47 Hall Street

Environmental Assessment Statement

PREPARED FOR

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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 47 Hall Street

1. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
25DCP009K	
ULURP REFERENCE NUMBER (if applicable) 250050ZMK 250051ZRK 250052ZSK	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)

2a. *Lead Agency Information*			**2b. *Applicant Information***		
NAME OF LEAD AGENCY New York City Department of City Planning			NAME OF APPLICANT RXR 9-47 Hall Street Owner LLC		
NAME OF LEAD AGENCY CONTACT PERSON Stephanie Shellooe			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON Neelima Panoli		
ADDRESS 120 Broadway, Fl. 31			ADDRESS 75 Rockefeller Plaza, Suite 1400		
CITY New York	STATE NY	ZIP 10271	CITY New York	STATE NY	ZIP 10019
TELEPHONE 212-720-3228	EMAIL sshellooe@planning.nyc.gov		TELEPHONE 212-444-3823	EMAIL NPanoli@rxr.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): 6 NYCRR 617.4 (b)(6)(vi)

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

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

4. *Project Description*

The Applicant is seeking a zoning map amendment and zoning text amendment located at 47 Hall Street (the Development Site; Brooklyn Block 1876, Lot 1), collectively the Proposed Actions, to facilitate the Proposed Project in the Wallabout neighborhood of Brooklyn Community District (CD) 2.

The Development Site is a full block with a total lot area of approximately 113,833 square feet (sf). It is improved with 10 existing former manufacturing buildings that were constructed from 1889 to 1927, containing a total of approximately 589,228 gross square feet (gsf; 532,258 zoning square feet [zsf]; FAR of 4.68), and collectively exceeding the permitted FAR of 2.0 for commercial and industrial uses within the underlying M1-2 district. Despite substantial renovation efforts undertaken by the Applicant in 2016, substantially all the property has remained vacant due to challenges with the post-COVID commercial and office market. Portions of the Development Site were recently licensed by the NYC Health and Hospitals Corporation to temporarily operate as a Humanitarian Emergency Response and Relief Center (HERRC).

The Applicant's Proposed Project would transform the Development Site into an active mixed-use campus, introducing new residential uses with affordable housing, a variety of commercial spaces including ground-floor retail to activate street frontages, a parking facility, and a self-storage facility. The Applicant would construct a new 21-story mixed-use residential and commercial building at the site of two currently existing buildings that are planned for demolition; convert one building to residential use with enclosed accessory parking; and renovate and re-tenant the remaining seven existing buildings with a mix of commercial office, retail, self-storage, and/or "maker" space. In total, the Proposed Project would contain approximately 933,422 gsf (816,908 zsf), including approximately 590,147 gsf (536,170 zsf) of residential floor area and 307,383 gsf (280,738 zsf) of commercial floor area. The Proposed Project would provide up to 611 dwelling units (DUs), including approximately 153 to 183 permanently affordable housing units pursuant to applicable requirements of the City's Mandatory Inclusionary Housing (MIH) program, and approximately 60 accessory parking spaces.

Project Location

BOROUGH Brooklyn	COMMUNITY DISTRICT(S) 2	STREET ADDRESS 47 Hall Street
TAX BLOCK(S) AND LOT(S) Block 1876, Lot 1		ZIP CODE 11205
DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS The block bounded by Flushing Avenue, Ryerson Street, Park Avenue, and Hall Street		
EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY M1-2		ZONING SECTIONAL MAP NUMBER 12d

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

***Board of Standards and Appeals*:** ☐ YES ☒ NO

☐ VARIANCE (use)

☐ VARIANCE (bulk)

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

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

***Department of Environmental Protection*:** ☐ YES ☒ NO ☐ Cogeneration Facility ☐ Title V Permit

Other City Approvals Subject to CEQR (check all that apply)

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

Other City Approvals Not Subject to CEQR (check all that apply)

☐ PERMITS FROM DOT'S OFFICE OF CONSTRUCTION MITIGATION AND COORDINATION (OCMC)	☐ LANDMARKS PRESERVATION COMMISSION APPROVAL
	☐ OTHER, explain:

***State or Federal Actions/Approvals/Funding*:** ☐ YES ☒ NO If "yes," specify:

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.): 113,833	Waterbody area (sq. ft.) and type: N/A
Roads, buildings, and other paved surfaces (sq. ft.): 113,833	Other, describe (sq. ft.): N/A

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): 933,422

NUMBER OF BUILDINGS: Nine total, including construction of a new building where two are currently located, conversion to residential of another existing building and renovations to the remaining seven buildings

GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): Building A: 420,784 gsf; Building B: 217,950 gsf; Building C: 98,922 gsf; Building D: 61,552 gsf; Building E: 2,993 gsf; Building F: 55,354 gsf; Building G: 16,586 gsf; Building H: 21,777 gsf; Building I: 37,504 gsf

HEIGHT OF EACH BUILDING (ft.): Building A: 245'; Building B: 122'-6"; Building C: 118'-8"; Building D: 116'-7"; Building E: 10'-4"; Building F: 101'-7"; Building G: 40'-1"; Building H: 65'-1"; Building I: 65'-1"

NUMBER OF STORIES OF EACH BUILDING: Building A: 21-stories; Building B: 9-stories; Building C: 9-stories; Building D: 9-stories; Building E: 1-story; Building F: 8-stories; Building G: 3-stories; Building H: 5-stories; Building I: 5-stories

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: 113,833

The total square feet not owned or controlled by the applicant: 0

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: 30,880 sq. ft. (width x length) VOLUME OF DISTURBANCE: 105,014 cubic ft. (width x length x depth)

AREA OF PERMANENT DISTURBANCE: 25,608 sq. ft. (width x length)

8. *Analysis Year* CEQR Technical Manual Chapter 2

ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2030

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: Over 24 months

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

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: The 2030 Build Year accounts for the anticipated expiration of the current HERRC license as well as the anticipated durations of new construction, gut renovation, and conversion at the Development SIte. It is assumed that the HERRC license would be terminated in 2025 upon expiration of the initial 18-month term. Beginning in 2026 following termination of the HERRC license, construction of the Proposed Project is anticipated to consist of a demolition stage of approximately 3 months (existing Buildings A and J would be demolished), followed by the construction of the new Building A and the concurrent interior renovation of the remaining buildings, anticipated to occur over an approximately 33-month period. See EAS Part II: Supplemental Analyses for more detail.

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

☒ RESIDENTIAL ☒ MANUFACTURING ☒ COMMERCIAL ☒ PARK/FOREST/OPEN SPACE ☒ OTHER, specify: Public Facility/ Institution

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			Multi-Family Elevator	+Multi-Family Elevator
No. of dwelling units			611	+611
No. of low- to moderate-income units			153-183	+153-183
Gross floor area (sq. ft.)			590,147	+590,147
Commercial	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Describe type (retail, office, other)	Office, Retail (Vacant)	Office, Retail, Use Group 11, Self-Storage	Office, Retail, Use Group 11, Self-Storage	+Office, Retail, Use Group 11, Self-Storage
Gross floor area (sq. ft.)	14,901	589,228	307,383	-281,845
Manufacturing/Industrial	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Type of use				
Gross floor area (sq. ft.)				
Open storage area (sq. ft.)				
If any unenclosed activities, specify:				
Community Facility	☒ YES ☐ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Type	HERRC Shelter Space			
Gross floor area (sq. ft.)	574,327			
Vacant Land	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:				
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):				
Other Land Uses	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:				
PARKING				
Garages	☐ YES ☒ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If "yes," specify the following:				
No. of public spaces			0	
No. of accessory spaces			60	+60
Operating hours			24/7	
Attended or non-attended			Attended	
Lots	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☐ NO	
If "yes," specify the following:				
No. of public spaces				
No. of accessory spaces				
Operating hours				
Other (includes street parking)	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	
If "yes," describe:				
POPULATION				
Residents	☐ YES ☒ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If "yes," specify number:			1,240	+1,240

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
Briefly explain how the number of residents was calculated:	Based on 2020 Census data for average persons per household (2.03 p/hh) in Brooklyn Community District 2			
Businesses	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
No. and type	HERRC Shelter, Office	Office, Retail, Self-Storage, Use Group 11	Office, Retail, Self-Storage, Use Group 11	
No. and type of workers by business	418	532	575	43
No. and type of non-residents who are not workers				
Briefly explain how the number of businesses was calculated:	Worker population assumes: one worker per 250 sf of office space; three workers per 1,000 sf of retail space; one worker per 15,000 sf of light industrial (storage) space; one worker per 25 DUs; and one worker per 50 attended parking spaces. Existing worker population (418) provided by the Applicant, and primarily comprises HERRC shelter employees.			
Other (students, visitors, concert-goers, *etc.*)	☒ YES ☐ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If any, specify type and number:				
Briefly explain how the number was calculated:	The number of individuals/families to be accommodated at the existing HERRC shelter at any point is determined by the City based on the need. It should be noted that the entire HERRC has the capacity to house up to approximately 3,540 individuals.			
ZONING				
Zoning classification	M1-2	M1-2	M1-6A/R8; M1-5	M1-2 to M1-6A/R8; M1-5
Maximum amount of floor area that can be developed	R: 0 sf C: 227,666 sf CF: 546,398 sf M: 227,666 sf	R: 0 sf C: 227,666 sf CF: 0 SF M: 227,666 sf	R: 654,948 sf C: 842,060 sf CF: 739,914 sf M: 842,060 sf	R: +654,948 sf C: +614,394 sf CF: +739,914 sf M: +614,394 sf
Predominant land use and zoning classifications within land use study area(s) or a 400 ft. radius of proposed project	Land Use:Light Industrial; Commercial; Public Facilities & Institutions; Residential; Mixed Residential & Commercial; Open Space; Parking Facilities; Vacant Land Zoning: M1-2, M2-1, M3-1, R5B, R6B	Land Use:Light Industrial; Commercial; Public Facilities & Institutions; Residential; Mixed Residential & Commercial; Open Space; Parking Facilities; Vacant Land Zoning: M1-2, M2-1, M3-1, R5B, R6B	Land Use:Light Industrial; Commercial; Public Facilities & Institutions; Residential; Mixed Residential & Commercial; Open Space; Parking Facilities; Vacant Land Zoning: M1-6/R8, M1-5) M1-2, M2-1, M3-1, R5B, R6B	Land Use: New Commercial, Mixed Residential & Commercial Zoning: New M1-6/R8 and M1-5 districts
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.				

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 Section 2		
(e) Is the project a large, publicly sponsored project?	☐	☒
o If "yes," complete a PlaNYC assessment and attach.		
(f) Is any part of the directly affected area within the City's Waterfront Revitalization Program boundaries?	☒	☐
o If "yes," complete the Consistency Assessment Form.		
2. *SOCIOECONOMIC CONDITIONS*: CEQR Technical Manual Chapter 5		
(a) Would the proposed project:		
o Generate a net increase of 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.		
o Directly displace 500 or more residents?	☐	☒
▪ If "yes," answer questions 2(b)(i), 2(b)(ii), and 2(b)(iv) below.		
o Directly displace more than 100 employees?	☐	☒
▪ If "yes," answer questions under 2(b)(iii) and 2(b)(iv) below.		
o 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		
o If more than 500 residents would be displaced, would these residents represent more than 5% of the primary study area population?	☐	☐
o 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		
o Would expected average incomes of the new population exceed the average incomes of study area populations?	☒	☐
o 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?	☐	☒
o 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		
o 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?	☐	☐
o Is any category of business to be displaced the subject of other regulations or publicly adopted plans to preserve, enhance, or otherwise protect it?	☐	☐

	YES	NO
iv. Indirect Business Displacement		
o Would the project potentially introduce trends that make it difficult for businesses to remain in the area?	☐	☒
o 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		
o Would the project significantly affect business conditions in any industry or any category of businesses within or outside the study area?	☐	☐
o 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		
o 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. Early Childhood Programs		
o Would the project result in 20 or more eligible children under age 6, based on the number of low or low/moderate income residential units? (See Table 6-1 in Chapter 6)	☒	☐
o If "yes," would the project result in a collective utilization rate of the Early Childhood Programs in the study area that is greater than 100 percent?	☐	☒
o If "yes," would the project increase the collective utilization rate by 5 percent or more from the No-Action scenario?	☐	☒
ii. Public Schools		
o Would the project result in 50 or more elementary or middle school students, or 150 or more high school students based on number of residential units? (See Table 6-1 in Chapter 6)	☐	☒
o If "yes," would the project result in a utilization rate of the elementary or middle schools that is equal to or greater than 100 percent?	☐	☐
o If "yes," would the project generate 100 or more elementary or middle school students past the 100% utilization rate?	☐	☐
o If "yes," would the project result in a utilization rate of the high schools that is equal to or greater than 100 percent?	☐	☐
o If "yes," would the project increase the high school utilization rate by 5 percent or more from the No-Action scenario?	☐	☐
iii. Libraries		
o Would the project result in a 5 percent or more increase in the ratio of residential units to library branches? (See Table 6-1 in Chapter 6)	☐	☒
o If "yes," would the project increase the study area population by 5 percent or more from the No-Action levels?	☐	☐
o If "yes," would the additional population impair the delivery of library services in the study area?	☐	☐
iv. Health Care Facilities		
o Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
o If "yes," would the project affect the operation of health care facilities in the area?	☐	☐
v. Fire and Police Protection		
o Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
o 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) Would the project generate more than 200 additional residents or 500 additional employees?	☒	☐
5. *SHADOWS*: CEQR Technical Manual Chapter 8		
(a) Would the proposed project result in a net height increase of any structure of 50 feet or more?	☒	☐
(b) Would the proposed project result in any increase in structure height and be located adjacent to or across the street from a sunlight-sensitive resource?	☒	☐
(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 Section 6		
6. *HISTORIC AND CULTURAL RESOURCES*: CEQR Technical Manual Chapter 9		

	YES	NO
(a) Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; that is listed or eligible for listing on the New York State or National Register of Historic Places; or that is within a designated or eligible New York City, New York State or National Register Historic District? (See the GIS System for Archaeology and National Register to confirm)	☒	☐
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	☐	☒
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting information on whether the proposed project would potentially affect any architectural or archeological resources. See Section 7		
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. See Section 8		
8. *NATURAL RESOURCES*: CEQR Technical Manual Chapter 11		
(a) Does the proposed project site or a site adjacent to the project contain natural resources as defined in Section 100 of Chapter 11?	☐	☒
o If "yes," list the resources and attach supporting information on whether the project would affect any of these resources.		
(b) Is any part of the directly affected area within the Jamaica Bay Watershed?	☐	☒
o If "yes," complete the Jamaica Bay Watershed Protection Plan Project Tracking Form and submit according to its instructions.		
9. *HAZARDOUS MATERIALS*: CEQR Technical Manual Chapter 12		
(a) Would the proposed project allow commercial or residential uses in an area that is currently, or was historically, a manufacturing area that involved hazardous materials?	☐	☒
(b) Would the proposed project introduce new activities or processes using hazardous materials and increase the risk of human or environmental exposure?	☐	☒
(c) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to hazardous materials that preclude the potential for significant adverse impacts?	☐	☒
(d) Would the project require soil disturbance in a manufacturing area or any development on or near a manufacturing area or existing/historic facilities listed in the Hazardous Materials Appendix (including nonconforming uses)?	☐	☒
(e) Would the project result in the development of a site where there is reason to suspect the presence of hazardous materials, contamination, illegal dumping or fill, or fill material of unknown origin?	☐	☒
(f) Would the project result in development on or near a site that has or had underground and/or aboveground storage tanks (*e.g.*, gas stations, oil storage facilities, heating oil storage)?	☒	☐
(g) Would the project result in renovation of interior existing space on a site with the potential for compromised air quality; vapor intrusion from either on-site or off-site sources; or the presence of asbestos, PCBs, mercury or lead-based paint?	☐	☒
(h) Would the project result in development on or near a site with potential hazardous materials issues such as government-listed voluntary cleanup/brownfield site, current or former power generation/transmission facilities, coal gasification or gas storage sites, railroad tracks or rights-of-way, or municipal incinerators?	☐	☒
(i) Has a Phase I Environmental Site Assessment been performed for the site?	☒	☐
o If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: Fuel oil fill port indicating possible UST; see Section 9	☒	☐
(j) Based on the Phase I Assessment, is a Phase II Investigation needed? See Section 9	☒	☐
10. *WATER AND SEWER INFRASTRUCTURE*: CEQR Technical Manual Chapter 13		
(a) Would the project result in water demand of more than one million gallons per day?	☐	☒
(b) If the proposed project located in a combined sewer area, would it result in at least 1,000 residential units or 250,000 square feet or more of commercial space in Manhattan, or at least 400 residential units or 150,000 square feet or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens?	☒	☐
(c) If the proposed project located in a separately sewered area, would it result in the same or greater development than 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?	☐	☒

	YES	NO
(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. See Section 10		
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): 41,509		
o Would the proposed project have the potential to generate 100,000 pounds (50 tons) or more of solid waste per week?	☐	☒
(b) Would the proposed project involve a reduction in capacity at a solid waste management facility used for refuse or recyclables generated within the City?	☐	☒
o 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): 268,907,364 MBTU		
(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:		
o Would the proposed project result in 50 or more Passenger Car Equivalents (PCEs) per project peak hour?	☐	☒
If "yes," would the proposed project result in 50 or more vehicle trips per project peak hour at any given intersection? ***It should be noted that the lead agency may require further analysis of intersections of concern even when a project generates fewer than 50 vehicles in the peak hour. See Subsection 313 of Chapter 16 for more information.*	☐	☐
o Would the proposed project result in more than 200 subway/rail, bus trips, or 50 Citywide Ferry Service ferry trips per project peak hour?	☐	☒
If "yes," would the proposed project result, per project peak hour, in 50 or more bus trips on a single line (in one direction), 200 subway/rail trips per station or line, or 25 or more Citywide Ferry Service ferry trips on a single route (in one direction), or 50 or more passengers at a Citywide Ferry Service landing?	☐	☐
o Would the proposed project result in more than 200 pedestrian trips per project peak hour?	☒	☐
If "yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, bus stop, or Citywide Ferry Service landing?	☒	☐
14. *AIR QUALITY*: CEQR Technical Manual Chapter 17		
(a) *Mobile Sources*: Would the proposed project result in the conditions outlined in Section 210 in Chapter 17?	☐	☒
(b) *Stationary Sources*: Would the proposed project result in the conditions outlined in Section 220 in Chapter 17?	☒	☐
o If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in Chapter 17? (Attach graph as needed) See Section 11	☐	☒
(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. See Part II		
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?	☐	☒
o 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?	☒	☐

	YES	NO
(b) Would the proposed project introduce new or additional receptors (see Section 114 in Chapter 19) near heavily trafficked roadways, within one horizontal mile of an existing or proposed flight path, or within 1,500 feet of an existing or proposed rail line with a direct line of site to that rail line?	☒	☐
(c) Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise?	☐	☒
(d) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?	☐	☒
(e) If "yes" to any of the above, conduct the appropriate analyses and attach any supporting documentation. See Section 12		
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.		
18. *NEIGHBORHOOD CHARACTER*: CEQR Technical Manual Chapter 21		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Open Space; Historic and Cultural Resources; Urban Design and Visual Resources; Shadows; Transportation; Noise?	☒	☐
(b) If "yes," explain why an assessment of neighborhood character is or is not warranted based on the guidance in Chapter 21, "Neighborhood Character." Attach a preliminary analysis, if necessary.		
19. *CONSTRUCTION*: CEQR Technical Manual Chapter 22		
(a) Would the project's construction activities involve:		
o Construction activities lasting longer than two years?	☒	☐
o Construction activities within a Central Business District or along an arterial highway or major thoroughfare?	☐	☒
o Closing, narrowing, or otherwise impeding traffic, transit, or pedestrian elements (roadways, parking spaces, bicycle routes, sidewalks, crosswalks, corners, *etc.*)?	☐	☒
o Construction of multiple buildings where there is a potential for on-site receptors on buildings completed before the final build-out?	☐	☒
o The operation of several pieces of diesel equipment in a single location at peak construction?	☐	☒
o Closure of a community facility or disruption in its services?	☐	☒
o Activities within 400 feet of a historic or cultural resource?	☒	☐
o Disturbance of a site containing or adjacent to a site containing natural resources?	☐	☒
o Construction on multiple development sites in the same geographic area, such that there is the potential for several construction timelines to overlap or last for more than two years overall?	☐	☒
(b) If any boxes are checked "yes," explain why a preliminary construction assessment is or is not warranted based on the guidance in Chapter 22, "Construction." It should be noted that the nature and extent of any commitment to use the Best Available Technology for construction equipment or Best Management Practices for construction activities should be considered when making this determination.		
See EAS Part II: Supplemental Analyses		

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
Jason Diaz, VHB	Jason Diaz	1/17/2025

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

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

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

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

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

2. Are there any aspects of the project relevant to the determination of whether the project may have a significant impact on the environment, such as combined or cumulative impacts, that were not fully covered by other responses and supporting materials? ☐ ☒

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

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

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

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

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

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

TITLE	LEAD AGENCY
Deputy Director, Environmental Assessment and Review Division	Department of City Planning on behalf of the City Planning Commission
NAME	DATE
Evren Ulker-Kacar, AICP, Deputy Director	January 17, 2025

SIGNATURE 

NEGATIVE DECLARATION

Statement of No Significant Effect

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

Reasons Supporting this Determination

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

Land Use, Zoning, and Public Policy

A detailed analysis of land use, zoning, and public policy is included in the EAS. The Applicant, RXR 9-47 Hall Street Owner, LLC, is seeking a zoning map amendment and a zoning text amendment affecting Block 1876, Lot 1 (the "Affected Area" or "Development Site") f at 47 Hall Street in the Wallabout neighborhood in Brooklyn Community District (CD) 2. Specifically, the Proposed Actions would rezone the Development Site from M1-2 to M1-5 and M1-6A/R8 (MX-27) districts, and also map a mandatory inclusionary housing (MIH) area over the M1-6A/R8 portion of the Development Site and amend section 123-90 (Special Mixed Use Districts specified) to facilitate the redevelopment of Applicant-owned Development Site into an active mixed-use campus, introducing new residential uses with affordable housing, a variety of commercial spaces including ground-floor retail to activate the street frontages, a parking facility, and a self-storage facility (the "Proposed Project"). The Proposed Project would consist of nine buildings (one new building, one existing building to be converted to residential use, and seven existing buildings to be renovated and reoccupied) with a total of 933,422 gross square feet (gsf), and would provide 611 total dwelling units (DUs), including 153 to 183 permanently affordable housing units pursuant to applicable requirements of the City's MIH program and up to 60 accessory parking spaces. The Affected Area is located within the Coastal Zone Boundary, and the Proposed Actions would be consistent with the policies set forth in the New York City Waterfront Revitalization Program (WRP# 23-216). The Proposed Actions would result in a change in land use and zoning, including the introduction of a mixed residential uses to a commercial and industrial area, however, the change serves as a transition area between the neighboring Navy Yard and adjacent residential uses within the Wallabout neighborhood. Overall, the Proposed Actions would facilitate the development of new housing opportunities while preserving existing commercial uses that are compatible with uses found within the study area. In addition, the Proposed Project would be consistent with public policies such as PlaNYC, the New York City Landmarks Laws, the Housing Blueprint, the Waterfront Revitalization Program, the Brooklyn Navy Yard IBZ, and the Green Economy Action Plan. Therefore, the Proposed Actions would not result in any significant adverse impacts to land use, zoning, or public policy.

Socioeconomic Conditions

A detailed analysis related to socioeconomic conditions is included in this EAS. The Proposed Actions would not result in the direct displacement of any residents or businesses or in adverse effects on specific industries or indirect business displacement. With respect to potential indirect residential displacement, the Proposed Actions would spur development of both affordable and market-rate housing units. The estimated weighted average incomes of the new population are expected to be higher than the average incomes of the study area populations. However, the estimated new population would represent an increase of approximately 2.7 percent which would not be expected to introduce or accelerate a trend that would potentially lead to the displacement of vulnerable populations or create a significant indirect residential displacement adverse impact. Therefore, the Proposed Actions would not result in a significant adverse impact related to socioeconomic conditions.

Community Facilities and Services

A detailed analysis related to community facilities and services is included in this EAS. The Proposed Actions would not directly affect any community facilities, or result in an indirect effect (as a result of increased residential population) to public schools, libraries, police, fire or medical services. In the With-Action condition, childcare facilities in the study area would operate with a surplus of 529 seats and would operate under capacity at 62.3 percent utilization, an increase of 2.3 percent utilization over the No-Action condition. Since the future With-Action condition collective utilization rate would not exceed 100 percent and would result in an increase of less than 5 percentage points, the Proposed Actions would not result in significant adverse impacts to childcare facilities. Therefore, the Proposed Actions would not result in a significant adverse impact related to community facilities and services.

Open Space

A detailed analysis related to open space is included in this EAS. Under the With-Action condition, the total Open Space Ratio (OSR) for the residential population would decrease by 2.6 percent compared to the No-Action condition OSR: 0.656 to 0.639 acres per 1,000 residents. The open space study area would continue to have OSRs below the City guideline of 2.50 acres per 1,000 residents and below the citywide median of 1.50 acres per 1,000 residents. The passive and active OSRs would also decrease by 2.6 percent each. Additionally, the existing open space resources located within a half mile from the Development Site were not included in the quantitative analysis as they are located outside the open space study area (such as the Fort Greene Park, which is a major regional resource that provides 30.2 acres of passive and active space and is rich in amenities) but would have the capacity to serve the new residents from the Development Site. While the study area is below the median OSR and exceeds the percent change that signifies a possible adverse total and active open space impact, the Proposed Actions would have minimal effects on the OSR for residents in the study area. The Affected Area is within the Walk-to-a-Park service area. The Proposed Project is located in an area where the existing open space resources generally have low to moderate utilization and are in good or fair condition. Therefore, the Proposed Actions would not result in any significant adverse impacts on open space resources.

Shadows

A detailed analysis related to shadows is included in this EAS. Development resulting from the Proposed Actions would cause incremental shadows to reach one open space resource, Steuben Playground. A detailed analysis of shadows on Steuben Playground found that project-generated incremental shadows would reach Steuben Playground in the late afternoon on 3 analysis days for a duration of up to 20 minutes. Incremental shadows from the Proposed Project would not inhibit the growth of

Project Name: 47 Hall Street Rezoning
CEQR # 25DCP009K
SEQRA Classification: Type I

vegetation in Steuben Playground, nor would they affect the ability of the public to use or enjoy the open-space resource. Therefore, no significant adverse impacts would occur due to incremental shadows on Steuben Playground as a result of the Proposed Actions.

Historic and Cultural Resources

A detailed analysis related to historic and cultural resource is included in this EAS. In conjunction with the Landmarks Preservation Commission, it was determined that the Development Site has no archeological significance. The Development Site is not a designated New York City Landmark nor is it calendared for consideration, but is located within the Wallabout Industrial Historic District, a listed State/National Registers (S/NR) historic resource. Nine of the ten buildings located on the Development Site are considered contributing resources to the historic district. Under both the No-Action and the With-Action condition, Building A, which is listed in the State/National Register (S/NR) as a contributing resource to the Wallabout Industrial Historic District, would be demolished. Therefore, the Proposed Actions would not result in any direct or indirect impacts to any designated historic resources. In addition, the Applicant would be required to develop a Construction Protection Plan (CPP) pursuant to the New York City Department of Buildings' (DOB) Technical Policy and Procedure Notice TPPN #10/88 in consultation with Landmarks Preservation Commission. The TPPN #10/88 supplements the standard building protections afforded by the Building Code by requiring, among other things, a monitoring program to reduce the likelihood of construction damage to adjacent NYCL-designated or S/NR-listed resources (within 90 feet). The CPP would avoid a potential direct impact to other historic resources located within 90 linear feet of proposed construction activities. The Proposed Actions are not expected to have indirect impacts on historic resources, such as the isolation of a property from its surrounding environment or the introduction of visual, audible, or atmospheric (i.e., pollutants) elements that are out of character with a property or that alter its historic setting and context (e.g., contextual effects). The visual context of historic properties in the study area has already been altered to some degree by the recent development of high-rise modern buildings in the surrounding area as well as the construction of the elevated Brooklyn Queens Expressway. The Proposed Project would not obstruct existing views of the surrounding historic buildings and the study area's historic buildings would continue to be visible from publicly accessible locations. As a result, the Proposed Actions would not result in a significant adverse impact on historic and cultural resources.

Hazardous Materials, Air Quality, and Noise

An (E) designation (E-831) related to hazardous materials, air quality, and noise would be established as part of the approval of the Proposed Actions. Refer to "Determination of Significance Appendix: (E) designation" for the applicable (E) designation requirements. The hazardous materials, air quality, and noise analyses conclude that with the (E) designation in place, the Proposed Actions would not result in a significant adverse impact related to hazardous materials, air quality, or noise.

