portion of Park Circle is dedicated to pedestrian/bicycle traffic, with bike lanes lining the outer traffic lane. On-street parking is available along both the eastbound and westbound service roads of Ocean Parkway. A pedestrian overpass connects the north side to the south side of these roadways with a landing located on Lot 1 of the project block. Development patterns on either side of Ocean Parkway generally favor large six- to eight-story multi-family residential elevator buildings. These buildings are predominantly pre-war buildings set back from the lot line with landscaped yards and small retaining walls. These structures, while mostly detached or semi-detached, form a relatively continuous street wall along Ocean Parkway (see **Photos 3-5**). In 1975, a portion of Ocean Parkway extending from Seabreeze Avenue to Church Avenue (southwest of the project site) was designated by the New York City Landmarks Preservation Commission (LPC) as a scenic

Photo 1 View of Ocean Parkway facing west from Park Circle



Photo 2 Park Circle and Machate Circle facing south from Prospect Park Parade Ground



Photo 3 North side of Ocean Parkway, view facing east



Photo 4 South side of Ocean Parkway, view facing west from pedestrian bridge



All photos captured 04/16/19 (confirmed as of 10/28/19 that conditions remain the same)

landmark (LP-821). The character along Ocean Parkway is preserved by the special Ocean Parkway District, a zoning district established to promote the scenic landmark designation along Ocean Parkway and maintain the scale and character of the community. Though the scenic landmark designation does not extend to the portion of Ocean Parkway within the study area, the Special Ocean Parkway District is mapped generally south and east of Ocean Parkway and west of Coney Island Avenue and includes the study area. Therefore, this portion of the study area is still subject to the district's zoning regulations, which include special bulk, landscaping, and parking regulations.

One exception to this development pattern along Ocean Parkway is the project block, which is bounded by Ocean Parkway, Coney Island Avenue, Caton Place, and East 8th Street. The only building on this block that fronts Ocean Parkway is 57 Caton Place (see **Photo 6**). 57 Caton Place was originally constructed in 1939 as a roller-skating rink and is a three-story semi-detached commercial/manufacturing building that currently serves as a warehouse. Along Caton Place, the current building is built to the lot line but is currently being demolished (See **Photo 7**) for construction of a new nine-story mixed-use residential and commercial building that will also be built to the lot line. East of this site is the parking lot located on the project site that is associated with the school and church uses. Lot 40 on the project block contains Kensington Stables, a horse stable for equestrian activities in and around Prospect Park which was constructed in 1930 (**see Photo 8**). The one-story brick stable building is built to the lot line, consistent with the Caton Place front of the project site building and the proposed plans for 57 Caton Place. To the north of the stables is Lot 1, a property that is mapped as parkland and contains several park benches, small trees, and the landing of an Ocean Parkway Pedestrian overpass which connects this lot to another City-owned lot on the northern side of Ocean Parkway.

Other than those along Ocean Parkway, multi-family residential elevator buildings within the study area include an eight-story building constructed within the last five years in the northwest corner of Caton Place and East 8th Street (see **Photo 9**). This relatively new building, known as The Kestrel, though modern was designed to complement the older adjacent multi-family buildings that sit just outside the study area. The façade of the building has brick features with glass balconies. Another large residential building in the area, 346 Coney Island Avenue, was built in 2006, and has nine-floors with balconies facing northwest towards the Parade Ground (see **Photo 10**).

Aside from mid-rise multi-family residential development, the study area is also characterized by smaller one-to three-story, one- and two-family residences, particularly along Sherman Street, Kermit Place, and the west side of East 8th Street between Caton Place and Kermit Place. The residential buildings fronting Sherman Street are generally set back from the lot line and feature front lawns, large street trees and in some cases, front porches (see **Photo 11**). These structures are on long lots and generally cover 20 to 50 percent of the lot allowing for large backyards. Lot widths vary considerably along these streets. The one- and two-family homes located within the study area to the south of Ocean Parkway, particularly along the west side of East 8th Street and the north sides of Kermit Place, are typically two stories and include detached homes with a small setback and front yard plantings as well as attached brick rowhouses (see **Photos 12-14**).

Photo 5 North side of Ocean Parkway, facing north from Park Circle



Photo 6 View of 57 Caton Place from Ocean Parkway



Photo 7 View of 57 Caton Place from Caton Place



Photo 8 Kensington Stables, view facing North from Caton Place



Photos 5, 6, 8 captured 04/16/19; Photo 7 captured 10/28/19 (confirmed as of 10/28/19 that conditions remain the same)

Photo 9 The Kestrel, view facing northeast from Caton Place, Kensington Stables in the background



Photo 10 View of 346 Coney Island Avenue facing north from Coney Island Avenue

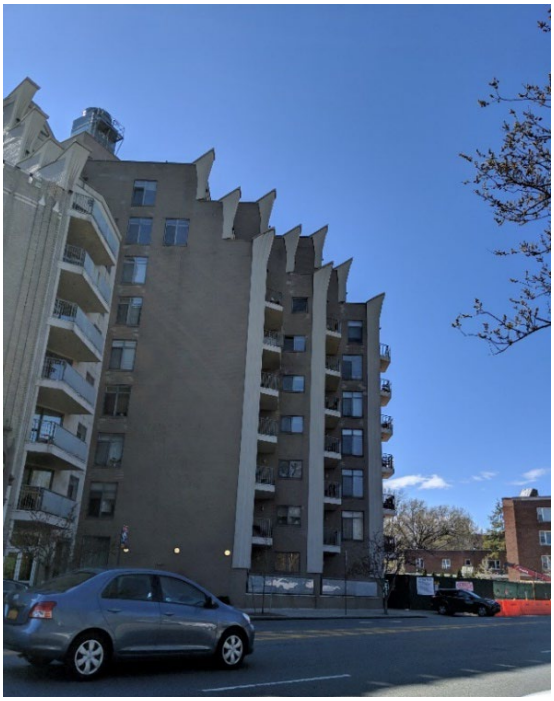


Photo 11 View facing north on Sherman Street



Photo 12 North Side of Kermit Place, view facing west East 9th Street



All photos captured 04/16/19 (confirmed as of 10/28/19 that conditions remain the same)

To the south of the project block, the large irregular-shaped block bounded by Coney Island Avenue, Caton Place, East 8th Street, and Kermit Place, is characterized primarily by large institutional buildings. The four-story Cavalry Cathedral of Praise building, located at the corner of East 8th Street and Caton Place, is a largely featureless tan building with one entrance at the corner and another further south along East 8th Street. The building presents a blank street wall across from the project block (See **Photos 15-16**). The five-story Brooklyn College Academy building on the same block is a large tan brick building that fronts Coney Island Avenue (See **Photo 17**). At the corner of Caton Place and Coney Island Avenue is an eight-story self-storage facility currently under construction, opposite Caton Place from the International Church/School building on the project site(See **Photo 18**).

Coney Island Avenue, a large north-south thoroughfare, separates the Prospect Park Parade Ground from the rest of the study area to the west. Coney Island Avenue has two travel lanes in each direction and on-street parking on either side. Park Circle, mentioned above, is a large traffic circle that connects Ocean Parkway/Fort Hamilton Parkway, Coney Island Avenue, Parkside Avenue and Prospect Park Southwest, and also provides a main entrance into Prospect Park (See **Photo 19**). As mentioned, Park Circle includes a dedicated bike lane and a pedestrian lane, separated from the main roadway by landscaped islands (See **Photo 20**). Machate Circle, a pedestrian-accessible green space, is located in the center of Park Circle (See **Photo 21**). Crosswalks are provided across each connecting roadway and there are three crosswalks with countdown pedestrian signals providing connections to the center island.

The Prospect Park Parade Ground occupies the eastern portion of the study area and is a major Brooklyn destination. The park features landscaped passive recreation areas, recreation courts and fields, as well as an office building along Coney Island Avenue that houses several Parks Department offices and the Brooklyn's 74th Police Precinct. Police vehicles are parked in front of the building along Coney Island Avenue. The Fort Hamilton Parkway subway stop for the F and the G subway is just outside of the northwest border of the study area. Given all of these features and the proximity to the park, the study area is considered active.

Prospect Park was designated a scenic landmark by LPC in November 1975 (LP-0901) and listed on the State and National Registers of Historic Places in 1980 (90NR01313). The park was designed by Frederick Law Olmsted and Calvert Vaux in 1865; construction began the following year. Prominent features of Prospect Park include the carefully planned circulation system (facilitated by a series of arches to separate the carriage drives, bridle paths, and walkways), the varied landscape effects of meadows and woods, the meandering water system of pools through the Ravine to Prospect Park Lake, and several formal spaces including the Flower Garden and Grand Army Plaza, the latter dominated by the Soldiers' and Sailors' Memorial Arch. The classical appearance of Grand Army Plaza is mirrored in several other park entrances, including the Machate Circle entrance near the project site. The Machate Circle entrance's most prominent features are Frederick MacMonnies' Horse Tamers

Photo 13 North side of Kermit Place, view facing east from East 8th Street



Photo 14 Single-family homes along East 8th Street between Kermit Place and Caton Place



Photo 15 Cavalry Cathedral of Praise, view facing south from Caton Place



Photo 16 Cavalry Cathedral of Praise; view facing southeast from Caton Place



All photos captured 04/16/19 (confirmed as of 10/28/19 that conditions remain the same)

Photo 17 Brooklyn College Academy building; view facing west from Coney Island Avenue



Photo 18 New self storage development site; view facing east from Coney Island Avenue



Photo 19 Main entrance to Prospect Park off of Machate Circle; view facing northwest from Park circle



Photo 20 Park Circle bike lanes and landscaped Islands, view facing north from intersection of Park Circle and Ocean Parkway



Photos 17, 19, 20 captured 04/16/19; Photo 18 captured 10/28/19 (confirmed as of 10/28/19 that conditions remain the same)

statues and their classical pedestals and flanking walls designed by the firm McKim, Mead & White. The entrance is enhanced by two tiled roof pavilions and curving benches built out from the statues (see **Photos 22 and 23**).

Landmarked buildings and structures within Prospect Park include the Boathouse on the Lullwater, the Grecian Shelter, located along Parkside Avenue across from the Parade Ground (though not visible from the project site), the Lefferts Homestead on Flatbush Avenue and the Litchfield Villa, near Prospect Park West. Notable statues include the bronze figure of James S. T. Stranahan and a large group of sculptures in the Flower Garden. Three monuments memorialize the battle of Long Island in 1776. Further details on the features of Prospect Park that contributed to its designation are included in Section 2.6, "Historic and Cultural Resources."

Visual Resources

Several visual resources within the study area can be seen from the publicly accessible sidewalks adjacent to the project site, including the Prospect Park Parade Ground and Machate Circle/Prospect Park. Machate Circle, as a part of Prospect Park, and Ocean Parkway are designated scenic landmarks, although as mentioned, the section of Ocean Parkway visible from the study area is not designated.

Machate Circle is immediately adjacent to the project site but the prominent features at the Machate Circle entrance to Prospect Park are partially hidden behind the trees and vegetation planted within the traffic circle for most of the year and are therefore not significantly impacted by the project site. The Prospect Park Parade Ground is a valuable open space resource; however, it is not a designated scenic landmark. In addition, the portion of the Parade Ground that is visible from the project site, though it contains trees and landscaping, is cut off from the rest of the Parade Ground by an office building and police precinct with associated parking, diminishing the open space character. Therefore, the Parade Ground would not be visually impacted by the proposed project and is not included in the visual resource analysis.

No-Action Condition

As described in Section 1.0, "Project Description," absent the proposed actions (the future No-Action condition), the project site would be redeveloped with a hotel and medical office space while maintaining the school building. This would be done as-of-right within the current zoning regulations.

The as-of-right No-Action development would be an approximately 231,667-gross square foot (gsf) 17-story mixed-use building with the school space to remain in its existing facilities and church space to be relocated to the new No-Action development. The building would have 88,707 gsf of hotel and 80,221 gsf of community facility uses. There would also be approximately 62,739 gsf of parking space accommodating 146 spaces. Overall the development would be 3.69 FAR.

Photo 21 Machate Circle, view facing northeast towards entrance to Prospect Park



Photo 22 Northern tiled roof pavilion, view facing north from Park Circle



Photo 23 Horse Tamers statue with classical style pedestal; view looking northwest from park entrance roadway



All photos captured 04/16/19 (confirmed as of 10/28/19 that conditions remain the same)

In keeping with the Special Ocean Parkway District rear yard equivalent requirements, the building would be set back 30 feet from Ocean Parkway on its north side. The building would also be set back 20 feet from the Caton Place lot line. The building would be constructed to a height of 195 feet with no setbacks after the base height, taller than the tallest buildings in the neighborhood which are eight to nine stories. See **Figure 2.7-2** for renderings of the future No-Action condition.

As discussed in section 2.1, "Land Use, Zoning, and Public Policy," there are two anticipated developments within the study area expected to be completed by the 2023 analysis year. The first anticipated development is on the project block and is a 166,191-gsf, 95-foot-tall, nine-story mixed use residential and commercial building to be located at 57 Caton Place. This building is also at scale with other residential developments in the area and would not alter the existing urban design character of the study area. In addition, construction has started on a 157,600-gsf, 109-foot-tall, eight-story commercial self-storage facility at 72 Caton Place, which will replace an existing surface parking lot associated with the Cavalry Cathedral, across Caton place from the project site. Considering that there is an existing nine-story multi-family residential building immediately to the south of this development, the new eight-story building would not alter the existing urban design character of the study area.

With-Action Condition

As described in Section 1.0, "Project Description," in the future With-Action condition, the project site would be rezoned from a C8-2 commercial district to an R8A residential with a C2-4 overlay over the project site (Lots 10 and 20). The rezoning area would also be mapped as a Mandatory Inclusionary Housing (MIH) Area. The proposed actions would facilitate the development of a 387,465-gsf mixed-use building containing 41,380 gsf of community facility uses, 5,000 gsf of retail, and 309,898 gsf of residential uses. The residential component of the proposed project would include 310 dwelling units (an average of 1,000 gsf per dwelling unit), with an anticipated 78 affordable units under Option 1 of the MIH program. A total of 36 accessory parking spaces are anticipated below grade as a replacement of the existing surface parking lot. This represents the future With-Action condition. Refer to **Figures 2.7-2A**, **2.7-2B, and 2.7-2C** for a visualization of the future No-Action and With-Action conditions (and **Figure 2.7-2** for visualization locations).

Figure 2.7-2 Visual Resources Study Map



Figure 2.7-2A Building Massings: View from Ocean Parkway Facing Southeast

No-Action



With-Action



Figure 2.7-2B Building Massings: View from Coney Island Avenue Facing Northwest

No-Action



With-Action

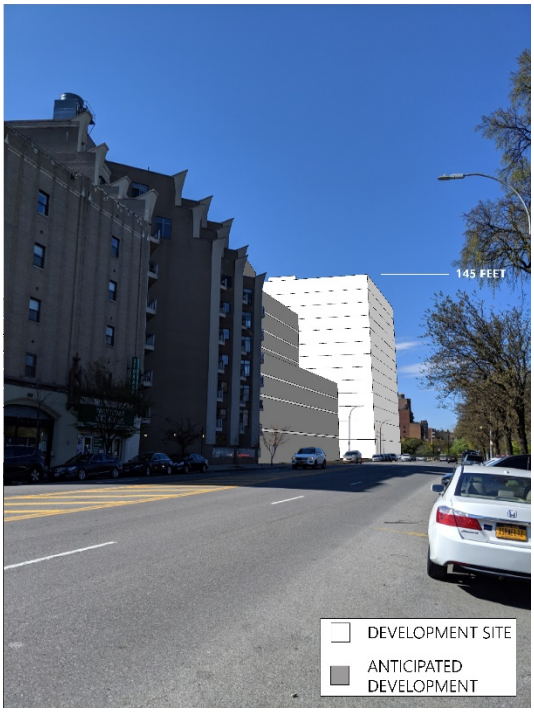


Figure 2.7-2C Building Massings: View from Caton Place Facing Northeast

No-Action



With-Action



The proposed project would have the tallest portion of the building, reaching 13 stories (145 feet high), along Park Circle and Coney Island Avenue, which would then step down to 11 stories (121 feet high) along Caton Place, and nine stories (100 feet high) along both Caton Place and Ocean Parkway, matching the height of the building to be constructed immediately adjacent to the project site on Lot 4. The proposed actions would permit this transfer of the building bulk away from the adjacent building on Caton Place, allowing for the tiered transition from the project site to its surroundings to the west (the 57 Caton Place

development) and south (the 72 Caton Place development). The project would have a total zoning floor area of 312,754 zsf (FAR 7.2) and would include ground floor community facility and retail space, a lobby for the residential uses along Ocean Parkway, and a central courtyard. The retail space would be located along the Caton Place frontage of the building. The below grade parking garage would be accessed via a driveway on Caton Place. Unlike the future No-Action condition, the building would be built to the lot line along Caton Place. Along Ocean Parkway, the building would be set back 30 feet from the lot line and would have a front yard and an entrance to the residential lobby.

Urban Design

The proposed actions would allow for greater density on the project site compared to the future No-Action condition. The With-Action condition would be taller than neighboring buildings on the project block, including Kensington Stables and the 57 Caton development to the west, but not as tall as the No-Action development, which would be eight stories taller than the tallest building in the study area.

However, the With-Action condition would be consistent with the urban design character of the study area overall, and particularly with the recent and proposed developments that have occurred on Caton Place to the west of the project area. As discussed above, medium density multi-family elevator buildings have been constructed nearby, including 33 Caton Place (the Kestrel) within the study area. The With-Action condition would be of similar character and scale to these developments, although slightly larger to accommodate the existing community facility uses alongside the new retail and residential space. The Kestrel also contains below-grade parking with access provided from Caton Place, as will 57 Caton Place. The proposed commercial overlay matches the overlay mapped immediately adjacent to the project site. The project site also fronts the Machate Circle roundabout and the wide streets of Ocean Parkway and Coney Island Avenue, making it an appropriate location for a large building in character with buildings located along areas such as Grand Army Plaza that are considered to be gateways to Prospect Park. The With-Action condition would provide a more contiguous street wall along the traffic circle, complementing the feature and strengthening the character of the area.

Compared to the future No-Action condition, the With-Action condition would be in keeping with the existing character of Ocean Parkway. As previously mention, Ocean Parkway is largely characterized by six-to eight-story multi-family elevator buildings. The project block presents one exception to an otherwise contiguous street wall along Ocean Parkway. The With-Action condition would continue this development pattern. In contrast, the future No-Action condition would not include residential uses, and the height would be much taller than that that present along Ocean Parkway between Park Circle and Prospect Avenue.

The With-Action condition would also improve the pedestrian experience along Caton Place and Ocean Parkway compared to the future No-Action condition. Instead of above-ground parking, the With-Action condition would provide parking below-grade. Residential uses on the upper floors would increase the vibrancy of the block and surrounding area. In addition, the With-Action condition would be built to the lot line along Caton Place, meeting the front face of the proposed 57 Caton Place development and Kensington Stables, and maintaining

the contiguous street wall. Ground floor retail would also help to activate a portion of the street that is currently characterized by surface parking. The retail would draw new visitors to the project block and serve residents of the neighborhood and residents of the recent or proposed residential developments along Caton Place. Similar to the No-Action condition, the proposed project would maintain the church and school uses on the project site but provide them with new and improved space that would be visible on the ground floor along Park Circle. The activity from the church entrance along Park Circle would add to the vibrancy of the surrounding area and further enhance the project site's location along Machate Circle.

Therefore, the proposed actions would not result in any adverse impacts to the urban design character of the study area.

Visual Resources

As mentioned above, the prominent features of the Machate Circle entrance to Prospect Park include the two Horse Tamers statues, the curved benches connected to the statues and two tiled roof pavilions on either side of the park entrance. The following visual resource assessment includes renderings of the No-Action and With-Action conditions from the views both from the project site to Machate Circle/Prospect Park and vice versa, with a subsequent evaluation of the visual impact the proposed project could have on each view (see **Figure 2.7-2** for visual resources photo locations). The views include the following: (1) view from Ocean Parkway facing east (**Figure 2.7-2D**), (2) view from Prospect Park entrance facing southwest (**Figure 2.7-2E**), (3) view from Machate Circle facing south (**Figure 2.7-2F),** (4) view from the Prospect Park North Pavilion facing south **Figure 2.7.2G**), and (5) view from the Prospect Park South Pavilion facing south (**Figure 2.7-2H**).

View from Ocean Parkway toward Prospect Park and Machate Circle

Figure 2.7-2D provides a view of the project site from the intersection of Ocean Parkway and East 8th Street looking towards Prospect Park and Machate Circle. From the perspective of a pedestrian at this intersection, the view corridor is maintained when looking towards the visual resources of the park. The With-Action condition, in comparison with the No-Action condition, would be in keeping with the street wall of the adjacent buildings, and therefore would not impact this viewpoint significantly.