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

TITLE Deputy Director, Environmental Assessment and Review Division	LEAD AGENCY Department of City Planning on behalf of the City Planning Commission 120 Broadway, 31st Fl. New York, NY 10271 | 212.720.3493
NAME Evren Ulker-Kacar, AICP	DATE 1/17/2025
SIGNATURE Evren Ulker-Kacar	
TITLE Chair, City Planning Commission	
NAME Daniel R. Garodnick	DATE 1/21/2025
SIGNATURE	

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CEQR # 25DCP009K
SEQRA Classification: Type I

Determination of Significance Appendix

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

Development Site	Borough	Block and Lot
Projected Development Site 1	Brooklyn	Block 1876, Lot 1

(E) Designation Requirements

To ensure that the proposed actions would not result in significant adverse impacts related to hazardous materials, air quality, and noise an (E) designation (**E-831**) would be established as part of approval of the proposed actions on **Projected Development Site 1** as described below:

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

Hazardous Materials

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

Task 1-Sampling Protocol

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

Task 2-Remediation Determination and Protocol

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

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

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

Air Quality

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

Block 1876, Lot 1 (Building A): *Any new residential and/or commercial development on the above-referenced property must ensure the HVAC system and hot water equipment are powered by electricity only with no venting or stacks, to avoid any potential significant adverse air quality impacts.*
Block 1876, Lot 1 (Buildings B, C, D, E, F, G, H, and I): *Any new residential, commercial and/or self-storage development on the above-referenced property must ensure the hot water equipment are powered by natural gas only. The HVAC stacks must be located at the highest tier and at least 138 feet above grade on Building B, and at least 200 feet from Building A to avoid any potential significant adverse air quality impacts.*

Noise

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

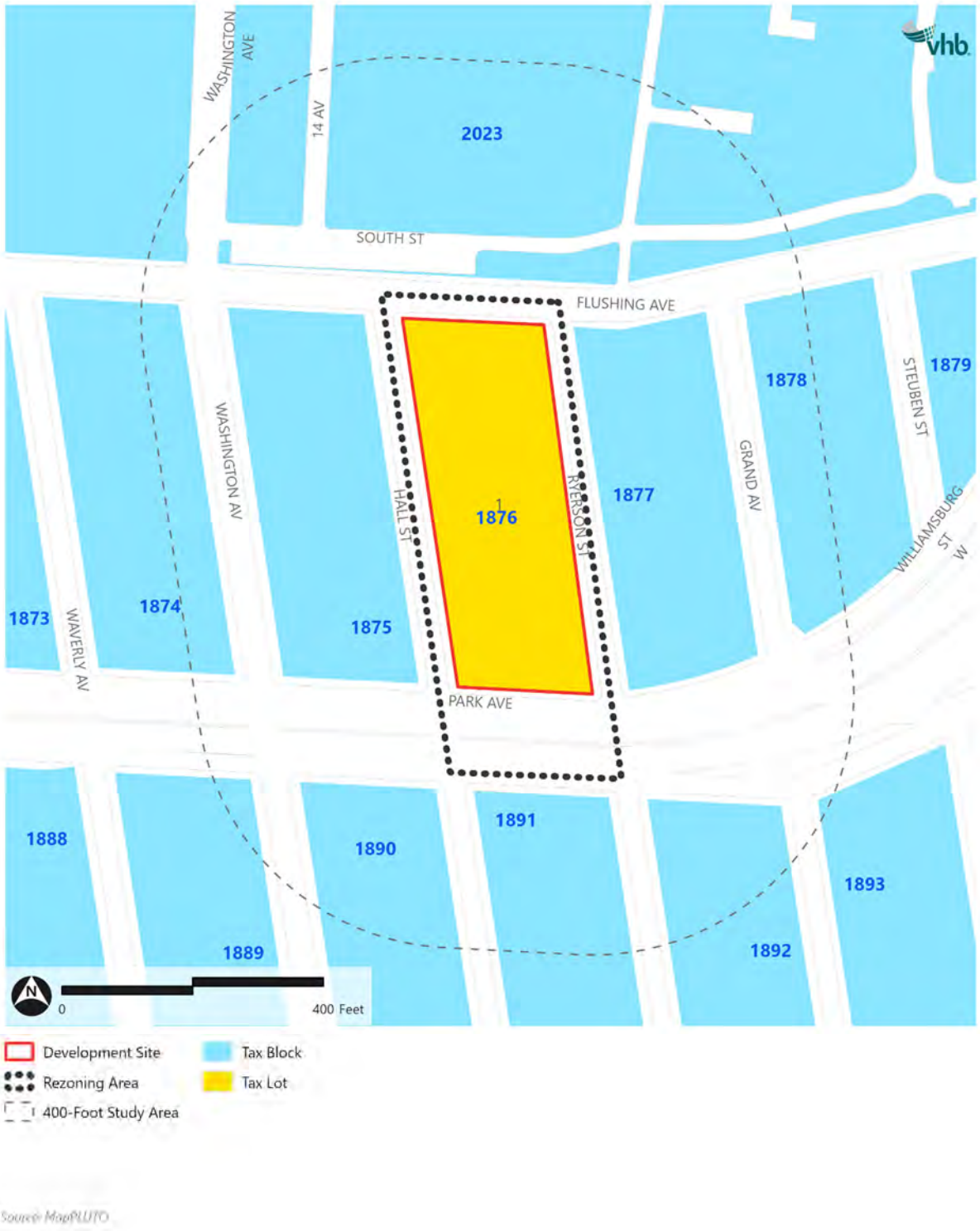
Block 1876, Lot 1: *In order to ensure an acceptable interior noise environment, future residential uses must provide a closed-window condition with a minimum of 39 dBA window/wall attenuation on the facade facing I-278 and Park Avenue, the eastern and western facades within 150 feet of Park Avenue, to maintain an interior noise level (Ldn) not greater than 40 dBA for residential uses; future residential uses must provide a closed-window condition with a minimum of 28 dBA window/wall attenuation on the facade facing Flushing Avenue, the eastern and western facades within 50 feet of Flushing Avenue, to maintain an interior noise level (L10) not greater than 45 dBA for residential uses. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, well-sealed air conditioners, package-terminal air conditioners, or central air conditioning.*

EAS Figures

Figure 1 Project Area Map

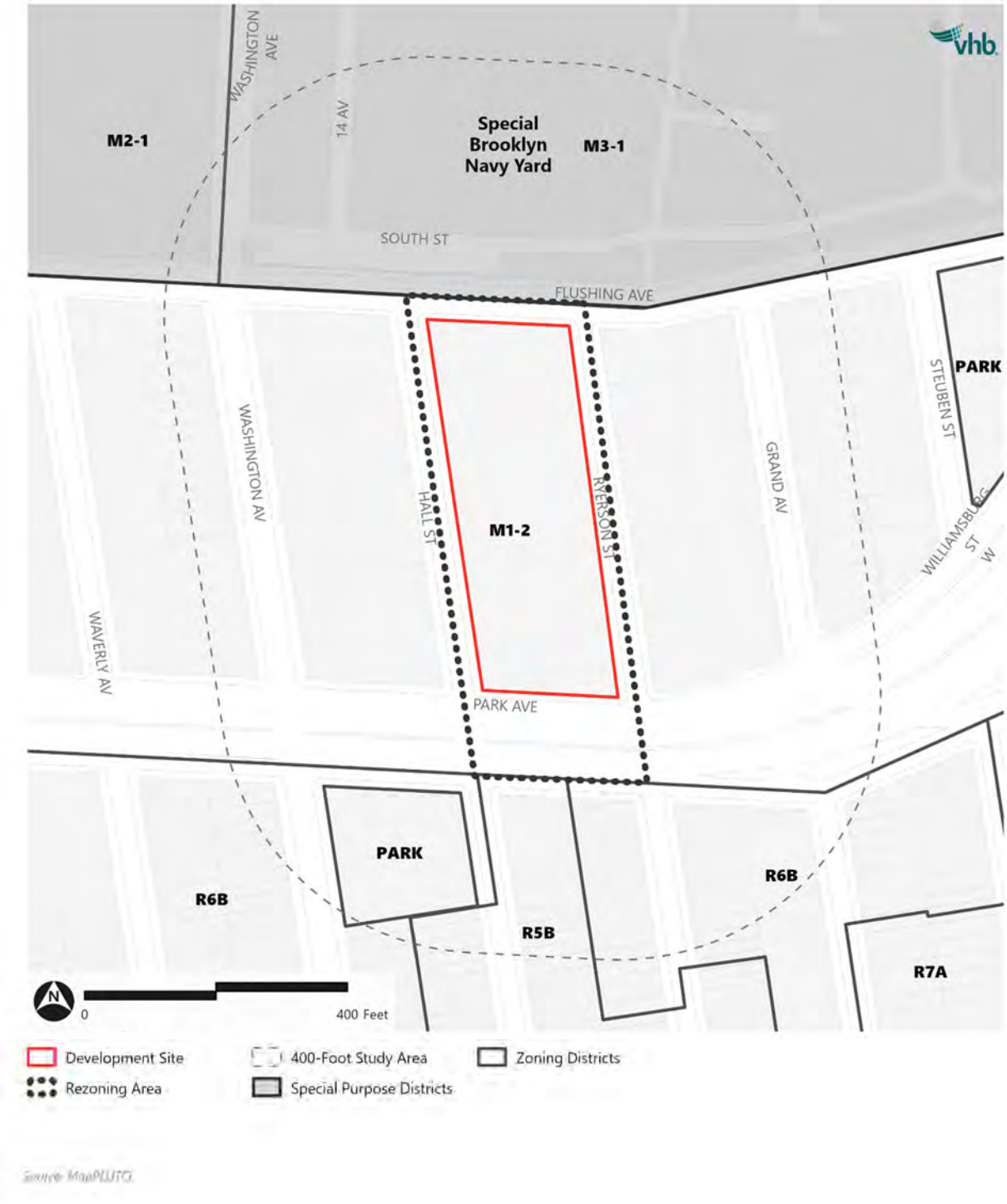


Figure 2 Tax Map



Source: MapPLUTO

Figure 3 Existing Zoning Map



Source: MapPLUTO

Figure 4 Land Use Map

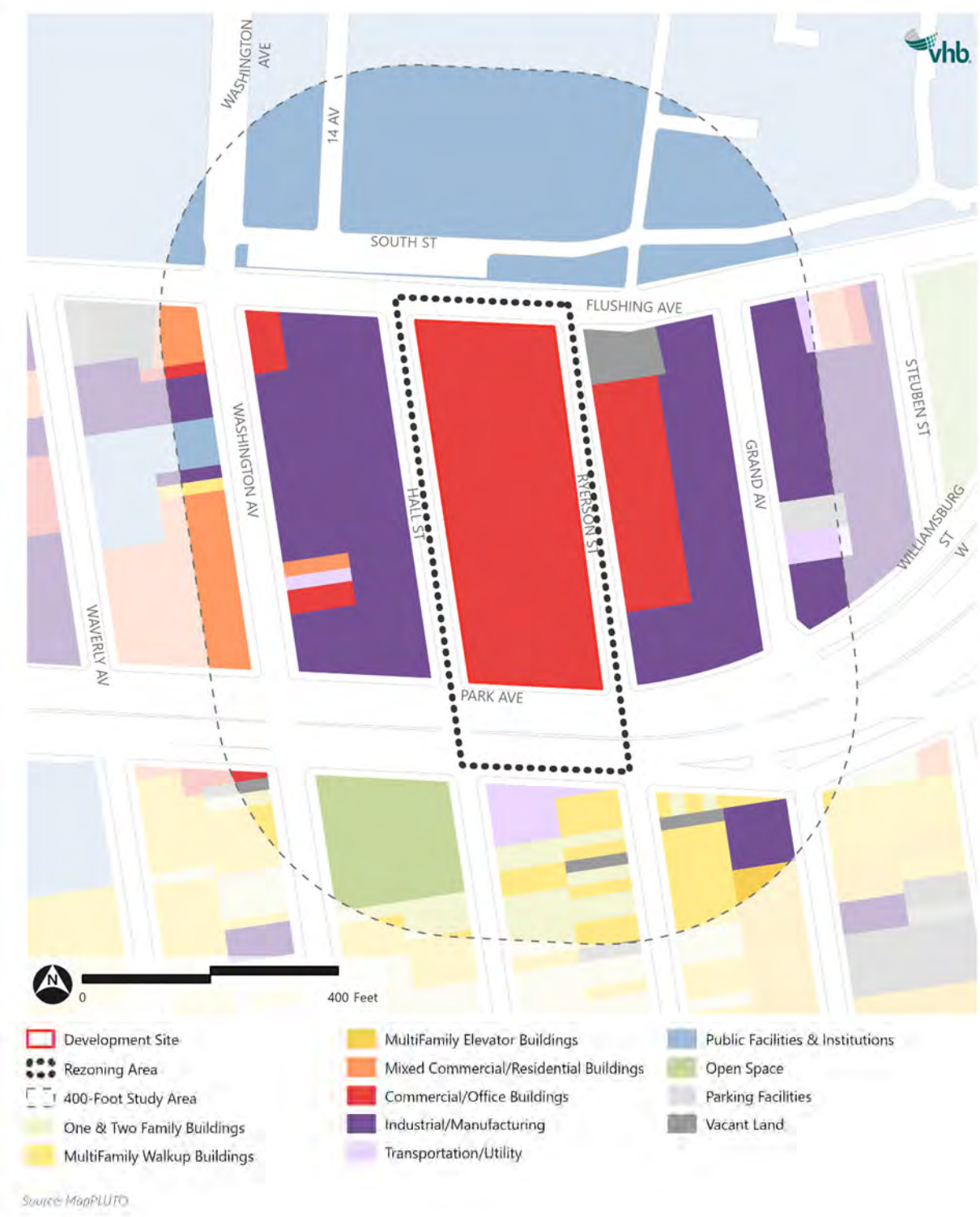


Figure 5 Photo Key Map

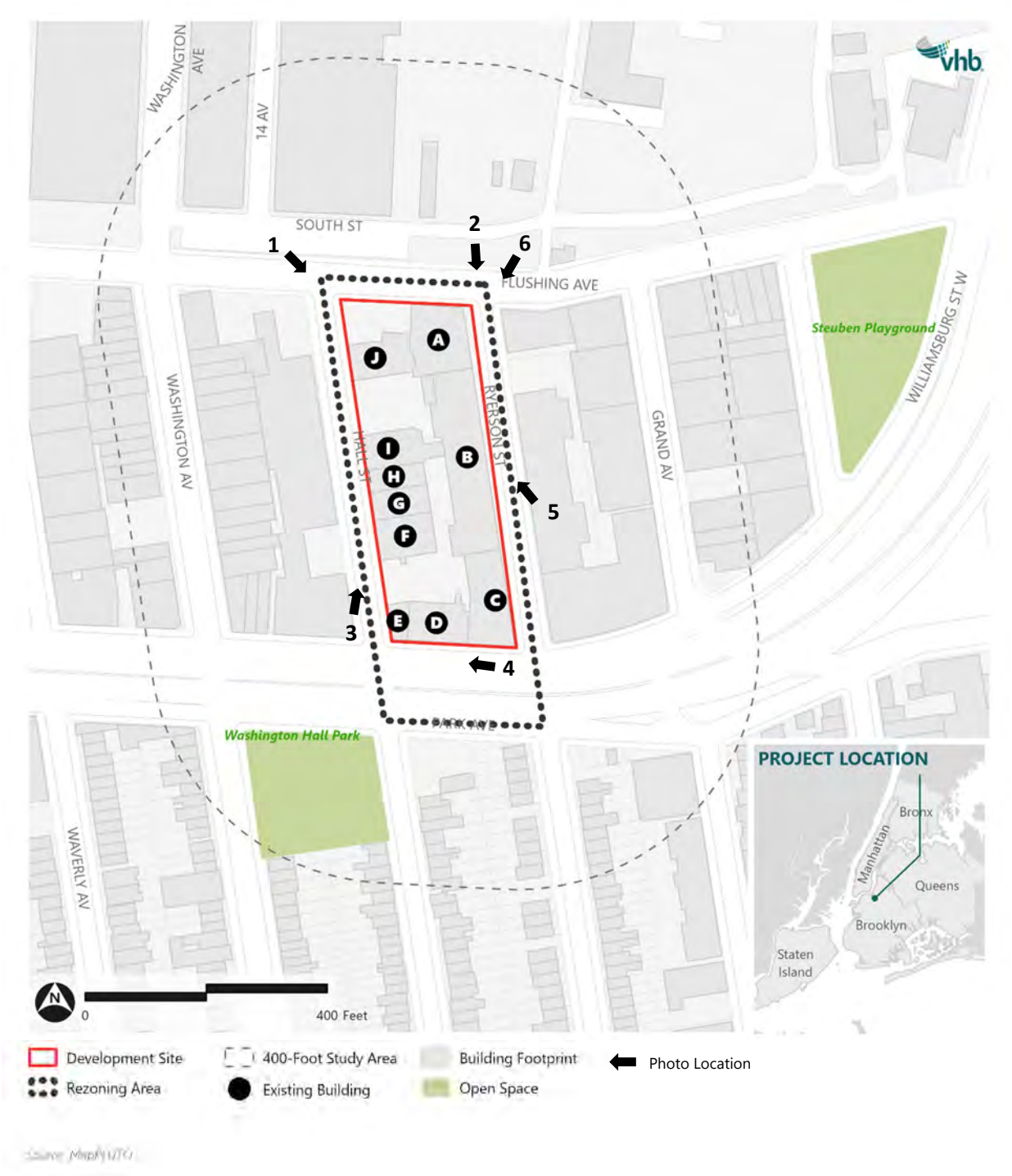


Photo 1 Intersection of Flushing Avenue and Hall Street, Looking Southeast



Photo 2 Intersection of Flushing Avenue and Ryerson Street, Looking Southwest



Photo 3 Hall Street, West Side of Street, Near Park Avenue, Looking north



Photo 4 Park Ave, North Side of Street, Midblock, Looking West



Photo 5 Ryerson Street, East Side of Street, Midblock, Looking North



Photo 6 Intersection of Flushing Avenue and Ryerson Street, Looking Southwest, Toward Building A



Part I: Project Description

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

Introduction

The Applicant, RXR 9-47 Hall Street Owner, LLC, is seeking a zoning map amendment and zoning text amendment (see **Proposed Actions**) to facilitate the redevelopment of Applicant-owned Brooklyn Block 1876, Lot 1 (the Development Site) at 47 Hall Street in the Wallabout neighborhood of Brooklyn Community District (CD) 2. The Proposed Actions would transform the full-block Development Site into an active mixed-use campus, introducing new residential uses with affordable housing, a variety of commercial spaces including ground-floor retail to activate the street frontages, a parking facility, and a self-storage facility (the Proposed Project). The Proposed Project would consist of nine buildings (one new building, one existing building to be converted to residential use, and seven existing buildings to be renovated and reoccupied) with a total of 933,422 gross square feet (gsf), and would provide 611 total dwelling units (DUs), including 153 to 183 permanently affordable housing units pursuant to applicable requirements of the City's Mandatory Inclusionary Housing (MIH) program and up to 60 accessory parking spaces. The Proposed Actions are subject to the City's Uniform Land Use Review Procedure (ULURP) and City Environmental Quality Review (CEQR). The New York City Department of City Planning (DCP) will serve as the lead agency for this review.

Project Area and Development Site

The Proposed Actions would affect the Rezoning Area, which is bounded by Flushing Avenue to the north, Ryerson Street to the east, Park Avenue to the south (southerly street line of Park Avenue), and Hall Street to the west. The Rezoning Area is entirely mapped within an M1-2 manufacturing district and is fully within the New York City Coastal Zone. The entire Rezoning Area is also in the Transit Zone and Food Retail Expansion to Support Health (aka FRESH) Zone. Within the Rezoning Area, the Development Site is the area where development would occur as a result of the Proposed Actions and comprises a single full-block tax lot (Block 1876, Lot 1) with street frontage on the same four streets described above (see **Figure I-1**).

The Development Site has a lot area of approximately 113,833 square feet (sf) with roughly 204 feet of frontage along Flushing and Park Avenues and roughly 569 feet of frontage along Hall and Ryerson Streets. It is improved with 10 existing former manufacturing buildings (Buildings A through J), each of which were initially constructed between 1889 and 1927. In total, the existing buildings contain approximately 589,228 gsf (532,258 zoning square feet [zsf]; floor area ratio [FAR] of 4.68), and

collectively exceed the permitted FAR of 2.0 for commercial and industrial uses within the underlying M1-2 district.

- Building A is an approximately 63,891-gsf (52,640-zsf), 5-story structure located at the corner of Flushing Avenue and Ryerson Street.
- Building B is an approximately 218,923-gsf (205,077-zsf), 9-story structure with a basement located at the midblock with frontage on Ryerson Street.
- Building C is an approximately 98,922-gsf (96,008-zsf), 9-story structure with a basement located at the corner of Ryerson Street and Park Avenue.
- Building D is an approximately 61,552-gsf (60,912-zsf), 9-story structure with a basement with frontage on Park Avenue.
- Building E is an approximately 2,993-gsf (2,993-zsf), 1-story structure located at the corner of Park Avenue and Hall Street.
- Buildings F, G, H, and I are four buildings at the midblock with frontage on Hall Street. Building F is an approximately 55,354-gsf (46,934-zsf), 8-story structure; Building G is an approximately 16,586-gsf (13,372-zsf), 3-story structure; Building H is an approximately 21,777-gsf (17,595-zsf), 5-story structure; and Building I is an approximately 37,504-gsf (30,864-zsf), five-story structure.
- Building J is an approximately 11,726-gsf (5,863-zsf), 1-story ancillary structure that is set back more than 50 feet from Flushing Avenue with frontage on Hall Street.

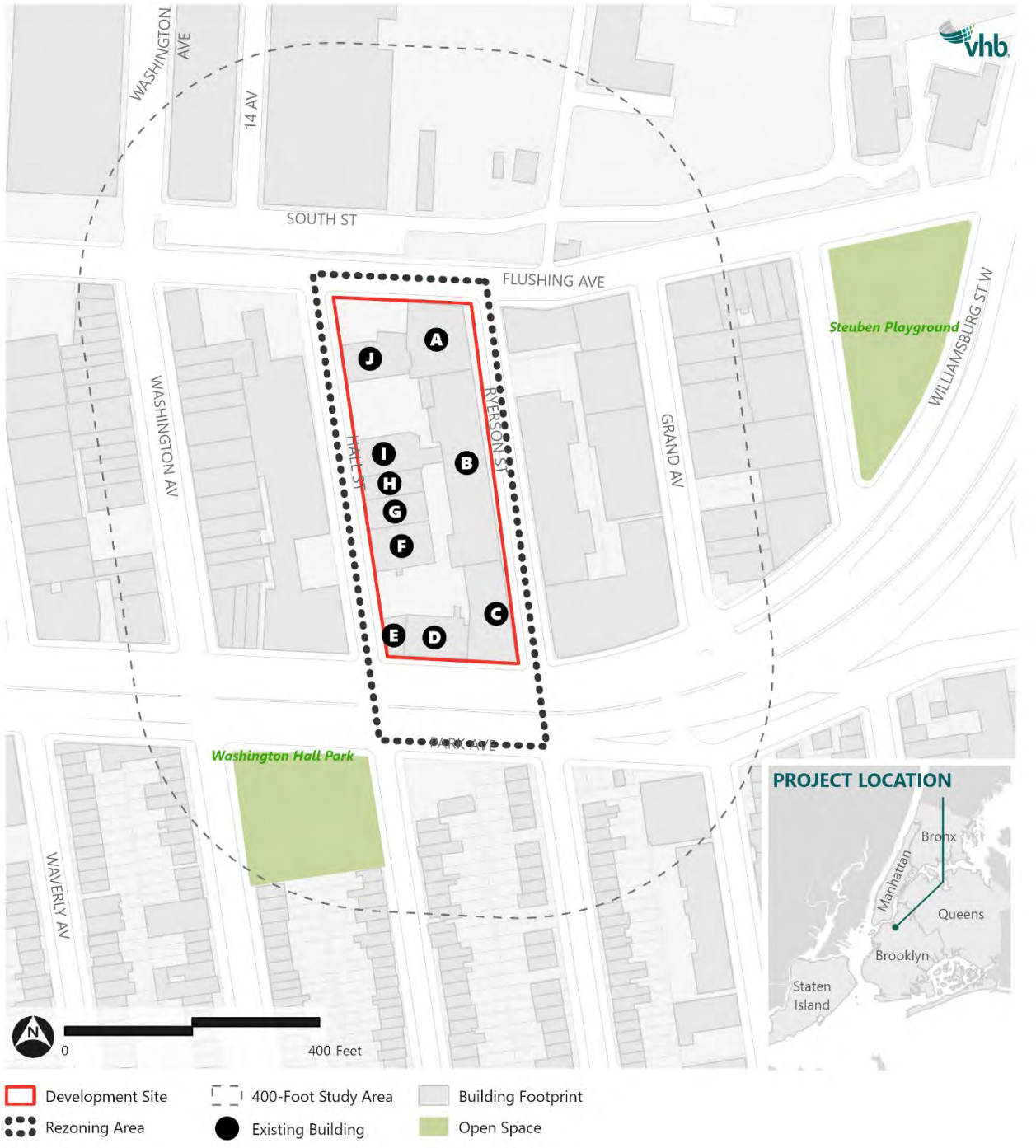
The Applicant renovated these buildings after acquiring the site in 2016 to restore it as a fully integrated modern commercial campus. Renovations were completed in 2019. However, due to challenges with the post-COVID commercial/office market, substantially all the property has remained vacant for approximately four years until the Humanitarian Emergency Response and Relief Center (HERRC) occupancy in October 2023. The Development Site utilized the Industrial and Commercial Abatement Program (ICAP) that was tied to the campus renovations completed in 2019. ICAP is a property tax abatement program that provides benefits for eligible industrial and commercial buildings. The ICAP provides a 15-year exemption; roughly 12 years are currently left in the abatement term.

As noted above, portions of the Development Site were recently licensed by the NYC Health and Hospitals Corporation to temporarily operate as a HERRC. Approximately 3,300 gsf in Building I is currently in use as commercial office space, and approximately 11,601 gsf on the ground floor of Building I is vacant commercial retail space. The rest of the Development Site (i.e., all of Buildings A through H and J, and 22,603 gsf in Building I) is in use by the HERRC.

While none of the buildings are Landmarks Preservation Commission–designated landmark buildings, portions of the Development Site are located within the State and National Register's (S/NR) Wallabout Industrial Historic District (NR No. 11NR06290). Nine of the 10 existing buildings (Buildings A through I) within the S/NR-listed Wallabout Industrial Historic District are considered contributing buildings to the historic district.

The immediate surroundings of the Development Site are characterized by the Brooklyn Navy Yard directly north of the site and the Brooklyn-Queens Expressway directly south. Public transportation near the Development Site includes the Metropolitan Transportation Authority New York City Transit B48, B54, B57, B62, and B69 buses. The nearest subway station is Clinton-Washington Avenues, which is served by the G train and located roughly a half mile south of the Development Site. The Astoria route of the New York City Ferry operated by Hornblower, Inc., stops at the Brooklyn Navy Yard landing located approximately a half mile northwest of the Development Site.

Figure I-1 Site Location Map



Source: MapPLUTO

Proposed Actions

The following actions would be required to facilitate the Proposed Project.

- ?'/;.;Zoning map amendment to change the existing M1-2 district to (i) an M1-5 district at midblock along Hall Street and (ii) an M1-6A/R8 District (Mixed-Use [MX] District 27) over the remaining majority of the Rezoning Area
- Zoning text amendment to the Zoning Resolution (ZR) of the City of New York, as amended:
  - To amend Section 123-90 (MX Districts Specified) to add MX-27; and
  - To amend Appendix F of the ZR to designate portions of the Rezoning Area proposed to be mapped as an MX M1-6A/R8 district as an MIH area.

The zoning map amendment and zoning text amendment are referred to collectively as the Proposed Actions.

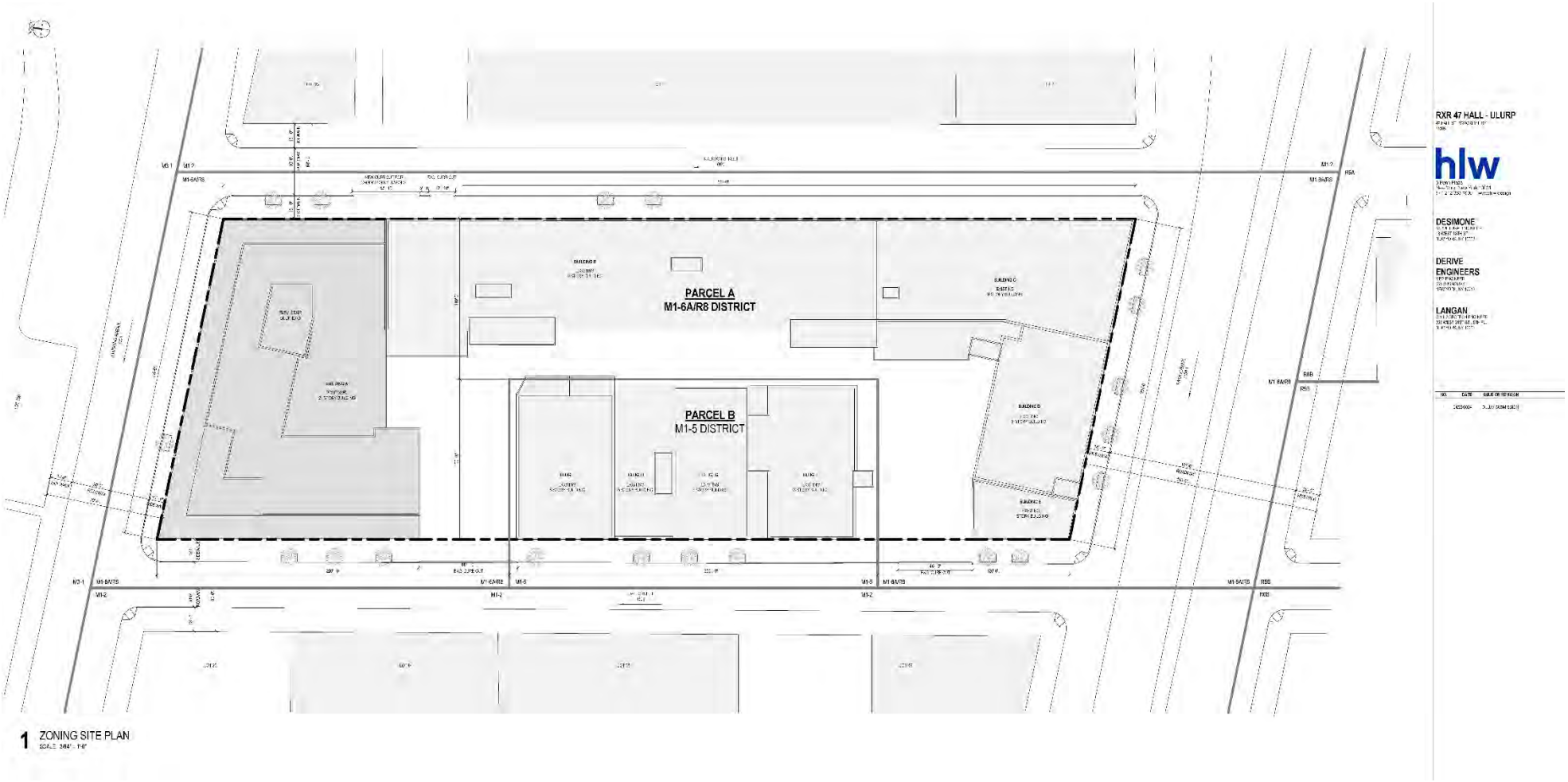
Special MX Districts are Special Purpose Districts mapped in numerous locations within the city, allowing a wide range of uses based on the regulations of an M1 manufacturing district paired with a residence district. New residential and non-residential uses are permitted within the same building, with certain restrictions, and any such building is a mixed building. Residential uses are generally subject to the bulk controls of the governing residence district; commercial, industrial and community facility uses are subject to the M1 district bulk controls, except that community facilities are subject to residential FAR limits. For M1 Districts with an A suffix paired with a Residence District, the applicable height and setback regulations shall be whichever regulations permit the tallest overall heights, meaning that the rules for the M1-6A district would apply to the proposed M1-6A/R8 District.

In the proposed M1-6A/R8 District (MX-27) to be mapped over the majority of the rezoning area, an M1 6A manufacturing district is paired with an R8 residence district. M1-6A districts are light manufacturing districts permitting a range of industrial uses subject to strict performance standards. In M1-6A Districts, a maximum FAR of 8.00 is permitted, and maximum base and building heights are 155 feet and 245 feet, respectively (and 306.25 feet for zoning lots greater than 20,000 sf). R8 Districts are high-density non-contextual residence districts permitting a maximum residential FAR of 7.20.

Proposed Project and With-Action Condition

The Applicant's Proposed Project would involve the construction of a new 21-story mixed-use residential and commercial building in the area of Buildings A and J; conversion of Building B to residential use with enclosed accessory parking; and renovation and re-tenanting of the remaining seven existing buildings (C, D, E, F, G, H, and I) with a mix of commercial office, retail, self-storage, and/or "maker" space. In total, the Proposed Project would contain approximately 933,422 gsf (816,908 zsf), including approximately 590,147 gsf (536,170 zsf) of residential floor area and 307,383 gsf (280,738 zsf) of commercial floor area. The Proposed Project would provide up to 611 DUs, including approximately 153 to 183 permanently affordable housing units pursuant to applicable requirements of the City's MIH program, and approximately 60 accessory parking spaces. In addition to the new development, use conversion, and renovation of existing buildings described in detail below, the Applicant would also implement landscaping improvements as part of the Proposed Project designed to activate the pedestrian streetscape along the interior and public street frontages of the Development Site (see **Figure I-2**).

Figure I-2 Illustrative Site Plan

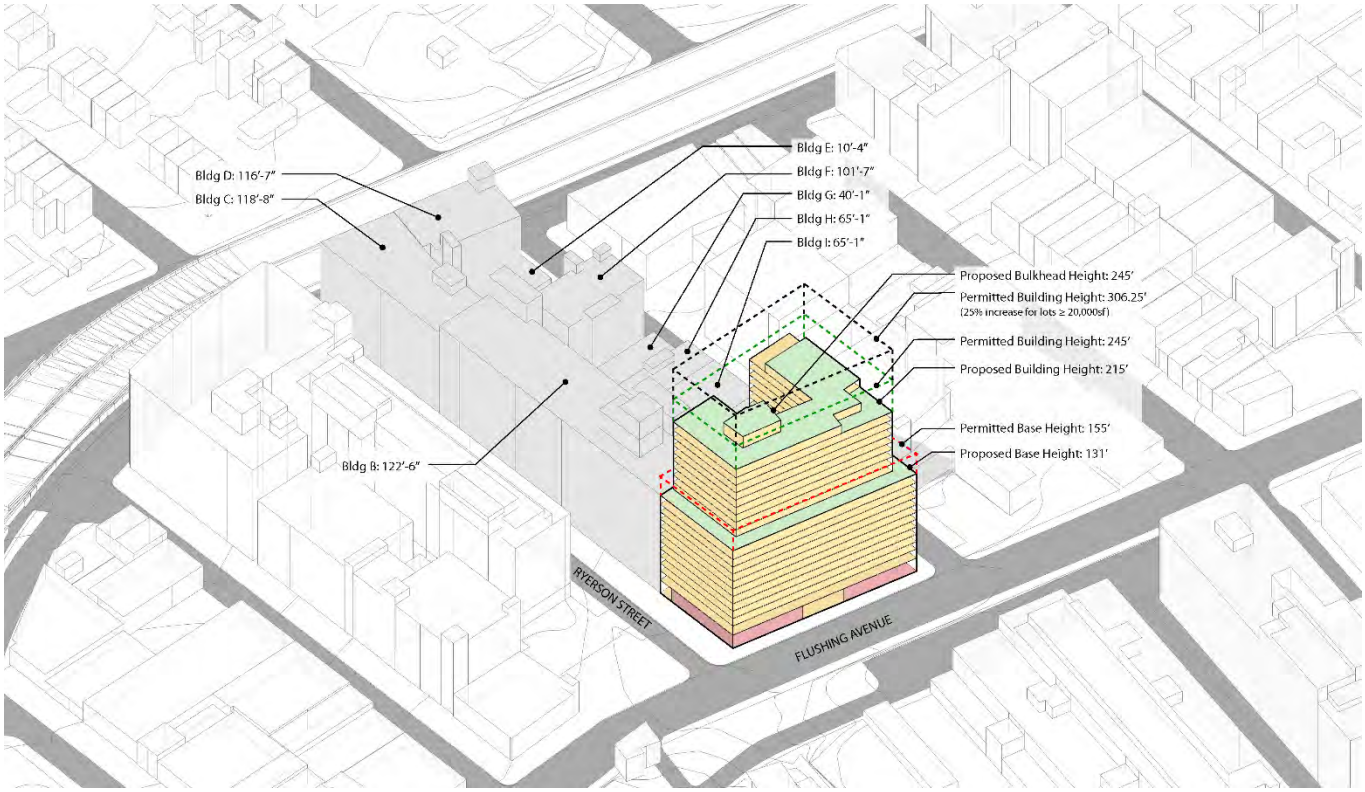


Source: HLW Architects

New Development

Located at the northernmost portion of the Development Site with full block frontage on Flushing Avenue, a new mixed-use building with ground-floor retail and residential units on the upper floors (see **Figure I-3**) would be constructed in the area of Buildings A and J. The new mixed-use building would contain approximately 420,784 gsf (393,280 zsf) of floor area, including 408,089 gsf (381,220 zsf) of residential floor area and 12,695 gsf (12,060 zsf) of ground-floor commercial retail. It would provide approximately 464 new DUs, including 116 to 139 permanently affordable housing units in accordance with the applicable MIH requirements. Prominent retail spaces would be allocated at the corners covering a majority of the building's ground-floor street frontages. Flanked between the two retail spaces is the residential lobby entrance located along Flushing Avenue. The new mixed-use building would have a base height of approximately 130 feet. As shown in **Figure I-3**, above such base height, the building would be set back 15 feet from the street line before rising to a maximum height of approximately 215 feet (245 feet including mechanical bulkhead).

Figure I-3 Illustrative Building Massing



Source: HLW Architects

Renovation/Conversion of Existing Buildings

Fronting on Ryerson Avenue, the existing Building B, a 9-story structure, would be converted to a residential building containing approximately 217,950 gsf (154,950 zsf), including 182,058 gsf (154,950 zsf) of residential uses and 35,892 gsf of accessory parking. Building B would be gut-renovated to accommodate approximately 147 DUs (including up to 37 to 44 permanently affordable units in accordance with the applicable MIH requirements). The primary residential lobby entrance

would be accessed from the courtyard located at the rear of the building. The first two floors of the building would be occupied by the proposed accessory parking facility with a capacity of approximately 60 spaces.

At the southeasternmost portion of the Development Site, the existing Buildings C and D located at the corner of Ryerson Street and Park Avenue are two 9-story buildings that would be renovated to accommodate self-storage facility uses (Use Group IX[A]). In total, the self-storage facility would contain approximately 160,474 gsf (156,920 zsf) of self-storage space.

The existing 1-story Building E would be renovated to provide retail space to activate the corner of Park Avenue and Hall Street. As such, Building E would contain approximately 2,993 gsf (2,993 zsf) of local retail space.

Buildings F, G, H, and I, four buildings at the midblock of the Development Site with frontage on Hall Street, would be renovated to provide retail on the ground level and office/maker studio spaces on the upper levels. These spaces would include white-boxed spaces, prebuilt spaces, and maker studios that would cater to small commercial tenants. Building F would contain approximately 55,354 gsf (46,934 zsf) of floor area, including 5,465 gsf (5,276 zsf) of ground-floor retail and 49,889 gsf (41,658 zsf) of commercial office/maker space; Building G would contain approximately 16,586 gsf (13,372 zsf) of floor area, including 7,550 gsf (4,458 zsf) of ground-floor retail and 9,036 gsf (8,914 zsf) of commercial office/maker space; Building H would contain approximately 21,777 gsf (17,595 zsf) of floor area, including 6,377 gsf (2,627 zsf) of ground-floor retail and 15,400 gsf (14,968 zsf) of commercial office/maker space; and Building I would contain approximately 37,504 gsf (30,864 zsf) of floor area, including 12,472 gsf (6,068 zsf) of ground-floor retail and 25,032 gsf (24,796 zsf) of commercial office/maker space.

Project Purpose and Need

The Proposed Actions are needed in order to allow the introduction of new residential uses, sorely needed in light of New York City's crippling housing crisis, at an appropriate density alongside a variety of commercial uses on the Development Site. The Proposed Project would further transform the underutilized buildings at the Development Site into an active mixed-use campus. Pre-COVID, the Applicant made infrastructure and sustainability upgrades to reposition the Development Site as a creative office campus. However, most of the site has remained vacant due to ongoing challenges with the post-COVID office market in Brooklyn. The Proposed Project would create a significant amount of new housing (including affordable housing) while expanding opportunities for ground-floor retail, office, and maker/studio space. The commercial components of the Proposed Project would be designed to attract a variety of new commercial uses by offering flexible spaces catering to smaller, creative tenants, and to the new residential population.

The proposed zoning map amendment is needed to permit residential uses on the portion of the Development Site to be mapped with a mixed-use M1-6A/R8 district. The mixed-use district, which pairs light-manufacturing (M1-6A) and residential (R8) zoning districts, would create new housing opportunities with affordable housing in the neighborhood and encourage preservation of existing commercial and light-manufacturing uses that are compatible with the uses within the surrounding area and the Wallabout neighborhood. The midblock portion of the site would be mapped with an M1-5 district to designate portions of the Development Site with active commercial uses. The commercial uses would provide ground-floor retail to activate the Hall Street frontage, and upper floors would be planned for office/maker studio spaces to attract creative and innovative tenants.

The proposed zoning text amendment to modify ZR Section123-90 (Special MX Districts Specified), would create a new MX-27 district zoned M1-6A/R8. The proposed mixed-use district would permit a maximum FAR of 8.0, allowing the Applicant to retain existing space for commercial uses and create a significant amount of new housing at a density that is appropriate for the Development Site in the context of the Wallabout neighborhood.

Additionally, the text amendment to Appendix F of the ZR to map an MIH area coterminous with the proposed M1-6A/R8 district would introduce new, permanently affordable units to the Wallabout neighborhood where affordable housing is in high demand. According to the most recent Statement of Community District Needs for Brooklyn CD 2 (Fiscal Year 2024), a lack of affordable housing is the most pressing issue facing the community. The Statement of Needs urges the City to facilitate the construction of as many new units of affordable housing as possible. With MIH, any residential uses within the M1-6A/R8 portion of the Development Site would require 25 to 30 percent to be affordable at or below 60 to 80 percent of area median income, on average, depending on the option selected. The additional affordable housing units generated by the proposed text amendment would align with the goals identified by Community Board 2 and in the City's *Housing Our Neighbors: A Blueprint for Housing and Homelessness* report. *Housing Our Neighbors* is the City's comprehensive housing blueprint that seeks to address New York City's affordable housing crisis.

Analysis Framework and Reasonable Worst-Case Development Scenario

In order to assess the potential effects of the Proposed Actions, a reasonable worst-case development scenario (RWCDS) for both "future No-Action" (No-Action) and "future With-Action (With-Action) conditions will be analyzed for an analysis, or build year, of 2030 (described further in **Analysis (Build) Year**, below). For the purpose of the environmental analyses, the No-Action condition represents the future absent the Proposed Actions and serves as the baseline by which the Proposed Actions (or With-Action condition) are compared to determine the potential for significant environmental impacts. The difference between the No-Action and With-Action conditions represents the increment to be analyzed in the CEQR process.

The Proposed Actions include a zoning map amendment and zoning text amendment (see **Proposed Actions**). The Proposed Actions would only apply to the Applicant-owned Development Site, and therefore no soft sites or other non-Applicant-owned sites are expected to be redeveloped with approval of the Proposed Actions.

Analysis (Build) Year

The Proposed Project is anticipated to be complete and in operation by 2030. This accounts for the anticipated expiration of the current HERRC license as well as the anticipated durations of new construction, gut renovation, and conversion at the Development Site. It is assumed that the HERRC license would be terminated in 2025 upon expiration of the initial 18-month term. Beginning in 2026 following the termination of the license, the proposed demolition of Buildings A and J, the construction of the new Building A, as well as the internal renovations of the remaining buildings, would all be complete by 2030. Specifically, construction of the Proposed Project is anticipated to consist of a demolition stage (Buildings A and J) of approximately three months, followed by the construction of the new Building A and the concurrent interior renovation of the remaining buildings,

anticipated to occur over an approximately 33-month period. A more detailed discussion of the anticipated construction timeline can be found in **Part II: Supplemental Analyses**. Accordingly, the Environmental Assessment Statement will use a 2030 build year for the purposes of a conservative analysis.

Future No-Action Condition

It is anticipated that the temporary HERRC shelter facility located at the Development Site will conclude operations in 2025 upon expiration of the initial 18-month term, and the HERRC facility is therefore expected to conclude operations by that time as well.

Absent the approval of the Proposed Actions, Buildings E through I would each be occupied by as-of-right commercial office, retail, and/or maker studio space, and Buildings B, C and D would be occupied by as-of-right self-storage (Use Group IX[A]) space. While Buildings B through I are expected to be re-tenanted by a mix of commercial office, retail, maker space, and/or self-storage space, Buildings A and J would be demolished and reconstructed as a purpose-built self-storage facility in the future absent the Proposed Actions. Under No-Action conditions, the Development Site would contain a total of approximately 589,228 gsf (532,258 zsf) of commercial uses, including 34,857 gsf of retail uses, 455,014 gsf of self-storage uses, and 99,357 gsf of office and/or maker studio space uses.

It is estimated that in the No-Action condition, there would be approximately 532 workers at the Development Site.[1]

Commercial office, retail, and maker-space uses are permitted as-of-right in the existing M1-2 district, as well as self-storage. The Applicant has determined self-storage to be one of the few financially available and feasible uses currently for Buildings B, C, and D; in fact, storage, including mini-storage, is found in many of the adjacent areas. The assumption that Buildings C and D would be occupied with self-storage uses and that Buildings E through I would be occupied by retail, office, and/or maker studio space uses (all of which are permitted as-of-right in M1-2) is consistent with the Applicant's future plans for those buildings with approval of the Proposed Actions. When considering Building B's existing floorplates and location, it is likely that Building B would be occupied by as-of-right self-storage space which is consistent with anticipated development for the neighboring Buildings C and D.

Building A is assumed to be demolished along with Building J to allow for construction of a new as-of-right, purpose-built self-storage facility. Building A would not be converted to self-storage as the building's existing timber structure does not support the 125 pounds per sf live load capacity required for storage use. Meeting the loading requirement would entail an extensive upgrade of the flooring, reinforcement of the existing timber columns and girders, and potentially the foundation. Such extensive modifications would result in a significant cost premium, rendering a conversion unfeasible.

Buildings E through I, which have smaller floor plates and separate entrances, are assumed to be occupied by office/maker spaces on the upper levels and retail at the base, which is consistent with the Applicant's future plans for the buildings. Building A, which is a larger building with large and

[1] The total number of employees in the future No-Action and With-Action conditions are estimated based on assumptions of rates of one worker per 250 gsf of commercial office and maker/studio space, one worker per 333.3 gsf of retail space, one worker per 15,000 gsf of self-storage space, and one worker per 25 residential DUs.

irregular floor plates, is expected to experience greater difficulty in leasing for commercial uses due to the lack of large commercial tenants in this submarket. This is consistent with recent tenanting trends at the Development Site, where Building A, along with Buildings B, C, and D, have struggled to attract commercial tenants and have remained vacant whereas the buildings along Hall Street have attracted some retail and office tenants. Given this difficulty, the Applicant does not expect Building A to be reoccupied by the build year and is planning to demolish and rebuild the floor area in the absence of the Proposed Actions, along with Building J, as a self-storage facility.

Future With-Action Condition

In the future with the Proposed Action, the Applicant would carry out the Proposed Project and redevelop the Development Site according to the program described above (see **Proposed Project and With-Action Condition**) with construction of a new 21-story mixed-use building and the adaptive reuse of existing buildings, including gut renovation and conversion of Building B to residential uses with some enclosed accessory parking, renovation of Buildings C and D to accommodate new self-storage facility uses, and renovation of the remaining existing buildings to accommodate a mix of commercial office, retail, and/or "maker" studio space.

The Proposed Actions would result in the total development of approximately 933,422 gsf of floor area, including 590,147 gsf of residential space (611 DUs; of which, 153 to 183 units would be designated as permanently affordable pursuant to MIH); 47,552 gsf of retail space; 160,474 gsf of self-storage space; 99,357 gsf of office/maker space; and 35,892 gsf of accessory parking space (including up to approximately 60 parking spaces). The Proposed Project functionally maximizes the development conditions that would result from the Proposed Actions. The Proposed Project has a total FAR of approximately 7.79 FAR within the M1-6A/R8 district portion of the Development Site (max permitted 8.0 FAR) and 4.73 FAR within the M1-5 district portion of the Development Site (max permitted 5.0 FAR). Under the Proposed Project, it is assumed that the new development (Building A) would substantially maximize the building envelope permitted under the proposed zoning, and a mechanical bulkhead of 30 feet is conservatively assumed (for a total maximum bulkhead height of 245 feet). As such, the Proposed Project represents the RWCDS for the Proposed Actions.

Increment for Analysis

As shown in **Table I-1,** compared to the No-Action condition, the future With-Action condition would result in an incremental increase of up to 590,147 gsf of residential space, or 611 DUS, of which 153 to 183 would be permanently affordable pursuant to MIH. There would also be an incremental increase of up to approximately 60 accessory parking spaces (35,892 gsf). The future With-Action condition would result in an increase of 12,695 gsf of local retail, and a decrease of 294,540 gsf of self-storage space. The total increment would be approximately 344,194 gsf. It is estimated that the Proposed Actions would introduce approximately 1,240 incremental residents and 43 incremental workers at the Development Site.

Table I-1 Future No-Action and With-Action Comparison (GSF)

	Existing Conditions	No-Action Conditions	With-Action Conditions	Increment for Analysis
Commercial Office[1]	3,300	99,357	99,357	0
Retail	11,601*	34,857	47,552	+12,695
Self-Storage	0	455,014	160,474	-294,540
Residential	0	0	590,147	+590,147
Accessory Parking	0	0	35,892	+35,892
Community Facility[2]	574,327	0	0	0
Total	589,228	589,228	933,422	+344,194
DUs	0	0	611	+611
Affordable DUs	0	0	153 to 183	+153 to +183
Accessory Parking Spaces	0	0	60	+60
Residents	0	0	1,240	+1,240
Workers	418	532	575	+43

Notes:
* Indicates space is currently vacant.
[1] Includes studio and maker space.
[2] Portions of the Development Site were recently licensed by the NYC Health and Hospitals Corporation to temporarily operate as a HERRC.

Public Review Process

The Proposed Project described above is subject to public review under ULURP, Section 200 of the City Charter, and CEQR procedures.

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

Part II: Supplemental Analyses

Additional Technical Information for EAS Full Form

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

The EAS examines the potential for significant adverse impacts to result from the Proposed Actions. As detailed in **Part I: Project Description**, the Proposed Actions include a zoning map amendment and zoning text amendment, and would apply to the Applicant-owned Brooklyn Block 1876, Lot 1 (the Development Site) at 47 Hall Street in the Wallabout neighborhood of Brooklyn Community District (CD) 2. The Proposed Actions would facilitate the redevelopment of the full-block site into an active mixed-use campus with a total of 933,422 gross square feet (gsf) including 611 total residential dwelling units (DUs), of which approximately 153 to 183 would be permanently affordable pursuant to the City's Mandatory Inclusionary Housing (MIH) program, 307,383 gsf of commercial space, and approximately 60 accessory parking spaces (the Proposed Project). The Proposed Project would involve the construction of a new 21-story mixed-use residential and commercial building in the area of the existing Buildings A and J; conversion of Building B to residential use with some enclosed accessory parking; and renovation and re-tenanting of the remaining seven existing buildings (C, D, E, F, G, H, and I) with a mix of commercial office, retail, self-storage, and/or "maker" space.

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

Land Use, Zoning, and Public Policy

According to the *CEQR Technical Manual,* a land use analysis is warranted for projects that would affect land use or change zoning on a site. Because the Proposed Actions would rezone the Rezoning Area, an analysis of land use, zoning, and public policy is warranted (see **Section 2, Land Use, Zoning, and Public Policy**).

Socioeconomic Conditions

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

The following screening assessment considers threshold circumstances identified in the *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 Proposed Actions would not result in the direct displacement of any residents. Therefore, analysis of direct residential displacement is not 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 Development Site is substantially vacant in the existing conditions. Compared to the future No-Action scenario (in which the Development Site would be occupied by a mix of as-of-right commercial office, retail, and/or maker studio space and self-storage), the Proposed Project would result in an incremental increase of approximately 23 employees. The Proposed Actions would not directly displace more than 100 employees and further assessment of direct business displacement is not warranted.

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

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

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

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

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

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

  The Proposed Actions would not be expected to affect conditions within a specific industry, affect a substantial number of workers or residents who depend on the goods or services provided by affected businesses, or result in the loss or substantial diminishment of a particularly

important product or service within the City; therefore, an assessment of adverse effects on specific industries is not warranted.

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

Community Facilities and Services

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

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

The Proposed Project does not have the potential to indirectly impact public elementary, intermediate, or high schools, libraries, health-care facilities, or police and fire protection services. Analysis of police and fire protection services and health care facilities are triggered if a project introduces a sizeable new neighborhood, which the Proposed Project does not. Similarly, analysis of libraries is triggered if a project in Brooklyn introduces more than 834 total units, which the Proposed Project does not. The Proposed Actions would introduce 26 elementary students, six intermediate school students, and 31 high school students. Because the Proposed Actions would not introduce more than 50 elementary or intermediate school students or over 150 high school students, further analysis is not warranted.

Analysis of existing childcare centers would be warranted if a project in Brooklyn introduced 110 units affordable to residents earning not more than 80 percent of the area median income (AMI) in Brooklyn and therefore had the potential to introduce 20 or more eligible children under age six. Because the Proposed Project is anticipated to introduce up to 183 affordable units under MIH, further analysis of childcare centers is warranted (see **Section 4, Community Facilities and Services**).

Open Space

Introduction

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

A proposed action would have a direct effect on an open space if it causes the physical loss of public open space because of encroachment onto the space or displacement of the space; changes the use

of an open space so that it no longer serves the same user population; limits public access to an open space; or results in increased noise or air pollutant emissions, odor, or shadows that would affect the usefulness of a public open space, whether on a permanent or temporary basis. A proposed project can also directly affect an open space by enhancing its design or increasing its accessibility to the public.

Indirect effects may occur when the population generated by a proposed project overtaxes the capacity of existing open spaces so that their service to the future population of the affected area would be substantially or noticeably diminished. The *CEQR Technical Manual* for an analysis of potential indirect effects is whether the project would introduce more than 200 residents or 500 employees.

Direct Effects

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

Indirect Effects

The number of incremental workers that the Proposed Actions would introduce to the Development Site are not expected to exceed the 500-worker threshold warranting further assessment of indirect effects on non-residential open space ratios. However, as the Proposed Actions would introduce 1,240 residents, which is above the 200-resident CEQR threshold, an analysis of potential indirect effects on residential open space is warranted (see **Section 5, Open Space**).

Shadows

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

The Proposed Actions would result in a new structure that is approximately 215 feet tall (roof height). For conservative analysis of shadows, it is assumed that the building would have an additional bulkhead of up to 30 feet, resulting in a bulkhead height of 245 feet. Therefore, a shadows assessment is warranted (see **Section 6, Shadows**).

Historic and Cultural Resources

According to the *CEQR Technical Manual,* a historic and cultural resources assessment is warranted if there is the potential to affect either archaeological or architectural resources; the manual further recommends that a historic resources assessment be prepared if a proposed action would result in any of the following actions: in-ground disturbance; new construction, demolition, or significant physical alteration of any building, structure, or object; the change in scale, visual prominence, or

visual context of any building, structure, or object or landscape feature; or the screening or elimination of publicly accessible views, even if no known historic resources are located nearby.

Archaeological resources are physical remains, usually subsurface, of the prehistoric, Native American, and historic periods—such as burials, foundations, artifacts, wells, and privies. Archaeological resources are considered only in those areas where new in-ground disturbance is likely to occur. The Development Site contains ten existing buildings. Eight of these will remain in place. Due to the proposed demolition of existing Buildings A and J and development of the new Building A, some new in-ground disturbance to previously undisturbed areas are anticipated as a result of the Proposed Actions. According to correspondence with the New York City Landmarks Preservation Commission (LPC), there are no significant or sensitive archaeological resources located at the Development Site. Therefore, no further analysis of archaeological resources is warranted.

Architectural resources generally include historically important buildings, structures, objects, sites, and districts. Historic and cultural resources include designated New York City Landmarks (NYCLs) and Historic Districts; properties calendared for consideration as NYCLs by LPC or determined eligible for NYCL designation (NYCL-eligible); properties listed on the State and National Register of Historic Places (S/NR) or formally determined eligible for S/NR listing (S/NR-eligible), or properties contained within a S/NR listed or eligible district; properties recommended by the New York State Board for listing on the S/NR; National Historic Landmarks (NHLs); and potential historic resources (i.e., properties not identified by one of the programs listed above, but that appear to meet their eligibility requirements). None of the buildings are designated or calendared for consideration as NYCLs.

The Development Site contains the following buildings located within the S/NR-Listed Wallabout Industrial Historic District:

- Building A at 248-252 Flushing Avenue (aka 2-12 Ryerson Street)
- Building B at 14-42 Ryerson Street
- Building C at 307-313 Park Avenue (aka 44-60 Ryerson Street)
- Building D at 299-305 Park Avenue
- Building E at 297 Park Avenue (aka 55-57 Hall Street)
- Building F at 39-43 Hall Street
- Building G at 33-37 Hall Street
- Building H at 31 Hall Street
- Building I at 23-29 Hall Street

In addition, there are several historic resources within 400 feet of the Development Site including other buildings in the Wallabout Industrial Historic District and buildings within the adjacent S/NR-Listed Brooklyn Navy Yard Historic District. Therefore, an assessment of architectural resources is warranted (see **Section 7, Historic and Cultural Resources**).

Urban Design and Visual Resources

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

Because the Proposed Actions would result in physical changes to the Development Site beyond those allowable by existing zoning and which could be observed by a pedestrian from street level, a preliminary assessment of urban design and visual resources is warranted (see **Section 8, Urban Design and Visual Resources**).

Hazardous Materials

According to the *CEQR Technical Manual,* a hazardous materials assessment is conducted when elevated levels of hazardous materials exist on a site, when an action would increase pathways to their exposure, either human or environmental, or when an action would introduce new activities or processes using hazardous materials, thereby increasing the risk of human or environmental exposure. Because the Proposed Project would result in new in-ground disturbance, an assessment of hazardous materials is warranted (see **Section 9, Hazardous Materials**).

Water and Sewer Infrastructure

According to the *CEQR Technical Manual,* a water and sewer infrastructure assessment analyzes whether a proposed action may adversely affect New York City's water distribution or sewer system and, if so, assesses the effects of the action to determine whether the impact is significant.

Water Supply

According to the *CEQR Technical Manual*, a preliminary water supply infrastructure analysis is necessary if the project would result in an exceptionally large demand for water (i.e., over 1 million gallons per day [gpd]) or is located in an area that experiences low water pressure (i.e., areas at the end of the water supply distribution system such as the Rockaway Peninsula and Coney Island). The Development Site is not located in an area that experiences low water pressure. In comparison to the No-Action condition, the Proposed Project would result in a water demand at the Development Site of approximately 52,397 gpd, which is less than one million gpd. Therefore, no further analysis of water supply is warranted. Calculations of existing and future water demand at the Development Site are provided in support of the preliminary assessment of wastewater and stormwater in **Section 10, Water and Sewer Infrastructure.**

Wastewater and Stormwater

With regard to wastewater and stormwater conveyance, the *CEQR Technical Manual* states that a preliminary infrastructure analysis would be needed if a project that is located in a combined sewer area within Brooklyn would result in incremental development over the No-Action scenario of more than 400 residential units or 150,000 sf of commercial, public facility, and institution and/or community facility space. The Proposed Actions would result in the incremental development of 611 residential units. Therefore, a preliminary assessment of wastewater and stormwater conveyance is warranted (see **Section 10, Water and Sewer Infrastructure**).