View from the Horse Tamers Statues toward the Project Site

Figure 2.7-2E depicts the view of the proposed project from behind the Horse Tamers statues that flank the entrance road to Prospect Park. As shown, views toward the project site from this location are partially obstructed by the trees and other vegetation within Machate Circle, even during early spring when the trees are still bare. This view of the No-Action development view demonstrates the prominence of the building's tower, which would be uncharacteristic of the area and visually imposing. By comparison, the With-Action building form is similar to the surrounding buildings. This figure also shows how the With-Action building would create a continuous street wall along Machate Circle. This is not irregular for the area, as the eight-story building on the northern side of Ocean Parkway that lines Machate Circle also has this characteristic.

Figure 2.7-2D Building Massings View from Ocean Parkway Facing East

No-Action

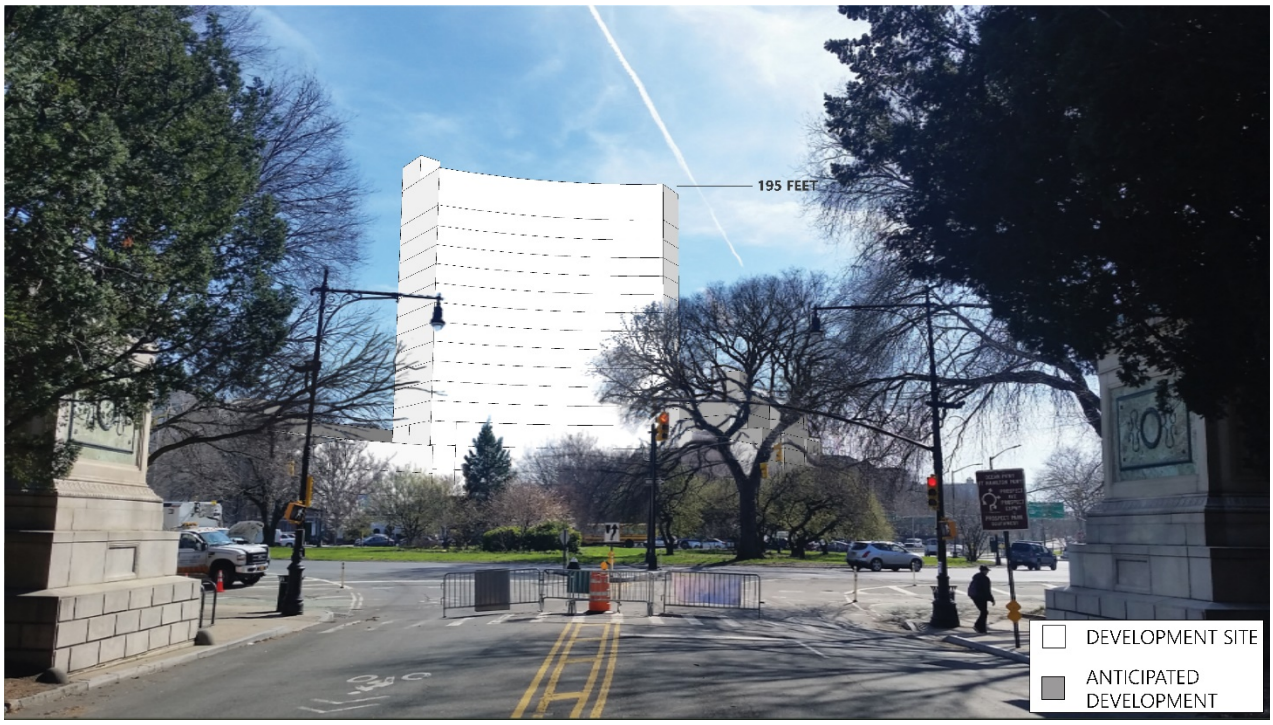


With-Action

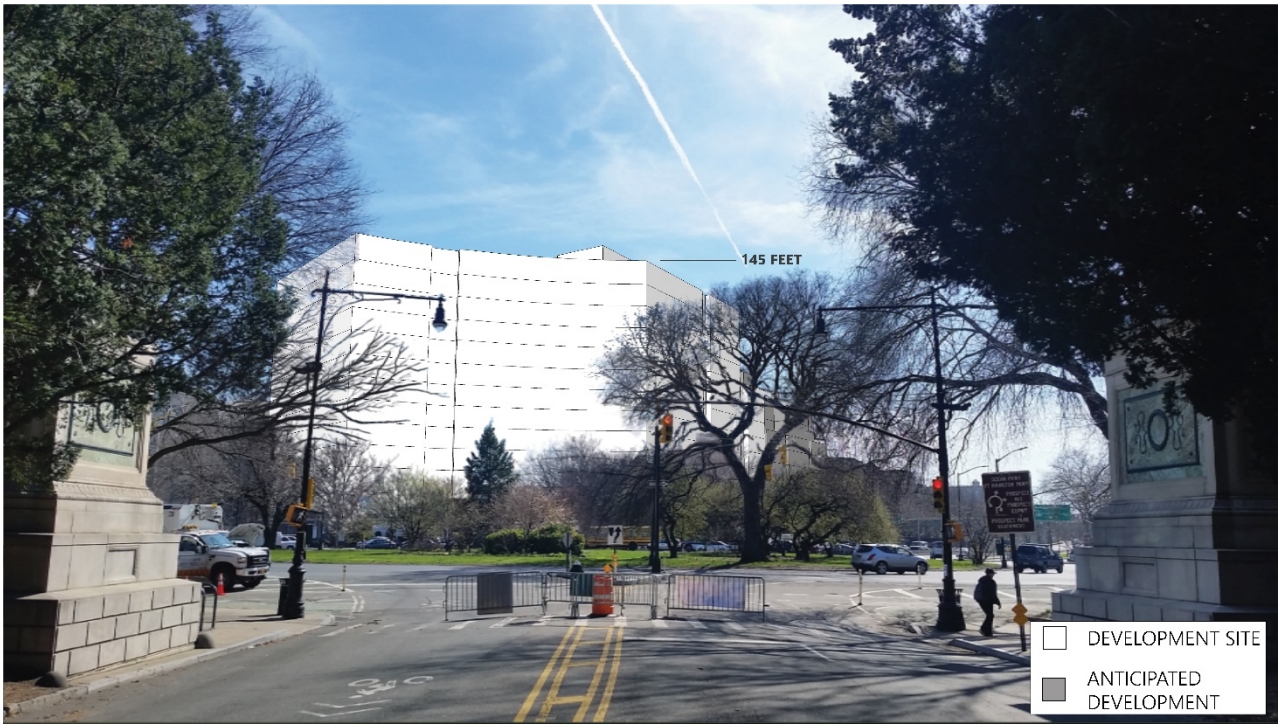


Figure 2.7-2E Building Massings View from Prospect Park Entrance Facing Southwest

No-Action



With-Action



View from Machate Circle toward the Project Site

As mentioned, Machate Circle is accessible to pedestrians via several crosswalks with countdown pedestrian signals; however, there are no sidewalks or paved areas within the circle itself and it does not draw much pedestrian activity. **Figure 2.7-2F** demonstrates how the With-Action condition would be visible to a pedestrian standing in Machate Circle. However, much like the previous viewpoint, the With-Action condition would be in context with the buildings surrounding the circle, and therefore would be less visually imposing compared to the No-Action condition.

View from North and South Pavilion toward the Project Site

Figures 2.7-2G and **2.7-2H** show how the With-Action condition would not disturb significant views from the northern and southern tiled roof pavilions which anchor the Machate Circle entrance to Prospect Park. The project site falls mostly behind Machate Circle and would be partially concealed behind street trees and trees planted within Machate Circle, though the top floors would be visible. This viewpoint demonstrates the uncharacteristic nature of the tower on the No-Action development with the surrounding context. The applicant believes the With-Action condition building form, by comparison, is complimentary to the surrounding buildings. The distance between the pavilions and the project site helps to minimize visual impact from these viewpoints.

2.7.4 Conclusion

Overall, the applicant believes the With-Action condition would be compatible with the residential character of the surrounding area and would be consistent with the surrounding building form and streetscape. The applicant believes the proposed residential use compared to the above-ground parking and tall commercial space under the future No-Action condition would reinforce the existing development pattern within the study area, such that the quality of the urban design and visual resources at the project site would improve over the No-Action condition. The applicant believes these improvements would also conform to the goals of the special district governing urban design and visual character in the area. Machate Circle is a unique feature in the study area, and acts as a gateway to Prospect Park. The With-Action condition would provide a more contiguous street wall along the traffic circle and strengthen the character of the area.

In addition, as demonstrated by the graphic renderings of the With-Action condition, the development would not result in any significant adverse impacts on views to and from the prominent features of the scenic resource within the study area. Therefore, the proposed actions would not result in a significant adverse impact on urban design and visual resources, and no further analysis is necessary.

Figure 2.7-2F Building Massings View from Machate Circle Facing South

No-Action

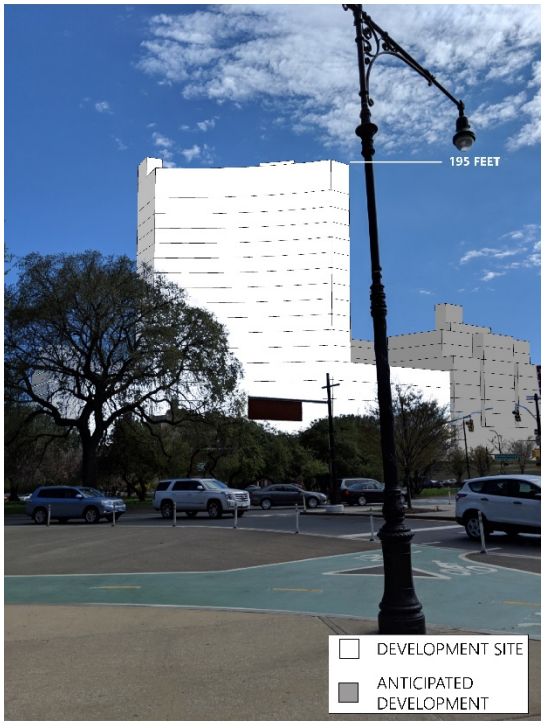


With-Action



Figure 2.7-2G Building Massings View from North Pavillion at Entrance to Prospect Park

No-Action



With-Action

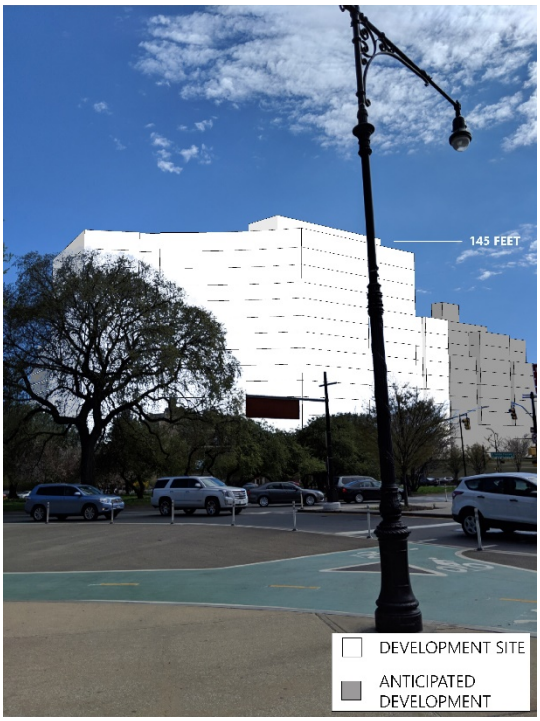
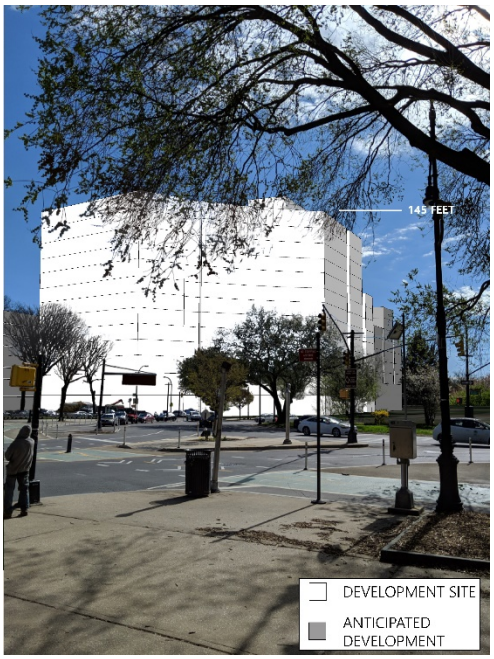


Figure 2.7-2H Building Massings View from South Pavillion at Entrance to Prospect Park

No-Action



With-Action



2.8

Hazardous Materials

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

2.8.1 Introduction

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

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

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

As indicated in the *CEQR Technical Manual*, the hazardous materials (E) designation is an institutional control that may be placed on a site to establish a hazardous materials review and approval framework. It provides a mechanism to ensure that testing for and remediation

of hazardous materials, if necessary, are completed prior to future development of an affected site, thereby eliminating the potential for a hazardous materials impact. (E) designated parcels are administered under the authority of the New York City Mayor's Office of Environmental Remediation (OER).

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

2.8.2 Methodology

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

› Phase I Environmental Site Assessment (ESA), dated June 3, 2019, prepared by VHB Engineering, Surveying, Landscape Architecture and Geology, P.C. (VHB).

A Phase I ESA was prepared on June 3, 2019 in accordance with ASTM Practice E1527-13, inclusive of the "All Appropriate Inquiry" requirement amended in the Federal Register on December 30, 2013. The United States Environmental Protection Agency (EPA) "All Appropriate Inquiry" requirement establishes specific regulatory requirements for conducting appropriate inquiries into the previous ownership, uses, and environmental conditions of a property for the purposes of qualifying for certain landowner liability protections under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

As indicated in Section 1.0, "Project Description," the proposed actions would facilitate the development of a 387,465 gross square foot (gsf) mixed-use building with 5,000 gsf of retail, 309,898 gsf of residential, and 41,380 gsf of community facility uses. The proposed development would be 13 stories and 145 feet in height and would contain 310 residential units, of which approximately 78 would be affordable under the Mandatory Inclusionary Housing (MIH) program.

2.8.3 Preliminary Assessment

Existing Conditions

The project site (Brooklyn Block 5322, Lots 10 and 20) is an irregularly shaped parcel located at 312 Coney Island Avenue, in the Windsor Terrace neighborhood of Brooklyn, Community District 7. The project site is on the eastern portion of the block bounded by Ocean Parkway to the north, Park Circle to the northeast, Coney Island Avenue to the east, Caton Place to the south, and East 8th Street to the west. The project site is occupied by community facility uses, including the four-story (50 feet in height) International Baptist Church, an affiliated school, and an accessory surface parking lot with 36 spaces.

Phase I Environmental Site Assessment

The Phase I ESA, dated June 3, 2019, was completed for the project site and included analyses as specified in the ASTM Method E1527-13. The goal of the Phase I ESA process is

to identify "Recognized Environmental Conditions" (RECs), which means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property.

Per the current ASTM Standard, the Phase I ESA reviewed a variety of information sources, including current and historic Sanborn Fire Insurance Maps and aerial photographs; state and federal environmental regulatory databases identifying listed sites; and local environmental records. The Phase I ESA also included reconnaissance of the project site and surrounding neighborhood and interviews with the building manager.

As stated in the current ASTM Practice E1527-13, there may be environmental issues or conditions at the site, which may be requested by the user to be addressed as part of the Phase I ESA, which are not covered within the scope of ASTM Practice E1527-13. These issues are referred to as "non-scope considerations" and include evaluations relating to asbestos, lead-based paint, mold, etc. These added considerations were also evaluated as part of the Phase I ESA.

The Phase I ESA was able to establish a history for the project site dating back to 1892, when the project site was improved with an early iteration of "Bader's Hotel," along with associated horse stables and one two-story storefront. The western portion of the project site was traversed by a portion of an easement for the East 8th Street right-of-way at that time. News sources including the Brooklyn Citizen Almanac reported that the early hotel structure proximate to Prospect Park burnt to the ground in the early morning of December 23, 1892. Sanborn maps confirm the hotel was reconstructed on the same footprint between 1893 and 1905, along with a new carriage house and additions comprising a one-story office and one-story second storefront to the commercial structure present on the southeast portions. These previous buildings were all later demolished.

Architectural plans suggest the eastern portions of the existing building were originally developed as another hotel structure in the early 1900s. The 1929 Sanborn map depicts this structure fronting along Coney Island Avenue in use as four storefronts, while the western portions were depicted as vacant. By 1950, the chapel with an undertaker work-space and basement boiler room was constructed on the central portion of the project site and connected to the commercial structures, which were raised to four stories. The western portions have since been utilized as an associated parking lot. By 1969, the commercial storefronts were combined, and the project site was utilized solely as "Riverside Funerals Chapel." The building structures on the project site have remained in their current configurations since at least 1969, although the use was converted to "International Baptist Church and School" circa 2000.

As indicated in the Phase I ESA, the project site consists of two (2) contiguous irregularly-shaped parcels. The southern parcel is improved with a single institutional building composed of two former structures that are now interconnected. The aforementioned building, approximately 27,000 gross square feet (gsf) in size, occupies the southeastern portions of the project site and is utilized by Internal Baptist Church and an affiliated school that fronts along Coney Island Avenue to the east and Caton Place to the south. The

remaining portions of the project site consist of concrete sidewalks with unpaved planters and an associated parking lot with 36 spaces which is accessible from Caton Place to the south, as well as a lawn area with several trees on the northeastern portion of the project site. No additional building structures are present along the northern portions of the project site along Ocean Parkway.

Based upon the information provided in the Phase I ESA, the following findings and site features were identified:

- The project site is located at a topographic elevation of approximately 52-to-59 feet above mean sea level (amsl).
- Groundwater beneath the project site is estimated to range between 41-to-48 feet below grade surface (bgs) and is expected to flow to the south-southwest, based on available groundwater contour maps.
- Small quantities of cleaning, maintenance and lawn care products such as bleach, paint and pesticides present within interior portions of the existing buildings as well as gasoline and/or diesel canisters beside a lawn mower and snow blower stored outside. None of the materials observed had the potential to impact subsurface conditions at the project site.
- The existing building structure is heated utilizing a natural gas-fired heating system, based on site observations. The site is registered with the following storage tank:
  - One (1) metal 3,000-gallon No. 2 fuel oil underground storage tank (UST), installed on an unknown date and reportedly closed in-place by April 14, 2017.
- Sanitary wastes generated at the project site are discharged into the New York City municipal sewer system. No septic systems or leaching structures associated with sanitary waste discharge was observed during the site reconnaissance.
- Stormwater runoff generated at the project site infiltrates into the ground in pervious areas, or discharges into curbside storm drains located along neighboring roadways.
- Floor drains and sumps located in the basements presumably discharge into the municipal sewer system based on personnel interviews.
- There is a potential for PCBs to be present in on-site fluorescent light ballasts as well as building materials (i.e., window caulking). The Phase I ESA indicates that PCBs are subject to federal disposal restrictions and should be dealt with as part of standard renovation and/or demolition practices.
- Housekeeping practices within the building were observed to be good. No substantial quantities of litter or debris, evidence of illicit dumping or surficial staining were observed at the project site during the site reconnaissance.
- Based upon the age of the on-site building, there is a potential for lead-based paint (LBP) and asbestos-containing materials (ACM) to be present.
- The regulatory agency database search, performed by Environmental Data Resources, Inc. (EDR) identified a former upgradient release from a former gasoline filling station. Although the spill incident obtained closure from the appropriate regulatory agency (the New York State Department of Environmental Conservation [NYSDEC]), residual contaminants (benzene, toluene, ethylbenzene and xylenes [BTEX]) associated with this

site were present in the groundwater and, according to spill documentation, could potentially migrate away from the spill site and encroach onto the project site. As such, there is a potential for groundwater quality to have been impacted associated with the former release, as was identified in the Phase I ESA.

Based upon the results of the Phase I ESA, the following RECs were identified in association with the project site:

- Based upon a review of the EDR database report, nearby groundwater impacts associated with gasoline constituents (BTEX) were identified on surrounding sites within 400-feet of the project site. Freedom of Information Law (FOIL) records obtained from the NYSDEC associated with an upgradient release from a former gasoline filling station indicate that, although the spill obtained closure, residual contaminants present in the groundwater could potentially migrate away from this spill site. Given this information, there is some potential for groundwater quality beneath the project site to have been impacted by gasoline. These potential impacts are considered a REC for the project site.
- Based upon the potential presence of contaminated groundwater, there is a potential for volatile organic compound (VOC)-impacted soil vapor to be present beneath the project site. As such, a vapor encroachment condition (VEC) could not be ruled out at this time in association with potentially impacted groundwater proximate the project site. A potential VEC is also considered a REC for the project site.
- One 3,000-gallon fuel oil UST associated with the former funeral home operations is registered to the property and was reportedly closed in-place in an uncertain location on the project site. No previous environmental assessments or documentation regarding the integrity of the aforementioned UST was available during the course of the Phase I ESA. As such, no representation could be made with respect to potential for the subsurface at the project site to have been impacted from leaks and/or accidental release. Same was considered a REC.