Transportation

According to the *CEQR Technical Manual,* detailed transportation analyses may be warranted if the Proposed Project results in 50 or more vehicle trips, 200 or more transit/pedestrian trips, and/or 50 or more City Wide Ferry Service trips during a given peak hour.

Based on a travel demand forecast, it is expected the Proposed Project would generate 31 bus trips, 178 subway trips, four ferry trips, and 631 total pedestrian trips (walk-only plus transit, ferry and auto on-street parking trips) during the weekday AM peak hour. During the weekday midday peak hour, 22 bus trips, 116 subway trips, two ferry trips, and 578 total pedestrian trips would be generated. During the weekday PM peak hour, 33 bus trips, 170 subway trips, four ferry trips, and 829 total pedestrian trips would be generated. Lastly, during the Saturday midday peak hour, 35 bus trips, 183 subway trips, two ferry trips, and 800 total pedestrian trips would be generated.

The Proposed Project would result in an increase of 89 vehicle trips during the weekday AM peak hour, 23 vehicle trips during the weekday midday peak hour, 75 vehicle trips during the weekday PM peak hour, and 15 vehicle trips during the Saturday midday peak hour.

As shown above, the projected number of transit (bus and subway) and ferry trips generated by the Proposed Project would not exceed the CEQR Level 1 screening thresholds. Although the number of project-generated vehicle trips would exceed the CEQR Level 1 screening threshold, they would not exceed Level 2 thresholds (50 or more vehicle trips at an intersection). As a result, further detailed analysis of transit, ferry, traffic and parking are not needed.

Project-generated pedestrian trips would exceed the CEQR screening thresholds (Levels 1 and 2), and a detailed analysis is warranted for two pedestrian sidewalks and one corner area during the weekday AM, weekday midday, weekday PM and Saturday midday peak hours. (see **Section 11, Transportation**).

Air Quality

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

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

The proposed actions would facilitate the Proposed Project, which would consist of nine buildings (one new building, one existing building to be converted to residential use, and seven existing buildings to be renovated and reoccupied) with a total of 933,422 gross square feet (gsf), comprising

approximately 590,147 gsf of residential floor area (611 dwelling units [DUs]), 307,383 gsf of commercial floor area, and up to 60 accessory parking spaces. Potential air quality impacts associated with the Proposed Action include:

- Emissions impact from the project-generated vehicular travel on air quality near affected intersections;
- Emissions impact from the HVAC and hot water systems of the Proposed Project on existing and proposed sensitive uses;
- Emissions impact from industrial and manufacturing facilities on the Proposed Project.

As such, further assessment of both mobile and stationary (i.e., HVAC and industrial) sources is warranted and provided in **Section 12, Air Quality**.

As described in **Section 12**, the following analyses were considered, but not required for the Proposed Project:

- Emissions impact from nearby atypical sources on sensitive uses at the Development site.
- Parking analysis: The Proposed Project would result in an increment of 60 parking spaces between the With-Action and No-Action condition. As this is below the incremental threshold of 85 parking spaces required for further assessment, an analysis of parking emissions is not required.
- Large/major source analysis: The Development Site is not within 1,000 feet of any large or major sources, and therefore such an analysis is not warranted.

Noise

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

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

However, as the Proposed Actions would introduce new noise-sensitive land uses, a noise analysis is warranted (see **Section 13, Noise**).

Construction

Construction impacts, although temporary, can include disruptive and noticeable effects resulting from an action. The potential for construction impacts is considered when construction activity could

affect traffic conditions, archaeological resources, the integrity of historic resources, community noise levels, and area air quality conditions. In addition, because soils may be disturbed during construction, any action proposed for a site that has been found to have the potential to contain hazardous materials should also consider the potential construction impacts that could result from contamination.

A construction assessment is typically warranted for construction activities (a) lasting longer than 2 years; (b) located along an arterial highway or major thoroughfare; (c) involving the closing, narrowing, or otherwise impeding of traffic, transit, or pedestrian elements; (d) involving multiple buildings; (e) involving the operation of several pieces of diesel equipment in a single location; (f) resulting in the closure or disruption of a community facility service; (g) located within 400 feet of a historic or cultural resource; (h) disturbing a site containing or adjacent to a natural resources; and/or (i) occurring on multiple sites in the same geographic area.

The following sections discuss the Proposed Project's anticipated construction schedule and applicable construction regulations to which the Applicant is committed to implementing, worker and truck projections and potential for transportation impacts, and other measures that the Proposed Project will take during construction to reduce the potential for impacts on air quality and neighborhood noise. As described in further detail below, with these considerations and measures, construction of the Proposed Project is not expected to result in significant adverse impacts.

Construction Schedule

A conceptual construction schedule and construction staging sequencing for the Proposed Project is presented in **Table II-1,** below. In the future with the Proposed Actions, the Applicant would redevelop the Development Site with construction of a new 21-story mixed-use building (replacing Buildings A and J), and the adaptive reuse of existing buildings. This adaptive reuse would include the conversion of Building B to residential uses with some enclosed accessory parking, renovation of Buildings C and D to accommodate new self-storage facility uses, and renovation of the remaining existing buildings to accommodate a mix of commercial office, retail, and/or "maker" studio space. The duration of construction (including demolition) would total 36 months.

Absent the approval of the Proposed Actions (the "No-Action" condition), Buildings A and J would still be demolished and reconstructed, but as-of-right, as a purpose-built self-storage facility. The existing buildings on the Development Site would be renovated and reoccupied. Buildings C through I would be renovated similarly as described above for the Proposed Project. Accordingly, the duration of construction and construction scheduling associated with Buildings C through I would be similar to those anticipated under With-Action condition. Building B would be renovated and re-tenanted by as-of-right self-storage space in the future absent the Proposed Actions.

Per the *CEQR Technical Manual*, construction of the Proposed Project is considered long-term as the total duration of construction at the Development Site is anticipated to exceed 24 months. However, construction activities with the potential for disruption—i.e., demolition, excavation, foundation, superstructure, and exterior enclosure at Building A—would involve a duration of less than 24 months. The remaining construction and renovation activities at all of the Buildings A through I outside of that time frame would involve interior demolition, buildout, and restoration, all of which are less disruptive as they occur within enclosed spaces of the buildings.

As noted in the conceptual construction schedule, construction of the Proposed Project would begin with a short demolition stage of approximately 3 months during which existing Buildings A and J

would be demolished. Following this, new Building A would be constructed while concurrently, interior renovation of the remaining buildings would occur over an approximately 33-month period. For new Building A, construction would begin following the 3-month demolition period and an additional 2 months for excavation and initial foundation installation. Superstructure, exterior enclosure, and interior buildout would then occur over a period of approximately 30 months. Building B would undergo 20 months of interior demolition and buildout following 2 months of abatement. Buildings C and D would undergo a 15-month period of interior demolition and buildout. Buildings E, F, G, H, and I would undergo 2- to 4-month periods of interior demolition to restore for leasing. Overall, construction activities across the Development Site would occur simultaneously over a total period of approximately 33 months following 3 months for demolition of Buildings A and J.

As noted above, the potentially more disruptive construction activities would involve a duration of less than 24 months. Additionally, land uses within the surrounding area are predominantly manufacturing, which are considered non-sensitive receptors in accordance with CEQR guidance. There are no existing sensitive residential, commercial, or community facility uses within the vicinity of the Development Site that have a direct line of sight to the construction of Building A. In addition, the elevated highway (the BQE) buffers the Development Site from residential uses to the south, which are roughly 250 feet away.

Further, while the renovations of Buildings E, F, G, H, and I—where on-site sensitive receptors are proposed—are anticipated to be completed prior to the completion of Building A, none are anticipated to be occupied before final build-out of Building A. As shown in **Table II-1**, Buildings E, F, G, H, and I will comprise commercial uses that require an additional 6 to 8 months of fit-out work after tenant procurement. As reflected in the owner's commercial leasing experience at the site, leasing for these buildings is expected to commence only once the Development Site has been activated with residential tenancy, which is essential for attracting potential commercial tenants. Additionally, construction of Building B is expected to start at the approximate time of Building A's superstructure completion. and is expected to be completed after 22 months of abatement and interior demolition and buildout, which would coincide with the completion of Building A. Therefore, occupancy of Buildings B, E, F, G, H, and I is not anticipated until the final build-out or completion of Building A.

Table II-1 Conceptual Construction Schedule

	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	30	31	32	33	34	35	36
BUILDING A																																				
Demolition																																				
Excavation																																				
Foundation																																				
Superstructure																																				
Exterior Enclosure																																				
Interior Buildout																																				
BUILDING B																																				
Abatement																																				
Interior Demolition																																				
Interior Buildout																																				
BUILDINGS C/D																																				
Interior Demolition																																				
Encapsulation Touch-Up																																				
Interior Buildout																																				
BUILDING E																																				
Interior Demolition to Restore for Leasing																																				
BUILDINGS F/G/H/I																																				
Interior Demolition to Restore for Leasing																																				
SITE IMPROVEMENTS																																				
Site Improvements																																				

Note: The construction timing and activities for Buildings C through J shown above would be similar under the No-Action condition.

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 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, and reviews and approves certain 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. A Community Air Monitoring Program (CMP) may be established in conjunction with other remedial and regulatory programs.
- The New York City Fire Department 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 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. NYSDOT also reviews any modifications of pedestrian and vehicular crossings over active rail lines.
- The U.S. Environmental Protection Agency 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.
- Under the City Charter, the New York City Department of Small Business Services have jurisdiction over waterfront properties. For some projects led by private developers, the agency works in conjunction with DOB and New York City Economic Development Corporation to oversee activities.

Construction Hours

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 3:30 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, activity for any work outside of normal construction hours involves fewer workers, less often, and for shorter durations.

Construction Transportation

Construction activities associated with the Proposed Project would generate construction worker and truck trips during the anticipated 36-month duration of construction. An evaluation of construction sequencing and worker and truck projections was conducted as the duration of construction exceeds the *CEQR Technical Manual* screening threshold of 24 months. This evaluation focuses on the activity associated with Buildings A, B and J as the construction activity associated with the remaining buildings within the Development Site would not be different with or without approval of the Proposed Actions and therefore these activities are considered incremental.

Daily Workforce and Material Deliveries

Construction is labor intensive, and the number of workers varies with the general construction task and/or building size. Likewise, material deliveries and removals generate truck trips, and the number also varies depending on the task and/or the building size. **Table II-2** shows the estimated number of daily workers and trucks to the Development Site per quarter (i.e., three-month period) of each calendar year for the duration of construction activities associated with Buildings A, B and J. These represent the average number of daily workers and trucks within each quarter. During construction, the average number of workers would be approximately 202 workers per day, with a quarterly peak of 283 workers per day occurring in the third quarter of 2028. An average of 10 trucks per day is anticipated, and a maximum of 15 trucks per day are anticipated during the second and third quarters of 2027.

Table II-2 Average Number of Daily Construction Workers and Trucks by Quarter

Year	2026				2027				2028				2029			
Quarter	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Workers	--	--	20	35	116	184	241	255	222	282	283	248	246	260	239	--
Trucks	--	--	4	7	13	15	15	13	10	13	10	10	7	5	5	--

Source Hunter Roberts Construction Group

Construction Worker Modal Splits

The average number of construction vehicles per day were developed for the quarters of construction using 2000 Census data for the construction industry for census tracts within Brooklyn Community District 2. It is assumed that approximately 47.7 percent of construction workers would travel to the Development Site via public transportation (5.0 percent via bus and 42.7 percent via subway), 49.4 percent via auto, 0.8 percent by taxi, and 2.1 percent by walk; an average vehicle occupancy of 1.20 workers per vehicle was assumed.

Traffic

Based on the above mode share and vehicle occupancy assumptions, the peak quarter for new daily construction traffic was identified. As shown in **Table II-3**, the peak quarter of construction vehicle trips in passenger-car equivalents (PCEs)[1] would occur during the second quarter of 2028 (Q2 2028). The estimated number of daily construction-related vehicle trips would be 266 vehicle trips (292 PCEs trips).

1 As larger vehicles such as trucks typically make up a significant portion of construction traffic, a passenger car equivalent factor is applied to these vehicles to account for their size difference. Per the *CEQR Technical Manual*, it is assumed that one truck is equivalent to two passenger cars.

Table II-3 Average Number of Daily Construction Vehicle and PCE Trips by Quarter

Year	2026				2027				2028				2029			
Quarter	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Autos	--	--	16	29	96	151	198	210	183	**232**	233	204	203	214	197	--
Taxis	--	--	1	1	3	5	6	7	6	**8**	8	7	7	7	6	--
Trucks	--	--	8	14	26	30	30	26	20	**26**	20	20	14	10	10	--
Vehicles	--	--	25	44	125	186	234	243	209	**266**	261	231	224	231	213	--
PCEs	--	--	33	58	151	216	264	269	229	**292**	281	251	238	241	223	--

Peak Hour Construction Worker Vehicle and Truck Trips

Construction activities would be expected to occur on weekdays beginning at 7:00 AM and ending at 3:00 PM or 3:30 PM. Auto and taxi trips by construction workers would typically occur during the hours before and after the daily work shift for such workers. Construction truck trips would typically be distributed throughout the day depending upon the specific types of construction activities taking place; most trucks would remain in the area for short durations. For analysis purposes, each worker vehicle was assumed to arrive in the morning and depart in the afternoon, and each taxi rider and truck delivery was assumed to result in one "in" trip and one "out" trip during the same hour.

The estimated daily vehicle trips for the peak quarter of incremental construction traffic were distributed throughout the workday based on projected arrival/departure patterns of construction workers, and the projected pattern of truck deliveries based on the types of construction activities that would occur during the peak quarters for the Proposed Project. For construction workers, typical arrival patterns show that most arrivals (approximately 80 percent) occur during the 6:00 AM to 7:00 AM hour (the hour before the beginning of a regular day shift) and the same percentage of departure trips occurs during the end of the shift (the 3:00 PM to 4:00 PM hour). For trucks, deliveries are usually spread throughout the day, but the peak activity (approximately 25 percent) is anticipated to occur during the 6:00 AM to 7:00 AM hour.

The estimated daily average number of construction worker vehicles and truck deliveries during the peak construction traffic quarter, which is expected to be the second quarter of 2028, is approximately 282 construction worker vehicles and 13 trucks per day (see **Table II-2**). The peak construction hourly trip projections for the peak construction traffic quarter are summarized in **Table II-4**. The estimated number of peak hour vehicle trips generated by construction activities during the peak traffic quarter would be approximately 103 vehicle trips (109 PCEs) during the AM construction peak hour and 99 vehicle trips (101 PCEs) during the PM construction peak hour. As the AM and PM construction peak hour increments exceed the *CEQR Technical Manual* Level 1 threshold of 50 vehicle trips, a Level 2 screening assessment is needed to determine if a detailed traffic analysis is warranted for those periods per the *CEQR Technical Manual* guidelines.

Table II-4 Construction Vehicle Trips by Hour (Q2 2028)

	Auto Trips		Taxi Trips		Truck Trips		Total Vehicle Trips			Total PCE Trips		
Hour	**In**	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
6 AM – 7 AM	**93**	**0**	**2**	**2**	**3**	**3**	**98**	**5**	**103**	**101**	**8**	**109**
7 AM – 8 AM	23	0	0	0	2	2	25	2	27	27	4	31
8 AM – 9 AM	0	0	0	0	1	1	1	1	2	2	2	4
9 AM – 10 AM	0	0	0	0	1	1	1	1	2	2	2	4
10 AM – 11 AM	0	0	0	0	1	1	1	1	2	2	2	4
11 AM – 12 PM	0	0	0	0	1	1	1	1	2	2	2	4
12 PM – 1 PM	0	0	0	0	1	1	1	1	2	2	2	4
1 PM – 2 PM	0	0	0	0	1	1	1	1	2	2	2	4
2 PM – 3 PM	0	6	0	0	1	1	1	7	8	2	8	10
3 PM – 4 PM	**0**	**93**	**2**	**2**	**1**	**1**	**3**	**96**	**99**	**4**	**97**	**101**
4 PM – 5 PM	0	17	0	0	0	0	0	17	17	0	17	17

Construction Trip Assignments Screening Assessment

As summarized above, the number of peak quarter construction vehicle trips generated by the Proposed Project would exceed the *CEQR Technical Manual* Level 1 screening thresholds for vehicle trips during the AM and PM construction peak hours. Construction-related vehicle trips were assigned through the surrounding street network based on expected routes to and from the Development Site.

Construction worker auto/taxi trips were assigned through the surrounding street network based on anticipated trip origins, the configuration of the street network, expected routes to the Development Site, and on-street parking spaces potentially available near the Development Site. Delivery trips were assigned along Flushing Avenue, a local truck route that serves as a connector to the Brooklyn-Queens Expressway.

Per *CEQR Technical Manual* guidelines, a detailed traffic level of service analysis is warranted at intersections that would be expected to experience an increase in vehicle trips that exceed the Level 2 threshold of 50 or more project-generated vehicle trips during analysis peak hours. **Figure II-1** and **Figure II-2** present the project-generated construction vehicle trips assigned to the street network in the vicinity of the Development Site during the AM and PM construction peak hours, respectively. As shown in the figures, the Level 2 screening threshold is not expected to be exceeded at any intersection within the study area during either period. Therefore, no further detailed analysis of traffic is warranted, and construction activity associated with the Proposed Project would not be expected to result in significant adverse traffic impacts.

Figure II-1 Peak Construction Vehicle Trips – Construction AM Peak Hour

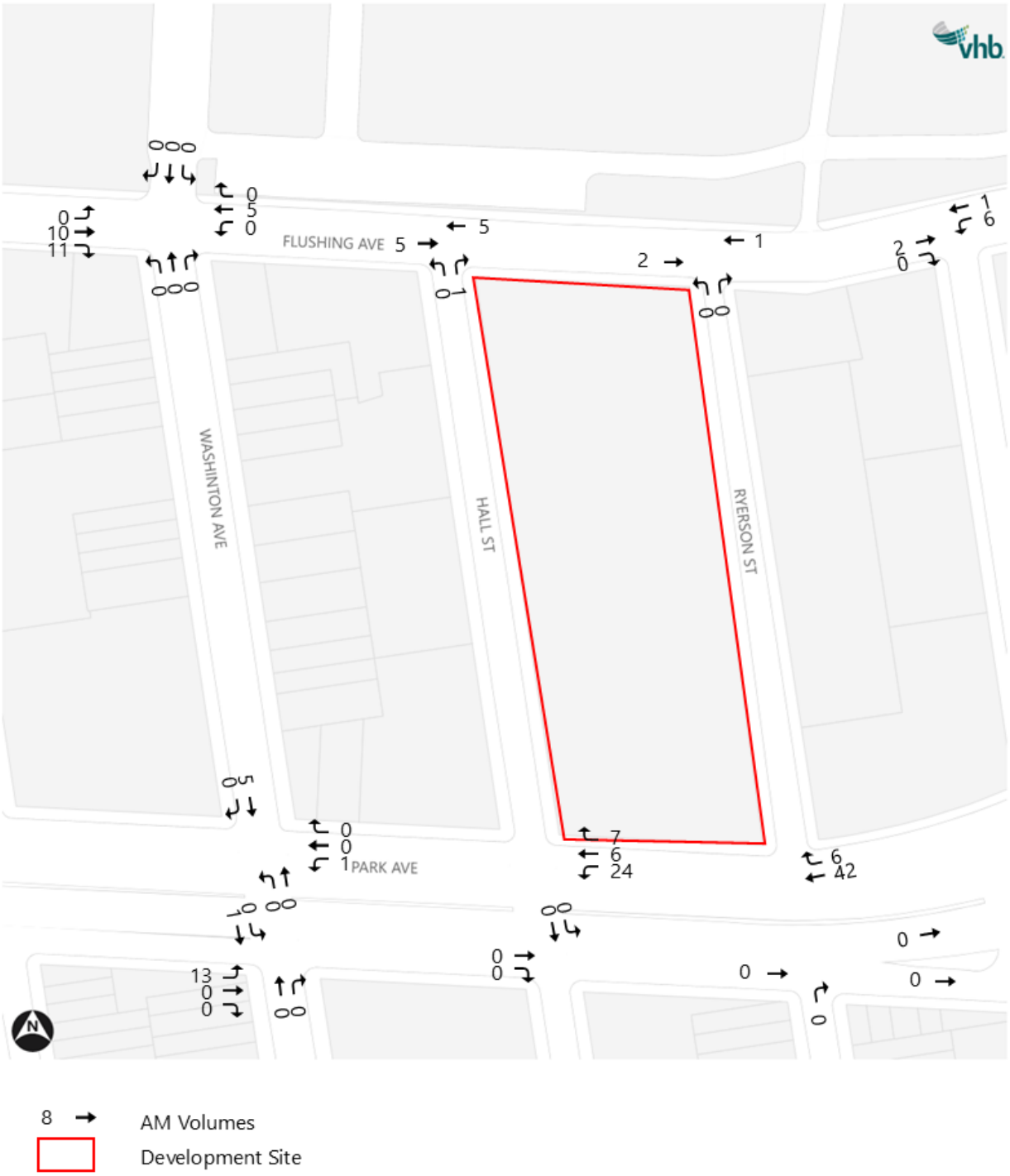
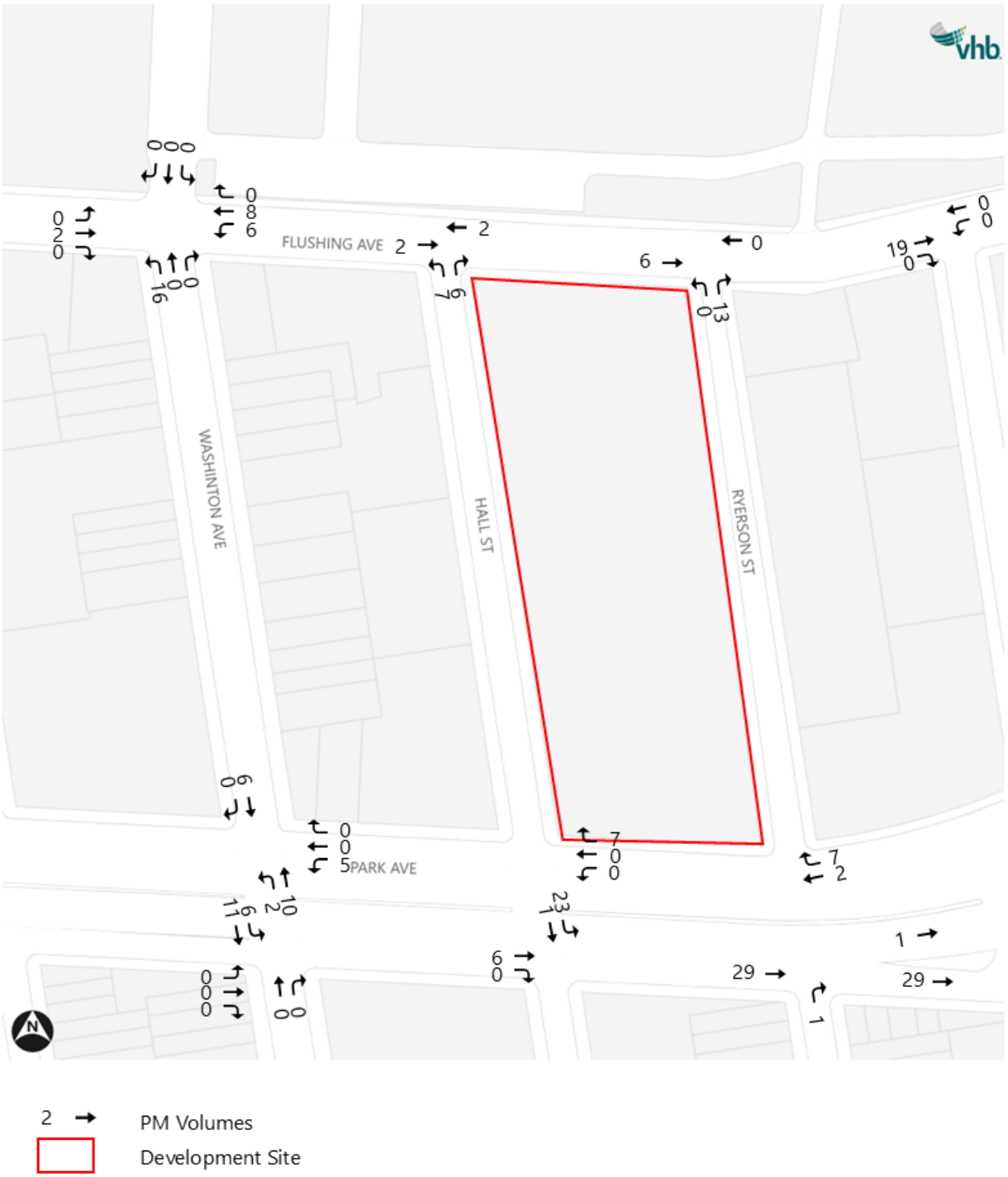


Figure II-2 Peak Construction Vehicle Trips – Construction PM Peak Hour



Transit and Pedestrians

It is anticipated that 47.7 percent of construction workers would travel to the Development Site via public transportation (5.0 percent via bus and 42.7 percent via subway). During the Q2 2028 peak quarter 14 workers and 121 workers would be expected to travel to the construction site daily by bus and subway, respectively. It is expected that most construction workers (80 percent) would arrive during the AM construction peak hour and depart during the PM construction peak hour (11 bus trips and 97 subway trips during both the AM and PM construction peak hours). As these construction-related peak hour transit trips would be lower than the *CEQR Technical Manual* Level 1 screening thresholds of 50 bus riders and 200 subway riders, detailed transit analyses are not warranted, and the Proposed Project is not likely to result in significant adverse transit impacts during construction.

During the Q2 2028 peak quarter, construction activities would generate 113 pedestrian trips (11 bus trips, 97 subway trips, and 5 walk-only trips) during the AM and PM construction peak hours. As this quantity is below the *CEQR Technical Manual* Level 1 screening threshold of 200 or more pedestrian trips, detailed pedestrian analysis is not warranted, and the Proposed Project is not likely to result in significant pedestrian impacts during construction.

Construction Air Quality

Per the *CEQR Technical Manual*, an assessment of air quality for construction activities is likely not warranted if the project's construction activities:

- Are considered short-term (less than 2 years);
- Are not located near sensitive receptors; and
- Do not involve construction of multiple buildings where due to staged project completion, there is a potential for on-site receptors occupying buildings completed before the final build-out.

The *CEQR Technical Manual* states that if a project meets one or more of the criteria above or if one of the above criteria is unknown at the time of review, a preliminary air quality assessment is not automatically required. Instead, various factors should be considered, such as the types of construction equipment (e.g., gas, diesel, electric), the nature and extent of any commitment to use the Best Available Technology (BAT) for construction equipment, the physical relationship of the Development Site to nearby sensitive receptors, the type of construction activity, and the duration of any heavy construction activity.

While construction of the Proposed Project would extend beyond two years and is located in an area with some residential uses (a majority of which are located south of the BQE), it would entail new construction of a single building. During construction, the laws, regulations, and building codes that focus on reducing air pollutant emissions associated with construction would be applicable; those, including Best Available Technologies, the use of ultra-low sulfur diesel (ULSD), and requirements consistent with the Air Pollution Control Code would be followed:

- Clean Fuel. Ultra-low sulfur diesel (ULSD) is required in New York City for diesel engines used on construction sites.
- Dust Control. The New York City Air Pollution Control Code regulates construction-related dust emissions and requires that fugitive dust control plans are developed and implemented as part of contract specifications. Fugitive dust control plans include requirements to:

- Establish stabilized truck exit areas for washing off the wheels of all trucks that exit a construction site and have the contractor clean streets adjacent to the construction site as frequently as needed;
- Water truck routes within a site as needed to avoid the re-suspension of dust;
- Equip all trucks hauling loose material with tight fitting tailgates and to securely cover their loads prior to leaving a site.
- Use water sprays for transfer of spoils to ensure that materials are dampened as necessary to avoid the suspension of dust into the air.

› Restrictions on Vehicle Idling. Vehicles are not allowed to idle more than three minutes in accordance with New York City Administrative Code §24-163. On-site vehicle idle time is 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.

› Source Location and Shielding. To reduce concentration increments at sensitive receptors, large emissions sources and activities such as concrete trucks, generators, and large compressors can be located away from the sensitive receptors to the extent practical.

› Diesel Equipment Reduction.

- Federal standards for nonroad diesel engines have become more stringent over time. Federal standards for nonroad diesel engines were first adopted in 1994 for engines over 50 hp and were phased in from 1996 to 2000 (Tier 1 standards). Subsequently, more stringent regulations were adopted (Tier 1-3 standards) and phased in from 2000 to 2008, and most recently, Tier 4 standards were adopted and phased in from 2008 to 2015. These regulations address emissions of particulate matter (PM) and nitrogen oxide (NOx). It is expected that air emissions associated with such engines is reduced.
- Given the construction timeframe for the Proposed Project (2026-2030), equipment meeting Tier 4 standards for diesel engines (model years 2011/12 and beyond) is expected to be in wide use and comprise the majority of contractors' fleets. The use of Tier 4 engines achieves DPM reductions of approximately 90 percent when compared to older uncontrolled engines.

  In addition to stricter standards for diesel equipment, the electrification of certain equipment is a common practice that has been achieving wider use as technology improves. The use of electric engines that operate on grid power instead of diesel power is most commonly in use for engines hoists and small equipment, such as lifts, compressors, welders, and pumps.

With these strict standards regulating air emissions at construction sites in New York City, and given that the Proposed Project consists of a single new building; that no existing sensitive residential, commercial, or community facility uses are located within the vicinity of the Development Site and that the elevated highway (the BQE) buffers the Development Site from existing residential uses to the south (which are approximately 250 feet away); and that Buildings B through I are not anticipated to be occupied by sensitive uses prior to final build-out of Building A, it is expected that construction of the Proposed Project would not result in significant adverse construction air quality impacts, and no further assessment is necessary.

Construction Noise

Per the *CEQR Technical Manual*, an assessment of noise for construction activities is likely not warranted if the project's construction activities:

- Are considered short-term (less than two years);
- Are not located near sensitive receptors; and
- Do not involve construction of multiple buildings where due to staged project completion, there is a potential for on-site receptors occupying buildings completed before the final build-out.

The manual states that if a project meets one or more of the criteria above or if one of the above criteria is unknown at the time of review, a preliminary noise assessment is not automatically required. Instead, various factors should be considered, such as the types of construction equipment (e.g., gas, diesel, electric), the nature and extent of any commitment to use the BAT for construction equipment, the physical relationship of the Development Site to nearby sensitive receptors, the type of construction activity, and the duration of any heavy construction activity.

To illustrate the above, construction noise, generated by pile driving, truck traffic, blasting, demolition, etc., is generally analyzed only when it affects a sensitive receptor over a long period of time. Based upon experience, unless ambient noise levels are very low and/or construction source levels are very high, and there are no structures that provide shielding, it is unusual for construction sources to have significant impacts at distances beyond 1,500 feet in New York City. Therefore, further analysis should be performed if the proposed project would cause construction equipment to be operating within 1,500 feet of a receptor for a period of time exceeding 2 years. In some circumstances, however, even a construction phase shorter than 2 years may affect highly sensitive locations (schools, hospitals, etc.), warranting further quantitative analysis.

Construction of the Proposed Project would not involve blasting, and excavation activities are expected to be limited given most activities will be rehabilitation work and the new building is in a location where the existing building has a cellar. Additionally, there are no sensitive receptors within the 1,500-foot radius that have a direct line of sight to the future Building A; the elevated highway buffers the development site from sensitive receptors to the south. And as noted above, the more disruptive construction activities—i.e., demolition, excavation, foundation, superstructure, and exterior enclosure at Building A—would involve a duration of less than 24 months, whereas all remaining construction and renovation activities at Buildings A through I would involve interior demolition, buildout, and/or restoration, all of which occur within enclosed spaces of the buildings and are less disruptive to the surrounding neighborhood. Construction of the Proposed Project would be undertaken consistent with the New York City Noise Code, which includes requirements to implement certain controls to reduce construction-period noise at the source:

- Equipment must meet the sound level standards specified in Subchapter 5 of the New York City Noise Control Code.
- Construction equipment is required to be equipped with necessary noise reduction equipment, including mufflers. All equipment with internal combustion engines is required to be operated with the doors closed, including noise-insulating materials and at the lowest engine speed allowable.
- Replacing back-up alarms with strobes, as allowed within OSHA regulations, to eliminate annoying impulsive sound.

- Vehicles are not allowed to idle more than 3 minutes in accordance with New York City Administrative Code §24-163.
- Contractors must implement training programs to inform workers on methods that can minimize construction noise.

The New York City Noise Code also includes noise pathway control requirements:

- 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. Section 3307.7 of the New York City Building Code requires a solid 8-foot wall made of wood or other suitable material be constructed where a new building is being constructed or a building is being demolished to grade.
- Building portable noise walls around construction areas to reduce noise, if needed.
- Locating noisy equipment as far from sensitive receptors as possible.

Given the factors discussed above, including that the more intense construction activities (i.e. demolition, excavation, foundation, superstructure, and exterior enclosures) would not exceed 24 months, and that there are no existing sensitive receptors with a direct line of sight to the future Building A within 1,500 feet of the Development Site, in addition to the Proposed Project's commitment to implementing measures to reduce construction noise emissions consistent with the New York City Noise Code, no further assessment is warranted.

Other Technical Areas Potentially Impacted by Construction

Land Use and Neighborhood Character

While construction of the Proposed Project would cause temporary disruption, it is expected that such effects in any given area would be relatively short in duration, even under the worst-case construction sequencing and, therefore, would not create a neighborhood character impact. Therefore, no significant adverse construction impacts to land use and neighborhood character are expected.

Socioeconomic Conditions

Construction could, in some instances, temporarily affect pedestrian and vehicular access on street frontages immediately adjacent to the Development Site; however, long-term lane and/or sidewalk closures are not expected during construction and therefore, would not restrict access to any existing or planned retail businesses. Utility service would also be maintained to all businesses, although there may be very short-term interruptions. Overall, construction of the Proposed Project is not expected to result in any significant adverse impacts on surrounding businesses.

Community Facilities and Services

The construction site would be surrounded by construction fencing and barriers that would limit the potential for impacts of construction on nearby community facilities. Construction of the proposed buildings would not block or restrict access to facilities in the area and would not affect emergency response times of the New York City Police Department (NYPD) and New York City Fire Department (FDNY) given the geographic distribution of the police and fire facilities and their respective coverage

areas. Therefore, no construction impacts would be expected to community facilities as a result of the Proposed Project.

Open Space

As described in **Section 5, Open Space** there are no existing publicly accessible open spaces on the Development Site. While Washington Hall Park and Steuben Playground are within close proximity to the Development Site, access to these publicly accessible open spaces would not be impeded during construction. In addition, as described above, measures would be implemented to control air emissions, dust, and noise on the construction site.

Historic and Cultural Resources

As discussed in **Section 7, Historic and Cultural Resources,** the Development Site has no archaeological significance and therefore, construction would not affect any archaeological resources.

The Development Site is not a designated New York City Landmark (NYCL) or New York City Historic District and is not calendared for consideration by LPC. Review of the New York State Historic Preservation Office Cultural Resource Information System indicates that there is a previously identified S/NR-listed historic resource within the Development Site—the Wallabout Industrial Historic District (see description below). The Wallabout Industrial Historic District covers five blocks and includes approximately 40 contributing buildings. Of the ten existing commercial/industrial buildings on the Development Site (Buildings A through J), nine of the ten buildings are considered contributing resources to the district.

As described in **Section 7**, as Building A, which is listed in the S/NR as a contributing resource to the Wallabout Industrial Historic District, would be demolished under No-Action conditions, construction of the Proposed Project under future With-Action conditions would not constitute a significant adverse impact to the district as compared to the No-Action condition. Additionally, as described in **Section 7**, a Construction Protection Plan (CPP) pursuant to the New York City Department of Buildings' (DOB) Technical Policy and Procedure Notice (TPPN) #10/88 will be required for the Development Site. The CPP will be developed in consultation with LPC to avoid any direct impacts to historic resources located within 90 linear feet of proposed construction activities at the Development Site. TPPN #10/88 supplements the standard building protections afforded by the Building Code by requiring, among other things, a monitoring program to reduce the likelihood of construction damage to adjacent S/NR-listed resources (within 90 feet) and to detect at an early stage the beginnings of damage so that construction procedures can be changed. As such, construction of the Proposed Project would not result in a significant adverse impact on architectural resources.

Hazardous Materials

As discussed in greater detail in **Section 9, Hazardous Materials**, the potential for significant adverse impacts related to hazardous materials resulting from the Proposed Project would be precluded through the development and implementation of a RAP and CHASP during redevelopment. These measures would be memorialized through the assignment of an (E)-Designation on the Development Site to ensure investigation, mitigation, and remediation of any hazardous materials would be completed in a safe, and comprehensive manner.

Water and Sewer Infrastructure

As described in **Section 10, Water and Sewer Infrastructure**, construction of the Proposed Project would incorporate low flow plumbing fixtures to reduce sanitary flow in accordance with the New York City Plumbing Code, and that stormwater best management practices would be required in accordance with the NYC DEP Unified Stormwater Rule (USWR) guidelines, which includes requirements for bringing the Development Site into compliance with the allowable stormwater release rate. The incorporation of the appropriate sanitary flow and stormwater source control storm management practices would reduce the overall volume of sanitary sewer discharge and stormwater runoff as well as the peak stormwater runoff rate from the Development Site, and the sewer capacity at the Newtown Creek WRRF is expected to adequately handle wastewater flow resulting from the Proposed Project. As such, construction of the Proposed Project is not expected to result in a significant adverse impact on the City's water and sewer infrastructure.

1

Introduction

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

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

Analysis of these areas follow in **Section 2** through **Section 13**.

2

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 *2021 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.

Introduction

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

Methodology

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

- Describes existing and future land uses and zoning information, and describes any changes in zoning that could cause changes in land use;

› Characterizes the land use development trends in the area surrounding the Development Site that might be affected by the proposed action; and

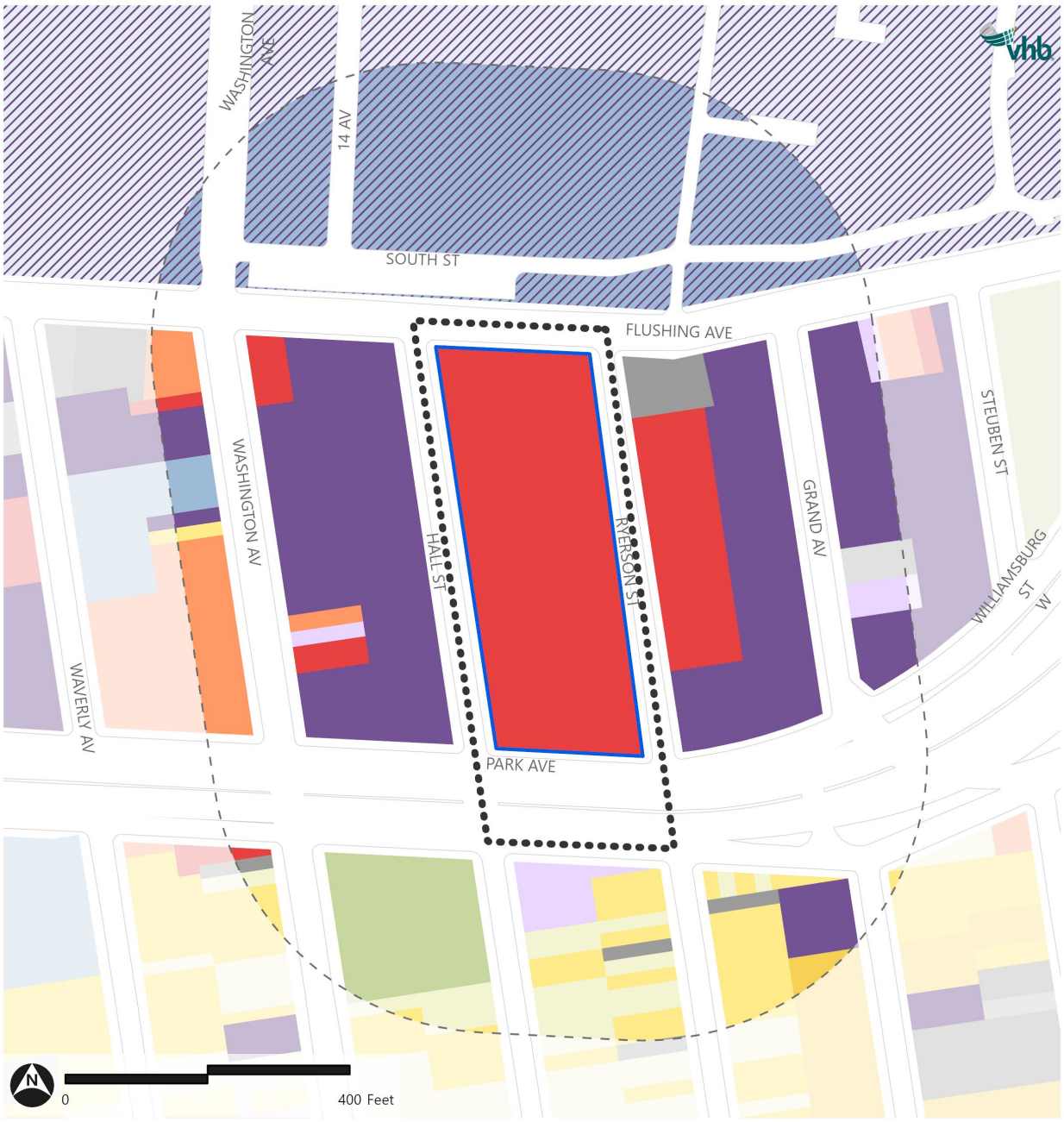
› Determines whether the proposed project is compatible with those trends or may alter them.

The following assessment method was used to determine the potential for the proposed project to result in significant adverse impacts on Land Use, Zoning, and Public Policy:

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

The study area for this analysis is the area within 400 feet of the Project Area, which, for the Proposed Project, is generally bounded by South Street to the north, Grand Avenue to the east, Park Avenue to the south, and Washington Avenue to the west (see **Figure 2-1**). 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.

Figure 2-1 Land Use Map



Source: MapPLUTO

Assessment

Existing Conditions

Land Use

Rezoning Area and Development Site

The Proposed Actions would affect the Rezoning Area, which is bounded by Flushing Avenue to the north, Ryerson Street to the east, Park Avenue to the south (southerly street line of Park Avenue), and Hall Street to the west. Within the Rezoning Area, the Development Site is the area where development would occur as a result of the Proposed Actions and comprises a single full-block tax lot (Block 1876, Lot 1) with street frontage on the same four streets described above (see **Figure 2-1**).

The Development Site has a lot area of approximately 113,833 square feet (sf), with roughly 204 feet of frontage along Flushing and Park Avenues and roughly 569 feet of frontage along Hall and Ryerson Streets. It is improved with ten existing former manufacturing buildings (Buildings A through J), each of which were initially constructed between 1889 and 1927. In total, the existing buildings contain approximately 589,228 gsf (532,258 zoning square feet [zsf]; floor area ratio [FAR] of 4.68), and collectively exceed the permitted FAR of 2.0 for commercial and industrial uses within the underlying M1-2 district.

- Building A is an approximately 63,891-gsf (52,640-zsf), 5-story structure located at the corner of Flushing Avenue and Ryerson Street.
- Building B is an approximately 218,923-gsf (205,077-zsf), 9-story structure with a basement located at the midblock with frontage on Ryerson Street.
- Building C is an approximately 98,922-gsf (96,008-zsf), 9-story structure with a basement located at the corner of Ryerson Street and Park Avenue.
- Building D is an approximately 61,552-gsf (60,912-zsf), 9-story structure with a basement with frontage on Park Avenue.
- Building E is an approximately 2,993-gsf (2,993-zsf), 1-story structure located at the corner of Park Avenue and Hall Street.
- Buildings F, G, H, and I are four buildings at the midblock with frontage on Hall Street. Building F is an approximately 55,354-gsf (46,934-zsf), 8-story structure; Building G is an approximately 16,586-gsf (13,372-zsf), 3-story structure; Building H is an approximately 21,777-gsf (17,595-zsf), 5-story structure; and Building I is an approximately 37,504-gsf (30,864-zsf), 5-story structure.
- Building J is an approximately 11,726-gsf (5,863-zsf), 1-story ancillary structure that is set back more than 50 feet from Flushing Avenue with frontage on Hall Street.

Portions of the Development Site were recently licensed by the NYC Health and Hospitals Corporation to temporarily operate as a Humanitarian Emergency Response and Relief Center (HERRC). Specifically, approximately 3,300 gsf in Building I is currently in use as commercial office space and approximately 11,601 gsf on the ground floor of Building I is vacant commercial retail space. The rest of the Development Site is in use by the HERRC.

Study Area

The Development Site is located within the Wallabout neighborhood of Brooklyn Community District 2. As shown in **Figure 2-1** and **Table 2-1**, the study area offers a mix of land uses, but is predominantly characterized by industrial and residential uses, which make up 25 percent and 49 percent of the study area's total lots, respectively. Predominant residential uses include one- and two-family buildings and multifamily walkup buildings, which make up 20 percent and 29 percent of total lots, respectively. A number of other uses are interspersed throughout the neighborhood, including commercial uses, mixed commercial and residential uses, and vacant land, which together cover a total of 16 percent of total lots. Although institutional uses account for the largest percentage of total lot area (71 percent) they comprise only 2 percent of total lots within the study area.

Park Avenue, of which the Brooklyn-Queens Expressway is elevated over, generally splits land uses in the study area, with primarily residential uses to the south and a mix of industrial, commercial, and institutional, and some residential uses to the north. Residential uses south of Park Avenue consists primarily of one- and two-family buildings and multifamily walkup buildings. Also interspersed throughout this portion of the study area are commercial, open space, vacant, and industrial uses.

To the west and east of the Development Site are primarily industrial uses. However, to the west of the Development Site along Washington Avenue is a mix of uses including mixed-use residential and commercial, residential, institutional, transportation/utility, and commercial uses in addition to the more prevalent industrial use within the study area. Additionally, four blocks west of the Development Site, just outside of the 400-foot study area, a zoning map and text amendment were approved in 2018 to rezone a site at 205 Park Avenue from an M1-2 zoning district to an R7D/C2-4 Mandatory Inclusionary Housing (MIH) district (CEQR No. 15DCP083K), which facilitated the development of a mixed-use 9-story residential and commercial building containing 93 dwelling units (DUs) (completed in 2022). Located on the same block as the 205 Park Avenue rezoning is the Navy Green mixed-use development, which consists of 103,000 gsf of residential, commercial, and community facility space containing 460 DUs. Additionally, a mix of commercial and transportation/utility uses, as well as parking facilities, can be found east of the Development Site. North of the Development Site consists of industrial and institutional uses associated with the Brooklyn Navy Yard, a 300-acre city-owned industrial campus consisting of industrial and institutional buildings as well as public plaza space.

Table 2-1 Study Area Generalized Land Uses

Land Use	Number of Tax Lots	Percentage of Total Lots (%)[1]	Lot Area (sf)	Percentage of Total Lot Area (%)[1]
One- & Two-Family Buildings	20	20%	36,669	2%
Multifamily Walkup Buildings	30	29%	57,766	3%
Multifamily Elevator Buildings	1	1%	25,000	1%
Mixed Commercial/Residential Buildings	5	5%	55,920	3%
Commercial/Office Buildings	6	6%	163,024	7%
Industrial/Manufacturing	26	25%	235,461	11%
Transportation/Utility	4	4%	19,263	1%
Public Facilities & Institutions	2	2%	1,569,110	71%
Open Space	1	1%	39,258	2%
Parking Facilities	2	2%	5,000	0%
Vacant Land	5	5%	17,067	1%
Total	**102**	**100%[1]**	**2,223,538**	**100%[1]**

Source: Map PLUTO 23v2

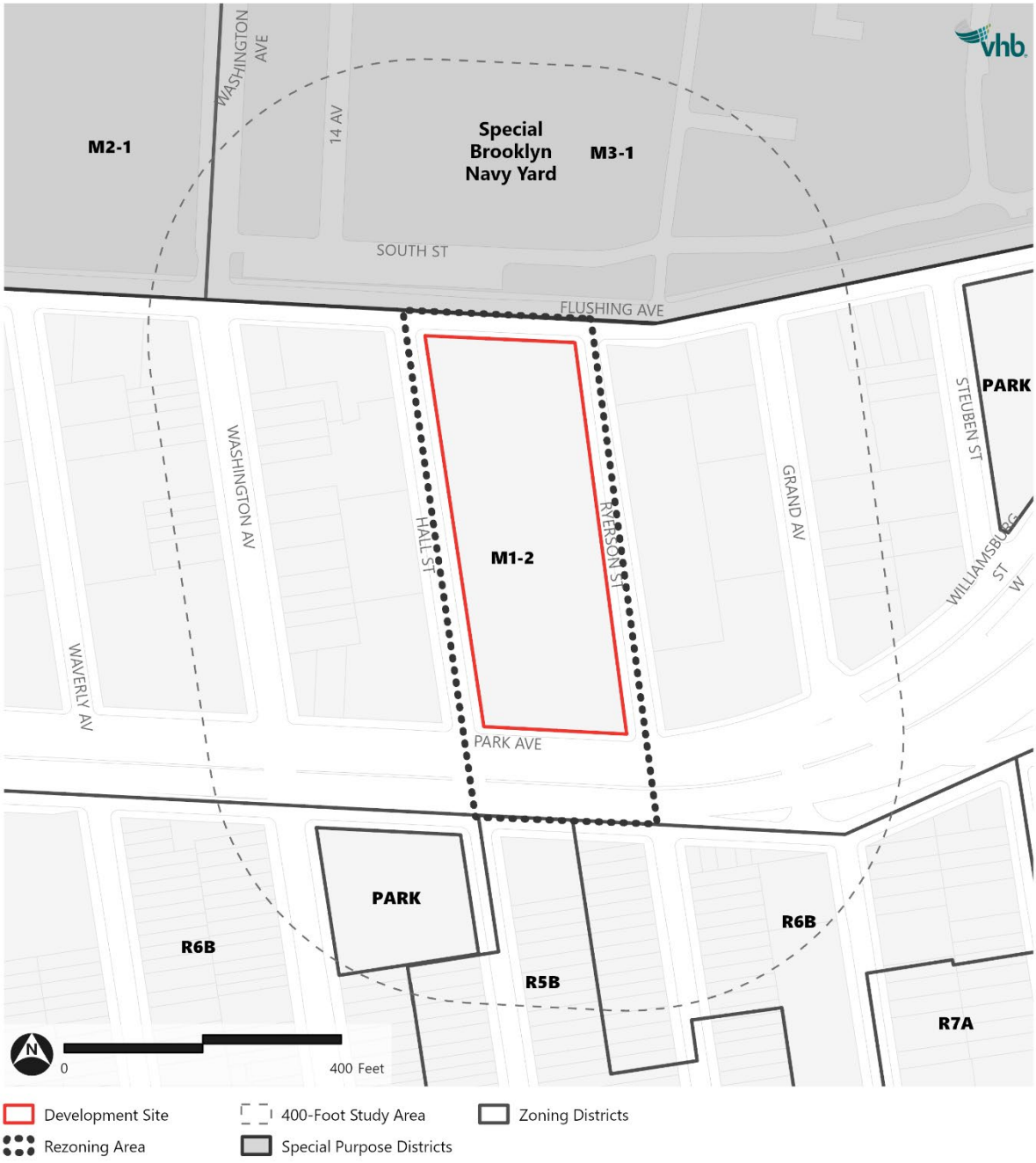
[1] Numbers may not add up to 100% due to rounding

Zoning

Development Site and Project Area

As shown in **Figure 2-2**, the Rezoning Area is entirely mapped within an M1-2 manufacturing district. M1 districts often serve as buffers between M2 or M3 districts and adjacent residential or commercial districts. Light industrial uses such as woodworking shops, repair shops, and wholesale service and storage facilities are typical of M1 districts, however, offices, hotels and most retail uses are also permitted. Certain community facilities, such as hospitals, are allowed in M1 districts only by special permit, but houses of worship are allowed as-of-right. M1 districts are often buffers between M2 or M3 districts and adjacent residential or commercial districts. M1-2 zoning districts have an FAR of 2.0 and, except along district boundaries, no side yards are required. Rear yards at least 20 feet deep are usually required, except within 100 feet of a corner.

Figure 2-2 Zoning Map



Source: MapPLUTO

Study Area

As shown in **Figure 2-2**, the study area contains a mix of residential and manufacturing zoning districts. The portion of the study area to the south of Park Avenue is zoned R6B, R5B, and Park Avenue while the portion of the study area to the north of Park Avenue is zoned M1-2, described above, as well as M3-1 and M2-1.

R5B is a primarily 3-story rowhouse district, but also permits detached and semi-detached buildings. R5B districts are low- to medium-density residential zones which allow up to a maximum permitted FAR of 1.50 for residential uses (2.0 FAR for qualifying residential sites) and 2.0 for community facility uses. Buildings in the R5B districts are permitted a maximum street wall height of 25 feet, with a maximum building height of 35 feet; for qualifying residential sites, buildings are permitted a maximum base height of 45 feet, with a maximum building height of 55 feet.

R6B districts are often traditional row-house districts, which preserve the scale and harmonious streetscape of neighborhoods of four-story attached buildings developed during the nineteenth century. Many of these houses are set back from the street with stoops and small front yards that are typical of Brooklyn's "brownstone" neighborhoods. R6B districts allow up to a maximum permitted FAR of 2.0 for residential uses (2.40 FAR with qualifying affordable or senior housing) and FAR of 2.0 for community facility uses. Buildings in R6B districts are permitted a minimum base height of 30 feet, a maximum base height of 45 feet, and a maximum building height of 55 feet; for buildings with qualifying affordable or senior housing, buildings are permitted a minimum base height of 45 feet and a maximum building height of 65 feet.

M2 districts occupy the middle ground between light and heavy industrial areas. M2 districts are mapped mainly in the city's older industrial areas along the waterfront. Except when M2 uses border on a residence district, higher levels of noise and vibration are allowed, smoke is permitted, and industrial activities need not be entirely enclosed. M2-1 zoning districts have a floor area ratio of 2.0. The maximum base heights before setback are 60 feet or four stories, whichever is less, in M2-1 districts.

M3 districts are designated for areas with heavy industries that generate noise, traffic, or pollutants. Typical uses include power plants, solid waste transfer facilities and recycling plants, and fuel supply depots. M3 districts are usually located near the waterfront and buffered from residential areas. M3-1 zoning districts have a maximum FAR of 2.0 and a maximum base height before setback of 60 feet or four stories, whichever is less.

The Special Brooklyn Navy Yard District, found north of the Development Site, was established in 2021 in connection with the Brooklyn Navy Yard Master Plan, described below. The district is intended to position the Brooklyn Navy Yard as a modern manufacturing complex, spurring job growth by allowing for a greater range of commercial and community facility uses both to complement the existing uses and better integrate the Navy Yard with its surrounding context. The district establishes unique bulk regulations along the waterfront, allowing for a range of building heights between 315 and 395 feet, and promotes active streetscapes and public open spaces in strategic locations.

The Special Brooklyn Navy Yard District established four subdistricts along the perimeter of the Yard: a Navy Street Subdistrict; a Flushing Subdistrict; a Barge Basin Subdistrict; and a Core Subdistrict. Through special use regulations, the special district permits community facility and commercial uses within the subdistricts to facilitate a public-facing transition zone between the Brooklyn Navy Yard

and the surrounding communities. Additionally, within the four subdistricts are special bulk controls and public space requirements in connection with new development.

Public Policy

PlaNYC: Getting Sustainability Done

In April 2023, *PlaNYC: Getting Sustainability Done* was published as part of the fifth in a series of climate action plans released by the City. It is centered around delivering a cleaner, greener, and more just city for all. PlaNYC builds on the equity focus of the last sustainability plan developed for the City, known as *OneNYC 2050: NYC Green New Deal*. Like OneNYC, growth, sustainability, and resiliency are at the core of PlaNYC, but environmental justice, equity, and improving public health are guiding principles throughout the plan. PlaNYC consists of three objectives, which include:

- Protection from flood threats: this objective sets goals to mitigate extreme heat, adapt to flooding, and build decarbonization upgrades and pathways to incorporate clean and reliable energy in the public and private infrastructure.
- Improving quality of life: this objective aims to create safe access to quality green spaces, restore forested areas through planting drives, improve health and ecological function of waterways, cut down transportation emissions, ensure that streets provide a safe, clean and livable environment, and reduce emissions from food systems through commercial cooking retrofits and sustainable farming practices.
- Building the green economic engine: this objective aims to accelerate an equitable green economy transition by advancing climate education, creating green jobs opportunities, encouraging entrepreneurship and industry innovation, and creating a circular economy especially for recyclables and reusable assets.

Housing Blueprint

In 2022, the Adams administration released *Housing Our Neighbors: A Blueprint for Housing and Homelessness* (*Housing Blueprint*), a comprehensive plan to address New York City's affordable housing crisis. The overall goal of the *Housing Blueprint* is to ensure safe, high-quality, affordable housing for all New Yorkers. The *Housing Blueprin*t ties together the work of various City agencies with an extensive community engagement process that directly engaged New Yorkers who are experiencing or have experienced homelessness to address housing issues in a more holistic way.

The goals of the plan are:

- Transform the New York City Housing Authority
- Address homelessness and housing instability
- Create and preserve affordable housing
- Improve the health and safety of New Yorkers
- Reduce administrative burden

Waterfront Revitalization Program

The Development Site is located within the Coastal Zone Boundary. The Waterfront Revitalization Program (WRP) is the City's principal Coastal Zone management tool and establishes a broad range of public policies for the City's coastal areas. The guiding principle of the WRP is to maximize the

benefits derived from economic development, environmental conservation, and public use of the waterfront, while minimizing the conflicts among these objectives. The WRP was originally adopted in 1982. Subsequent revisions include incorporation of climate change and sea level rise considerations to increase the resiliency of the waterfront area, promotion of waterfront industrial development as well as commercial and recreational waterborne activities, increased restoration of ecologically significant areas, and best practices for the design of waterfront open spaces.

Brooklyn Navy Yard Industrial Business Zone (IBZ)

IBZs are designated areas established in 2006 to protect existing manufacturing districts and encourage industrial growth. IBZs seek to foster traditional New York City industries like design, fashion, and food manufacturing as well as emerging sectors like bioengineering and urban technology. This designation is intended to foster high-performing business districts by creating competitive advantages over locating in areas outside of New York City. The Brooklyn Navy Yard IBZ consists of the entire Brooklyn Navy Yard property, bounded by Hudson Avenue to the west, Flushing Avenue to the south, and Kent Avenue to the east.

Green Economy Action Plan

The Green Economy Action Plan was jointly developed by New York City Economic Development Corporation and the Mayor's Office of Talent and Workforce Development to advance the commitment of the 2023 PlaNYC: Getting Sustainability Done to create a comprehensive green economy industry action plan. The plan details City commitments to catalyze businesses, nonprofits, and everyday New Yorkers to collectively build a sustainable, equitable green economy ecosystem in New York City, with the overall goal to spur 400,000 green economy jobs by 2040.