In addition to the aforementioned RECs, the following business environmental risks (BERs) were identified during the course of this Phase I ESA:

- Given the development history of the project site with previous hotel structures on Lots 10 and 20 as well as commercial storefronts and offices on Lot 20, that have since burnt down or been demolished, there is a potential for remnant historic structures (i.e, remnant foundations), and urban fill materials to be present at the project site. Same are considered BERs for the project site.
- Given the ages of the on-site building structures, there is a potential for lead-based paint (LBP), asbestos-containing materials (ACM) and polychlorinated biphenyls (PCBs) to be present amongst building materials and ACM in underground piping. Under a demolition scenario, the ratio of lead intermixed with demolition debris would not warrant lead-impacted material disposal restrictions. ACM and PCBs should be dealt with in accordance with applicable regulations prior to any disturbance, renovation and/or demolition as part of standard practices.
- Water intrusion and the potential for mold growth was observed in two areas of the existing building. Limited water damage was observed in a portion of the existing building structure basement that comprises a vault extending under the sidewalk along

Coney Island Avenue. Evidence of active water intrusion in the former subgrade garage including limited standing water atop ceramic floor tiles was also observed. The potential for mold growth represents a BER for the project site.

The Phase I ESA was submitted to the lead agency as well as the associated reviewing agency (the New York City Department of Environmental Protection [NYCDEP]). In correspondence issued to the Department of City Planning, dated June 23, 2019, NYCDEP indicated a comprehensive Phase II ESA is required at the project site in order to adequately identify/characterize the surface and subsurface soils at the site. Furthermore, the correspondence indicated a Phase II Investigative Protocol/Work Plan summarizing the proposed drilling, soil, groundwater and soil vapor sampling activities should be developed in accordance with the *CEQR Technical Manual* and submitted to NYCDEP for review and approval prior to Phase II ESA field activities.

In response to this requirement, a Phase II ESA Work Plan and associated Health and Safety Plan (HASP) was developed for the project site and was issued on July 30, 2019 to the lead agency as well as the associated reviewing agency (NYCDEP) for review and approval. Upon receipt and review, NYCDEP issued correspondence to the lead agency on August 29, 2019 approving the Phase II ESA Work Plan and HASP.

Future No-Action Condition

As detailed in Section 1.0, "Project Description", the No-Action development would be 17 stories and 195 feet tall at its tallest portion along Park Circle and would step down to five stories along Ocean Parkway and two stories along Caton Place. The existing four-story school building would be maintained along Coney Island Avenue. The church would be located on the ground floor next to the school building and would be constructed with a double height to accommodate the use. Access to the hotel and medical office uses would be provided from Ocean Parkway. Under the No-Action condition, no further hazardous materials analyses would be conducted and an (E) designation for hazardous materials would not be placed on the project site. Consequently, any potential contaminants at the project site would go unmitigated and regulatory oversight from OER would not be provided.

In addition to the above, regulatory requirements pertaining to building materials containing ACM and LBP would not be addressed under prevailing regulations as part of standard demolition and redevelopment practices.

Future With-Action Condition

As detailed in Section 1.0, "Project Description", and as previously indicated, the With-Action condition involves the redevelopment of the project site with a 387,465-gsf mixed-use building with 5,000 gsf of retail, 309,898 gsf of residential, and 41,380 gsf of community facility uses. The proposed project would be 13 stories and 145 feet in height and would contain 310 residential units, of which approximately 78 would be affordable under the MIH program. The Phase I ESA has been reviewed by the lead agency as well as the associated reviewing agency (NYCDEP). A comprehensive Phase II ESA is required by NYCDEP at the project site to adequately identify/characterize the surface and subsurface soils at the site. A

Phase II ESA Work Plan and HASP was submitted to the lead agency as well as NYCDEP on July 30, 2019 for review and approval.

To address any concerns relating to hazardous materials on the project site, the proposed action would include an (E) designation for hazardous materials (E-555).

Compliance in association with the hazardous materials (E) designation on the project site would be conducted under the administration of the New York City's OER. The (E) designation process generally begins with preparation of a Phase I ESA to determine potential RECs and areas of concern (AOCs) that may require additional investigation. Any potential RECs or AOCs identified would follow the (E) designation protocol for additional investigation and potential remedial action. The (E) designation process as it relates to project site would utilize the existing Phase I ESA, as well as the Work Plan and HASP submitted to NYCDEP for review and approval, and any supplemental subsurface investigations that may be required by OER under the (E) designation requirements would be followed. The applicable text for the (E) designation to be applied to Brooklyn Block 5322, Lots 10 and 20 (E-555) would be as follows:

Task 1: Sampling Protocol

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

No sampling should begin until written approval of a protocol is received from OER. The number and location of sample sites should be selected to adequately characterize the site, the specific source of suspected contamination (i.e., petroleum-based contamination and non-petroleum-based contamination), and the remainder of the site's condition. The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of the sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.

Task 2: Remediation Determination and Protocol

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

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

An OER-approved construction-related Health and Safety Plan (CHASP) would be implemented during evacuation and construction and activities to protect workers and the community from potentially significant adverse impacts associated with contaminated soil

and/or groundwater. This plan would be submitted to OER for review and approval prior to implementation.

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

2.8.4 Conclusion

To reduce the potential for exposure to future site occupants, an (E) Designation (E-555) for hazardous materials would be placed on the project site which would address any subsurface contamination under the regulatory requirements of NYC OER. In addition, regulatory requirements pertaining to building materials containing ACM, LBP and PCBs would be addressed under prevailing regulations as part of standard demolition and redevelopment practices. Given these conditions, the proposed actions would not result in any significant adverse impacts with respect to hazardous materials, and no further analysis is necessary.

2.9

Transportation

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

2.9.1 Introduction

The project site is located in the Windsor Terrace section of Brooklyn and is bounded by Ocean Parkway to the north, Coney Island Avenue to the east, Caton Place to the south, and a line approximately 150 feet east of East 8th Street to the west. The project site location is shown in **Figure 2.9-1**.

The proposed project consists of 310 residential dwelling units (DUs), 5,000 square feet (sf) of local retail space, and 41,380 sf of community facility space which would replace the existing church and school; the church and school operations would remain the same but would have improved space for their activities. The existing 36 parking spaces would be replaced within an on-site parking garage, but no additional parking would be provided. The residential entrances would be provided along Ocean Parkway and Caton Place, and the retail entrance would be provided along Caton Place. The community facility space entrance would be provided along Park Circle. Parking garage and loading area access would be provided along Caton Place.

In the future No-Action condition, 88,707 sf of hotel space (approximately 221 hotel rooms), 45,175 sf of medical office space, and 35,046 sf community facility space (which would replace the existing church and school) would be developed. Similar to the proposed project, the church and school operations would remain the same but would have improved space for their activities. Approximately 146 parking spaces would be provided.

Table 2.9-1 provides a comparison of the total development under the With-Action and the No-Action conditions and shows the resulting net increment of uses (With-Action condition minus the No-Action condition) on the project site.

Table 2.9-1 Development Increment for Analysis

Use	No-Action Condition	With-Action Condition	Net Increment
Residential	0 units	310 units	+ 310 units
Hotel	221 rooms	0 rooms	- 221 rooms
Local Retail	0 sf	5,000 sf	+ 5,000 sf
Medical Office	45,175 sf	0 sf	- 45,175 sf
Church with school	35,046 sf	41,380	+ 6,334 [1]
Accessory Parking	146 spaces	0 spaces[2]	-146 spaces [2]

[1] Although the floor space of the church and school would increase between the No-Action and With-Action conditions, the church and school operations would remain the same and no additional trips are expected to be generated.

[2] Although 36 parking spaces are anticipated as part of the proposed project, a special permit to waive all required parking (Zoning Resolution Section 74-533) is requested as one of the proposed actions. If developed without parking, the proposed project would result in a net increment of -146 spaces as compared to the No-Action condition.

2.9.2 Methodology

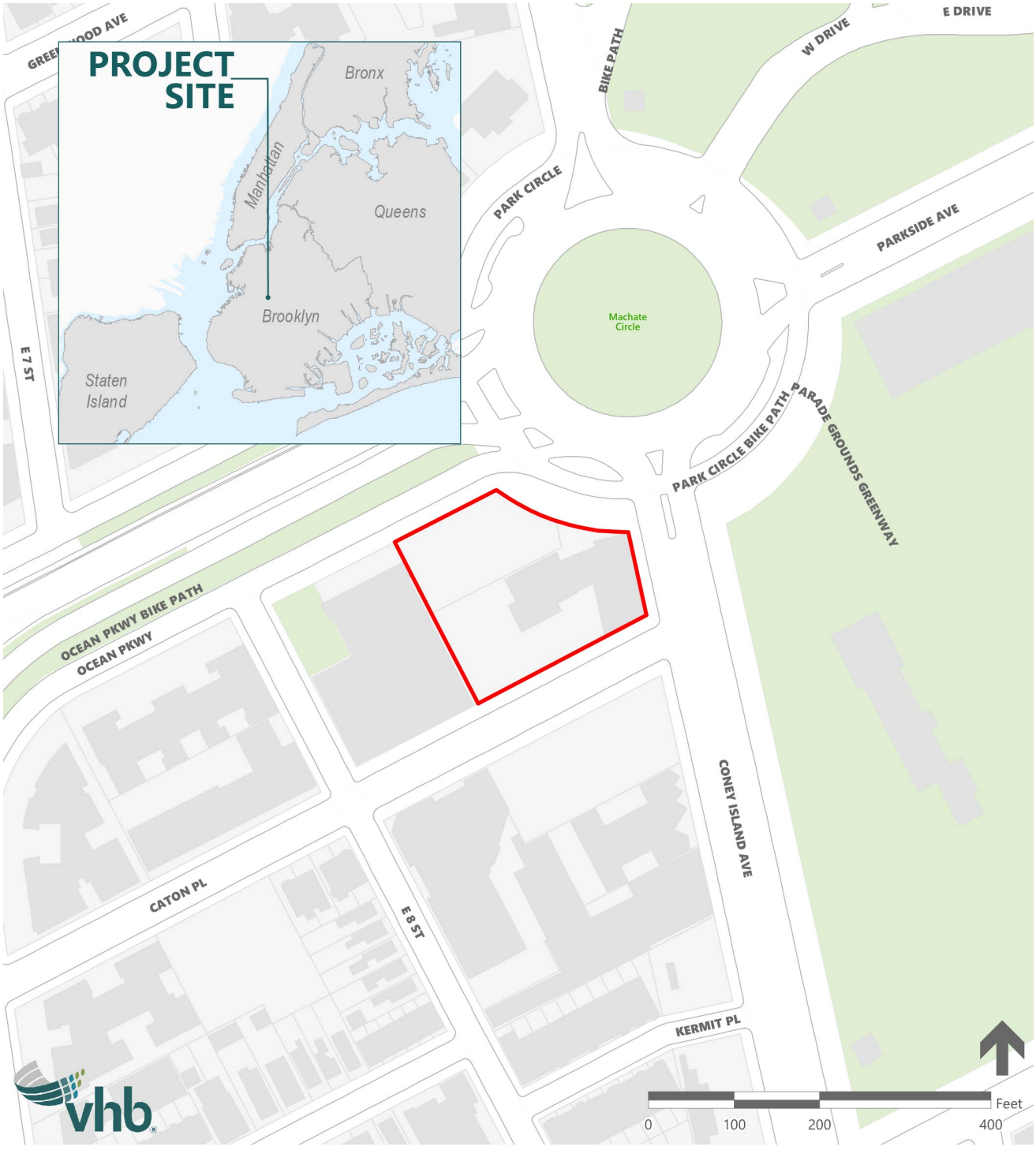
According to the *2014 CEQR Technical Manual* procedures for transportation analysis, a two-tiered screening process is to be undertaken to determine whether a quantified analysis is necessary. The first step, the Level 1 (Trip Generation) screening, determines whether the volume of peak hour person and vehicle trips generated by the proposed project would remain below the minimum thresholds for further study.

These thresholds are:

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

If the proposed project results in increments that would exceed any of these thresholds, a Level 2 (Trip Assignment) screening assessment is usually performed. Under this assessment, project-generated trips that exceed Level 1 thresholds are assigned to and from the project site through their respective networks (streets, bus and subway lines, sidewalks, etc.) based on expected origin-destination patterns and travel routes.

Figure 2.9-1 Project Site Location



Level 1 (Trip Generation) Screening Assessment

The travel demand factors used to calculate the projected number of trips were obtained primarily from the *2014 CEQR Technical Manual,* American Community Survey (ACS) journey to work data, *57 Caton Place EAS (2018)* and *East New York Rezoning Proposal FEIS (2016)*, and data from surveys conducted by the New York City Department of Transportation (NYCDOT). **Table 2.9-2** provides the travel demand assumptions used for the weekday AM, midday, PM, and Saturday midday peak hours.

Residential

For the residential use, trip generation rates of 8.075 daily person trips per DU for weekday and 9.6 daily person trips per DU for Saturday, and temporal distributions (10 percent, 5 percent, 11 percent, and 8 percent for the weekday AM, midday, PM, and Saturday midday peak hours, respectively) were obtained from the 2014 CEQR Technical Manual. The weekday AM, midday, PM, and Saturday midday peak hour modal splits of 15.2 percent by auto, 0.8 percent by taxi, 5.1 percent by bus, 64.8 percent by subway, and 14.1 percent by walk, and a vehicle occupancy rate of 1.18 persons per auto, were obtained from the 2013 - 2017 ACS journey to work data for surrounding Brooklyn census tracts 500, 502.02, and 504. A taxi occupancy rate of 1.40 persons per taxi during the peak hours was assumed and obtained from the 57 Caton Place EAS (2018). Directional distributions (15 percent "in" for the weekday AM peak hour, 50 percent "in" for the weekday midday peak hour, 70 percent "in" for the weekday PM peak hour, and 50 percent "in" for the Saturday midday peak hour) were obtained from the 57 Caton Place EAS (2018).

For residential delivery trips, trip generation rates of 0.06 and 0.02 daily truck trips per DU for the weekday and Saturday, respectively, and temporal distributions of 12 percent, 9 percent, 2 percent, and 9 percent for the weekday AM, midday, PM, and Saturday midday peak hours, respectively, were obtained from the *2014 CEQR Technical Manual*.

Hotel

For the hotel use, trip generation rates of 9.4 daily person trips per room for weekday and Saturday, and temporal distributions (8 percent, 14 percent, 13 percent, and 9 percent for the weekday AM, midday, PM, and Saturday midday peak hours, respectively) were obtained from the *2014 CEQR Technical Manual*. The weekday modal splits of 19 percent by auto, 22 percent by taxi, 1 percent by bus, 27 percent by subway, and 31 percent by walk and Saturday modal splits of 25 percent by auto, 24 percent by taxi, 1 percent by bus, 26 percent by subway, and 24 percent by walk were based on NYCDOT surveys of hotel uses in Brooklyn transit zones. Weekday vehicle occupancies of 2.10 persons per auto or taxi and Saturday vehicle occupancies of 2.40 persons per auto and 2.00 persons per taxi were also based on NYCDOT's surveys. Directional distributions (41 percent "in" for the weekday AM peak hour, 68 percent "in" for the weekday midday peak hour, 59 percent "in" for the weekday PM peak hour, and 56 percent "in" for the Saturday midday peak hour) were obtained from the *East New York Rezoning Proposal FEIS (2016).*

For hotel delivery trips, trip generation rates of 0.06 and 0.01 daily truck trips per room for the weekday and Saturday, respectively, and temporal distributions of 12 percent, 9 percent,

2 percent, and 9 percent for the weekday AM, midday, PM, and Saturday midday peak hours, respectively, were obtained from the *East New York Rezoning Proposal FEIS (2016).*

Table 2.9-2 Travel Demand Characteristics

Rates	Residential	Hotel	Local Retail	Medical Office
Person Trip Gen Rate (Weekday/ Saturday)	8.075/9.6[1] *per unit*	9.4/9.4[1] *per room*	205/240[1] *per 1,000 sf*	(66.626 * X) +141.77 (where X is the square footage per 1,000 sf)[5] *per 1,000 sf*
Linked Trip Credit	0%	0%	25%	0%
Temporal Distribution				
Weekday AM Peak	10%[1]	8%[1]	3%[1]	11%[5]
Weekday Midday Peak	5%[1]	14%[1]	19%[1]	13%[5]
Weekday PM Peak	11%[1]	13%[1]	10%[1]	9%[5]
Saturday Midday Peak	8%[1]	9%[1]	10%[1]	17%[5]
Modal Split (Weekday/ Saturday)				
Auto	15.2%[2]	19%25%[7]	11%[6]	25%[5]
Taxi	0.8%[2]	22%/24%[7]	0%[6]	6%[5]
Bus	5.1%[2]	1%/1%[7]	2%[6]	9%[5]
Subway	64.8%[2]	27%/26%[7]	3%[6]	59%[5]
Walk	14.1%[2]	31%/24%[7]	84%[6]	1%[5]
Vehicle Occupancy (Weekday/Saturday)				
Auto	1.18[2]	2.10/2.40[7]	1.65[3]	1.50[5]
Taxi	1.40[3]	2.10/2.00[7]	1.40[3]	1.50[5]
Directional Split (In/Out)				
Weekday AM Peak	15%/85%[3]	41%/59%[4]	50%/50%[3]	62%/38%[5]
Weekday Midday Peak	50%/50%[3]	68%/32%[4]	50%/50%[3]	47%/53%[5]
Weekday PM Peak	70%/30%[3]	59%/41%[4]	50%/50%[3]	35%/65%[5]
Saturday Midday Peak	50%/50%[3]	56%/44%[4]	50%/50%[3]	49%/51%[5]
Truck Trip Gen (Weekday/ Saturday)	0.06/0.02[1] *per unit*	0.06/0.01[4] *per room*	0.35/0.04[1] *per 1,000 SF*	0.29/0.29[5] *per 1,000 SF*
Truck Temporal Distribution				
Weekday AM Peak	12%[1]	12%[4]	8%[1]	3%[5]
Weekday Midday Peak	9%[1]	9%[4]	11%[1]	11%[5]
Weekday PM Peak	2%[1]	2%[4]	2%[1]	1%[5]
Saturday Midday Peak	9%[1]	9%[4]	11% [1]	0%[5]
Truck Trip Directional Split (In/out) - 50%/ 50%				

Source:
(1) *2014 CEQR Technical Manual*
(2) 2013 - 2017 American Community Survey's journey to work data for Brooklyn Census Tracts 500, 502.02 and 504
(3) *57 Caton Place Rezoning EAS (2018)*
(4) *East New York Rezoning Proposal FEIS (2016)*
(5) Medical office rates based on New York City Department of Transportation surveys of medical office use in Brooklyn transit zones
(6) Local retail modal splits based on New York City Department of Transportation surveys of local retail use in Brooklyn transit zones
(7) Hotel modal splits and vehicle occupancy rates based on New York City Department of Transportation surveys of hotel use in Brooklyn transit zones

Local Retail

For the local retail use, trip generation rates of 205 and 240 daily person trips per 1,000 sf for weekday and Saturday, respectively, and temporal distributions of 3 percent, 19 percent, 10 percent, and 10 percent were used for the weekday AM, midday, PM, and Saturday midday peak hours, respectively, were obtained from the *2014 CEQR Technical Manual*. A 25 percent linked trip credit was applied to account for linked trips between local retail and other uses (namely, residential and community facility) on the project site and within the vicinity of the project site. The modal splits used were 11 percent by auto, 2 percent by bus, 3 percent by subway and 84 percent by walk were based on NYCDOT surveys of local retail use in Brooklyn transit zones. The vehicle occupancies of 1.65 persons per auto and 1.40 persons per taxi were obtained from the *57 Caton Place Rezoning EAS (2018)*. Directional distributions of 50 percent "in" during the peak hours analyzed were obtained from the *57 Caton Place Rezoning EAS (2018)*.

For local retail delivery trips, a trip generation rate of 0.35 daily truck trips per 1,000 sf for the weekday and 0.04 daily truck trips for the Saturday, and a temporal distribution of 8 percent, 11 percent, 2 percent, and 11 percent for the weekday AM, midday, PM, and Saturday midday peak hours, respectively, were obtained from the *2014 CEQR Technical Manual*.

Medical Office

Travel demand assumptions used for the medical office use were based on NYCDOT surveys of medical office use in Brooklyn transit zones. The trip generation estimates were developed with the following formula for weekday and Saturday: (66.626 * X) + 141.77; where X is the gross square footage per 1,000 sf of the medical office use. The temporal distributions of 11 percent, 13 percent, 9 percent, and 17 percent were used for the weekday AM, midday, PM, and Saturday midday peak hours, respectively. The modal splits used were 25 percent by auto, 6 percent by taxi, 9 percent by bus, 59 percent by subway, and 1 percent by walk with vehicle occupancies of 1.50 persons per auto or taxi during the peak hours. The directional splits of 62 percent "in", 47 percent "in", 35 percent "in", and 49 percent "in" were used for the weekday AM, midday, PM, and Saturday midday peak hours, respectively.