Specific goals of the plan are:

1. Decarbonize buildings and construction
2. Develop a renewable energy system
3. Enable low-carbon alternatives in the transportation sector
4. Catalyze innovation in climate technologies
5. Ensure an equitable green economy ecosystem

No-Action Condition

Land Use

Development Site

It is anticipated that the temporary HERRC shelter facility located at the Development Site will conclude operations in 2025. Absent the approval of the Proposed Actions, Buildings E through I would each be occupied by as-of-right commercial office, retail, and/or "maker" space, and Buildings B, C, and D would be occupied by as-of-right self-storage (Use Group IX(A)) space. While Buildings B through I are expected to be re-tenanted by a mix of commercial office, retail, maker space, and/or self-storage space, it is anticipated that Buildings A and J would be demolished and reconstructed as a purpose-built self-storage facility in the future absent the Proposed Actions. Under No-Action conditions, the Development Site would contain a total of approximately 579,228 gsf (532,258 zsf) of

commercial uses, including 34,857 gsf of retail uses, 455,014 gsf of self-storage uses, and 99,357 gsf of office and/or maker space uses.

Study Area

There is one new development that is anticipated within the study area by the 2030 build year: the BNY Master Plan. The BNY Master Plan includes three new buildings that would total to approximately 5 million gsf of manufacturing and commercial office/retail. Additionally, it would provide public access to the 300-acre Brooklyn Navy Yard by the inclusion of publicly accessible open space.

Table 2-2 No-Action Developments in Study Area

Location	Description	Building Program	Build Year
BNY Master Plan	Development of a 300-acre Yard with vertical manufacturing space that is interconnected by open space.	› Approximately 3 million gsf of manufacturing space › Approximately 800,000 gsf of commercial space › Approximately 750,000 gsf of community facility space › Approximately 6 acres of open space	2030

Source: Special Brooklyn Navy Yard District EAS (CEQR No. 19DME011K)

Zoning

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

Public Policy

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

With-Action Condition

In the future with the Proposed Action, as detailed in **Part I: Project Description**, the Applicant would carry out the Proposed Project and redevelop the Development Site with construction of a new 21-story mixed-use building and the adaptive reuse of existing buildings, including gut renovation and conversion of Building B to residential uses with some enclosed accessory parking facility, renovation of Buildings C and D to accommodate new self-storage facility uses, and renovation of the remaining existing buildings to accommodate a mix of commercial office, retail, and/or maker studio space.

The Proposed Actions would result in the total development of approximately 933,422 gsf of floor area, including 590,147 gsf of residential space (611 DUs; of which, 153 to 183 units would be designated as permanently affordable pursuant to MIH); 47,552 gsf of retail space; 160,474 gsf of self-storage space; 99,357 gsf of office/maker space; and 35,892 gsf of accessory parking space (including up to approximately 60 accessory parking spaces). The Proposed Project functionally maximizes the development conditions that would result from the Proposed Actions. The Proposed Project has a total FAR of approximately 7.79 within the M1-6A/R8 district portion of the Development Site (max permitted 8.0 FAR) and 4.73 FAR within the M1-5 district portion of the Development Site (max permitted 5.0 FAR). Under the Proposed Project, it is assumed that the new development (Building A) would substantially maximize the building envelope permitted under the proposed zoning, and a mechanical bulkhead of 30 feet is assumed (for a total maximum bulkhead height of 245 feet).

Land Use

As described above, the study area is characterized by primarily industrial and residential land uses, with residential uses generally found south of Park Avenue and industrial uses generally found north of Park Avenue. Directly east and west of the Development Site are blocks made up of industrial and commercial uses. The Proposed Actions would facilitate the redevelopment of the Development Site from its current commercial office and retail use to the proposed mixed-use residential, commercial, and self-storage. Compared with the No-Action condition, the Development Site would be redeveloped with similar uses, however, the Proposed Actions would allow for additional residential space that would be consistent with existing residential uses found to the south of the Development Site. The proposed commercial uses would be consistent with existing uses on the Development Site as well as within the study area. As stated earlier, a zoning map and text amendment to rezone a site located approximately four blocks west of the Development Site at 205 Park Avenue from M1-2 to R7D/C2-4 (MIH) was approved in 2018, which facilitated the development of a 9-story, mixed-use residential and commercial building containing both market-rate and affordable units (pursuant to MIH). Although just outside the study area, the approved rezoning shows local precedent for zoning actions and land uses similar to those being proposed at the Development Site. Additionally, the Proposed Actions would facilitate the development of much needed affordable housing within the study area. Since the Development Site would be located within a block of the Brooklyn Navy Yard, a major hub for jobs in the area, the Proposed Project would facilitate housing at a variety of income levels and allow the possibility for a variety of household types to be located in close proximity to work. Based on the foregoing, the Proposed Project would be consistent with the land use patterns of the Development Site's immediate surroundings and would not have a significant adverse impact on land use.

Zoning

As detailed in **Part I: Project Description**, the Proposed Actions would include the following zoning changes:

- Zoning map amendment to change the existing M1-2 district to (i) an M1-5 district at midblock along Hall Street and (ii) an M1-6A/R8 District (MX-27) over the remaining majority of the Rezoning Area
- Zoning text amendment to the Zoning Resolution (ZR) of the City of New York, as amended:
  - To amend Section 123-90 (Special Mixed-Use Districts Specified) to add Special Mixed-Use District 27; and
  - To amend Appendix F of the Zoning Resolution to designate portions of the Rezoning Area proposed to be mapped as a mixed-use M1-6A/R8 district as an MIH area.

Overall, the Proposed Actions would facilitate the development of new housing opportunities while preserving existing commercial uses that are compatible with uses found within the study area. As described in **Part I: Project Description**, the proposed zoning map amendment would permit residential uses on the portion of the Development Site to be mapped with a mixed-use M1-6A/R8 district. The midblock portion of the Development Site along Hall Street would be mapped with an M1-5 district to designate portions of the Development Site with active commercial uses. The commercial uses would provide ground floor retail to activate the Hall Street frontage and upper floors would be planned for office/maker spaces to attract creative and innovative tenants.

The proposed zoning text amendment to modify ZR Section123-90 (Special Mixed-Use Districts Specified), would create a new MX-27 district zoned M1-6A/R8. The proposed mixed-use district would permit a maximum FAR of 8.0, allowing the Applicant to create a significant amount of new housing at a density that is appropriate on the Development Site in the context of the Wallabout neighborhood. Additionally, the text amendment to Appendix F of the ZR to map an MIH area coterminous with the proposed M1-6A/R8 district would introduce new, permanently affordable units to the Wallabout neighborhood where affordable housing is in high demand.

Generally, M1 districts serve as transition districts between residential uses and more intense manufacturing uses. The proposed zoning changes would maintain the Development Site's existing use as a transition area between residential and industrial zoning districts, while also providing for needed affordable housing within the study area. As such, the Proposed Actions would not result in significant adverse impacts to zoning.

Public Policy

PlaNYC: Getting Sustainability Done

The Proposed Project would be consistent with certain "Buildings" initiatives outlined in PlaNYC that focus on reducing fossil-fuel consumption, reducing localized air pollution in NYC, and supporting building owners in complying with Local Law 97 emissions reduction goals. The Proposed Project would use heating, ventilation, and air-conditioning (HVAC) systems that permit the electrification of heating and air-conditioning for the building. Electric heaters would be used for domestic hot water.

Housing Blueprint

The Proposed Actions would be consistent with the Housing Blueprint as they would result in approximately 153 to 183 new permanently affordable units (pursuant to MIH) in the Wallabout neighborhood. Additionally, the Proposed Actions would facilitate both market-rate and affordable housing near a major job center, the Brooklyn Navy Yard, allowing for a variety of household types to be located in close proximity to work. Therefore, the Proposed Actions would be supportive of this public policy, and no significant adverse impact with regards to the Housing Blueprint would occur.

Waterfront Revitalization Program

In accordance with the guidelines of the *CEQR Technical Manual*, an evaluation of the Proposed Actions' consistency with the WRP policies was undertaken and reviewed by the Department of City Planning (WRP #23-216). This preliminary evaluation requires completion of the WRP Consistency Assessment Form (CAF), which contains a series of questions designed to screen out those policies that would have no bearing on a consistency determination for the Proposed Actions (see **Appendix A**). The CAF lists the WRP policies and indicates whether the Proposed Actions would promote or hinder that policy, or if that policy would not be applicable. For any policies which may be affected, this section provides additional information and assessment. As detailed in **Appendix A**, the Proposed Actions would be consistent with WRP policies.

Brooklyn Navy Yard IBZ

The Brooklyn Navy Yard IBZ is located directly north of the Development Site. Although outside of the Brooklyn Navy Yard IBZ, the Proposed Project would consist of commercial maker space, complementing uses found within the IBZ.

Green Economy Action Plan

The Proposed Actions would be consistent with Goal 1 of the Green Economy Action Plan, decarbonize buildings and construction—specifically Goal 1.3, which focuses on the implementation of Local Law 97. As mentioned above, the Proposed Project would use HVAC systems that permit the electrification of heating and air-conditioning for the building as well as electric heaters for domestic hot water.

Conclusion

As described above, the Proposed Actions would result in a 933,422 gsf mixed-use campus, including 590,147 gsf of residential space (611 DUs, of which 153 to 183 units would be designated as permanently affordable pursuant to MIH), 47,552 gsf of retail space, 160,474 gsf of self-storage space, 99,357 gsf of office/maker space, and 35,892 gsf of accessory parking space (including approximately 60 spaces). The Proposed Project would be consistent with the primarily residential and industrial uses found within the study area and serve as a mixed-use transition area between the Navy Yard industrial/commercial uses and predominantly residential uses south of Park Avenue. Additionally, the Proposed Actions would facilitate much needed affordable housing within the Wallabout neighborhoods, as well as commercial office, retail, and maker space. Overall, the Proposed Actions would facilitate the development of new housing opportunities while preserving existing commercial uses that are compatible with uses found within the study area. In addition, the Proposed Project would be consistent with public policies such as PlaNYC, the New York City Landmarks Laws, the Housing Blueprint, the Waterfront Revitalization Program, the Brooklyn Navy Yard IBZ, and the Green Economy Action Plan. Therefore, the Proposed Actions would not result in any significant adverse impacts to land use, zoning, or public policy.

3

Socioeconomic Conditions

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

Introduction

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

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

For the Proposed Project, a preliminary analysis of indirect residential displacement was warranted. As described in **Part II: Supplemental Analyses**, analyses of direct residential displacement, direct and indirect business displacement, and adverse effects on specific industries are not warranted. The preliminary analysis determined the Proposed Actions would not result in significant adverse impacts to socioeconomic conditions.

Methodology

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

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

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

Analysis Format

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

The analysis of the Proposed Actions is based on the Reasonable Worst-Case Development Scenario (RWCDS) analysis that includes development on the Development Site. The build year for the full build-out of the With-Action condition is 2030, which was examined to assess the potential impacts of the Proposed Actions. As discussed in **Part I: Project Description**, in the With-Action condition, the Development Site located at 47 Hall Street (Brooklyn Block 1876, Lot 1) would contain 611 residential units, commercial space, and parking. Of the 611 residential units, it is conservatively assumed that 183 would be affordable under Mandatory Inclusionary Housing (MIH) Option 2 (though the specific MIH Option to be mapped in the Project Area will be determined during the public review process).

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 5 percent as compared with the population expected to reside in a quarter-mile study area in the future No-Action condition.

The Development Site is located within Brooklyn Census Tract 211. Census Tracts 191 and 211 would be included in a quarter-mile study area.[1] These two Census Tracts have a total population of 5,932 people. In the No-Action condition, this population is expected to increase to approximately 6,115 people.[2] Based on the average household size for Brooklyn Community District 2 (2.03 people per household), the Proposed Actions would increase the quarter-mile study area by 1,240 people, resulting in a residential population increase of 20.3 percent compared to the No-Action conditions. Per the *CEQR Technical Manual*, a project that would result in a relatively large increase in population may be expected to affect a larger study area and a half-mile study area is appropriate for projects that would increase population by 5 percent over the expected population in the No-Action condition. Therefore, a half-mile study area is appropriate for this analysis. The half-mile study area encompasses Census Tracts 183, 185.01, 187, 191, 193, 195, 211, 235, 537, 539, 543, and 1237 (see **Figure 3-1**). The half-mile study area has a population of 45,960 people, which would increase to 46,411 in the No-Action condition.

Data Sources

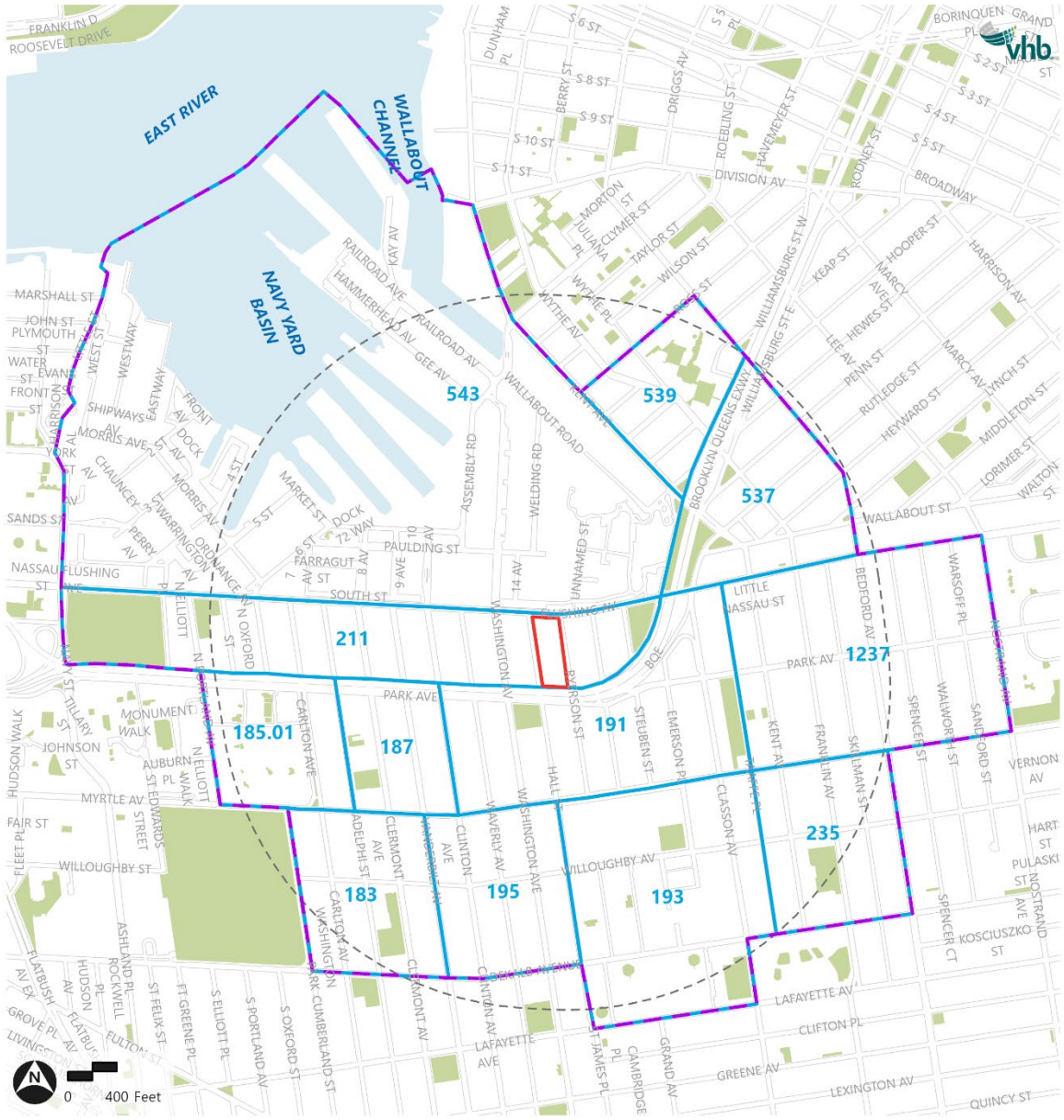
Information used in the socioeconomic analysis includes data from the U.S. Census Bureau's 2010 Census, 2020 Census, 2006-2010 American Community Survey (ACS), and 2017-2021 ACS, compiled through the NYC Population FactFinder. The 2017–2021 data reflects five-year averages of income distribution, mean income, and median rent for the trailing 12 months in 2021 inflation-adjusted dollars. The mean income and median gross rent of each Census Tract were compiled by the NYC Population FactFinder. Census data for 2010 and 2020 were used for population estimates.

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

[1] Census tracts that contain at least 50 percent of their area within the quarter-mile/half-mile radius were included in the study area analysis. Census Tract 211 was included in the quarter-mile study area (despite having less than 50 percent of its area within the radius) because it contains the Development Site.

[2] It is anticipated that No-Action developments would add approximately 90 units to Census Tract 211. Population is based on the average household size for Brooklyn Community District 2 of 2.03 (2020 Census).

Figure 3-1 Socioeconomic Study Area



Source: 2020 US Census

Preliminary Assessment

Existing Conditions

The population of the half-mile study area was 45,960 in 2020, which is an increase of 24.7 percent over the 2010 Census population of 36,868 people (see **Table 3-1**). The population of both Brooklyn and New York City as a whole has increased over the same time period by 9.2 percent and 7.7 percent, respectively.

Table 3-1 Area Population

Area	Population 2010	Population 2020	% Change
Study Area	36,868	45,960	24.7%
Brooklyn	2,504,700	2,736,074	9.2%
New York City	8,175,133	8,804,190	7.7%

Source: US Census Bureau, 2010 Census and 2020 Census

The number of households and housing units in the study area in 2020 were 15,509 and 16,654, respectively. In 2010, there were 12,730 households and 14,090 housing units (see **Table 3-2**). Brooklyn and New York City showed 10.1 percent and 8.4 percent increases in the number of households, respectively, and increases of 7.7 percent and 7.3 percent, respectively, in the number of housing units.

Table 3-2 Household and Housing Data

Area	2010 Households	2020 Households	% Change	2010 Housing Units	2020 Housing Units	% Change
Study Area	12,730	15,509	21.8%	14,090	16,654	18.2%
Brooklyn	916,856	1,009,804	10.1%	1,000,293	1,077,654	7.7%
New York City	3,109,784	3,370,448	8.4%	3,371,062	3,618,635	7.3%

Source: U.S. Census Bureau, 2010 Census and 2020 Census

The majority of occupied housing units in the study area are rental units (67.7 percent) rather than owned units (32.3 percent), see **Table 3-3**. The percentage of occupied rental units is greater in Brooklyn (69.3 percent) but less in New York City as a whole (66.8 percent).

Table 3-3 Housing Tenure

Area	% Vacant	% Renter Occupied Units	% Owner Occupied Units
Study Area	8.5%	67.7%	32.3%
Brooklyn	7.7%	69.3%	30.7%
New York City	9.5%	66.8%	33.2%

Source: 2017-2021 ACS 5-year estimate

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

Median gross rent for the study area is $1,837 and was $1,417 in 2010 (see **Table 3-4**). Median gross rent in Brooklyn is $1,582, a 23.5 percent increase from 2010. Median gross rent for New York City is

$1,579, a 17.5 percent increase from 2010. A review of current rental listings on www.streeteasy.com shows average rents of $3,200 for studios, $3,500 for one-bedroom units, and $4,100 for two-bedroom units.[3] There is one public housing development in the study area, the New York City Housing Authority Whitman Houses, with a total of 1,659 housing units.[4]

Table 3-4 Median Gross Rent

Area	Years 2006-2010	Years 2017-2021	Change	Percent Change
Study Area	$1,417	$1,837	Increasing[1]	Increasing[1]
Brooklyn	$1,281	$1,582	$301	23.5%
New York City	$1,343	$1,579	$236	17.5%

Source: 2006-2010 ACS 5-year estimate and 2017-2021 ACS 5-year estimate

Notes:

[1] The Margin of Error (MOE) of the difference between 2006-2010 ACS 5-year estimates and 2017-2021 ACS 5-year estimates is greater than one-third of the estimated difference but less than the difference itself; therefore, only the directionality of change and percentage change can be estimated with confidence.

Based on 2017-2021 ACS 5-year estimates, average household income in the study area is $105,998, an increase from average household income in 2010. Based on the 2017-2021 ACS 5-year estimates, median household income in the study area is $68,389. Both the average and median incomes are slightly higher than the average and median household incomes in Brooklyn ($103,893 and $67,752, respectively), and slightly lower than the average and median household incomes in New York City ($113,315 and $70,663, respectively) (see **Table 3-5**). As shown in **Table 3-6**, the household income bracket containing the most households in the study area is the $50,000–$99,999 bracket. The same is true for Brooklyn and New York City as a whole.

Table 3-5 Average and Median Household Income

Area	2006-2010 Average Household Income	2017-2021 Average Household Income	Average Household Income Percent Change	2006-2010 Median Household Income	2017-2021 Median Household Income	Median Household Income Percent Change
Study Area	$74,952	$105,998	Increasing[1]	$50,198	$68,389	Increasing[1]
Brooklyn	$78,589	$103,893	32.2%	$54,646	$67,753	24.0%
New York City	$97,706	$113,315	16.0%	$63,072	$70,663	12.0%

Source: 2006-2010 ACS 5-year Estimate and 2017-2021 ACS 5-year estimate

Notes:

[1] The Margin of Error (MOE) of the difference between 2006-2010 ACS 5-year estimates and 2017-2021 ACS 5-year estimates is greater than one-third of the estimated difference but less than the difference itself; therefore, only the directionality of change and percentage change can be estimated with confidence.

[3] www.streeteasy.com, accessed April 22, 2024

[4] https://www.nyc.gov/assets/nycha/downloads/pdf/nychamap.pdf, accessed April 22, 2024

Table 3-6 Household Income Distribution

Area	<$25,000	$25,000–$49,999	$50,000–$99,999	$100,000–$149,999	$150,000+
Study Area[1]	20.8%	17.1%	25.2%	14.3%	22.6%
Brooklyn	22.1%	17.5%	24.7%	14.9%	20.7%
New York City	21.2%	16.9%	25.0%	15.0%	21.9%

Source: 2017-2021 ACS 5-year Estimate

No-Action Condition

As described above, under the No-Action condition, the Development Site would be reoccupied with commercial uses, and Buildings A and J would be demolished and redeveloped with a purpose-built self-storage facility. No residential uses would be introduced at the Development Site. However, new residential development in the study area would result in an additional 222 residential units, which is estimated to increase the residential population by 451 for a total population of 46,411 persons in 2030 (see **Table 3-7**). Of the 222 new units, 23 units are expected to be affordable. The remaining 199 units are assumed to be rented at market rate.

Table 3-7 No-Build Developments and Estimated No-Action Population

Development Name/Location	Total Residential Units	Affordable Units	Estimated Residents[1]
58 Vanderbilt Avenue	90	23	183
122 Sanford Street	132	-	268
Total	**222**	**23**	**451**

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

Notes:

[1] Based on the Average Household Size for Brooklyn CD 1 of 2.03 persons per household (2020 Census)

With-Action Condition

In the With-Action condition, the Development Site would contain 611 residential units, commercial retail, office, maker and self-storage space, and parking. Of the 611 residential units,183 are anticipated to be affordable under MIH Option 2,[5] which requires that 30 percent of residential floor area be set aside for units for residents with incomes averaging 80 percent of Area Median Income (AMI). The levels of affordability are established by HUD and are subject to change. The 80 percent AMI income limit per HUD is $86,960 for a family of one, $99,440 for a family of two, $111,840 for a family of three, $124,240 for a family of four, and $134,160 for a family of five.[6] The median income for the study area is $68,389.

Using the average household size of 2.03 and weighing the AMI estimates listed above for a family size of between two and three, it is estimated that the average income of household occupying the 183 affordable residential units at 80 percent AMI would be $99,812.

[5] Though the MIH Option to be mapped as part of the Proposed Actions is to be determined, MIH Option 2 is assumed for the purpose of a conservative analysis.

[6] https://www.nyc.gov/site/hpd/services-and-information/area-median-income.page, accessed April 23, 2024. FY 2023 Income Limits Summary for New York, NY HUD Metro FMR Area.

As described in the **Existing Conditions** section above, average market-rate listed rents for the study area range from $3,200 for a studio apartment to $4,100 for a two-bedroom apartment. The market-rate unit mix for the Proposed Project is not yet known; however, for the purposes of this analysis, a unit mix is assumed based on the listed market-rate units in the area to include approximately 24 percent studios, 35 percent one-bedroom units, and 41 percent two-bedroom units. In addition, the range of average incomes for the new tenants can be estimated by assuming that the new households would pay 30 percent of their income on housing. This ratio is based on the HUD definition of cost-burdened families, which states that those paying more than 30 percent of their income on housing may have difficulty affording other necessities. Using these assumptions, it is estimated that households in the market-rate units would have average annual incomes ranging from $128,000 to $164,000 (see **Table 3-8**), or a weighted average of approximately $147,034 based on the assumed unit mix.

Table 3-8 Estimated Income for Market-Rate Units

Unit Type	Average Rent	Estimated Monthly Income	Estimated Average Annual Income
Studio	$3,200	$10,667	$128,000
1-Bedroom	$3,500	$11,667	$140,000
2-Bedroom	$4,100	$13,667	$164,000

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.

Using a weighted average based on the anticipated number of affordable and market-rate units to be provided, the average income of households occupying the proposed residential units is estimated to be approximately $132,891. This is higher than the average household income for the study area of $105,998.

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

Step 2 of the Indirect Residential Displacement Preliminary Analysis, per the *CEQR Technical Manual*, is to determine if the project's increase in population is large enough to affect real estate market conditions in the study area. In the With-Action condition, the Proposed Project will increase the study area population from 46,411 to 47,651, a 2.7 percent increase. According to the *CEQR Technical Manual*, if the population increase is less than 5 percent within the study area, these conditions would not affect real estate market conditions, and no further analysis is warranted.

Conclusion

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

With respect to potential indirect residential displacement, the Proposed Actions would spur development of both affordable and market-rate housing units. The estimated weighted average incomes of the new population are expected to be higher than the average incomes of the study area populations. However, the estimated new population would represent an increase of approximately 2.7 percent, which would not introduce or accelerate a trend that would lead to the displacement of vulnerable populations or create a significant indirect residential displacement adverse impact. Therefore, no further analysis is warranted.

4

Community Facilities and Services

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

Introduction

This chapter assesses the potential impacts of the Proposed Actions on community facilities and services. According to the *2021 CEQR Technical Manual,* a community facilities assessment should be conducted if a project would directly or indirectly affect existing community facilities, including publicly supported day care, libraries, public schools, health care facilities, and fire and police protection services. A project can affect community services when it physically displaces or alters a community facility or causes a change in population that may affect the services delivered by a community facility, as might happen if a facility is already overutilized, or if a project is large enough to create a demand that could not be met by the existing facility.

While the Proposed Actions would not physically displace or alter an existing community facility, it would introduce new residential population to the Development Site, resulting in increased demand for community facilities and services. As described in **Part II: Supplemental Analyses**, the Proposed Actions do not have the potential to indirectly impact public elementary, intermediate, or high schools, libraries, health care facilities, or police and fire protection services. However, as the Proposed Actions has the potential to introduce 20 or more eligible children under age six, further analysis of early childhood programs is warranted. As such, an assessment was conducted to determine whether the Proposed Actions would result in any significant adverse impacts to early childhood programs, as is provided below.

Methodology

The *CEQR Technical Manual* provides thresholds to make an initial determination of whether detailed studies are necessary to determine potential indirect impacts on public schools, libraries, childcare centers, health care facilities, and fire and police protection services. 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 in Brooklyn would introduce 20 or more eligible children under age six and would warrant further analysis on childcare centers. Finally, a project in Brooklyn would need to introduce 734 total units to trigger a detailed analysis on libraries.

As stated previously, the Proposed Actions would introduce 611 dwelling units (of which, up to 153-183 units would be affordable pursuant to Mandatory Inclusionary Housing [MIH]) to the Development Site. As assessed in **Part II: Supplemental Analysis** and shown in **Table 4-1** below, the Proposed Actions do not have the potential to impact health care facilities, libraries, police and fire services, or public elementary, intermediate, and high schools. However, as the Proposed Actions would result in the increment of up to 183 affordable units—which would generate up to 32 eligible children under the age of six— an assessment of early childhood programs is warranted. Furthermore, the Proposed Project would not directly displace a community facility, nor place a physical barrier to service delivery. Therefore, an analysis of direct effects is not warranted.

Table 4-1 Residential Increment for Analysis

Land Use	Unit	Increment
Residential	*Dwelling Units*	611
	Affordable Units	183
	Total Residential gsf	590,147
Residents[1]		1,240
Elementary Students[2]		26
Intermediate Students[2]		6
High School Students[2]		31
Early Childhood Program Eligible Children[3]		32

[1] The number of residents is based on an average household size of 2.03 for the Wallabout neighborhood (2020 Decennial Census).

[2] The number of students generated is based on the 2019 School Multipliers provided by the SCA for Brooklyn District 14. The multipliers assume 0.04 elementary students per unit, 0.01 intermediate students per unit, and 0.05 high school students per unit.

[3] The number of early childhood program eligible children is determined by the Brooklyn multiplier of 0.178 eligible children per affordable housing unit (*2021 CEQR Technical Manual* Table 6-1a).

Early Childhood Programs

Publicly financed early childhood education services under the DOE are available for eligible for children age five and younger. Early childhood programs comprise EarlyLearn NYC (Childcare and Early Head Start), 3–K, and Pre-K for All. While 3–K and Pre-K programs are free for all three- and four-year-old children in New York City, there are financial and social eligibility requirements for children to enroll in EarlyLearn NYC Childcare and Early Head Start programs. For the purposes of CEQR analysis, early childhood program analysis is limited to EarlyLearn.

The existing conditions analysis presents the most recent capacity and enrollment data of existing publicly funded early childhood programs within the study area using information from DOE. The early childhood program enrollment in the future No-Action condition is estimated by multiplying the number of new affordable housing units expected in the study area by the CEQR multiplier for estimating the number of children under the age of five eligible for publicly funded early childhood services. For Brooklyn, the multiplier estimates 0.178 eligible children per affordable housing unit (*CEQR Technical Manual,* Table 6-1a).

For purposes of this analysis the early childhood program eligible population resulting from the number of housing units expected to be subsidized and targeted for incomes of 80 percent area median income or below are used as a proxy for eligibility. Therefore, the incremental 183 affordable units under the With-Action condition is then added to the early childhood program enrollment calculated in the future No-Action condition above. In addition, any changes in capacity due to the introduction of space available as part of the Proposed Project for use as an early childhood program facility are accounted for.

Study Area

According to the *CEQR Technical Manual*, the study area for the analysis of early childhood programs is typically defined as the area within 1.5 miles of the site. Although there are no locational requirements for enrollment in early childhood programs and parents/guardians can choose an early childhood program close to their employment rather than their residence, centers closest to the Development Site are more likely to be subject to increased demand. Therefore, a 1.5-mile study area around the Development Site was used for this analysis.

Data Sources

Consistent with the *CEQR Technical Manual,* the data obtained for this analysis is provided by DOE's Division of Early Childhood Education. DOE did not provide data on changes planned for early childhood programs or facilities in the area of the Development Site under the No-Action scenario; therefore, no capacity changes are assumed.

Impact Criteria

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 the early childhood programs in the study area that is greater than 100 percent in the With-Action condition; and,
- An increase of 5 percent or more in the collective utilization rate between the future No-Action and the future With-Action conditions.

As discussed in the **Part II: Supplemental Screenings** and above, the analysis presented in this chapter is for informational purposes and the impact criteria do not apply other than as a benchmark.

Preliminary Assessment

Existing Conditions

There are 24 publicly funded early childhood programs within the 1.5-mile radius study area between Brooklyn and Manhattan. These early childhood programs have a total capacity of 1,402 slots and have 964 available slots (31.2 percent utilization). **Table 4-2** below shows the current capacity and enrollm ent for these facilities. Family-based childcare facilities and informal care arrangement provide additional slots in the study area, but these slots are not included in the quantitative analysis.

Table 4-2 Publicly Funded Childcare Centers Serving the Study Area

ID	Program Name	Program Address	Borough	Capacity	Enrollment	Available Slots	Utilization Rate (%)
1	Friends Of Crown Heights – 34-52 Kosciuszko Street	34-52 Kosciuszko Street, Brooklyn, 11205	BK	102	82	20	80%
2	Strong Place for Hope Day Care (Atlantic Avenue Site)	460 Atlantic Avenue, Brooklyn, 11217	BK	93	28	65	30%
3	United Academy	60 Harrison Avenue, Brooklyn, 11211	BK	96	12	84	13%
4	Young Minds Day Care Center	972 Fulton Street, Brooklyn, 11238	BK	77	19	58	25%
5	Bedford Stuyvesant Early Childhood Development Center, Inc.	5 Quincy Street, Brooklyn, 11238	BK	12	15	-3	125%
6	Sumner Children's Center	860 Park Avenue, Brooklyn, 11206	BK	45	15	30	33%
7	Tompkins Children's Center	730 Park Avenue, Brooklyn, 11206	BK	69	21	48	30%

Table 4-2 Publicly Funded Childcare Centers Serving the Study Area

ID	Program Name	Program Address	Borough	Capacity	Enrollment	Available Slots	Utilization Rate (%)
8	Bushwick United Hdfc4	178 Leonard Street, Brooklyn, 11206	BK	33	9	24	27%
9	Graham Child Care Center	222 Graham Avenue, Brooklyn, 11206	BK	35	0	35	0%
10	Nuestros Ninos DCC II	243 South 2 Street, Brooklyn, 11211	BK	82	19	63	23%
11	Warren Street Center For Children and Families	343 Warren Street, Brooklyn, 11201	BK	78	11	67	14%
12	Billy Martin Child Development Center	333 Classon Avenue, Brooklyn, 11205	BK	45	7	38	16%
13	Park Slope North/Helen Owen Carey Child Development Center	71 Lincoln Place, Brooklyn, 11217	BK	45	36	9	80%
14	Nuestros Ninos DCC I	384 South 4 Street, Brooklyn, 11211	BK	137	40	97	29%
15	Nuestros Ninos DCC III	161 South 3 Street, Brooklyn, 11211	BK	25	11	14	44%
16	Life-Jonathan Williams	321 Roebling Street, Brooklyn, 11211	BK	33	27	6	82%

Table 4-2 Publicly Funded Childcare Centers Serving the Study Area

ID	Program Name	Program Address	Borough	Capacity	Enrollment	Available Slots	Utilization Rate (%)
17	Our Children The Leaders of Tomorrow	756 Myrtle Avenue, Fl1, Brooklyn, 1206	BK	26	12	14	46%
18	Bedford Stuyvesant Early Childhood Development Center, Inc.	510 Quincy Street, Brooklyn, 11221	BK	70	26	44	37%
19	Alonzo A. Daughtry Memorial Daycare Center	565 Baltic Street, Brooklyn, 11217	BK	52	0	52	0%
20	Bushwick United Development Fund	243 South 2 Street, Brooklyn, 11211	BK	54	0	54	0%
21	Glorious and Gifted Early Childhood Center Inc.	421 Throop Avenue, Brooklyn, 11221	BK	27	12	15	44%
22	GSS 294 Delancey Child and Family Center	294 Delancey Street, Manhattan, 10002	MN	50	20	30	40%
23	GSS 300 Delancey Child and Family Center	300 Delancey Street, Manhattan, 10002	MN	46	0	46	0%
24	Henry Street Early Childhood Center	301 Henry Street, Bellevue Hospital Center, Manhattan, 10002	MN	70	16	54	23%
			Child Care Total:	**1,402**	**438**	**964**	**31%**

Source: NYC DOE via DCP, 2022-2023 enrollment and 2023-2024 capacity for publicly funded early childhood programs

Future No-Action Condition

There are currently no planned changes for early childhood programs or centers in the study area. Planned or proposed No-Action development projects in the early childhood programs study area will introduce approximately 2,262 new affordable housing units by the analysis year (see **Table 4-3**). Based on the CEQR generation rates for the projection of children eligible for publicly funded day care, these developments would introduce approximately 402 children under the age of six who will be eligible for publicly funded childcare services.

Under the No-Action Condition, it is anticipated that the temporary Humanitarian Emergency Response and Relief Center shelter facility located at the Development Site will conclude operations in 2025. Absent the approval of the Proposed Actions, Buildings E through I would each be occupied by as-of-right commercial office, retail, and/or "maker" space, and Buildings B, C, and D would be occupied by as-of-right self-storage (Use Group 16D) space. While Buildings B through I are expected to be re-tenanted by a mix of commercial office, retail, maker space, and/or self-storage space, it is anticipated that Buildings A and J would be demolished and reconstructed as a purpose-built self-storage facility in the future absent the Proposed Actions. Under No-Action conditions, the Development Site would contain a total of approximately 589,228 gross square feet (gsf) of commercial uses (including 34,857 gsf of retail uses, 455,014 gsf of self-storage uses, and 99,357 gsf of office and/or maker space uses). As such, the Development Site would not introduce any new eligible children under the age of six to the study area under No-Action conditions. However, when the estimated 403 publicly funded childcare-eligible children are introduced by planned study area No-Action development projects, early childhood programs in the study area would operate at 60 percent utilization with 561 available seats (representing an increase of approximately 31 percent utilization compared to existing conditions) (see **Table 4-4**).

Table 4-3 No-Action Developments with Affordable Units

Address	Borough	Total Proposed Dwelling Units	Proposed Affordable Units	Multiplier*	Child-Care Eligible Children
58 Vanderbilt Avenue	BK	90	23		4
218 Front Street	BK	218	66		12
71 Prince Street	BK	465	116		21
111 Willoughby Street	BK	229	69		12
240 Willoughby Street	BK	471	129		23
89 Dekalb Avenue	BK	324	98		17
589 Fulton Street	BK	591	177		32
625 Fulton Street	BK	1098	329		59
540 Fulton Street	BK	327	96		17
570 Fulton Street	BK	163	35		6
251 Douglas Street	BK	260	65		12
120 Fifth Avenue	BK	180	45	0.178	8
142 South Portland Avenue	BK	104	87		15
1042 Atlantic Avenue	BK	210	52		9
1056 Atlantic Avenue	BK	456	137		24
12 Halsey Street	BK	240	72		13
171 Throop Avenue	BK	93	71		13
11 Gerry Street	BK	120	120		21
88 Throop Avenue	BK	140	140		25
159 Boreum Street	BK	120	19		3
105 River Street	BK	1000	250		45
280 Kent Avenue	BK	332	66		12
	Total:	**7,231**	**2,262**		**403**

Notes:
*As provided in the *CEQR Technical Manual*, the multiplier for estimating the number of children for publicly funded childcare and Head Start is 0.178 per affordable unit in Brooklyn.
Sources: ZAP Planning, NYC Active Major Construction via Department of Buildings, NYC Dept. Housing Preservation and Development Housing New York Map

Table 4-4 2030 No-Action Condition: Estimated Publicly Funded Childcare Center Enrollment, Capacity, and Utilization

Existing Enrollment	Enrollment from No-Action Development	Total No-Action Enrollment	Capacity	Available Slots	Utilization Rate (%)
438	403	841	1,402	561	60%

Future With-Action Condition

As stated above, up to 183 affordable units would be provided as part of the Proposed Project in accordance with MIH regulations, resulting in an increment of approximately 32 additional childcare-eligible children. This would increase the projected enrollment to 873 children, and early childhood program facilities would operate with a capacity at 62.3 percent utilization (see **Table 4-5**). Compared to the No-Action Condition, the Proposed Actions would result in study area early childhood program utilization to increase by approximately 2.3 percentage points.

The collective utilization rate for early childhood program facilities would continue to be below 100 percent and the change in utilization between the No-Action and With-Action condition would be below 5 percent. Therefore, there would be no significant adverse impacts on early childhood program facilities due to the Proposed Actions and no further analysis is required.

Table 4-5 Estimated Publicly Funded Childcare Center Enrollment, Capacity, and Utilization

No-Action Enrollment	Enrollment from With-Action Development	Total With-Action Enrollment	With-Action Utilization Rate (%)	Change in Utilization
841	32	873	62.3%	2.3%

Conclusion

The *CEQR Technical Manual* indicates that a significant adverse impact on childcare centers would occur when: (1) the collective utilization rate of childcare centers and Head Start Centers 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 5 percentage points or more in the collective utilization rate of childcare and Head Start centers in the study area between the No-Action and the With-Action condition.

In the With-Action condition, childcare facilities in the study area would operate with a surplus of 529 seats and would operate under capacity at 62.3 percent utilization, an increase of 2.3 percent utilization over the No-Action condition. Since the future With-Action condition collective utilization rate would not exceed 100 percent and would result in an increase of less than 5 percentage points, the Proposed Actions would not result in significant adverse impacts to childcare facilities, and no further analysis is required.

5

Open Space

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

Introduction

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

As described in **Part I: Project Description**, the Applicant is seeking a zoning map amendment and zoning text amendment (see **Proposed Actions**) to facilitate the redevelopment of Applicant-owned Brooklyn Block 1876, Lot 1 (the Development Site) at 47 Hall Street in the Wallabout neighborhood of Brooklyn Community District (CD) 2. The Proposed Actions would transform the full-block Development Site into an active mixed-use campus, introducing new residential uses with affordable housing, a variety of commercial spaces including ground floor retail to activate the street frontages, a parking facility, and a self-storage facility (the Proposed Project). The Proposed Project would consist of nine buildings (one new building, one existing building to be converted to residential use, and seven existing buildings to be renovated and reoccupied) with a total of 933,422 gross square feet (gsf), and would provide 611 total dwelling units, including 153 to 183 permanently affordable

housing units pursuant to applicable requirements of the City's Mandatory Inclusionary Housing program and up to approximately 60 accessory parking spaces.

Compared to the No-Action condition, the Proposed Actions would result in a net increase in the number of incremental residents that is greater than the 200-resident CEQR threshold. Therefore, in accordance with CEQR guidelines, this open space analysis of the Proposed Actions evaluates the change in residential population relative to the total amount of open space in the study area. The anticipated number of incremental workers would not exceed the CEQR threshold of 500 nonresidents, and therefore an analysis of the Proposed Actions' effects on nonresidential populations is not warranted.

Methodology

Per guidance in the *CEQR Technical Manual*, an open space analysis is generally conducted if a proposed project would introduce more than 200 new residents or 500 new employees to an area. The Proposed Actions would introduce a new residential population of 1,240 residents, and thus a residential open space analysis is warranted. The anticipated number of workers introduced by the Proposed Actions would not exceed 500. Therefore, a nonresidential open space analysis is not required.

Direct Effects Analysis

Consistent with the *CEQR Technical Manual*, a direct-effects analysis should be performed if a proposed project would directly affect open space conditions by causing the loss of public open space; changing the use of an open space so that it no longer serves the same user population; limiting public access to an open space; or increasing noise or air pollutant emissions, odor, or shadows that would temporarily or permanently affect the usefulness of a public open space. A project can also directly affect an open space by enhancing its design or increasing its accessibility to the public. The Development Site does not contain publicly accessible open spaces, and the Proposed Actions are not anticipated to result in the physical loss or direct displacement of publicly accessible open space or increase access to open space. Therefore, an analysis of direct effects on open space resources is not warranted.

Indirect Effects Analysis

The *CEQR Technical Manual* states that indirect effects may occur when the population generated by a project would overtax the capacity of open spaces so that their service to the future population of the affected area would be substantially or noticeably diminished. The Proposed Actions would result in a net increase of 1,240 residents and 43 workers compared to the future No-Action condition. Therefore, only a residential analysis of indirect effects is required, with a study area encompassing an approximately half-mile distance around the Project Area. The purpose of the indirect effects analysis is to quantitatively assess the adequacy of open space in the study area for existing and potential future users based on an inventory of open space resources and the effect of the residential population increase anticipated with the Proposed Actions as well as any population increase in the No-Action condition due to other planned or proposed projects.

Specifically, an indirect effects analysis includes:

- Identification of the open space user groups: residents. To determine the number of residents to be included in the analysis, population data from the 2020 U.S. Census were compiled for census tracts within the study area.
- An inventory of all publicly accessible open spaces in the study area, using secondary sources supplemented with field surveys.
- A quantitative assessment of the open space ratio in the study area—calculated as the ratio of open space acreage to user population—compared to benchmarks established in the *CEQR Technical Manual*. These include the optimal ratio for resident populations, which is 2.0 acres of active open space per 1,000 residents and 0.5 acres of passive open space per 1,000 residents.
- An evaluation of qualitative factors affecting open space resources.

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

Walk-to-a-Park Initiative

New York City, as part of the OneNYC 2050 Building a Strong and Fair City plan, has set a goal that 85 percent of New York City residents live within a walking distance to a park by 2030. To help the city reach this goal, the NYC Department of Parks and Recreation (NYC DPR) has a Walk-to-a-Park initiative that focuses on increasing access to parks and open space in areas of the city where residents live farther than walking distance to a park. According to Walk-to-a-Park service area geographic data provided by the City, the Development Site does not overlap with any known walk gap areas (see **Figure 5-1**). There are portions of the study area that contain walk gaps, but these are generally concentrated within the Brooklyn Navy Yard Campus, which is largely inaccessible to the public and does not contain any residential uses.

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



Open Space Study Area

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

Pursuant to *CEQR Technical Manual* guidance, the residential study area comprises all census tracts that have at least 50 percent of their area located within a half-mile radius of the Project Area. Twelve census tracts in Kings County have at least 50 percent of their area located within a half mile of the Project Area: Tracts 183, 185.01, 187, 191, 193, 195, 211, 235, 537, 539, 543, and 1237.

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

Impact Assessment

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

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

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

- There would be a direct displacement/alteration of existing open space within the study area that has a significant adverse effect on existing users, unless the proposed project would provide

a comparable replacement (size, usability, and quality) within the study area (i.e., there is a net loss of publicly accessible open space).

› The project would reduce an OSR by more than the general guidelines for the open space percentage change guided in the *CEQR Technical Manual* and consequently result in overburdening existing facilities, or if it would substantially exacerbate an existing deficiency in open space. In areas that have been determined to be extremely lacking in open space, a reduction as small as 1 percent may be considered significant, warranting further analysis. See **Table 5-1** for the relevant impact thresholds for analysis.

Table 5-1 Percent Change-Guidance to Determine Possible Open Space Impact

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

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

As shown in the assessment below, the total OSR is 0.697 in the With Action Condition. According to **Table 5-1**, a percent change greater than 2 percent could signify a possible adverse open space impact. Therefore, a detailed assessment is warranted.

Detailed Assessment

Existing Conditions

Study Area Population

As shown in **Table 5-2**, based on the 2020 U.S. Census data, the 12 census tracts in the open space study area contain a total residential population of 45,978. Residents aged between 20 and 64 make up the largest age cohort (approximately 55.92 percent) of the residential population in the half-mile residential study area. The next-highest cohort is residents under five years old (approximately 9.98 percent), followed closely by the cohort of residents aged five to nine. There is a lower percentage of residents aged between 20 and 64 in the study area as compared to Kings County (62.32 percent) and New York City (62.95 percent) as a whole. The lower percentage of residents aged between 20 and 64 in the study area is also evident when comparing the median age of the study area to that of Kings County and New York City. The study area's median age is 32.2 compared with 35.2 in Kings County and 37.0 in New York City. The study area median ages by census tracts ranges from a low of 15.4 in Census Tract 1237 and to a high of 38.2 in Census Tract 195. This demographic data for the residential open space study area suggests a need for facilities geared toward the recreational needs of both adults and children, as the study area exhibits a high percentage of residents aged between 20 and 64, but a lower-than-average median age. As such, there may be more demand for publicly accessible active open space and playgrounds in the residential study area.

Within a given area, the age distribution of a population affects the way open spaces are used and the need for various types of recreational facilities. Typically, children four years old or younger use traditional playgrounds that have play equipment for toddlers and preschool children. Children aged five through nince typically use traditional playgrounds, as well as grassy and hard-surfaced open spaces, which are important for activities such as ball playing, running, and skipping rope. Children aged 10 through 14 use playground equipment, court spaces, and sports fields. Teenagers' and young adults' needs tend toward court game facilities such as basketball and field sports. Adults between the ages of 20 and 64 continue to use court game facilities and fields for sports, as well as more individualized recreation such as rollerblading, biking, and jogging, requiring bike paths, promenades, and roadways. Adults also gather with families for picnicking, ad hoc active sports, and recreational activities in which all ages can participate. Senior citizens engage in active recreation such as tennis, gardening, and swimming, as well as recreational activities that require passive facilities.

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

Census Tract	Total Resident Population	Age Distribution												
		Under 5		5 to 9		10 to 14		15 to 19		20 to 64		65 and over		Median Age
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
183	2,784	196	7.04%	134	4.81%	126	4.53%	97	3.48%	2,035	73.10%	196	7.04%	34.9
185.01	4,461	291	6.52%	257	5.76%	396	8.88%	284	6.37%	2,681	60.10%	552	12.37%	33.1
187	1,336	81	6.06%	60	4.49%	62	4.64%	31	2.32%	1,006	75.30%	96	7.19%	34.5
191	3,427	198	5.78%	150	4.38%	170	4.96%	140	4.09%	2,583	75.37%	186	5.43%	31.3
193	6,297	204	3.24%	199	3.16%	177	2.81%	861	13.67%	3,906	62.03%	932	14.80%	29.8
195	3,684	204	5.54%	143	3.88%	121	3.28%	86	2.33%	2,650	71.93%	480	13.03%	38.2
211	2,505	140	5.59%	120	4.79%	117	4.67%	107	4.27%	1,837	73.33%	184	7.35%	35.2
235	5,921	800	13.51%	713	12.04%	615	10.39%	404	6.82%	3,208	54.18%	181	3.06%	24.1
537	4,304	699	16.24%	678	15.75%	575	13.36%	423	9.83%	1,492	34.67%	437	10.15%	17.1
539	2,668	335	12.56%	283	10.61%	230	8.62%	224	8.40%	1,017	38.12%	579	21.70%	28.4
543	5	1	20.00%	1	20.00%	0	0.00%	0	0.00%	3	60.00%	0	0.00%	35.5
1237	8,586	1,438	16.75%	1434	16.70%	1327	15.46%	963	11.22%	3,294	38.36%	130	1.51%	15.4
Total	**45,978**	**4,587**	**9.98%**	**4,172**	**9.07%**	**3,916**	**8.52%**	**3,620**	**7.87%**	**25,712**	**55.92%**	**3,953**	**8.60%**	**32.2**
Kings County Total	**2,736,074**	**169,016**	**6.18%**	**166,390**	**6.08%**	**164,899**	**6.03%**	**158,117**	**5.78%**	**1,705,040**	**62.32%**	**372,612**	**13.62%**	**35.2**
NYC Total	**8,804,190**	**475,637**	**5.40%**	**479,017**	**5.44%**	**491,325**	**5.58%**	**505,700**	**5.74%**	**5,542,287**	**62.95%**	**1,310,224**	**14.88%**	**37.0**

Source: 2020 U.S. Census
Note: Percentages may not add up to 100 due to rounding

Study Area Open Space Resources

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

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

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

All of the publicly accessible open space resources that include passive and active open space within the study area are shown in **Figure 5-2**, and listed in **Table 5-3**. The study area contains 14 open space resources. These 14 resources are a mix of neighborhood parks and playgrounds and comprise 24.47 total acres of open space, of which approximately 15.51 acres are identified as active open space, and 8.96 acres are identified as passive open space. Study area open spaces feature a variety of active and passive amenities serving all age groups.

Neighborhood parks in the study area include Washington Hall Park and Commodore Barry Park. Both these parks feature a mix of active and passive recreational amenities geared toward visitors of all ages. Commodore Barry Park, in particular, is the largest open space in the study area, with an area of 10.39 acres, and features a wide variety of active and passive open space amenities, such as seating, playgrounds, sport courts, and an outdoor pool. Though smaller, Washington Hall Park also features active and passive amenities, such as seating areas, landscaping, and play areas.

There are nine playgrounds in the study area. These include Oracle Playground, Classon Playground, Albert J. Parham Playground, Pratt Playground, Taaffe Playground, Star Spangled Playground, Penn Triangle, Oxport Playground, and Steuben Playground. With common features such as play equipment, handball courts, and basketball courts, these playgrounds are mainly geared toward

children and teenagers, although adults use the sports/fitness equipment or seating areas found in several of the playgrounds.

Other open spaces include Classon Triangle, and Naval Cemetery Landscape. Classon Triangle is a small, landscaped open spaces with seating. Naval Cemetery Landscape is a memorial park built on the site of the former Naval Hospital Cemetery in the Brooklyn Navy Yard. It is owned and operated by the Brooklyn Greenway Initiative and is open to the public with seasonal hours. Naval Cemetery Landscape features landscaping, pathways, and seating, and hosts art installations.

Based on field observations VHB conducted on May 21, 2024, most of the study area open spaces were in good or fair condition, while one open space (Classon Triangle) was in poor condition. All the open spaces exhibited low to moderate utilization except for Oracle Playground, where utilization was high. Though Classon Triangle was observed to be in poor condition, at 0.21 acres this open space is one of the smallest in the study area.

It is important to note that there are some notable open spaces within a half mile radius of the Development Site. Residents of the Proposed Project would be expected to visit these open spaces, which were excluded from the quantitative analysis because of their location outside of the study area. Fort Greene Park is located southwest of the Development Site and totals 30 acres. It contains fields and gardens, two playgrounds, an amphitheater, a large monument, tennis and basketball courts, picnic areas, bathrooms, and walking paths. Furthermore, there are smaller neighborhood parks within a half mile of the Development Site that would be available to residents. These resources were not considered in the quantitative open space analysis but are considered qualitatively due to their proximity to the Development Site.

Figure 5-2 Residential Open Space Inventory

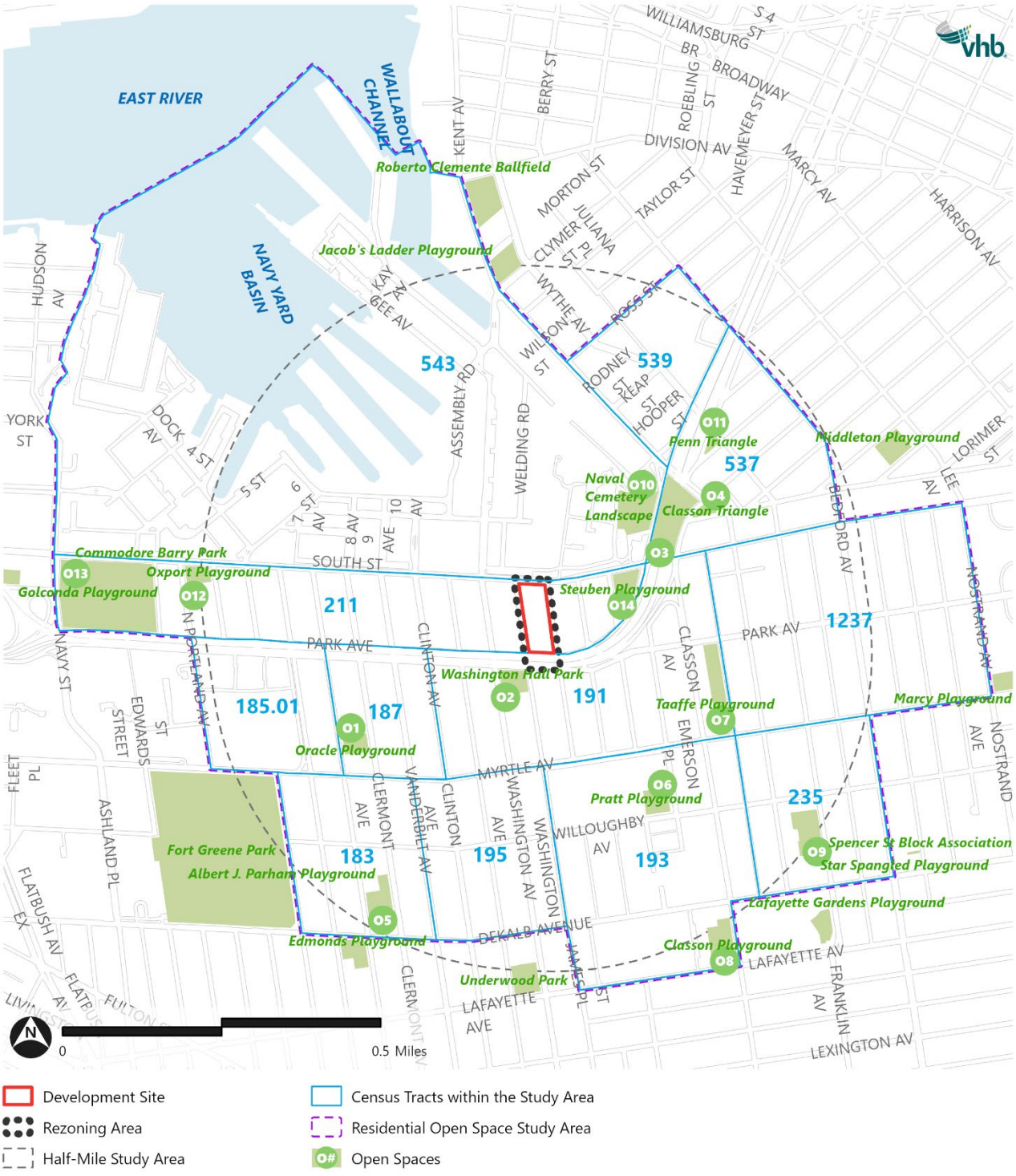


Table 5-3 Existing Study Area Open Spaces

Map No.	Name	Owner/ Agency	Features and Amenities	Total Acres	Active Acres	Passive Acres	Condition	Utilization	User Groups[1]
1	Oracle Playground	NYC Parks and DOE	Playgrounds, basketball courts, spray showers, bathrooms	0.70	0.49	0.21	Good	High	B, C
2	Washington Hall Park	NYC Parks	Playgrounds, handball courts, spray showers, bathrooms	0.90	0.63	0.27	Good	Moderate	A, B, C, D
3	Classon Playground	NYC Parks	Basketball courts, handball courts, trees	0.43	0.43	0.00	Fair	Low	C, D, E
4	Classon Triangle	NYC Parks	Trees, plantings, seating	0.21	0.00	0.21	Poor	Low	C, D, E
5	Albert J. Parham Playground	NYC Parks and DOE	Playgrounds, handball courts, basketball courts, spray showers, outdoor pools, bathrooms	1.25	0.88	0.38	Fair	Moderate	B, C, D, E
6	Pratt Playground	NYC Parks	Playgrounds, handball courts, spray showers, bathrooms	0.92	0.64	0.28	Good	Moderate	B, C, D
7	Taaffe Playground	NYC Parks	Playgrounds, handball courts, basketball courts, spray showers	1.82	1.27	0.55	Good	Moderate	B, C, D
8	Classon Playground (2)	NYC Parks and DOE	Handball courts, playgrounds, spray showers, basketball courts	1.34	0.94	0.40	Good	Moderate	B, C, D
9	Star Spangled Playground	NYC Parks and DOE	Playgrounds, basketball courts, handball courts, football fields, spray showers, bathrooms	1.69	1.18	0.51	Good	Low	B, C, D
10	Naval Cemetery Landscape[2]	Brooklyn Greenway Initiative	Trees, plantings, promenade, seating, art installations	2.44	0.00	2.44	Good	N/A	C, D, E
11	Penn Triangle	NYC Parks	Playgrounds, seating, trees	0.18	0.12	0.06	Good	Low	A, B, D
12	Oxport Playground	NYC Parks	Playgrounds, basketball courts, fitness equipment, spray showers	1.03	0.62	0.41	Good	Low	B, C, D, E
13	Commodore Barry Park	NYC Parks	Playgrounds, basketball courts, handball courts, baseball fields, football fields, outdoor pools, spray showers, bathrooms	10.39	7.79	2.60	Good	Moderate	B, C, D, E
14	Steuben Playground	NYC Parks	Playgrounds, fitness equipment, handball courts	1.17	0.52	0.65	Fair	Low	B, C, D, E
			Total	**24.47***	**15.51***	**8.96***			

Source: NYC Department of Parks and Recreation; Brooklyn Greenway Initiative; Field observations VHB conducted on May 21, 2024

[1] A = children and toddlers under 5 years old; B = children 5–10 years old; C =children 10–14 years old and teens 15–19 years old; D = adults 20–64 years old; E = adults over 64 years old

[2] Naval Cemetery Landscape is open seasonally on weekends only through April 21 and from Wednesday through Saturday starting April 24. It was closed during VHB's site visit.