For medical office delivery trips, a trip generation rate of 0.29 daily trucks per 1,000 sf for the weekday and a temporal distribution of 3 percent, 11 percent, and 1 percent for the weekday AM, midday, and PM peak hours, respectively, were based on NYCDOT survey. It is assumed that no truck trips would be generated for the Saturday midday peak hour.

Level 1 Screening Results

Transit and Pedestrians

The total number of pedestrian trips generated in the No-Action and With-Action conditions, and the net increment of transit and pedestrian trips generated by the proposed project, are provided in **Table 2.9-3**. The net increment of transit and pedestrian trips generated by the proposed project would not be expected to exceed the *2014 CEQR Technical Manual* Level 1 screening thresholds for transit and pedestrians. There would be a net decrease in transit trips (bus and subway) and pedestrian trips (walk plus bus and

subway) during all peak hours analyzed. Therefore, since the number of combined peak hour transit trips and the number of peak hour pedestrian trips expected to be generated by the proposed project does not exceed the CEQR thresholds of 200 pedestrian trips per hour, no further transit or pedestrian analysis is necessary; significant transit and pedestrian impacts are not expected.

Table 2.9-3 Trip Generation Summary – Pedestrian Trips

No-Action Condition (Trip Reduction Credit)

	Weekday AM			Weekday Midday			Weekday PM			Saturday Midday		
Mode	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Auto	62	49	111	82	67	149	53	63	116	86	83	169
Taxi	27	29	56	55	32	87	40	34	74	39	35	74
Bus	19	12	31	18	19	37	10	16	26	23	23	46
Subway	133	97	230	156	142	298	96	129	225	168	168	336
Walk	23	31	54	63	31	94	50	36	86	27	22	49
Total	**264**	**218**	**482**	**374**	**291**	**665**	**249**	**278**	**527**	**343**	**331**	**674**

With-Action Condition

	Weekday AM			Weekday Midday			Weekday PM			Saturday Midday		
Mode	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Auto	7	33	40	18	18	36	33	17	50	23	23	46
Taxi	0	2	2	1	1	2	2	1	3	1	1	2
Bus	2	11	13	4	4	8	11	5	16	7	7	14
Subway	24	138	162	43	43	86	126	55	181	78	78	156
Walk	15	40	55	70	70	140	59	44	103	55	55	110
Total	**48**	**224**	**272**	**136**	**136**	**272**	**231**	**122**	**353**	**164**	**164**	**328**

Net Increment

	Weekday AM			Weekday Midday			Weekday PM			Saturday Midday		
Mode	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Auto	-55	-16	-71	-64	-49	-113	-20	-46	-66	-63	-60	-123
Taxi	-27	-27	-54	-54	-31	-85	-38	-33	-71	-38	-34	-72
Bus	-17	-1	-18	-14	-15	-29	1	-11	-10	-16	-16	-32
Subway	-109	41	-68	-113	-99	-212	30	-74	-44	-90	-90	-180
Walk	-8	9	1	7	39	46	9	8	17	28	33	61
Total	**-216**	**6**	**-210**	**-238**	**-155**	**-393**	**-18**	**-156**	**-174**	**-179**	**-167**	**-346**

Traffic and Parking

Table 2.9-4 summarizes the total peak hour vehicular volumes ("ins" plus "outs") expected to be generated by the proposed project and the No-Action as-of-right development and provides the resulting net vehicle trip increments. There would be a net decrease of approximately 95 vehicle trips during the weekday AM and PM peak hours, and a net decrease of approximately 150 vehicle trips during the weekday midday and Saturday

midday peak hours. Therefore, since the incremental volume of vehicle trips generated by the With-Action condition does not exceed the CEQR threshold of 50 peak hour vehicle trip ends, no further analysis is needed; significant vehicular traffic impacts are not expected.

Table 2.9-4 Trip Generation Summary – Vehicle Trips

No-Action Condition (trip reduction credit)

	Weekday AM			Weekday Midday			Weekday PM			Saturday Midday		
Mode	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Auto	39	29	68	47	42	89	29	38	67	51	50	101
Taxi	30	30	60	46	46	92	38	38	76	42	42	84
Truck	1	1	2	2	2	4	0	0	0	0	0	0
Total	**70**	**60**	**130**	**95**	**90**	**185**	**67**	**76**	**143**	**93**	**92**	**185**

With-Action Condition

	Weekday AM			Weekday Midday			Weekday PM			Saturday Midday		
Mode	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Auto	6	28	34	13	13	26	27	13	40	18	18	36
Taxi	1	1	2	2	2	4	2	2	4	2	2	4
Truck	1	1	2	1	1	2	0	0	0	0	0	0
Total	**8**	**30**	**38**	**16**	**16**	**32**	**29**	**15**	**44**	**20**	**20**	**40**

Net Increment

	Weekday AM			Weekday Midday			Weekday PM			Saturday Midday		
Mode	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Auto	-33	-1	-34	-34	-29	-63	-2	-25	-27	-33	-32	-65
Taxi	-29	-29	-58	-44	-44	-88	-36	-36	-72	-40	-40	-80
Truck	0	0	0	-1	-1	-2	0	0	0	0	0	0
Total	**-62**	**-30**	**-92**	**-79**	**-74**	**-153**	**-38**	**-61**	**-99**	**-73**	**-72**	**-145**

2.9.3 Conclusion

The projected number of traffic, transit, or pedestrian trips generated by the proposed project would not exceed the transportation screening thresholds and, therefore, no further analyses are necessary. Significant traffic impacts are not expected.

2.10

Air Quality

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

2.10-1 Introduction

This section examines the potential for air quality impacts from the proposed project. According to the *2014 CEQR Technical Manual*, air quality impacts can be characterized as either direct or indirect impacts. Direct impacts result from emissions generated by stationary sources, such as stack emissions from on-site fuel burned for boilers and heating, ventilation, and air conditioning (HVAC) systems. Indirect effects are caused by off-site emissions associated with a project, such as emissions from on-road motor vehicles ("mobile sources") traveling to and from a project site.

Consistent with the *2014 CEQR Technical Manual*, air quality analyses for a proposed project focus on the following areas of potential concern:

› Potential impacts from mobile sources introduced by a project

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

As detailed in ***Section 2.9, "Transportation,"*** there would be a net decrease of approximately 95 vehicle trips during the weekday AM and PM peak hours, and a net decrease of approximately 150 vehicle trips during the weekday midday and Saturday midday peak hours due to the elimination of the hotel in the With-Action condition. This is lower than the *2014 CEQR Technical Manual* CO-based screening threshold increment of 170 vehicles per hour, as well as the $PM_{2.5}$-based screening threshold discussed in Chapter 17, Section 210 and 311 of the *CEQR Technical Manual*. Therefore, traffic generated by the proposed actions would not result in a significant adverse impact on mobile source air quality, and a quantified assessment of on-street mobile source emissions is not warranted.

Additionally, the proposed project would introduce a negative increment of 146 parking spaces between the No-Action and With-Action conditions, which is significantly below the threshold of 85 parking spaces for Zone 2 from Table 16-1 of the *CEQR Technical Manual*. Therefore, an assessment of emissions from the proposed project's parking facility is not warranted.

Lastly, no permitted manufacturing/processing facilities or large/major sources were identified near the project site and therefore an assessment of these sources and their potential to affect the proposed project is not warranted.

Therefore, this analysis focuses on the following:

- An assessment of the proposed project's HVAC systems to affect the uses in the surrounding area ("project on existing") and project buildings from the *2018 57 Caton Place Rezoning EAS (57 Caton EAS)*, which is west of the project site on Block 5322, Lot 4
- An assessment of potentially significant odors from odor-producing facilities near sensitive uses introduced by the proposed project

2.10-2 Pollutants of Concern

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

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

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

Nitrogen oxides (NOX), the most significant of which are nitric oxide (NO) and nitrogen dioxide (NO_2), can occur when combustion temperatures are extremely high (such as in engines) and atmosphere nitrogen gas combines with oxygen gas. NO is relatively harmless to humans but quickly converts to NO_2. Nitrogen dioxide has been found to be a lung irritant and can lead to respiratory illnesses. Nitrogen oxides, along with VOCs, are also precursors to ozone formation.

Sulfur Dioxide (SO2) emissions are the main components of the "oxides of sulfur," a group of highly reactive gases from fossil fuel combustion at power plants, other industrial facilities, industrial processes, and burning of high sulfur containing fuels by locomotives, large ships, and non-road equipment. High concentrations of SO_2 will lead to formation of other sulfur oxides. By reducing the SO_2 emissions, other forms of sulfur oxides are also expected to decrease. When oxides of sulfur react with other compounds in the atmosphere, small particles that can affect the lungs can be formed. This can lead to respiratory disease and aggravate existing heart disease.

Non-criteria pollutants may be of concern in addition to the criteria pollutants discussed above. Non-criteria pollutants are emitted by a wide range of man-made and naturally occurring sources. These pollutants are sometimes referred to as hazardous air pollutants (HAP) and when emitted from mobile sources, as Mobile Source Air Toxics (MSATs). Emissions of non-criteria pollutants from industrial sources are regulated by the United States Environmental Protection Agency (EPA).

Federal ambient air quality standards do not exist for non-criteria pollutants; however, the New York State Department of Environmental Conservation (NYSDEC) has issued standards for certain non-criteria compounds, including beryllium, gaseous fluorides, and hydrogen sulfide. NYSDEC has also developed guidance document DAR-1 (August 2016), which contains a compilation of annual and short term (1-hour) guideline concentration thresholds for these compounds. The NYSDEC's DAR-1 guidance thresholds represent ambient levels that are considered safe for public exposure. EPA has also developed guidelines for assessing exposure to non-criteria pollutants. These exposure guidelines are used in health risk assessments to determine the potential effects to the public.

2.10-3 Impact Criteria

The predicted concentrations of pollutants of concern associated with a proposed project are compared with either the National Ambient Air Quality Standards (NAAQS) for criteria air pollutants or ambient guideline concentrations for non-criteria pollutants. In general, if a

project would cause the standards for any pollutant to be exceeded, it would likely result in a significant adverse air quality impact. In addition, New York City's *de minimis* criteria are also used to determine significance of impacts for CO and $PM_{2.5}$.

National Ambient Air Quality Standards

The Clean Air Act (CAA) requires the EPA to set standards on the pollutants that are considered harmful to public health and the environment. The NAAQS were implemented as a result of the CAA, amended in 1990 (see ***Table 2.10-1***). The NAAQS applies to six principal ("criteria") pollutants: carbon monoxide (CO), nitrogen dioxide (NO_2), particulate matter 10 (PM_{10}), particulate matter 2.5 ($PM_{2.5}$), sulfur dioxide (SO_2), and ozone.

Table 2.10-1 National and New York State Ambient Air Quality Standards

Pollutant	Averaging Time	Standard
Carbon Monoxide	1-Hour	35 ppm (40,000 µg/m^3)
	8-Hour	9 ppm (10,000 µg/m^3)
Nitrogen Dioxide	Annual	53 ppb (100 µg/m^3)
	1-Hour	100 ppb (188 µg/m^3)
Ozone	8-Hour	0.070 ppm
Particulate Matter (PM_{10})	24-Hour	150 µg/m^3
Particulate Matter ($PM_{2.5}$)	Annual	12.0 µg/m^3
	24-Hour	35.0 µg/m^3
Sulfur Dioxide	Annual	0.03 ppm (80 µg/m^3)
	24-Hour	0.14 ppm (365 µg/m^3)
	3-Hour	0.5 ppm (1,300 µg/m^3)
	1-Hour	75 ppb (196 µg/m^3)

Source: *United States Environmental Protection Agency National Ambient Air Quality Standards. Retrieved from https://www.epa.gov/criteria-air-pollutants/naaqs-table.*

Non-criteria Pollutant Thresholds

Non-criteria, or toxic, air pollutants include a multitude of pollutants of variable toxicity. No federal ambient air quality standards have been promulgated for toxic air pollutants. However, EPA and NYSDEC have issued guidelines that establish acceptable ambient levels for these pollutants based on human exposure.

The NYSDEC DAR-1 guidance document presents guideline concentrations in micrograms per cubic meter (µg/m^3) for the one-hour and annual average time periods for various air toxic compounds.[1]

In order to evaluate impacts of non-carcinogenic toxic air emissions, EPA developed a methodology called the "Hazard Index Approach." The acute hazard index is based on short-term exposure, while the chronic non-carcinogenic hazard index is based on annual

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

exposure limits. If the combined ratio of pollutant concentration divided by its respective short-term or annual exposure threshold for each of the toxic pollutants is found to be less than 1.0, no significant adverse air quality impacts are predicted to occur due to these pollutant releases.

In addition, EPA has developed unit risk factors for carcinogenic pollutants. EPA considers an overall incremental cancer risk from a proposed action of less than one-in-one million to be insignificant. Using these factors, the potential cancer risk associated with each carcinogenic pollutant, as well as the total cancer risk of the releases of all the carcinogenic toxic pollutants combined, can be estimated. If the total incremental cancer risk of all the carcinogenic toxic pollutants combined is less than one-in-one million, no significant adverse air quality impacts are predicted to occur due to these pollutant releases.

CO *De Minimis* Criteria

New York City has developed *de minimis* criteria to assess the significance of the increase in CO concentrations that would result from the impact of project-generated mobile sources, as set forth in the *CEQR Technical Manual*. These criteria set the minimum change in CO concentration that defines a significant adverse environmental impact. Significant increases of CO concentrations in New York City are defined as:

- An increase of 0.5 ppm or more in the maximum eight-hour average CO concentration at a location where the predicted No-Action eight-hour concentration is equal to or between 8.0 and 9.0 ppm; or
- An increase of more than half the difference between baseline (i.e., No-Action) concentrations and the eight-hour standard, when No-Action concentrations are below 8.0 ppm.

$PM_{2.5}$ *De Minimis* Criteria

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

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

Background Concentrations

Background concentrations are ambient pollution levels associated with existing stationary, mobile, and other area emission sources. NYSDEC maintains an air quality monitoring

network and produces annual air quality reports that include monitoring data for CO, NO_x, PM_{10}, $PM_{2.5}$, and SO_2. To develop background levels, the latest available pollutant concentrations from NYSDEC monitoring sites located closest to the project block were used. If the pollutant concentration from the nearest monitoring station is not available, the next closest monitoring station is selected, and so forth. ***Table 2.10-2*** summarizes the background concentrations for each of the pollutants.

Table 2.10-2 Background Concentrations

Pollutant	Averaging Time	Monitoring Location	Background Concentration
Carbon Monoxide	1-Hour[1]	Queens College 2	1.36 ppm
	8-Hour[1]	Queens College 2	0.9 ppm
Nitrogen Dioxide	1-Hour[2]	Queens College 2	112.2 µg/m^3
	Annual[3]	Queens College 2	31.0 µg/m^3
Particulate Matter (PM_{10})	24-Hour[4]	Division St	28 µg/m^3
Particulate Matter ($PM_{2.5}$)	24-Hour[5]	Division St	20.7 µg/m^3
Sulfur Dioxide	1-Hour[6]	Queens College 2	18.2 µg/m^3

Notes:

1 1-hour CO and 8-hour CO background concentrations are based on the highest second max value from the latest five years of available monitoring data from NYSDEC (2013-2017)

2 1-hour NO_2 background concentration is based on three-year average (2015-2017) of the 98th percentile of daily maximum 1-hour concentrations from available monitoring data from NYSDEC.

3 Annual NO_2 background concentration is based on the maximum annual average from the latest five years of available monitoring data from NYSDEC (2013-2017).

4 24-hour PM_{10} is based on the highest second max value from the latest three years of available monitoring data from NYSDEC (2015-2017).

5 The 24-hour $PM_{2.5}$ background concentration is based on maximum 98th percentile concentration averaged over three years of data from NYSDEC (2015-2017).

6 1-hour SO_2 background concentration is based on maximum 99th percentile concentration averaged over the latest three years of available monitoring data from NYSDEC (2015-2017).

Source: NYSDEC Ambient Air Quality Report, 2017, http://www.dec.ny.gov/chemical/8536.html, https://www.dec.ny.gov/docs/air_pdf/2017airqualreport.pdf.

$PM_{2.5}$ impacts are assessed on an incremental basis and compared with the $PM_{2.5}$ *de minimis* criteria, without considering the annual background. Therefore, the annual $PM_{2.5}$ background is not presented in the table.

2.10-4 Methodology

HVAC Analysis

As described in ***Chapter 1, "Project Description,"*** the proposed project would result in one new building. It is assumed that the building would have a boiler stack used for its HVAC system. Thus, an air quality analysis is warranted to assess the potential for emissions from the HVAC system to significantly impact existing buildings.

CEQR Graphical Screening (HVAC Screening Analysis)

As described in Section 220 and Section 321 in Chapter 17 of the *CEQR Technical Manual*, for single-building projects that would use fossil fuels (i.e., fuel oil or natural gas) for HVAC systems, a preliminary stationary source screening analysis is typically warranted to evaluate the potential for impacts on existing buildings from HVAC systems emissions for the proposed project. The *CEQR Technical Manual* provides screening nomographs based on fuel type, stack height, minimum distance from the source to the nearest receptor buildings with similar or greater heights, and floor area of development resulting from the proposed project. There are three different curves representing three different stack heights (30 feet, 100 feet and 165 feet) on the figures, and the height closest to but not higher than the proposed stack height should be selected. Based on the development size, if the distance from proposed project to the nearest building of similar or greater height is less than the minimum required distance determined, there is the potential for a significant air quality impact from the proposed project's boilers, and further analysis needs to be conducted using the USEPA's AERSCREEN and/or AERMOD model.

As detailed below, the HVAC screening analysis indicated that there was need to conduct a refined analysis for the proposed project.

Odor Analysis

Section 220 in Chapter 17 of the *CEQR Technical Manual* states that an air quality assessment is required for projects that would introduce uses near odor-producing facilities. The project site is east of the existing Kensington Stables, a horse stable located at 51 Caton Place on Block 5322, Lot 40. An air quality analysis was performed in the *57 Caton EAS* to evaluate the potential for malodorous pollutant emissions from horse manure at the odor facility to affect the sensitive uses of two mixed-use residential and commercial buildings (Block 5322, Lot 4) introduced by the *57 Caton EAS*. As the mixed-use buildings from the *57 Caton EAS* would be located in between the Kensington Stables and the Proposed project (i.e. closer to the stables than the Proposed project is to the stables), the odor analysis methodology and results from the *57 Caton EAS* was applied to this project.

Refined Dispersion Modeling

As mentioned above and detailed below, a refined odor analysis is warranted for the proposed project. Due to the similarity in proximity between the proposed project and Kensington Stables and the *57 Caton EAS* buildings and Kensington Stables, the odor analysis from the *57 Caton EAS* was applied. The following summarizes the methodology used in the *57 Caton EAS* analysis.

For projects introducing sensitive uses near odor-producing facilities, a detailed air quality analysis is performed using EPA's AERMOD model to estimate pollutant emissions from odor facilities and assess their effect on sensitive uses from a proposed project. As Ammonia (NH_3) is the primary pollutant of concern from Kensington Stables, the *57 Caton EAS* predicted the NH_3 levels at operable windows or air intakes on the two mixed-use buildings introduced by the *57 Caton EAS*.

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

Emission Rates, Stack Parameters, Meteorological Data and Receptor Locations

The *57 Caton EAS* dispersion odor analysis estimated NH_3 emission rates based on the odor analysis conducted for a similar horse stable facility in the *770 11th Avenue FEIS*. Moreover, the *57 Caton EAS* assessed the cumulative impacts of odor emissions from the 14 roof vents on the southern portion of Kensington Stables by modelling the odor emissions as one volume source on the center of the roof vent area using AERMOD volume source algorithms.

Additionally, the *57 Caton EAS* analysis was conducted using five consecutive years of meteorological data. The analysis also identified sensitive receptor buildings with heights similar or greater than the source. Discrete receptors (i.e., locations at which concentrations are calculated) were placed on each floor of the receptor building along each building façade where operable windows and air intakes could be located. Further information regarding the emission rate, stack parameters, meteorological data and receptor placement can be found in the *57 Caton EAS*.[2]

Odor Impact Thresholds

As stated in the *57 Caton EAS*, a significant odor impact may occur if the maximum predicted thresholds exceed the short-term guideline concentrations (SGCs) and annual guideline concentrations (AGCs) from NYSDEC's DAR-1. The 1-hour and annual NH_3 concentrations from the *57 Caton EAS* were compared with the SGC threshold of 2400 ug/m^3 and the AGC threshold of 100 ug/m^3, respectively.

[2] Pages 2.7-7 and 2.7-8 of the *2018 57 Caton Rezoning EAS*

2.10-5 Assessment

HVAC Analysis

HVAC Screening Analysis

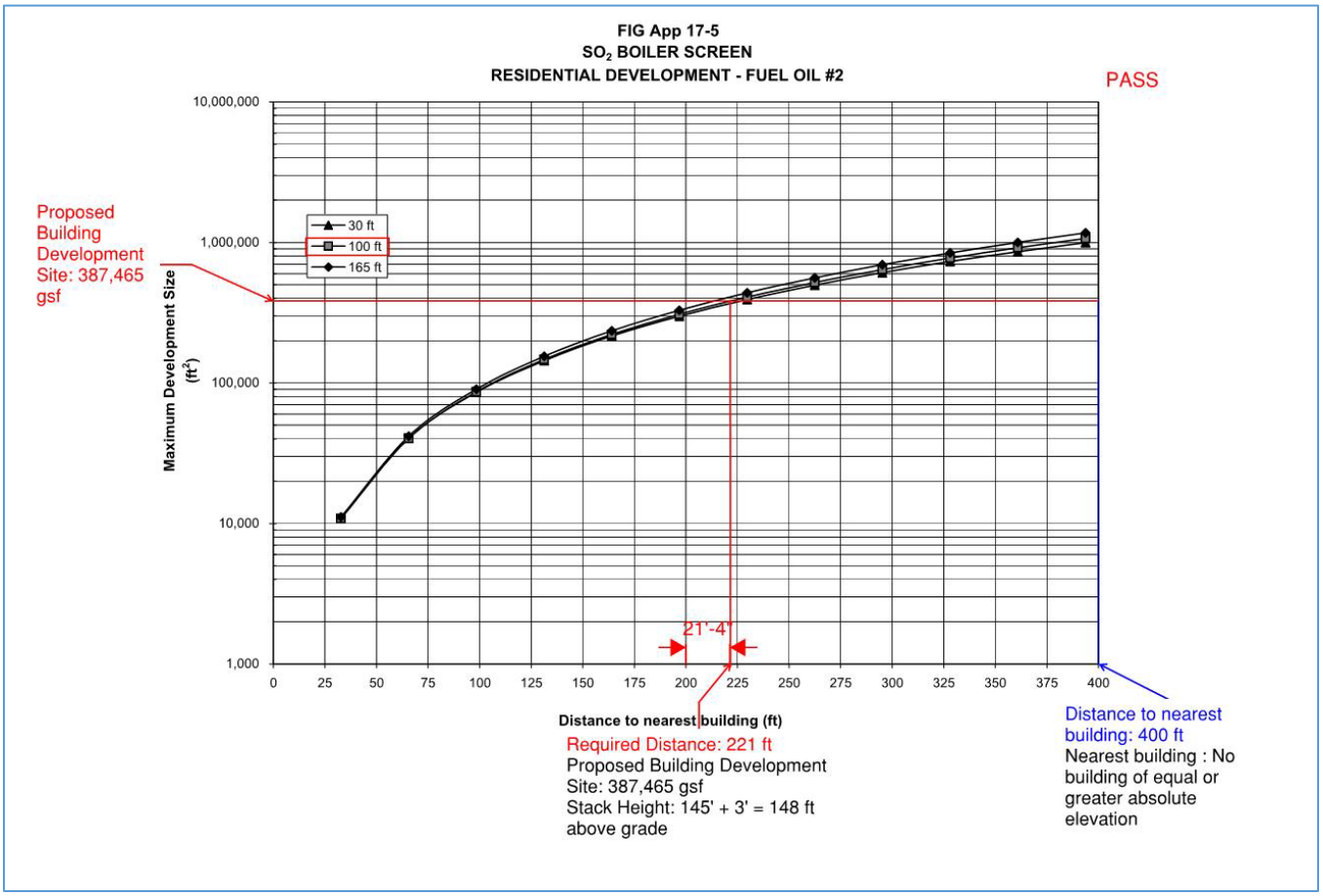
The proposed project would consist of one 13-story, 145-foot-tall primarily residential mixed-use building, which would total approximately 387,465 gross square feet (gsf).

The proposed project would have a height of approximately 145 feet above grade level, respectively. It is assumed that the stack would rise three feet above the roof of the proposed project, for a total height of 148 feet above grade.

A survey of existing residential land uses and other sensitive receptor sites within a 400-foot radius of proposed project was conducted. The survey indicated that there are no buildings of equal or greater height within 400 feet of the proposed project, and therefore a screening distance of 400 feet is used per the *CEQR Technical Manual* guidelines.

A screening analysis was performed for the proposed project assuming a distance of 400 feet between the source to the receptor and a total development size of 387,465 square feet. Based upon the proposed height and square footage, the minimum screening distance necessary to avoid potential adverse air quality impacts was determined to be approximately 221 feet assuming no. 2 fuel oil (see ***Figure 2.10-1***). With the minimum source to receptor distance determined to be 400 feet, the screening distance requirement is met regardless of fuel type, and there would be no significant adverse stationary source impacts related to the proposed project's HVAC system, and no further analysis is necessary for the proposed project.

Figure 2.10-1 Proposed Project No. 2 Fuel Oil Screening



To ensure that there are no significant adverse impacts from HVAC system of the proposed action, certain restrictions would be required through the mapping of an (E) designation for air quality regarding stack height.

The (E) designation text would be as follows:

Block 5322, Lots 10 and 20
"Any new development or enlargement on Block 5322 Lots 10 and 20 must ensure that the heating, ventilating, and air conditioning (HVAC) and hot water heating system's stack is located at the highest tier or at least 148 feet above grade to avoid any potential significant adverse air quality impacts."

Odor Analysis

A detailed odor analysis was performed in the *57 Caton EAS* to assess the impacts of malodorous pollutants from the existing Kensington Stables onto the sensitive uses of two mixed-use buildings introduced by the *57 Caton EAS* using the methodology described above. The analysis that was conducted using EPA's AERMOD dispersion model to estimate the maximum predicted concentrations of NH_3 at operable windows or air intakes of the *57*

Caton EAS buildings. The predicted concentrations from Table 2.7-5 of the *57 Caton EAS* were well below NYSDEC's SGC and AGC thresholds. Additionally, although there would be minor hydrogen sulfide (H_2S) emissions, H_2S was not analyzed because H_2S emissions are low in comparison to NH_3 emissions and would be regulated through odor control measures at the stables. Further information regarding the odor control measures at the facility can be found in the *57 Caton EAS*. Thus, pollutant emissions from Kensington Stables would not result in odor impacts on the two-mixed use buildings from the *57 Caton EAS*. Because the proposed project is adjacent to the *57 Caton EAS* mixed-use buildings, which are closer to Kensington Stables than the proposed project, and there would be no impacts on the *57 Caton EAS* sensitive receptors, it is assumed that there would be no significant adverse impacts from the odor-producing facility on the proposed project.

2.10-6 Conclusion

The number of incremental trips generated by the proposed project would be lower than screening thresholds addressed in the *CEQR Technical Manual*. Therefore, traffic from the proposed project would not result in a significant adverse impact on mobile source air quality.

The HVAC screening analyses demonstrated that there would be no potential for significant adverse stationary source air quality impacts from the proposed project's HVAC systems, even when assuming No. 2 fuel oil would be used.

Additionally, the existing odor-producing facility Kensington Stables was identified near the project site. Based on the conclusions of the detailed odor analysis for the facility in the *57 Caton EAS*, which is in between the project site and Kensington Stables, no significant adverse odor impacts are expected from Kensington Stables onto the proposed project.

Lastly, no significant adverse impacts are expected from existing industrial sources within a 400-foot radius of the development site, and no "large" or "major" emission sources were identified in a 1,000-foot radius of the development site.

Therefore, there would be no significant adverse air quality impacts as a result of the proposed actions and further analysis is not necessary.

2.11

Noise

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

2.11.1 Introduction

The applicant, 312 Coney Island Avenue LLC, is seeking a zoning map amendment to rezone two lots located at 312 Coney Island Avenue from a C8-2 zoning district to an R8A zoning district with a C2-4 commercial overlay; zoning text amendments to modify building setback requirements and designate the project site as a Mandatory Inclusionary Housing (MIH) area; and a waiver of all required accessory off-street parking. The proposed actions would facilitate the development of a new mixed-use building with community facility, retail, and residential uses.

Therefore, the proposed project would introduce new noise-sensitive receptors to the project site. The purpose of the noise assessment under City Environmental Quality Review (CEQR) is to determine if:

- The proposed project would significantly increase sound levels from mobile and stationary sources at existing noise receptors adjacent to the project site, including commercial, retail, and office spaces; and

› New noise receptors introduced at the project site would be in an acceptable ambient sound level environment.

Per the *2014 CEQR Technical Manual*, a noise analysis is appropriate if a proposed action would generate mobile or stationary sources of noise or would be located in an area with high ambient noise levels. Mobile sources include vehicular traffic; stationary sources include rooftop equipment such as emergency generators, cooling towers, and other mechanical equipment.

Noise assessment includes the following:

› Background on metrics used to describe noise;
› The methodology and criteria used to assess potential impacts;
› An assessment of the potential for the proposed project to significantly affect existing receptors due to the introduction of new mobile or stationary sources;
› Results from ambient sound level monitoring; and
› An evaluation of the ambient sound levels at new receptor locations.

Noise Background

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

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

Audible sound is composed of acoustic energy over a range of frequencies typically from 20 to 20,000 Hz. The human ear does not perceive sound levels at each frequency as equally loud. To compensate for this phenomenon in perception, a frequency filter known as A-weighting (dBA) is used to evaluate environmental noise levels. **Table 2.11-1** presents a list of common outdoor and indoor sound levels.

Table 2.11-1 Common Indoor and Outdoor Sound Levels

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

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

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

- L_{10} is the sound level which is exceeded for 10 percent of the time during a given time period. Therefore, it represents the higher end of the range of sound levels. The unit is commonly used in the *2014 CEQR Technical Manual* to evaluate acceptable thresholds for noise exposure for new receptors that would be introduced by a proposed project.
- L_{eq} is the energy-average A-weighted sound level. The L_{eq} is a single value that is equivalent in sound energy to the fluctuating levels over a period of time. Therefore, the L_{eq} considers how loud noise events are during the period, how long they last, and how many times they occur. L_{eq} is commonly used to describe environmental noise and relates well to human annoyance. In accordance with the *2014 CEQR Technical Manual*, the L_{eq} sound level is used to assess the potential for significant increases in noise due to a proposed project at existing receptors in the study area.

Assessment Methodology

This noise analysis considers two receptor types when evaluating noise for the proposed project; existing and new receptor(s). Since the proposed development would introduce new residences, community facility spaces, and commercial spaces, these are considered "new receptors."

The analysis also considers "existing receptors" which are the current noise-sensitive uses, including the church and school occupying the project site. The following describes the results of the noise assessment for these two types of receptors.

2.11.2 Noise Assessment for Existing Receptors

Noise impact at existing nearby sensitive receptors is assessed according to the relative increase between No-Action and With-Action condition sound levels. Noise impact is assessed according to the increase in the L_{eq} sound level in accordance with the *2014 CEQR Technical Manual*. If mobile or stationary sources associated with the proposed project would increase L_{eq} sound levels by 3 dB or more and absolute levels would exceed 65 dBA L_{eq}, the proposed project would cause a significant adverse impact prior to mitigation. Additionally, if No-Action condition noise levels are 60 dBA L_{eq} or less, a 5-dB increase would be considered a significant adverse noise impact.

Mobile Sources

As described in **Section 2.9 "Transportation,"** the Level 1 screening (trip generation) indicated there would be fewer than 50 peak-hour vehicle trips generated by the proposed actions. With the relatively moderate to high numbers of vehicles in the immediate area, the proposed action would not likely result in a doubling of noise passenger car equivalents (PCEs) to cause a 3 dBA increase in noise levels and cause significant adverse impact to existing receptors. Therefore, there would be no potential for significant adverse mobile source noise impacts.

Stationary Sources

The proposed project is not anticipated to include any substantial stationary source noise generators, such as unenclosed cooling or ventilation equipment, loudspeaker systems, stationary diesel engines, car washes, or other similar types of uses. The design and specifications for the mechanical equipment, such as heating, ventilation, and air conditioning, are not known at this time. As the project design advances, mechanical equipment would be selected that incorporates sufficient noise reduction to comply with applicable noise regulations and standards, including the standards contained in the revised New York City Noise Control Code. This would ensure that mechanical equipment does not result in any significant increases in noise levels by itself or cumulatively with other project noise sources.

2.11.3 Noise Assessment for New Receptors

With-Action noise conditions at new sensitive receptors that would be introduced by the proposed project are evaluated according to absolute exterior sound level. The noise exposure guidelines for acceptable ambient conditions depend on the type of land use; for residential buildings, the goal is to maintain interior noise levels of 45 dBA or lower. With-Action exterior sound levels are evaluated to determine if receptors would be in an acceptable ambient sound level environment. It is generally assumed that without specific information on a building's window and wall construction, the outdoor-to-indoor noise reduction of the building is 25 decibels. Therefore, exterior ambient sound levels exceeding 70 dBA (L_{10}) at residential receptors during the daytime (7 AM to 10 PM) are considered to be Marginally Unacceptable. Exterior sound levels exceeding 80 dBA (L_{10}) are considered Clearly Unacceptable. If there would be Marginally Unacceptable or Clearly Unacceptable ambient noise conditions, there is a need to provide window/wall sound attenuation that is sufficient to reduce interior sound levels to acceptable levels.

Since the proposed project would introduce residential and commercial uses to the project site, and replace existing community facility uses, the highest L_{10} sound level is used to evaluate whether the proposed project would introduce new receptors into an acceptable noise environment. The analysis presents the results of ambient noise monitoring that was conducted at the project site and the assessment of whether new receptors would be in a high ambient noise environment.

Noise Exposure Guidelines

The *2014 CEQR Technical Manual* provides noise exposure guidelines for assessing ambient noise conditions at new residential, commercial, and community facility receptors, as shown in **Table 2.11-2**.

Table 2.11-2 Noise Exposure Guidelines for Use in City Environmental Impact Review

Receptor Type	Time Period	Acceptable External Exposure	Marginally Acceptable External Exposure	Marginally Unacceptable External Exposure	Clearly Unacceptable External Exposure
Commercial, or Office	All Times	$L_{10} \leq 65$ dBA	$65 < L_{10} \leq 70$ dBA	$70 < L_{10} \leq 80$ dBA	$L_{10} > 80$ dBA
Residence, Hotel or Motel	7 AM to 10 PM				
Residence. Hotel or Motel	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
Community Facility		Same as residential day	Same as residential day	Same as residential day	Same as residential day

Source: Table 19-2, 2014 CEQR Technical Manual.

Existing Sound Levels

Noise monitoring was previously conducted at two locations in this area on October 7, 2016 as part of the 57 Caton Place EAS (CEQR No. 17DCP100K). These are noise monitoring locations 3 and 4 in **Figure 2.11-1.** Noise monitoring was also conducted at two additional sites on Thursday, May 16, 2019 in accordance with the *CEQR Technical Manual* (noise monitoring locations 1 and 2 in **Figure 2.11-1)**. Noise monitors were placed with a minimum of four feet between the microphone and nearby reflecting surfaces. With roadway activity dominating the overall noise environment, 20-minute noise measurements were conducted during morning peak periods (8 – 9 AM), midday period (12 – 1 PM) and evening peak period (5 – 6 PM). Measurements were conducted using a Type I sound level meter at ground level.

Table 2.11-3 summarizes the measurement results. The measured L_{eq} levels ranged from 57.8 dBA to 76.1 dBA and the L_{10} levels ranged from 59.3 to 76.7 dBA.

Table 2.11-3 Ambient Sound Level Measurements

Site	Monitoring Location	Period	Duration	L_{eq}	L_{min}	L_{max}	L_1	L_{10}	L_{50}	L_{90}
1[A]	Park Circle	Morning	20 Min	76.1	56.2	93.0	89.9	**76.7**	65.0	60.3
		Midday	20 Min	67.3	55.6	84.3	78.8	**69.2**	62.8	58.8
		Evening	20 Min	72.7	57.0	90.4	83.6	**76.1**	66.8	60.5
2[A]	Coney Island Avenue	Morning	20 Min	65.6	54.6	78.9	73.0	**68.7**	63.6	58.0
		Midday	20 Min	68.1	54.1	77.4	75.2	**70.3**	67.6	59.3
		Evening	20 Min	70.9	50.3	84.1	80.7	**75.1**	66.6	57.0
3[B]	Caton Place and East 8th Street	Morning	20 Min	57.8	52.0	76.4	66.0	**59.3**	55.0	53.4
		Midday	20 Min	60.6	52.5	78.1	71.1	**63.8**	55.6	53.5
		Evening	20 Min	57.8	52.3	70.9	65.3	**60.4**	56.1	54.1
4[B]	Ocean Parkway	Morning	20 Min	64.3	53.5	86.0	74.0	**64.9**	61.3	57.3
		Midday	20 Min	60.9	50.3	75.1	71.6	**62.9**	59.0	53.9
		Evening	20 Min	60.7	52.3	71.7	66.8	**63.7**	59.5	54.8

Source: A: Measurements conducted by VHB on May 16, 2019.
B: Measurements conducted by VHB on October 7, 2016 as part of 57 Caton Place EAS (17DCP100K).

Figure 2.11-1 Noise Monitoring Locations



Acceptability Assessment

The *2014 CEQR Technical Manual* provides noise exposure guidelines for assessing ambient sound levels, as shown in **Table 2.11-2**. Based on these noise exposure guidelines, noise impact has been assessed to determine the level of acceptability for new sensitive receptors at the project site. **Table 2.11-4** summarizes the L_{10} sound levels at each measurement location. The table indicates whether the existing sound levels are considered to be acceptable according to the *2014 CEQR Technical Manual*.

Table 2.11-4 Existing Sound Level Acceptability

Site	Monitoring Location	Period	L_{10}	Acceptability
1	Park Circle	Morning	**76.7**	Marginally Unacceptable
		Midday	**69.2**	Marginally Acceptable
		Evening	**76.1**	Marginally Unacceptable
2	Coney Island Avenue	Morning	**68.7**	Marginally Acceptable
		Midday	**70.3**	Marginally Unacceptable
		Evening	**75.1**	Marginally Unacceptable
3	Caton Place and East 8th Street	Morning	**59.3**	Acceptable
		Midday	**63.8**	Acceptable
		Evening	**60.4**	Acceptable
4	Ocean Parkway	Morning	**64.9**	Acceptable
		Midday	**62.9**	Acceptable
		Evening	**63.7**	Acceptable

Source: VHB, 2019.

According to the noise exposure guidelines in the *CEQR Technical Manual*, existing L_{10} sound levels are Acceptable during all peak periods on Caton Place and Ocean Parkway. Existing L_{10} sound levels are Marginally Unacceptable along Park Circle and Coney Island Avenue during most measurement periods, with the exception of Park Circle midday peak and Coney Island Avenue morning peak which were determined to be Marginally Acceptable. The highest measured L_{10} sound level on Park Circle was 76.7 dBA during the morning peak period. The highest measured L_{10} sound level on Coney Island Avenue was 75.1 dBA during the evening peak period.

The southwestern building façade will be nine stories tall on the north and south ends with a one-story residential connector in between. The adjacent building at 57 Caton Place is proposed to be nine stories tall and therefore there will be no fenestration along the closest southwestern façade of 312 Coney Island Avenue. Additionally, since existing L_{10} sound levels are Acceptable on the adjacent south and northwest facades, sound levels are considered to be Acceptable on the southwestern façade.

Based on the finding of Marginally Unacceptable sound levels along Park Circle and Coney Island Avenue, sufficient outdoor-to-indoor sound attenuation of the window/wall must be specified to provide acceptable sound attenuation from the window/wall materials of the proposed project.

2.11.4 Noise Attenuation Measures

The most common measure for reducing interior noise from ambient sources is to specify sufficient outdoor-to-indoor sound attenuation for a proposed building. As shown in **Table 2.11-5**, the required level of attenuation varies based on the exterior sound levels and type of receptor. Based on a maximum L_{10} sound level of 76.7 dBA on the northeast façade on Park Circle, a composite outdoor-to-indoor window/wall sound attenuation of 33 dBA or more is required. Based on a maximum L_{10} sound level of 75.1 dBA on the east façade on Coney Island Avenue, a composite outdoor-to-indoor window/wall sound attenuation of 31 dBA or more is required on the east façade and the eastern portion of the south façade. These requirements are needed to obtain acceptable interior noise conditions in residential and community facility spaces, as well as alternate means of ventilation such as well-sealed air conditioners, package-terminal air conditioners, or central air conditioning. Composite window/wall sound attenuation requirements for commercial office use is 5 decibels lower than for residential and community facility spaces; however, there will be no commercial office spaces along the northeast or east facades.

Table 2.11-5 Required Attenuation Values to Achieve Acceptable Interior Noise Levels

	Marginally Unacceptable				Clearly Unacceptable
With-Action Sound Level	$70<L_{10}\leq73$	$73<L_{10}\leq76$	$76<L_{10}\leq78$	$78<L_{10}\leq80$	$80<L_{10}$
Attenuation [A]	(I) 28 dBA	(II) 31 dBA	(III) 33 dBA	(IV) 35 dBA	$36+(L_{10}-80)$[B] dBA

Note: [A] The above composite window-wall attenuation values are for residential dwellings and community facility development. Commercial office spaces and meeting rooms would be 5 dBA less in each category. All of the above categories require a closed window situation and hence an alternate means of ventilation.
[B] Required attenuation values increase by 1 dBA increments for L_{10} values greater than 80 dBA.
Source: New York City Department of Environmental Protection (CEQR Technical Manual, Table 19-3)

The composite outdoor-to-indoor transmission classification (OITC) value of the window-wall structure is used to determine the necessary sound attenuation. Sound attenuation measures would be achieved through new construction materials and techniques with sufficient OITC-rated windows and walls. To maintain a closed-window condition, central air-conditioning will be provided to allow for an alternate means of ventilation.

The following E-designation commitment is proposed to be assigned to the project site:

Brooklyn Block 5322, Lots 10 and 20

"In order to ensure an acceptable interior noise environment, future residential/commercial office/community facility uses must provide a closed-window condition with a minimum of 33 dB(A) window/wall attenuation on facades facing Park Circle and 31 dB(A) of attenuation on all facades facing Coney Island Avenue or portions of facades facing Caton Place within 50 feet of Coney Island Avenue to maintain an interior noise level not greater than 45 dB(A) for residential and community facility uses or not greater than 50 dB(A) for commercial office uses. To maintain a closed-window condition, an alternate means of ventilation must also be

included. Alternate means of ventilation includes, but is not limited to, air conditioning."

With these commitments, no significant adverse impacts related to noise are expected and no further analysis is warranted.

2.11.5 Conclusion

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

As described in **Section 2.9 "Transportation,"** the Level 1 screening (trip generation) indicated there would be fewer than 50 peak-hour vehicle trips generated by the proposed actions. With the relatively moderate to high numbers of vehicles in the immediate area, the proposed action would not likely result in a doubling of noise passenger car equivalents (PCEs) to cause a 3 dBA increase in noise levels and cause significant adverse impact to existing receptors. Therefore, there would be no potential for significant adverse mobile source noise impacts.

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

Based on a maximum L_{10} sound level of 76.7 dBA on the northeast façade on Park Circle, a composite outdoor-to-indoor window/wall sound attenuation of 33 dBA or more is required. Based on a maximum L_{10} sound level of 75.1 dBA on the east façade on Coney Island Avenue, a composite outdoor-to-indoor window/wall sound attenuation of 31 dBA or more is required. These requirements are needed to obtain acceptable interior noise conditions in residential and community facility spaces, as well as alternate means of ventilation such as well-sealed air conditioners, package-terminal air conditioners, or central air conditioning. Composite window/wall sound attenuation requirements for commercial office use is 5 decibels lower than for residential and community facility spaces; however, there will be no commercial office space along the northeast or east facades.

To implement these attenuation requirements, an E-designation commitment would be assigned to the project site.

With these commitments, no significant adverse impacts related to noise are expected and no further analysis is warranted.

2.12

Neighborhood Character

This section considers how the proposed actions would affect neighborhood character, which is defined as the elements of the environment that combine to create the context and feeling of a neighborhood.

2.12.1 Introduction

This analysis of neighborhood character follows the guidelines set forth in the *CEQR Technical Manual*. As defined within the manual, neighborhood character is an amalgam of various elements that give neighborhoods a distinct "personality," including land use, urban design and visual resources, historic resources, socioeconomic conditions, transportation, and noise. Not all of these elements affect neighborhood character in all cases; a neighborhood usually draws its distinctive character from a few defining elements. According to the *CEQR Technical Manual*, neighborhood character impacts are rare and occur under unusual circumstances.

As described in Section 1.0, "Project Description," the proposed project would result in the development of the project site with a 387,465-gsf mixed-use residential, commercial, and community facilities building that would be 13 stories in height, stepping down to 11 stories along Caton Place and then to nine stories along both Caton Place and Ocean Parkway. This section includes a preliminary assessment of neighborhood character; prepared in

conformance with the *CEQR Technical Manual* using information from the technical analyses presented in other relevant sections of this EAS.

2.12.2 Methodology

A neighborhood character assessment is generally needed when a proposed project has the potential to generate significant adverse impacts to one or more of the contributing elements of neighborhood character. In the absence of an impact on any of the relevant technical areas, a combination of moderate effects to the neighborhood could result in an impact to neighborhood character. A significant impact identified in one of the technical areas that contribute to a neighborhood's character is not necessarily equivalent to a significant impact on neighborhood character. Therefore, an assessment of neighborhood character is generally appropriate if a proposed project has the potential to result in any significant adverse impacts in the technical areas listed above or on open space or shadows. Examples of possible changes in those technical areas that could result in an adverse effect on neighborhood character, should those technical areas be defining features of the neighborhood, are as follows:

- Land Use, Zoning, and Public Policy. If development resulting from a proposed action would conflict with surrounding uses, conflict with land use policy or other public plans for the area, or change land use character, neighborhood character could be affected.
- Socioeconomic Conditions. If a proposed action results in substantial direct or indirect displacement; additional population, employment, or businesses; or differences in population or employment density, neighborhood character could be affected.
- Open Space. If an action would result in a reduction or displacement of an open space or result in additional population that would place a substantial demand on open space, neighborhood character could be affected.
- Historic and Cultural Resources. If a proposed action would result in substantial direct changes to a historic resource or substantial changes to public views of a historic resource, neighborhood character could be affected.
- Urban Design and Visual Resources. If a proposed action would result in substantially different building block, form, size, scale, or arrangement; block form, street pattern or street hierarchy; streetscape elements; or substantial direct changes to a visual feature, such as unique and important public view corridors and vistas, or to public visual access to such a feature, neighborhood character could be affected.
- Shadows. If a proposed project would cast an incremental shadow on sun-sensitive resources, neighborhood character could be affected.
- Transportation. When a proposed project would result in a change in traffic patterns or would substantially increase traffic volumes on residential streets, neighborhood character could be affected.
- Noise. When a proposed action would substantially increase noise levels in an area, neighborhood character could be affected.

As part of a neighborhood character analysis, the defining features of the neighborhood are identified and then a determination is made as to whether the project has the potential to

adversely affect these defining features, either through the potential for a significant adverse impact or a combination of moderate effects in relevant technical areas. If the assessment concludes that a proposed project has the potential to adversely affect defining features of a neighborhood, a detailed analysis is undertaken to determine whether the project would result in a significant adverse impact on neighborhood character.

The neighborhood character analysis draws from the technical assessments listed above. As recommended in the *CEQR Technical Manual*, the study area for the neighborhood character analysis is consistent with the study areas in the relevant technical areas assessed under CEQR that contribute to the defining elements of the neighborhood. As such, the study area for neighborhood character is consistent with the 400-foot study area used for the analysis of land use, zoning, and public policy.

As detailed in the previous sections of this EAS, the proposed project would not result in significant adverse impacts in any of the above technical areas; therefore, this analysis evaluates the potential for the proposed project to affect neighborhood character through a combination of moderate effects. The analysis begins with an assessment of each of the technical areas, then identifies the defining features of the neighborhood and assesses whether the project would adversely affect those defining features.

2.12.3 Project Potential to Adversely Affect the Contributing Elements of Neighborhood Character

This section evaluates the potential for the proposed project to result in an adverse impact on neighborhood character through a combination of moderate effects in the various technical areas.

- Land Use, Zoning, and Public Policy. As discussed in Section 2.1, "Land Use, Zoning, and Public Policy," the proposed project would be consistent with the area's development patterns and would maintain and enhance the existing land use character within the study area (defined by a mix of institutional uses and low- to high-density residential uses). The project would not conflict with surrounding uses, nor would it conflict with land use policy or other public plans for the area.
- Socioeconomic Conditions. As discussed in Section 2.2, "Socioeconomic Conditions," the proposed project would not result in a substantial direct or indirect displacement or addition of population, employment, or businesses; nor would it result in substantial differences in population or employment density.
- Open Space. As discussed in Section 2.4, "Open Space," the proposed project would not result in the reduction or displacement of open space, nor would it place a substantial demand on open space.
- Historic and Cultural Resources. As discussed in Sections 2.6, "Historic and Cultural Resources" and 2.7, "Urban Design and Visual Resources," would not result in direct changes to a historic resource nor would it have significant impacts on public views of a historic resource. While a portion of the Prospect Park scenic landmark falls within the study area, the proposed project would not impact this historic resource with respect to shadows, urban design or visual resources. The analysis concluded that the building

massing of the proposed project compared to the No-Action condition would be more in keeping with the surrounding context and would not detract from views of Prospect Park and Machate Circle. Therefore, the proposed actions would not result in a significant adverse impact on historic and cultural resources.

Urban Design and Visual Resources. As discussed in Section 2.7, "Urban Design and Visual Resources," the applicant believes the proposed project would be compatible with the residential character of the surrounding area, consistent with the surrounding building form and streetscape, and would reinforce the existing development pattern, such that the quality of the urban design and visual resources at the project site would improve. These improvements would also conform to the goals of the special district governing urban design and visual character in the area. Additionally, the proposed project would not result in any significant adverse impacts on views to and from the prominent features of the scenic resources within the study area.

- Shadows. As discussed in Section 2.5, "Shadows," the proposed project has the potential to cast shadows on six open space resources. However, due to the limited duration of incremental shadow, extent, time of day, season, and/or other factors, the proposed project is not likely to result in significant adverse shadow impacts to any sunlight-sensitive resources.
- Transportation. As discussed in Section 2.9, "Transportation," the proposed project would not result in a change in traffic patterns nor would it substantially increase traffic volumes on residential streets.
- Noise. As discussed in Section 2.11, "Noise," the proposed project would not substantially increase noise levels at the project site or in the study area.

The proposed project would not result in a combination of moderate effects that would adversely affect neighborhood character.

2.12.4 Project Potential to Adversely Affect the Defining Features of the Neighborhood

Identification of the Defining Features of the Neighborhood

The 400-foot study area is generally bounded by Ocean Parkway to the west, Kermit Place to the south, the Parade Grounds/Prospect Park to the east, and mid-block between Ocean Parkway and Greenwood Avenue to the north. This study area contains several distinct areas that make up the overall neighborhood: Caton Place east of East 8th Street, Caton Place west of East 8th Street, and the Ocean Parkway, Coney Island Avenue, and Park Circle roadways. This analysis of the defining features of the neighborhood is based on the analysis conducted as part of the *2018 57 Caton Place Rezoning EAS* (57 Caton EAS), which is west of the project site on Block 5322, Lot 4.

As outlined in the 57 Caton EAS, Caton Place between East 8th Street and Coney Island Avenue is defined by a mix of institutional uses on the north and south sides of Caton Place. On the south side, the four-story Cavalry Cathedral of Praise building, a largely featureless tan building, presents a blank street wall. Another large, tan brick mixed-use building—the

Brooklyn College Academy Building— is located on the same block, fronting Coney Island Avenue. The Kensington Stables are a distinct use on the project block as well, drawing visitors from beyond the neighborhood to the area. Activity levels in the area are defined by the existing International Christian School currently on the project site and by the stables. This area is currently in transition as what was once a large surface parking lot associated with the Cavalry Cathedral of Praise, located at the northeast corner of the block across the street from the project site, is currently being converted to an eight-story commercial facility, and 57 Caton Place adjacent to the project site to the west is currently being redeveloped as a nine-story mixed-use residential and commercial building.

The neighborhood along Caton Place west of East 8th Street has a different character and is generally more cohesive, with predominantly residential uses and a mix of building types, including older and more recently-constructed multi-family walkup buildings on the north side of Caton Place and several single-family buildings on the south side of the street. The two relatively new buildings (the Kestrel and 22 Caton Place), although more modern, were designed to complement the older adjacent brick multi-family buildings.

The remainder of the study area is defined by the area's roadways and park uses. The roadways include Ocean Parkway, Park Circle, and Coney Island Avenue, all adjacent to the project site. The park uses include Machate Circle, which is part of the LPC-designated scenic landmark and SR/NR-listed Prospect Park, and the Prospect Park Parade Ground. To the north of Ocean Parkway are residential elevator buildings. While distinctive, these buildings feel distant from the project site given the width of the roadways. To the north, Machate Circle predominates along with the Park Circle roadway. To the east, Coney Island Avenue contributes to the predominance of roadways in the area.

When in Machate Circle, the character of the area is dominated by the grassy areas and trees within the circle and the movement of vehicular traffic around Park Circle. When at Prospect Park, the area is dominated by the park itself—its perimeter wall designed by the firm of McKim, Mead & White, the two Horse Tamers statues at the park entrance, and park activity (e.g., cyclists; strollers; joggers; groups gathered for picnics/barbeques and other activities).

Overall, the defining features of the neighborhood are:

- In the area immediately south and west of the project site (Caton Place east of 8th Street): large institutional uses and significant parcels in the process of being redeveloped.
- Caton Place west of 8th Street and south of Ocean Parkway: residential uses in a mix of building typologies.
- North of the project site: area roadways and Park Circle/Machate Circle with Prospect Park beyond.

Assessment

Overall, the proposed project would not adversely affect the defining features of the neighborhood.

The proposed project would replace the existing four-story building, currently occupied with community facility uses (International Baptist Church and affiliated International Christian

School) with a mixed-use residential, retail and community facility building. The proposed project would be consistent with the mixed-use residential, commercial, and community facility character of the project block and its immediate surroundings. The proposed project would also be consistent with recent development trends within the study area and would match the height of the building to be constructed immediately adjacent to the project site at 57 Caton Place.

The proposed project, along with the 57 Caton Place development, would not affect the residential uses in the area west of East 8th Street but would instead extend the residential uses to the area east of East 8th Street. The addition of retail uses at the project site, and at 57 Caton Place, would support the residential uses west of East 8th Street. The proposed development would be in keeping with the existing character of Ocean Parkway and would conform to requirements that buildings be set back 30 feet from Ocean Parkway.

The proposed project would also not affect the defining features of the remainder of the study area – the roadways would continue to operate in their current condition and traffic generated by the proposed project would not be significant, as discussed in Section 2.9 "Transportation." Park Circle/Machate Circle would continue to be a prominent feature in the area with Prospect Park beyond. As discussed in detail in Section 2.7, "Urban Design and Visual Resources," views from various Prospect Park locations and from Machate Circle would include the proposed project; however, the building would be in context with the buildings surrounding the circle. Street trees and trees within Machate Circle would partially conceal the proposed development and are expected to help minimize visual impacts.

As discussed above and in Section 2.7, Urban Design and Visual Resources, the development would not result in any significant adverse impacts on views to and from the prominent features of the scenic resources within the study area. In addition, it is the applicant's opinion that the proposed project would have beneficial impacts on the urban design character of the study area. The height of the proposed project would be more contextual with the surrounding new developments in the area compared with the No-Action condition. The proposed actions would facilitate a building that complements its unique location adjacent to Machate Circle and the entrance to Prospect Park, as well as permitting an increase in density close to public transit access. In addition, the proposed project would provide a contiguous street wall along all adjacent roadways, and would activate the street with ground floor retail uses, drawing new visitors to the block.

Therefore, overall, the proposed actions would not result in a significant adverse impact on the defining features of the neighborhood.

2.12.5 Conclusion

The proposed project would not result in significant adverse impacts in any of the technical areas that contribute to neighborhood character, nor would it adversely affect the defining features of the neighborhood or result in a combination of moderate effects that would adversely affect neighborhood character. As described above, the proposed project is anticipated to benefit the urban design character and the defining features of the neighborhood by facilitating a building that is in context with surrounding development and provides a continuous and active streetfront. Therefore, no further assessment is warranted,

and the proposed project would not result in significant adverse impacts on neighborhood character.

2.13

Construction

Construction activities, although temporary in nature, can sometimes result in significant adverse impacts. A project's construction activities may affect a number of technical areas analyzed for the operational period, such as air quality, noise, and traffic; therefore, a construction assessment relies to a significant extent on the methodologies and resulting information gathered in the analyses of these technical areas.

2.13.1 Introduction

Construction activities, although temporary in nature, can sometimes result in significant adverse environmental impacts. Consideration of several factors, including the location and setting of the project in relation to other uses, and the intensity and duration of the construction activities, may indicate that a project's construction activities warrant analysis.

The proposed project would result in the construction of a 387,465-gross square foot (gsf) mixed-use residential, retail, and community facility building at 312 Coney Island Avenue containing approximately 309,898 gsf of market rate and affordable residential space (approximately 310 dwelling units), 5,000 gsf of ground floor retail, and 41,380 gsf of community facility uses. The existing four-story building on the project site, which would be vacated prior to construction, would be demolished. The proposed project would be 13

stories and 145 feet tall to the roofline along Park Circle and Coney Island Avenue, and would step down to nine stories (100 feet high) along both Caton Place and Ocean Parkway.

Based on the construction schedule, construction activity associated with the proposed project is anticipated to last a total of approximately 29 months. Because the construction period would be longer than two years ("long-term" per the *2014 CEQR Technical Manual*), a preliminary assessment of potential construction impacts was prepared in accordance with CEQR guidelines. This assessment is presented below; as detailed in the assessment, construction of the proposed project would not result in any significant adverse impacts.

2.13.2 Construction Regulations and General Practices

Governmental Oversight

Governmental oversight of construction in New York City is extensive and involves a number of City, State, and Federal agencies, each with specific areas of responsibility, as follows.

- The New York City Department of Buildings (DOB) has primary oversight of construction. DOB oversees compliance with the New York City Building Code to ensure that buildings are structurally, electrically, and mechanically safe. In addition, DOB enforces safety regulations to protect both workers and the general public during construction. Areas of oversight include installation and operation of equipment such as cranes and lifts, sidewalk sheds, safety netting, and scaffolding.
- The New York City Department of Environmental Protection (DEP) enforces the New York City Noise Code, reviews and approves any needed Remedial Action Plans (RAPs) and associated Construction Health and Safety Plans (CHASPs) as well as the removal of fuel tanks and abatement of hazardous materials. DEP also regulates water disposal into the sewer system and reviews and approves any rerouting of wastewater flow.
- The New York City Fire Department (FDNY) has primary oversight of compliance with the New York City Fire Code and the installation of tanks containing flammable materials.
- The New York City Department of Transportation Office of Construction Mitigation and Coordination (DOT OCMC) reviews and approves any traffic lane and sidewalk closures.
- The New York City Landmarks Preservation Commission approves studies and testing to prevent loss of archaeological resources and to prevent damage to architectural resources.
- The New York State Department of Environmental Conservation (NYSDEC) regulates disposal of hazardous materials, and construction, operation, and removal of bulk petroleum and chemical storage tanks. NYSDEC also regulates discharge of water into rivers and streams.
- The New York State Department of Labor (DOL) licenses asbestos workers.
- The New York State Department of Transportation (NYSDOT) reviews and approves any traffic lane closures on its roadways, should any be necessary.

- The U.S. Environmental Protection Agency (EPA) has wide-ranging authority over environmental matters, including air emissions, noise, hazardous materials, and the use of poisons, however, much of its responsibility is delegated to the state level.
- The Occupational Safety and Health Administration (OSHA) sets standards for work site safety and construction equipment.

Construction Oversight

New York City regulates the hours of construction work through the New York City Noise Control Code, as amended in December 2005 and effective July 1, 2007. Construction is limited to weekdays between the hours of 7:00 AM and 6:00 PM, and noise limits are set for certain specific pieces of construction equipment. The City may permit work outside of these hours to accommodate: (1) emergency conditions; (2) public safety; (3) construction projects by or on behalf of City agencies; (4) construction activities with minimal noise impacts; and (5) undue hardship resulting from unique site characteristics, unforeseen conditions, scheduling conflicts, and/or financial considerations. The DOB issues these work permits, and in some instances, approval of a noise mitigation plan from the DEP under the City's Noise Code is also required.

In New York City, construction work typically occurs on weekdays and begins at 7:00 AM, with most workers arriving between 6:00 AM and 7:00 AM. Work typically ends at 4:00 PM, with some exceptions when certain critical tasks (e.g., finishing a concrete pour for a floor deck, completing the drilling of piles, or completing the bolting of a steel frame erected that day) require that the workday be extended beyond normal work hours. Any extended workdays generally last until approximately 5:30 PM or 6:00 PM and do not include all construction workers on-site, but only those involved in the specific task requiring additional work time. For work outside of normal construction hours, work permits are obtained from DOB prior to such work commencing. The numbers of workers and pieces of equipment in operation for work outside normal hours is generally limited to those needed to complete the particular authorized task. Overall, the level of activity for any work outside of normal construction hours is less than a normal workday.

Construction Practices

Access, Deliveries and Staging Areas

Access to construction sites is controlled. Work areas are fenced off, and limited access points for workers and construction-related trucks are provided. Typically, worker vehicles are not allowed into the construction area, and workers or trucks without a need to be on the site are not allowed entry. After work hours, the gates are closed and locked. Security guards may patrol the construction site after work hours and over weekends to prevent unauthorized access.

Material deliveries to the site are controlled and scheduled. To aid in adhering to the delivery schedules, as is normal for building construction in New York City, flaggers are employed at each of the construction site's access points. Flaggers are typically supplied by either the subcontractor on-site at the time or by the construction manager. The flaggers control

trucks entering and exiting the project site so that they would not interfere with one another. In addition, they provide an additional traffic aid as trucks enter and exit the on-street traffic streams. Flaggers would be posted on all of the access point roadways.

For the construction at the project site, trucks would deliver materials on both the Caton Place and Ocean Parkway frontages of the project site. Construction activities would be staged within the project site and are also anticipated to occur on portions of the sidewalk and street on the all of the frontages immediately adjacent to the site. These temporary closures are discussed in the following section "Lane and Walkway Closures."

Material deliveries to the site would be controlled and scheduled as discussed above.

Lane and Walkway Closures

Temporary curb-lane and sidewalk closures are typical for construction projects in New York City. To manage such closures, a Maintenance and Protection of Traffic (MPT) plan is developed consistent with DOT requirements. DOT OCMC reviews and approves MPT plans, and the implementation of the closures is also coordinated with DOT OCMC. In general, construction managers for major projects on adjacent sites also coordinate their activities to avoid delays and inefficiencies.

For construction on the site, there would be temporary closures of the sidewalk and curb lanes along Ocean Parkway, Park Circle, Coney Island Avenue, and Caton Place immediately adjacent to the project site. The sidewalk closure would be limited to the superstructure phase of the project only; during other phases of construction, a full sidewalk shed, including masonry scaffolding, would be installed thereby allowing pedestrian passage past the site. During the period that the sidewalk is closed, signs informing pedestrians of the sidewalk closures would be posted at the four corners of the block on which the project site is located (i.e., at the intersections of Ocean Parkway and East 8th Street, Ocean Parkway and Park Circle, Caton Place and East 8th Street, and Caton Place and Coney Island Avenue). The curb lane closure would not affect any traffic lanes.

An MPT plan would be developed for review and approval by DOT OCMC for these temporary sidewalk and lane closures.

Public Safety

A variety of measures are employed to ensure public safety during construction at sites within New York City. Examples include the use of sidewalk bridges to provide overhead protection for pedestrians passing by the construction site and the employment of flaggers to control trucks entering and exiting the construction site, to provide guidance to pedestrians, and/or to alert or slow down the traffic. Other safety measures include following DOB requirements during the installation and operation of tower cranes to ensure safe operation of the equipment and the installation of safety nettings on the sides of the project as the superstructure advances upward to prevent debris from falling to the ground.

As noted above, flaggers would be posted at the site, and a full sidewalk shed would be installed during most phases of construction to ensure pedestrian safety. In addition, as at other New York City construction site, the 312 Coney Island Avenue project would follow all

DOB safety requirements to ensure that construction of the project is conducted with care so as to minimize the disruption to the community.

Rodent Control

Construction projects in New York City typically include provisions for a rodent (i.e., mouse and rat) control program with provisions for this formalized in construction contracts for the development. Rodent control programs are typically carried out throughout construction, beginning with surveying and baiting appropriate areas prior to construction and providing for proper site sanitation and maintenance during construction. Signage would be posted, and coordination would be conducted with appropriate public agencies. Only EPA- and NYSDEC-registered rodenticides would be permitted, and the contractor would be required to implement the rodent control program in a manner that is not hazardous to the general public, domestic animals, and non-target wildlife.

2.13.3 Construction Schedule and Activities

Construction Schedule

The anticipated construction schedule is presented in **Table 2.13-1** and reflects a reasonable assumption for construction activities at the project site. Construction activity would begin in 2020. It is assumed that full build out on the project site would be completed by the first quarter of 2023. Altogether, it is projected that construction activities would occur on the project site over a period of 29 months.

As shown in the schedule, construction would begin in the fourth quarter of 2020 with the demolition of the existing on-site building. Excavation and foundation work would follow, also in late 2020, and would continue through the second quarter of 2021 (approximately eight months). Superstructure work would follow beginning in the third quarter of 2021 for approximately seven months. Overlapping with a portion of the superstructure work, the exterior closure of the building would begin at the end of the fourth quarter of 2021 and would continue for approximately six months. Interior build-out would overlap with the exterior closure work, beginning toward the end of the first quarter in 2022 and continuing through the first quarter of 2023. Final site work would be complete in the first quarter of 2023. The main stages of construction are discussed in more detail in the following section.

Table 2.13-1 Anticipated Construction Schedule

	Q4 2020			Q1 2021			Q2 2021			Q3 2021			Q4 2021			Q1 2022			Q2 2022			Q3 2022			Q4 2022			Q1 2023	
	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F
Activity	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
Demolition																													
Excavation/ Foundation																													
Superstructure																													
Exterior Closure																													
Interior Buildout																													
Site Work																													

Source: VHB; JEMB Realty Corporation

Construction Activities

Construction of the proposed project would be subject to the government regulations and oversight detailed above in **Section 2.13-2, "Construction Regulations and General Practices,"** and would employ the general construction practices described above.

Demolition, Site Preparation, Excavation and Foundation

Construction at the project site would begin with a number of activities to prepare the site for construction work. Early activities would involve the installation of public safety measures, such as Jersey barriers and fencing and pedestrian overhead protection measures. The construction site would be fenced off, with solid fencing to minimize interference between the persons passing by the site and the construction work. Gates for workers and for trucks would be installed. A trailer for the construction engineers and managers would be hauled to the site and installed. Also, portable toilets, dumpsters for trash, and water and fuel tankers would be brought to the site and installed. Temporary utilities would be connected to the construction trailer. During the startup period, permanent utility connections may be made, especially if the construction manager has obtained early electric power for construction use, but utility connections may be made almost any time during the construction sequence. Interior access roads and turnarounds would be established.

Following the initial site preparation activities, the existing four-story building on the project site would be demolished and removed. Materials would be hauled off-site and transported to appropriate receiving facilities.

As part of the proposed project, excavators would be used for the task of digging the building's foundation. Any excavated soil to be removed from the project site would be loaded onto dump trucks for transport to a licensed disposal facility or for reuse elsewhere on the project site or on another construction site that needs fill.

This stage of construction would also include the construction of the proposed project's foundation and below-grade elements. Columns and concrete walls would be built to the grade level. Concrete trucks would be used to pour the foundation and the below-grade structures. Excavation and foundation activities would also involve the use of hydraulic drills, cranes, dewatering pumps, generators, and compressors.

To reduce the potential for public exposure to contaminants during excavation activities, construction activities would be performed in accordance with all applicable regulatory requirements as discussed in **Section 2.8, "Hazardous Materials."**

The project site's excavated areas could be subject to accumulated groundwater as well as collected rain and snow until the slab-on-grade is built. This accumulated water would need to be removed, and would be pretreated prior to discharge, if necessary. The decanted water would then be discharged into the City sewer system in accordance with DEP regulations, which specify maximum concentrations of pollutants. DEP can also impose project-specific limits, depending on the location of the project and contamination that has been found in nearby areas. Any groundwater discharged into the City's sewer system would meet the applicable limits.

For the 312 Coney Island Avenue project, demolition is expected to occur over approximately one month in the first quarter of 2020. Excavation and foundation work would continue over approximately eight months beginning in the fourth quarter of 2020 and ending in the second quarter of 2021.

Core and Shell (Superstructure)

Construction of the core and shell involves construction of the building's framework, core, and exterior. The superstructure is the building's framework (beams and columns) and floor decks. Construction of the core, or interior structure, includes construction of the building's elevator shafts; vertical risers for mechanical, electrical, and plumbing systems; electrical and mechanical equipment rooms; core stairs; and restroom areas. Construction of the exterior involves the installation of the façade (exterior walls, windows, and cladding and the roof).

Equipment during this phase typically includes air compressors, delivery and concrete trucks, concrete pumps, concrete trowels, welding equipment, and a variety of handheld tools. Temporary construction elevators (hoists) would also be constructed for the delivery of materials and vertical movement of workers when necessary. Superstructure activities would also require the use of mobile cranes, welders, impact wrenches, and a variety of trucks.

For construction of the With-Action condition, superstructure work is anticipated to occur over approximately seven months starting in the third quarter of 2021. The exterior closure work would overlap with the superstructure work and is expected to be complete in the second quarter of 2022. As noted above, during the superstructure work, the sidewalks immediately adjacent to the project site would be closed.

Interior Fit-out and Site Work (MEP, Core Finishes, Fit Out, Open Space)

Interior fit-out activities include the construction of interior partitions, installation of lighting fixtures and interior finishes (i.e., flooring, painting, etc.); mechanical and electrical work, such as the installation of elevators; and lobby finishes. In addition, final cleanup and touchup of the proposed buildings and final building systems (i.e., electrical system, fire alarm, plumbing, etc.) testing and inspections are part of this stage of construction.

Equipment used during interior construction typically includes exterior hoists, compressors, delivery trucks, and a variety of small hand-held tools. This stage of construction is typically the quietest and does not generate fugitive dust since this work occurs within the buildings with the façades substantially complete.

This stage of construction would also include the final finishing of the building and grounds, including landscaping activities. This is also when the construction protection measures (fencing, sidewalk enclosures, bridges, temporary sidewalks, remaining scaffolding, etc.) around the construction site would be removed. This stage of construction would also include punch list completion activities, which are typically small tasks that were not completely finished and project commissioning to ensure compliance with contract requirements.

For the proposed project, this work would begin in the first quarter of 2022 and would continue through the end of the construction period in the first quarter of 2023. Overall, this phase of construction would occur over approximately 12 months.

2.13.4 Assessment of Project Construction

In accordance with the guidelines of the *CEQR Technical Manual*, this preliminary assessment evaluates the effects associated with the proposed actions' construction related activities—including transportation, air quality, and noise—on sensitive receptors located near the area of construction, as well as the construction related effects on the project site's exisiting community facility uses. Hazardous materials are discussed in 2.8, "Hazardous Materials."

As discussed in **Section 2.1, "Land Use, Zoning, and Public Policy,"** the project block contains the Kensington Stables, a horse stable for equestrian activities, a currently vacant property immediately west of the project site that will be the site of the proposed 57 Caton Place mixed-use development, and a City-owned lot that contains several park benches and the off-ramp/landing of the Ocean Parkway pedestrian overpass. The nearest existing residential uses are located to the southwest of the project site, across Caton Place and East 8th Street.

No historic architectural resources are located in the area surrounding the project site, and the project site does not contain archaeological resources. There would be no physical disturbance to the the nearby scenic landmark, Machate Circle. Therefore, construction would not have the potential to affect historic and cultural resources.

Transportation

Construction of the proposed project would generate trips from construction workers traveling to and from the project site as well as from the delivery of materials and equipment, and the removal of debris. Construction activities would occur between 2020 and 2023.

Given the proximity of multiple proximate transit options, it is anticipated that construction workers would primarily take public transportation to the project site with a smaller percentage of construction workers traveling via private auto. Transit service within the study area includes the F and G subway lines (Form Hamilton Parkway Station), and the BM1 (Mill Basin – Downtown/Midtown), BM2 (Canarsie/Spring Creek – Downtown/Midtown), B68 (Coney Island – Windsor Terrace), and B103 (Canarsie – Downtown Brooklyn) bus routes.

Construction activities would be expected to occur for a construction shift of 7 AM to 3:30 PM. For construction workers, typical arrival patterns show that most arrivals (approximately 80 percent) occur during the hour of 6 to 7 AM (the hour before the beginning of a regular day shift), and the same percentage of departure trips occurs during the hour of 3:30 PM to 4:30 PM (at the end of the shift). For trucks, deliveries are usually spread throughout the day but the peak activity (approximately 25 percent) would occur during the 6 to 7 AM hour. This peak construction-related vehicle activity would not coincide with typical peak hours for background traffic.

In addition, as described above, the proposed project would comply with an MPT plan, consistent with DOT requirements. Therefore, it is unlikely that there would be the potential for significant adverse construction-related traffic impacts.

Air Quality

Construction impacts on air quality may occur because of particulate matter (fugitive dust) created by demolition, excavation, earth moving operations, etc., and increased truck traffic to and from the construction site on local roadways or because of temporary road closings. As discussed in the *CEQR Technical Manual,* the determination whether it is sufficient to conduct a qualitative analysis of these emissions or whether a quantitative analysis is required should take into account such factors as the location of the project site in relation to existing residential uses or other sensitive receptors, the intensity of the construction activity, and the extent to which the project incorporates commitments to appropriate emission control measures. These factors are analyzed below, indicating that a qualitative analysis of emissions is sufficient and demonstrates that the proposed project is not anticipated to result in any significant adverse impacts to nearby sensitive receptors.

On-site construction related emissions

For stationary source emissions, the most intense construction activities in terms of air pollutant emissions are typically the demolition, excavation, and foundation stages since it is during these stages that the largest number of large non-road diesel engines would be employed, resulting in the highest levels of air emissions. The other stages of construction, including superstructure, exterior façades, interior finishes and site work, typically result in much lower air emissions since they require fewer pieces of heavy duty diesel equipment. Equipment used in the latter stages of construction generally have small engines and are dispersed vertically throughout the building, resulting in very low concentration increments in adjacent areas. Additionally, the latter stages of construction do not involve soil disturbance activities and therefore would result in significantly lower dust emissions. Interior finishes activities are better shielded from nearby sensitive receptors by the proposed structures themselves.

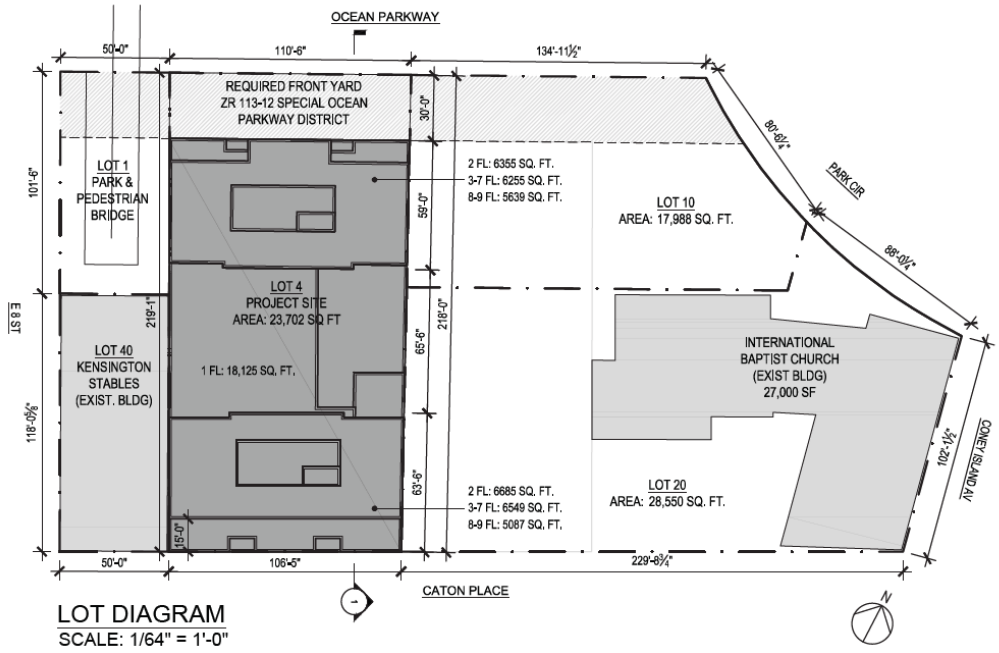
For the proposed project, the overall construction period would be longer than two years; however, the most intense construction activities in terms of air pollutant emissions is anticipated to occur for less than two years (approximately 9 months). Specifically, demolition activities would only occur for one month and excavation and foundation activities would occur for eight months, and would be completed by the third quarter of 2021.

The nearest existing residential uses are located over 200 feet from the project site, across Ocean Parkway to the north and East 8th Street to the west. The nearest sensitive receptor in the future With-Action condition would be the new development at 57 Caton Place, immediately adjacent to the project site. According to the 57 Caton Place EAS, the 57 Caton

Place project would require a 26-month construction schedule.[1] Assuming start of demolition in the first quarter of 2019, the 57 Caton Place EAS projected an anticipated completion date by the first quarter of 2021.[2] However, there is currently a Stop Work Order on the site (Complaint Number 3699847, New York City Department of Buildings), demolition has not yet been completed, and building permits have not yet been issued for excavation, foundations or the new building. Given the delay to the anticipated start of construction for that project, 57 Caton Place would not be fully constructed and occupied until the first quarter of 2022 at the earliest, which is after the most intense construction activities on the project site.

In addition, as depicted in the lot diagram provided as part of the 57 Caton Place EAS (see **Figure 2.13-1**), the development at 57 Caton Place would be constructed to the lot line adjoining the project site. Based on this proposed layout, operable windows would be constructed along the northern and southern facades of the building, not along the eastern façade of the proposed building along that adjoining lot line, and therefore any potential exposure to construction activities on the project site would be substantially reduced.

Figure 2.13-1 57 Caton Place EAS Lot Diagram



Source: 57 Caton Place Rezoning EAS

Note: Proposed development at 57 Caton Place is depicted in dark grey, immediately adjacent to the project site.

[1] 57 Caton Place Rezoning EAS, Page 3

[2] 57 Caton Place Rezoning EAS, Page 3

Off-site construction related emissions

Mobile source emissions typically result from the operation of construction equipment, trucks delivering materials and removing debris, workers' private vehicles, or occasional disruptions in traffic near the construction site. As described above in the Transportation section, it is unlikely that there would be the potential for significant adverse construction-related traffic impacts. Additionally, no traffic lane closures are anticipated as a result of construction activities. Therefore, a more detailed assessment of construction-related mobile source air quality analysis is not warranted, and it is not anticipated that the project construction would result in any significant adverse mobile source air quality impacts.

Emission Reduction Measures

As noted above, the determination whether it is sufficient to conduct a qualitative analysis of construction-period air emissions should take into account several factors, including the extent to which the project incorporates commitments to appropriate emission control measures. To address potential emissions during construction, the proposed project would adhere to the applicable laws, regulations, and building codes in place that focus on clean fuel, dust suppression measures, and idling restrictions for on-road vehicles, and minimization of diesel-powered equipment to the extent practical, specifically:

- Clean Fuel. Ultra-low sulfur diesel (ULSD) would be used for diesel engines throughout the construction site.[3]
- Dust Control. Fugitive dust control plans would be required as part of contract specifications. For example, stabilized truck exit areas would be established for washing off the wheels of all trucks that exit the construction site. Truck routes within the site would be watered as needed to avoid the re-suspension of dust. All trucks hauling loose material would be equipped with tight fitting tailgates and their loads securely covered prior to leaving the site. All measures required by the portion of the *New York City Air Pollution Control Code* regulating construction-related dust emissions would be implemented.
- Restrictions on Vehicle Idling. In addition to adhering to the local law restricting unnecessary idling on roadways, on-site vehicle idle time would also be restricted to three minutes for all equipment and vehicles that are not using their engines to operate a loading, unloading, or processing device (e.g., concrete mixing trucks) or otherwise required for the proper operation of the engine.
- Diesel Equipment Reduction. Construction of the proposed project could minimize the use of diesel engines and use electric engines, to the extent practical. This would reduce the need for on-site generators, and require the use of electric engines in lieu of diesel where practical.

Therefore, due to the factors described above, including the fact that the nearest sensitive receptor would not be constructed and occupied until after the most intensive construction

[3] The Environmental Protection Agency (EPA) required a major reduction in the sulfur content of diesel fuel intended for use in locomotive, marine, and non-road engines and equipment, including construction equipment. As of 2015, the diesel fuel produced by all large refiners, small refiners, and importers must be ULSD fuel. Sulfur levels in non-road diesel fuel are limited to a maximum of 15 parts per million.

activities on the project site, and with the implementation of an emissions control program, a qualitative analysis of emissions is sufficient and demonstrates that the proposed project is not anticipated to result in any significant adverse impacts to nearby sensitive receptors.

Noise

Construction activities have the potential to affect the noise conditions of existing receptors near the proposed project and new receptors that would be introduced during the phased development. Construction noise can vary widely depending on the phase of construction (e.g., demolition, land clearing and excavations, foundation, steel and concrete erection, mechanical and interior fit out) and the specific task equipment and methods being used. The most significant construction noise sources at a construction site are generally the movement of trucks to and from a project site, back-up alarms and equipment such as excavators, hoe rams, drill rigs, pile driving rigs, and cranes. The noisiest phase of construction is typically during demolition, excavation. and foundation work. Interior finishes typically result in lower noise emissions since they require fewer pieces of heavy-duty diesel equipment and since interior finishes activities are better shielded from nearby sensitive receptors by the proposed structures themselves.

As discussed in Section 310 of the Construction chapter of the *CEQR Technical Manual,* "For stationary sources, construction noise, generated by pile driving, truck traffic, blasting, demolition, etc., is generally analyzed in detail only when it affects a sensitive receptor over a long period of time. The determination whether it is sufficient to conduct a qualitative analysis or whether a quantitative analysis is required cannot be made based solely on the duration of the construction period, and should take into account such factors as the location of the project site in relation to existing residential uses or other sensitive receptors, the intensity of the construction activity, and the extent to which the project incorporates commitments to appropriate noise control measures." These factors are assessed below.

For the proposed project, the overall construction period would be approximately 29 months; however, the most intense construction activities in terms of construction noise are anticipated to occur during the first 9 months. In addition, as described above, the nearest existing residential uses are located over 200 feet from the project site across Ocean Parkway to the north and East 8th Street to the west. The nearest sensitive receptor in the future With-Action condition, which would be the new development at 57 Caton Place, would be a new building with alternative means of ventilation and modern windows that perform well to reduce and attenuate exterior noise. In addition, as depicted in the lot diagram provided as part of the 57 Caton Place EAS (see **Figure 2.13-1**) and detailed above, the development at 57 Caton Place would be constructed to the lot line adjoining the project site, and operable windows would not be constructed along the eastern façade of the proposed building along that adjoining lot line. As requirements for light and air would be met along the northern and southern facades of the building, residents at 57 Caton Place would not have windows facing the construction of the proposed action, and therefore interior noise levels would be substantially reduced.

In addition, assuming start of demolition in the first quarter of 2019, the 57 Caton Place EAS projected an anticipated completion date by the first quarter of 2021.[4] However, given the current condition on the site and the delay to the anticipated start of construction for that project (detailed above), 57 Caton Place would not be fully constructed and occupied until the first quarter of 2022 at the earliest, which is after the most intense construction activities on the project site.

Noise from construction activities and some construction equipment is regulated by the New York City Noise Control Code and by the EPA. The New York City Noise Control Code limits construction activities to weekdays between the hours of 7:00 AM and 6:00 PM, requires that a Construction Noise Mitigation Plan be implemented, and sets noise limits for specific pieces of construction equipment. Noise control measures would be described in the Construction Noise Mitigation Plan and could include a variety of source and path controls.

As noted above, the determination whether it is sufficient to conduct a qualitative analysis of construction-period noise should take into account the extent to which the project incorporates commitments to appropriate appropriate noise control measures. The following controls to reduce noise at the source would be implemented to the extent feasible, practical and safe as required by the New York City Noise Code:

- The responsible party would self-certify that all construction tools and equipment have been maintained to not generate excessive or unnecessary noise and that the noise emissions would not exceed the levels specified in the Federal Highway Administration's Roadway Construction Noise Model User's Guide, January, 2006.
- All construction equipment would be equipped with necessary noise reduction equipment including mufflers. All equipment with internal combustion engines would be operated with the doors closed including noise-insulating materials and at the lowest engine speed allowable.
- Where feasible, practical and safe, the use of back-up alarms would be minimized and/or quieter back-up alarms would be installed in accordance with OSHA standards.
- Vehicles would not be allowed to idle more than three minutes in accordance with New York City Administrative Code §24-163.
- The contractor shall utilize a training program to inform workers on methods that can minimize construction noise.
- For impact equipment such as pile drivers and jackhammers, the quietest equipment shall be selected taking into consideration the structural and geotechnical conditions.
- The use of hoe rams shall include the use of acoustic shrouds or acoustic curtains to minimize noise.

The following path noise controls would be implemented to the extent feasible, practical and safe as required by the New York City Noise Code:

- When the DOB regulations require a perimeter barrier or "construction fence" and the site is within 200 feet of a receptor, the barrier shall be constructed in a specific manner (as described in the New York City Noise Code) to provide sufficient sound attenuation.

[4] 57 Caton Place Rezoning EAS, Page 3

Section 3307.7 of the New York City Building Code requires a solid 8-foot wall made out of wood or other suitable material be constructed where a new building is being constructed or a building is being demolished to grade.

- Should noise complaints occur during construction, the contractor shall use path noise control measures such as temporary noise barriers, jersey barriers and/or portable noise enclosures for small equipment.
- In general, the quietest equipment and methods shall be used for excavators, dump trucks, cranes, auger drills and concrete saws to the extent feasible and practical.

Overall, construction of the proposed project would not involve any unusual or exceptional construction activities or practices for a midrise type building in New York City. As noted above, demolition at the site, where some of the noisiest activities would be anticipated, would be limited to the removal of the existing building over a period of one month. Excavation and foundation work would occur over eight months beginning in late 2020. Superstructure construction would occur for seven months following foundation work. With the adherence to existing construction noise regulations and the implementation of a Construction Noise Mitigation Plan, as required by the New York City Noise Code, and due to the factors described above, including the fact that the nearest sensitive receptor would not be constructed and occupied until after the most intensive construction activities on the project site, a qualitative noise analysis is sufficient and demonstrates that the proposed project is not anticipated to result in significant adverse construction noise impacts at the nearest receptors.

Community Facilities

Construction of the proposed project would temporarily effect operations of the existing community facilities on the project site: the International Baptist Church and affiliated International Christian School. These private community facility uses would be displaced for the full period of construction (29 months). However, the applicant is working closely with representatives from the International Baptist Church and International Christian School, who fully support the proposed project. In addition, the church and school have developed a mitigation and temporary relocation plan to ensure continuous operation of these uses throughout the construction period. Therefore, the proposed project is not anticipated to result in significant adverse impacts on the community facility uses.

2.13.5 Conclusion

Construction would occur over an approximately 29-month period, and would adhere to the applicable laws, regulations, and building codes that govern construction in New York City. As detailed in the construction assessment above, the proposed project would not result in significant adverse construction impacts in the key technical areas of historic and cultural resources, hazardous materials, transportation, air quality, noise, and community facilties. Therefore, the proposed project would not result in construction-period significant adverse impacts and no further analysis is warranted.

Appendix A:

Agency Correspondence

Landmarks Preservation Commission

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

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

ENVIRONMENTAL REVIEW

Project number: DEPARTMENT OF CITY PLANNING / LA-CEQR-K
Project: 312 CONEY ISLAND AVENUE
Date Received: 5/7/2019

Properties with no Architectural or Archaeological significance:
1) ADDRESS: OCEAN PARKWAY, BBL: 3053220010
2) ADDRESS: 312 CONEY ISLAND AVENUE, BBL: 3053220020

Comments: LPC designated and S/NR listed Prospect Park in the radius. No adverse impacts anticipated.

Gina Santucci

5/17/2019

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 34217_FSO_GS_05172019.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 / 77DCP670K
Project: 312 CONEY ISLAND AVENUE
Date Received: 6/24/2019

Comments:

The LPC is in receipt of the Historic Resources, Shadows, and Construction Chapters of the EAS dated 6/20/19.

The Historic Resource chapter appears acceptable.

The Construction Chapter should describe potential impacts, if any, to Machate Circle, part of the LPC and S/NR listed Prospect Park scenic landmark.

Regarding the Shadows Chapter, Machate Circle is part of the LPC and S/NR listed Prospect Park scenic landmark circulation system. As the incremental shadows of long duration would occur only during the winter analysis period, there are no concerns.

Gina Santucci

7/22/2019

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 34217_FSO_GS_07222019.docx

NYC Environmental Protection

Vincent Sapienza, P.E.
Commissioner

Angela Licata
Deputy Commissioner of Sustainability

59-17 Junction Blvd.
Flushing, NY 11373

Tel. (718) 595-4398
Fax (718) 595-4422
alicata@dep.nyc.gov

June 23, 2019

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

Re: 312 Coney Island Avenue – Caton Place
Block 5322, Lots 10 and 20
CEQR # 77DCP670K

Dear Ms. Kenny:

The New York City Department of Environmental Protection, Bureau of Sustainability (DEP) has reviewed the June 2019 Environmental Assessment Statement (EAS) and the June 2019 Phase I Environmental Site Assessment (Phase I) prepared by VHB Engineering, Surveying, Landscape Architecture and Geology, P.C. on behalf of 312 Coney Island Avenue LLC (applicant) for the above referenced project. It is our understanding that the applicant is seeking several discretionary actions from the New York City Department of City Planning (DCP) to facilitate the development of a new mixed-use building with a total floor area of approximately 387,465 gross square feet (gsf) including 41,380 gsf of community facility uses, 5,000 gsf of retail, and 309,898 gsf of residential uses, with a proposed 310 dwelling units. The discretionary actions include: a zoning map amendment to rezone the project site, from C8-2 to R8A with a C2-4 commercial overlay; a zoning text amendment to Zoning Resolution Section 113-10 to modify building setback requirements; a zoning text amendment to Zoning Resolution Appendix F to establish a Mandatory Inclusionary Housing Area that is conterminous with the project site; and a waiver of all required accessory off-street parking pursuant to Zoning Resolution Section 74-533. The project site is on the eastern portion of the block bounded by Ocean Parkway to the north, Park Circle to the northeast, Coney Island Avenue to the east, Caton Place to the south, and East 8th Street to the west in the Windsor Terrace neighborhood of Brooklyn Community District 7.

The June 2019 Phase I report revealed that historical on-site and surrounding area land uses consisted of a variety of residential, commercial, and industrial uses including churches, a hotel, residential buildings, storefronts, horse stables, a roller skating rink, a horse track, a bowling alley, a billiards hall, baseball fields, parkland, a parking lot, a wagon shed, a police precinct, a casino, a brewery, an automobile garage, an automobile repair facility, greasing and oils, a filling station, an undertaker, used auto sales, a tire warehouse, wire forming, etc. Based on the age of the subject building, asbestos containing materials, lead

based paints, and polychlorinated biphenyl-containing materials could be present in the on-site structure. Regulatory databases identified 23 spills within 1/8 mile; 19 underground storage tank sites and 42 aboveground storage tank sites within 1/4 mile; and 32 leaking storage tank sites within 1/2 mile of the project site.

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

- DCP should inform the applicant that based on the historical on-site and/or surrounding area land uses, a Phase II Environmental Site Assessment (Phase II) is necessary to adequately identify/characterize the surface and subsurface soils of the subject property. A Phase II Investigative Protocol/Work Plan summarizing the proposed drilling, soil, groundwater, and soil vapor sampling activities should be developed in accordance with the *City Environmental Quality Review Technical Manual* and submitted to DEP for review and approval. The Work Plan should include blueprints and/or site plans displaying the current surface grade and sub-grade elevations and a site map depicting the proposed soil, groundwater, and soil vapor sampling locations. Soil and groundwater samples should be collected and analyzed by a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory for the presence of volatile organic compounds (VOCs) by United States Environmental Protection Agency (EPA) Method 8260, semi-volatile organic compounds by EPA Method 8270, pesticides by EPA Method 8081, polychlorinated biphenyls by EPA Method 8082, and Target Analyte List metals (filtered and unfiltered for groundwater samples). The soil vapor sampling should be conducted in accordance with the NYSDOH October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York. The soil vapor samples should be collected and analyzed by a NYSDOH ELAP certified laboratory for the presence of VOCs by EPA Method TO-15. An Investigative Health and Safety Plan (HASP) should also be submitted to DEP for review and approval.

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

Future correspondence and submittals related to this project should include the following CEQR # **77DCP670K**. If you have any questions, you may contact Mohammad Khaja-Moinuddin at (718) 595-4445.

Sincerely,

Wei Yu
Deputy Director, Hazardous Materials

c: R. Weissbard; M. Khaja-Moinuddin; T. Estesen; M. Wimbish; R. Lucas; O. Abinader – DCP

NYC Environmental Protection

Vincent Sapienza, P.E.
Commissioner

Angela Licata
Deputy Commissioner of Sustainability

59-17 Junction Blvd.
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Tel. (718) 595-4398
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August 29, 2019

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

Re: 312 Coney Island Avenue – Caton Place
Block 5322, Lots 10 and 20
CEQR # 77DCP670K

Dear Ms. Kenny:

The New York City Department of Environmental Protection, Bureau of Sustainability (DEP) has reviewed the July 2019 Phase II Environmental Site Assessment Work Plan (Work Plan) and Health and Safety Plan (HASP) prepared by VHB Engineering, Surveying, Landscape Architecture and Geology, P.C. on behalf of 312 Coney Island Avenue LLC (applicant) for the above referenced project. It is our understanding that the applicant is seeking several discretionary actions from the New York City Department of City Planning (DCP) to facilitate the development of a new mixed-use building with a total floor area of approximately 387,465 gross square feet (gsf) including 41,380 gsf of community facility uses, 5,000 gsf of retail, and 309,898 gsf of residential uses, with a proposed 310 dwelling units. The discretionary actions include: a zoning map amendment to rezone the project site, from C8-2 to R8A with a C2-4 commercial overlay; a zoning text amendment to Zoning Resolution Section 113-10 to modify building setback requirements; a zoning text amendment to Zoning Resolution Appendix F to establish a Mandatory Inclusionary Housing Area that is conterminous with the project site; and a waiver of all required accessory off-street parking pursuant to Zoning Resolution Section 74-533. The project site is on the eastern portion of the block bounded by Ocean Parkway to the north, Park Circle to the northeast, Coney Island Avenue to the east, Caton Place to the south, and East 8th Street to the west in the Windsor Terrace neighborhood of Brooklyn Community District 7.

The July 2019 Work Plan proposes to advance five (5) soil borings. Two soil samples will be collected per boring location. One soil sample will be collected from 0 to 2 feet below grade surface (bgs), or just below the grass mat/asphalt pavement and one deeper sample will be collected at the anticipated excavation depth of 16 feet bgs or at refusal at each soil boring location (whichever encountered first). Sample depth intervals may be adjusted should any soils be observed that exhibit suspect characteristics. In addition, up to four (4) bottom sediment samples may be collected from the storm drains present at the subject

property. If the abandoned-in-place underground storage tank (UST) is identified during the geophysical survey, two (2) soil borings will be advanced adjacent to the UST and two soil samples will be collected from each boring location. One soil sample will be collected from 0 to 2 feet bgs, or just below the existing building slab and one deeper sample just below the base of the tank invert depth, or at refusal, if encountered will be collected at each boring location surrounding the UST (if present). Should soils be observed that exhibit suspect characteristics, an additional (third) soil sample will be collected, where appropriate, from the boring location and will be submitted for analysis. Groundwater is anticipated to be encountered at a depth of approximately 48 feet bgs. Three (3) temporary groundwater monitoring wells will be installed and a groundwater sample will be collected from each monitoring well. Soil and groundwater samples will be analyzed for Target Compound List (TCL) volatile organic compounds (VOCs) by United States Environmental Protection Agency (EPA) Method 8260, TCL semi volatile organic compounds by EPA Method 8270, pesticides by EPA Method 8081, polychlorinated biphenyls by EPA Method 8082, and Target Analyte List metals (total and dissolved for groundwater samples) by EPA Methods 6010 and 7471. Four (4) soil vapor samples will be collected and analyzed for VOCs by EPA Method TO-15.

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

- DCP should instruct the applicant that the subsurface soil samples (second soil sample from each boring) from the 5 soil borings should be collected between 2 feet bgs and the maximum proposed excavation depth (based on visual/olfactory evidence of impacts and/or elevated soil screening readings obtained using accepted field instruments). If no evidence or elevated readings are noted during borehole advancement, the subsurface soil sample should be collected from the two foot interval below the proposed maximum excavation depth (16-18 feet bgs) and/or the groundwater interface (whichever is encountered first).

- DCP should instruct the applicant that the proposed soil, groundwater and soil vapor sampling locations should be individually labeled on Figure 3 (e.g., SB-1, GW-2, SV-1 etc.)

DEP finds the July 2019 Work Plan and HASP for the proposed project acceptable, as long as the aforementioned information is incorporated into the Work Plan. DCP should inform the applicant that upon completion of the investigation activities, the applicant should submit a detailed Phase II report to DEP for review and approval. The report should include, at a minimum, an executive summary, narrative of the field activities, laboratory data and conclusions, comparison of soil, groundwater and soil vapor analytical results (i.e., New York State Department of Environmental Conservation (NYSDEC) 6 NYCRR Part 375, NYSDEC Water Quality Regulations, and the New York State Department of Health's October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York), updated site plans depicting sample locations, boring logs, and remedial recommendations, if warranted.

Future correspondence and submittals related to this project should include the following CEQR # **77DCP670K**. If you have any questions, you may contact Mohammad Khaja-Moinuddin at (718) 595-4445.

Appendix B:

Jamaica Bay Watershed Protection Plan Form

Print Form

Jamaica Bay Watershed Protection Plan
Project Tracking Form

The Jamaica Bay Watershed Protection Plan, developed pursuant to Local Law 71 of 2005, mandates that the New York City Department of Environmental Protection (DEP) work with the Mayor's Office of Environmental Coordination (MOEC) to review and track proposed development projects in the Jamaica Bay Watershed (http://www.nyc.gov/html/oec/downloads/pdf/ceqr/Jamaica_Bay_Watershed_Map.jpg) that are subject to CEQR in order to monitor growth and trends. If a project is located in the Jamaica Bay Watershed, (the applicant should complete this form and submit it to DEP and MOEC. This form must be updated with any project modifications and resubmitted to DEP and MOEC.

The information below will be used for tracking purposes only. It is not intended to indicate whether further CEQR analysis is needed to substitute for the guidance offered in the relevant chapters of the CEQR Technical Manual.

A. GENERAL PROJECT INFORMATION

1. CEQR Number: ☐ 1a. Modification ☐
2. Project Name: 312 Coney Island Ave- Caton Place
3. Project Description:

The applicant is seeking a zoning map amendment to rezone the project site, lots 10 and 20 on Brooklyn Block 5322, from C8-2 to R8A/C2-4 to facilitate the development of a new mixed-use commercial and residential building that maintains and improves existing community facilities.

4. Project Sponsor: 312 Coney Island Avenue LLC
5. Required approvals: Zoning map amendment, zoning text amendment (extend MIH to OP [ZR 113-10]
6. Project schedule (build year and construction schedule): 2023

B. PROJECT LOCATION:

1. Street address: 11 Ocean Parkway (aka 312 Coney Island Avenue)
2. Tax block(s): 5322 Tax Lot(s): 10, 20
3. Identify existing land use and zoning on the project site: Community Facility, C8-2
4. Identify proposed land use and zoning on the project site: Community Facility/Commercial/Resid
5. Identify land use of adjacent sites (include any open space): Commercial, Residential, Open Space
6. Describe existing density on the project site and the proposed density:

Existing Condition	Proposed Condition
1 FAR	7.2 FAR

7. Is project within 100 or 500 year floodplain (specify)? ☐ **100 Year** ☐ **500 Year** ☒ **No**

C. GROUND AND GROUNDWATER

1. Total area of in-ground disturbance, if any (in square feet): 33,400
2. Will soil be removed (if so, what is the volume in cubic yards)? 400,800
3. Subsurface soil classification:
   (per the New York City Soil and Water Conservation Board): UFA- Flatbush complex
4. If project would change site grade, provide land contours (**attach** map showing existing in 1' contours and proposed in 1' contours).
5. Will groundwater be used (list volumes/rates)? ☐ **Yes** ☒ **No**

   Volumes: Rates:
6. Will project involve dewatering (list volumes/rates)? ☐ **Yes** ☒ **No**

   Volumes: Rates:
7. Describe site elevation above seasonal high groundwater:

   The site has an elevation of 52 feet above mean sea level (amsl); depth to groundwater beneath the site estimated to be approximately 43 feet below grade surface (bgs).

D. HABITAT

1. Will vegetation be removed, particularly native vegetation? ☒ **Yes** ☐ **No**

   6 trees would be removed from private property ranging from 8" to 40" caliper, along with landscaped groundcover. Trees would be replanted in accordance with all applicable regulations.

   If YES,
   - **Attach** a detailed list (species, size and location on site) of vegetation to be removed (including trees >2" caliper, shrubs, understory planting and groundcover).
   - **List** species to remain on site.
   - **Provide** a detailed list (species and sizes) of proposed landscape restoration plan (including any wetland restoration plans).
2. Is the site used or inhabited by any rare, threatened or endangered species? ☐ **Yes** ☒ **No**
3. Will the project affect habitat characteristics? ☐ **Yes** ☒ **No**

   If YES, describe existing wildlife use and habitat classification using "Ecological Communities of New York State." at http://www.dec.ny.gov/animals/29392.html.
4. Will pesticides, rodenticides or herbicides be used during construction? ☐ **Yes** ☒ **No**

   If YES, estimate quantity, area and duration of application.
5. Will additional lighting be installed? ☒ **Yes** ☐ **No**

   If YES and near existing open space or natural areas, what measures would be taken to reduce light penetration into these areas?

   Light pollution reducing lighting fixtures, assemblies, operations and controls.

E. SURFACE COVERAGE AND CHARACTERISTICS

(describe the following for both the existing and proposed condition):

	Existing Condition	Proposed Condition
1. ***Surface area:***		
Roof:	11,100 sf	35,638 sf
Pavement/walkway:	20,334 sf	0
Grass/softscape:	12,004 sf	7,800 sf
Other (describe):		
2. ***Wetland*** (regulated or non-regulated) area and classification:	0 sf	0 sf
3. ***Water surface area:***	0 sf	0 sf

4. ***Stormwater management*** (describe):

Existing – how is the site drained?

Combined Sewer

Proposed – describe, including any infrastructure improvements necessary off-site:

Combined Sewer