*Numbers may not add up to the hundredths due to rounding.

Adequacy of Open Spaces

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

The existing residential population of the study area was estimated at 45,978 people. The residential study area currently has an overall OSR of 0.532 acres per 1,000 residents, which is below the City's goal of 2.5 acres per 1,000 residents and average of 1.5 acres per 1,000 residents (see **Table 5-4**). The study area's residential active OSR is 0.337 acres per 1,000 residents, which is also below the City's guideline of 2.0 acres per 1,000 residents, and the residential passive OSR is 0.195 acres per 1,000 residents, below the City guideline of 0.5 acres per 1,000 residents. Thus, based on the quantitative analysis, there is an existing deficiency in open space to serve the residential population of the study area.

Table 5-4 Existing Conditions – Adequacy of Open Space Resources in Residential Half-Mile Study Area[1]

Population	Open Space Acreage		Ratios[1, 2]	DCP Guidelines
45,978	Active	15.51	0.337	2.00
	Passive	8.96	0.195	0.50
	Total	**24.47**	**0.532**	**2.50**

[1]Acres per 1,000 residents

[2] Numbers may not add exactly due to rounding.

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 222 residential units, which is estimated to increase the residential population by 451 for a total residential population of 46,429 persons in 2030 (see **Table 5-5**). It is anticipated that the new population introduced to the study area would consist of a similar age distribution, which currently exists in the study area.

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

Development Name/Location	Total GSF	Residential Units	Estimated Residents[1]
58 Vanderbilt Avenue	106,145	90	183
122 Sanford Street	128,804	132	268
Total	**196,878**	**222**	**451**

Source: New York City Department of Buildings, New York YIMBY
Notes:
[1] Based on the Average Household Size for the Wallabout Neighborhoods of 2.03 (2020 U.S. Census)

Study Area Open Spaces

In the No-Action condition, there is one new confirmed open space planned within the study area:

› Brooklyn Navy Yard. Plans would include 6 acres of publicly accessible plaza space. It is expected that this would include passive open space. The project is expected to be completed by 2030.[1]

This new space would bring the study area total to 30.47 acres, with 15.51 acres of active open space and 14.96 acres of passive open space.

Adequacy of Open Spaces

In the No-Action condition, the OSRs in the residential study area would decrease and remain below the City's guidelines. The total OSR would decrease to 0.656 acres per 1,000 residents. The active and passive OSRs would also decrease as shown in **Table 5-6**. As in existing conditions, the active and passive OSRs would remain below the guidelines of 2.0 acres of active open space and 0.5 acres of passive open space per 1,000 residents (see **Table 5-6**).

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

Population	Open Space	Acreage	Ratios*	DCP Guidelines
46,429	Active	15.51	0.334	2.00
	Passive	14.96	0.314	0.50
	Total	**30.47**	**0.656**	**2.50**

*Acres per 1,000 residents

With-Action Condition

Study Area Population

In the With-Action condition, 611 units would be introduced to the Development Site, which is estimated to introduce approximately 1,240 residents and result in a total residential population of 47,669 in the half-mile study area.

[1] *Special Brooklyn Navy Yard District EAS* (CEQR No. 19DME011K)

Adequacy of Open Spaces

Quantitative Assessment

Under the With-Action condition, the OSR for the residential population would decrease slightly from the No-Action condition OSR (see **Table 5-7**). The total OSR would be reduced to 0.639 acres per 1,000 residents in the With-Action condition. This is a 2.60 percent decrease in the overall OSR. The active and passive OSRs would also be reduced slightly: to 0.325 and 0.314 acres per 1,000 residents, respectively. This would represent a 2.60 percent decrease in both the passive and active OSRs.

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

Population	Open space Acreage		Ratios*	DCP Guidelines	Percent Change
47,669	Active	15.51	0.325	2.00	-2.60%
	Passive	14.96	0.314	0.50	-2.60%
	Total	**30.47**	**0.639**	**2.50**	**2.60%**

Notes: Cells highlighted in orange exceed the percentage change in OSR signifying a possible adverse open space impact per the *CEQR Technical Manual* and Table 5-1
*Acres per 1,000 people

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

- Total OSR of 0.51 to 1.00: a change in 2 percent;
- Active OSR of 0.01 to 0.40: a change in 1 percent; and
- Passive OSR of 0.31 to 0.40: a change in 4 percent.

This area is below the median OSR, and for total and active OSRs, it has the potential to exceed the percent change that signifies a possible adverse open space impact. However, it is important to note that the Proposed Actions would have minimal effects on the OSR for residents in the study area.

Qualitative Assessment

The Proposed Actions would facilitate a mixed-use development with a range of unit sizes, and therefore is expected to introduce a range of residents from single adult households to families. The demand for open space in the future is therefore likely to range and would include demand for both active and passive open space resources. As previously described, open spaces in the study area contain a mix of passive and active resources and were generally found to be in good to fair condition with low to moderate utilization. Given the foregoing, it is expected that open spaces within the study area would have capacity to serve new residents generated in the With-Action condition.

As previously described, the Development Site falls within the Walk-to-a-Park service area. There are additional open space resources that are located within a half mile of the Development Site but are outside of the residential study area's selected Census Tracts. Residents of the Proposed Project and surrounding neighborhood would be reasonably expected to utilize these spaces. They include Fort Greene Park, Underwood Park, and Jacob's Ladder Playground. Fort Greene Park is the largest of these open spaces, totaling to 30.2 acres of passive and active open space resources. Located just outside of the study area, Fort Greene Park is a draw to residents of the Wallabout neighborhood

given its size and the numerous amenities that it provides, including tennis courts, dog runs, playgrounds, and basketball courts. Additionally, the nearby Brooklyn Navy Yard's private open spaces could partially absorb demand generated by users from the Brooklyn Navy Yard on study-area open space resources. These resources were not considered in the quantitative open space analysis but are considered qualitatively due to their proximity to the Development Site and the likelihood that residents in the area use them for their active and passive recreational needs.

Conclusion

Under the With-Action condition, the total OSR for the residential population would decrease by 2.6 percent compared to the No-Action condition OSR: 0.656 to 0.639 acres per 1,000 residents. The study area would continue to have OSRs below the City guideline of 2.50 acres per 1,000 residents and below the citywide median of 1.50 acres per 1,000 residents. The passive and active OSRs would also decrease by 2.6 percent each (see **Table 5-7**).

It is important to note, as described under existing conditions, that there are open spaces within a half mile that were not included in the analysis. Most notably is Fort Greene Park, which provides 30.2 acres of passive and active space and is rich in amenities such as tennis courts, dog runs, playgrounds, and basketball courts.

While the study area is below the median OSR and exceeds the percent change that signifies a possible adverse total and active open space impact, the Proposed Actions would have minimal effects on the OSR for residents in the study area. The Development Site is within the Walk-to-a-Park service area. The Proposed Project is located in an area where the existing open space resources generally have low to moderate utilization and are in good or fair condition. Further, the Development site is within 0.5 mile of a major regional resource (Fort Greene Park).

Based on the foregoing, the Proposed Actions would not result in significant adverse impacts on open space resources.

6

Shadows

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

Introduction

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

The Proposed Actions are expected to facilitate the construction of an approximately 215-foot-tall (roof height) building in the With-Action condition. It is conservatively assumed that the new building could have an up to 30-foot-tall mechanical bulkhead, for a total bulkhead height of up to 245 feet. Therefore, further assessment of shadows is warranted.

Methodology

Sunlight-Sensitive Resources

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

- Public open space (e.g., parks, beaches, playgrounds, plazas, schoolyards, greenways, and landscaped medians with seating). Planted areas within unused portions of roadbeds that are part of the Greenstreets program are also considered sunlight-sensitive resources. The uses and vegetation in an open space establish its sensitivity to shadows. This sensitivity is assessed for both (1) warm-weather-dependent features like wading pools and sand boxes, or vegetation that could be affected by loss of sunlight during the growing season (i.e., March through October); and (2) features, such as benches, that could be affected by a loss of winter sunlight. Uses that rely on sunlight include passive uses, such as sitting or sunning; active uses, such as playfields or paved courts; such activities as gardening; or children's wading pools and sprinklers. Where lawns are actively used, the turf requires extensive sunlight. Vegetation requiring direct sunlight includes the tree canopy, flowering plants, and plots in community gardens. Generally, 6 to 8 hours a day of sunlight, particularly in the growing season, is a minimum requirement for most vegetation.
- Features of historic architectural resources that depend on sunlight for their enjoyment by the public. Only the sunlight-sensitive features are considered, as opposed to the entire architectural resource. Sunlight-sensitive features include the following: design elements that are part of a recognized architectural style that depends on the contrast between light and dark (e.g., deep recesses or voids such as open galleries, arcades, recessed balconies, deep window reveals, and prominent rustication); elaborate, highly carved ornamentation; stained-glass windows; exterior building materials and color that depend on direct sunlight for visual character (e.g., the polychromic [multicolored] features found on Victorian Gothic Revival or Art Deco façades); historic landscapes, such as scenic landmarks including vegetation recognized as an historic feature of the landscape; and structural features for which the effect of direct sunlight is described as playing a significant role in the structure's importance as an historic landmark.
- Natural resources where the introduction of shadows could alter the resource's condition or microclimate. Such resources could include surface water bodies, wetlands, or designated resources such as coastal fish and wildlife habitats.

Screening and Assessment 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:

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

- **Tier 1 Screening:** The first tier determines a simple radius around the proposed building representing the longest shadow that could be cast. If there are sunlight-sensitive resources within the radius, the analysis proceeds to the second tier;
- **Tier 2 Screening:** The second-tier analysis reduces the area that could be affected by project-generated shadows by accounting for a specific range of angles that can never receive shade in New York City due to the path of the sun in the northern hemisphere. According to the *CEQR Technical Manual*, shadows cannot be cast within New York City within 108 degrees from True North. Topographic lines are included to demonstrate the terrain of the area; and
- **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 of one resource was undertaken.

Determination of Significance

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

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

sensitive feature of the resource is already subject to substandard sunlight (i.e., less than the minimum time necessary for its survival).

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

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

Preliminary Assessment

Tier 1 and 2 Screening

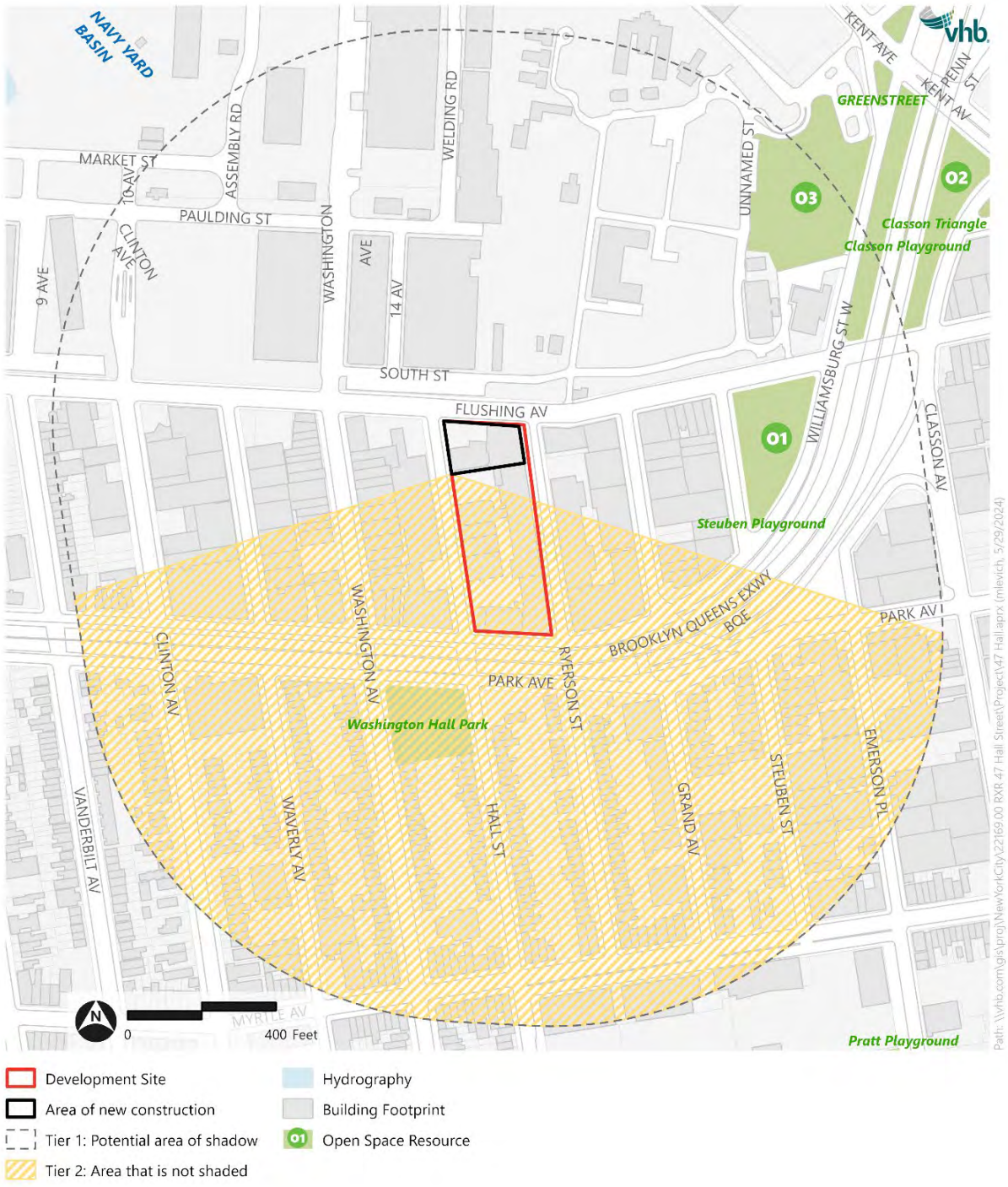
As discussed in **Part I: Project Description** and noted above, the Proposed Actions would facilitate the construction of a single new structure at the Development Site (in the location of the existing Buildings A and J, along Flushing Avenue). In the future with the Proposed Actions, a new 21-story residential and commercial building would be constructed at the current location of Buildings A and J. The roof height of the building would be 215 feet, and mechanical bulkheads could rise up to 245 feet. As indicated on **Figure 6-1**, new construction would only occur in the area currently occupied by Buildings A and J (shown as the "Area of new construction"). No additions or new construction would take place, and no changes in height or bulk would occur, at Buildings B through I.

The Tier 1 screening radius for the Proposed Project is a radius of 1,054 feet. As shown in **Figure 6-1**, the Tier 1 radius was conservatively defined to extend 1,054 feet from the Development Site boundary, though development would only occur within the area indicated in the figure.

Table 6-1 and **Figure 6-1** show the potential sunlight-sensitive resources identified in the Tier 1 and Tier 2 screening assessment. The figure also shows the current topographic elevation of the Development Site and surrounding area, which ranges from approximately 10 feet to 60 feet.

As shown in **Table 6-1**, three potentially sunlight-sensitive open space resources are wholly or partially within an area that can be shadowed by the Proposed Project. These include Steuben Playground (O1), Classon Playground (O2), and the Naval Cemetery Landscape (O3). Though landscaped open areas within the Brooklyn Navy Yard (northeast of the Development Site) are in an area that could be shadowed by the Proposed Project, this area is not publicly accessible.

Figure 6-1 Tier 1 and Tier 2 Screening



Source: MapPLUTO

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

Map ID	Resource Name	Potential Resource Summary	Sunlight-Sensitive Elements
Open Space			
O1	Steuben Playground	1.17-acre public playground featuring fitness equipment, basketball and handball courts, and a grass field.	Vegetation, seating areas, play areas
O2	Classon Playground	2.98-acre public playground with basketball and handball courts. Consists of two separate portions divided by the Brooklyn-Queens Expressway (BQE); the portion west of the BQE is a fenced, unbuilt area with trees and vegetation.	Vegetation, seating areas, play areas
O3	Naval Cemetery Landscape	Memorial park constructed on a former naval cemetery site by the Brooklyn Greenway Initiative. Hosts art installations and is open to the public during specified hours.	Vegetation, seating areas

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

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 three 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.

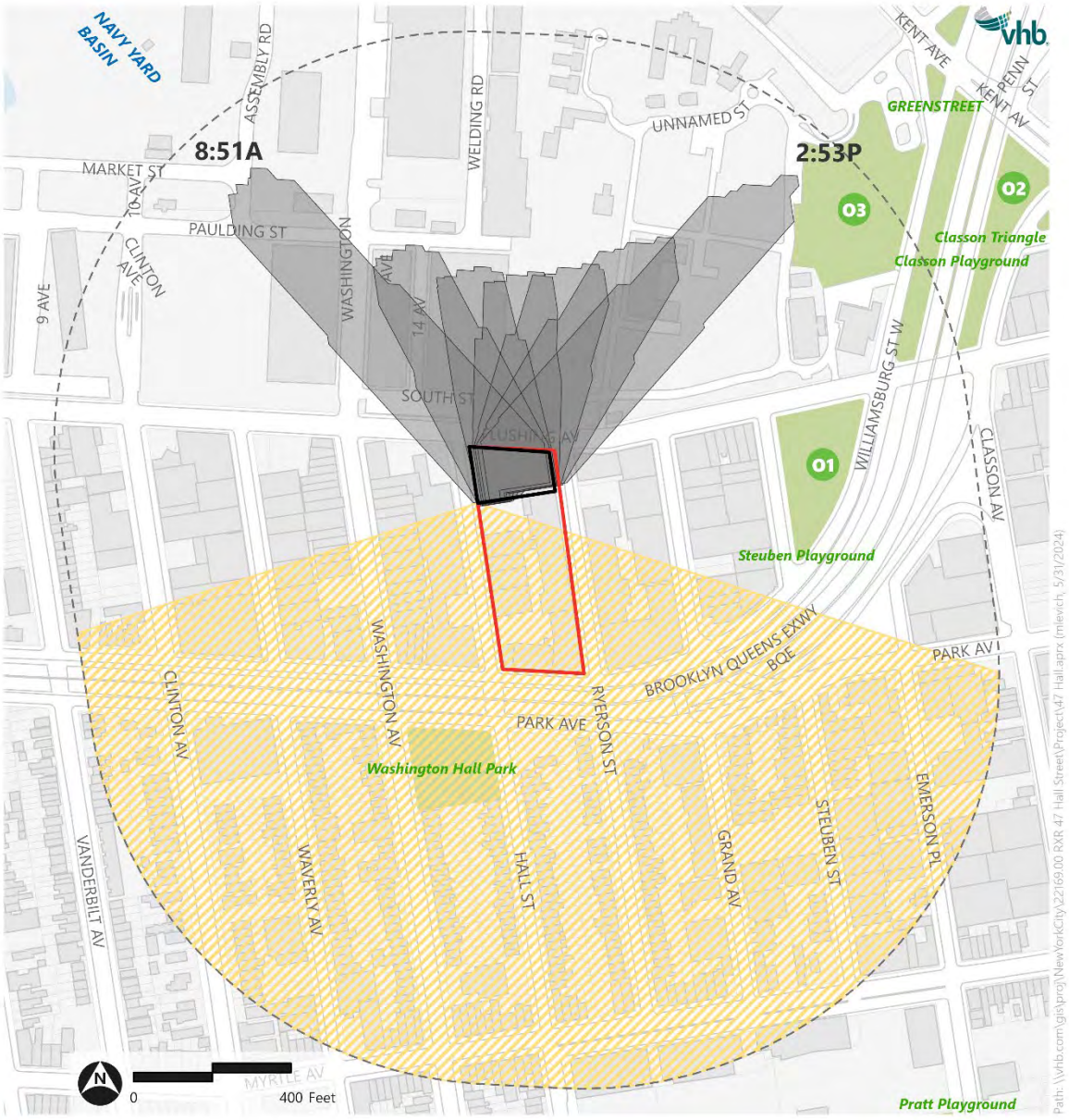
In accordance with the *CEQR Technical Manual*, a model of the building in the With-Action condition was developed in a three-dimensional computer program (Rhino). The model was geolocated, and the surrounding terrain was imported into the model to account for differences in topography. As noted above, the Tier 3 shadow screening shows the shadows that 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. **Figure 6-2** through **Figure 6-5**, 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 Steuben Playground on three analysis days (March 21/September 21, May 6/August 6, and June 21). These shadows would be cast in the late afternoon (toward the end of each respective analysis day). The Proposed Project would not cast shadows on Classon Playground or the Naval Cemetery Landscape (see **Table 6-2**).

Table 6-2 Tier 1 through Tier 3 Shadows Screening Results

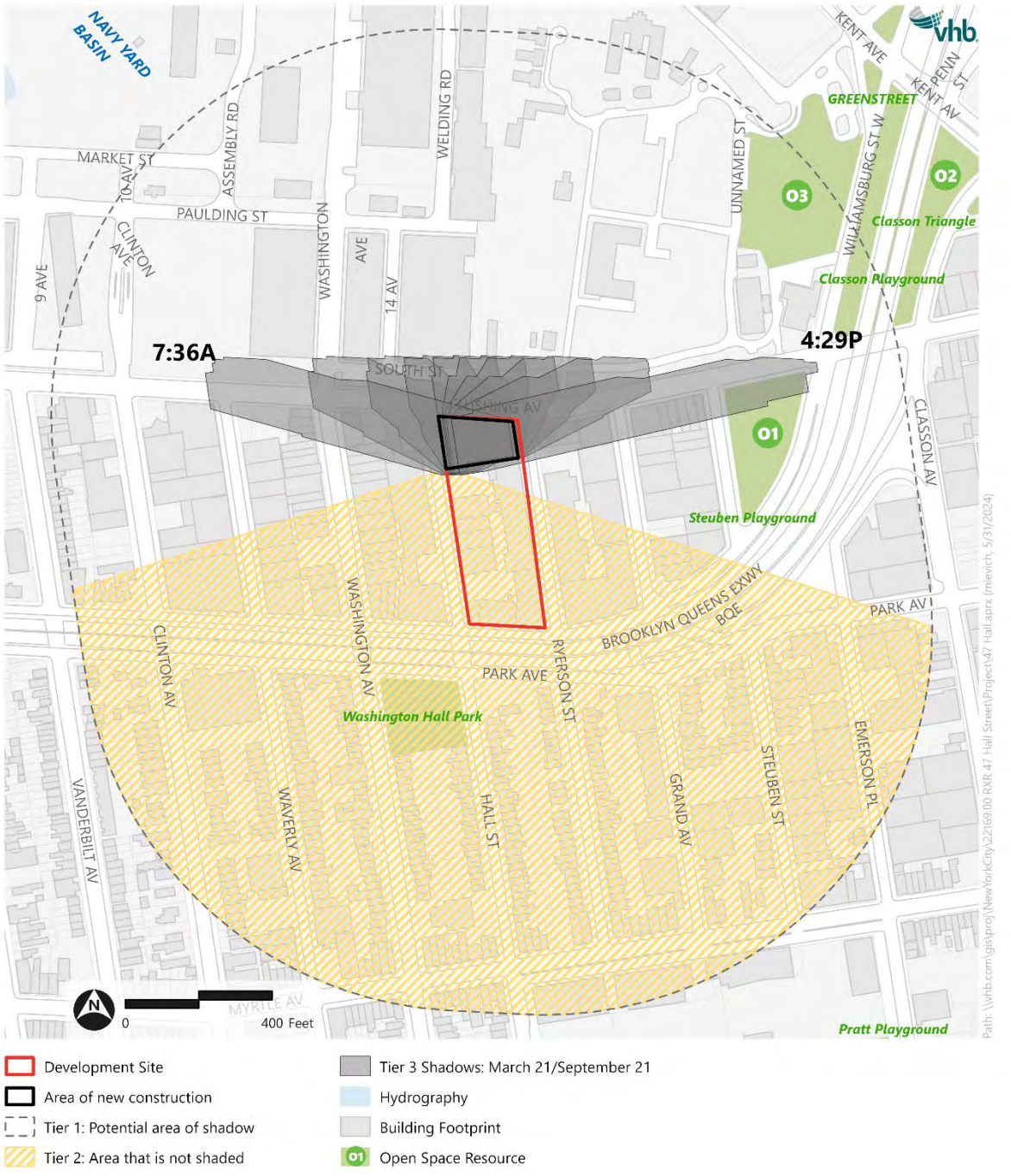
Map ID	Resource Name	Tier 1-3 Screening Results
Open Space		
O1	Steuben Playground	Detailed analysis warranted
O2	Classon Playground	Screened at Tier 3
O3	Naval Cemetery Landscape	Screened at Tier 3

Figure 6-2 Tier 3 Screening December 21 Analysis Day



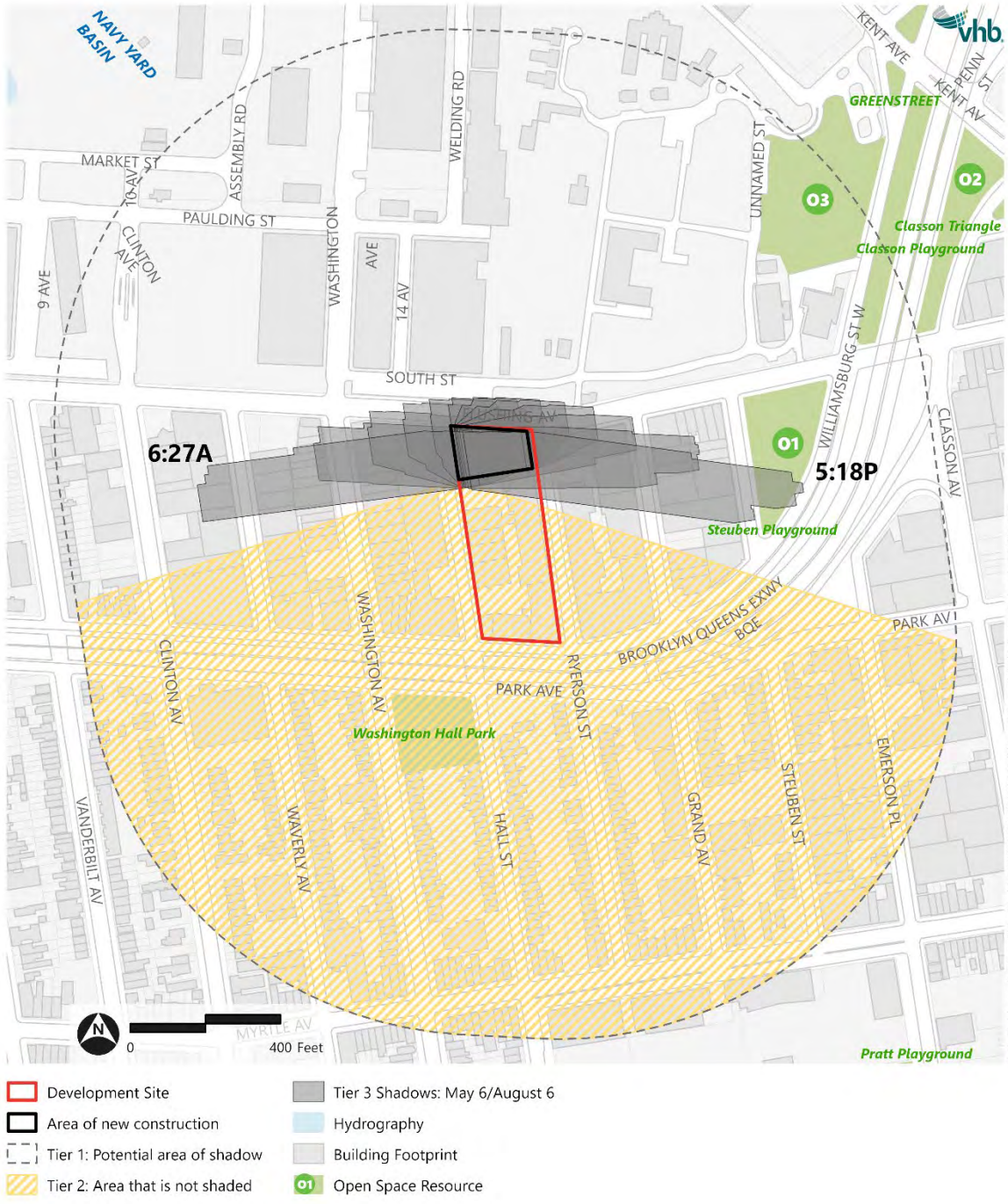
Source: MapPLUTO

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



Source: MapPLUTO

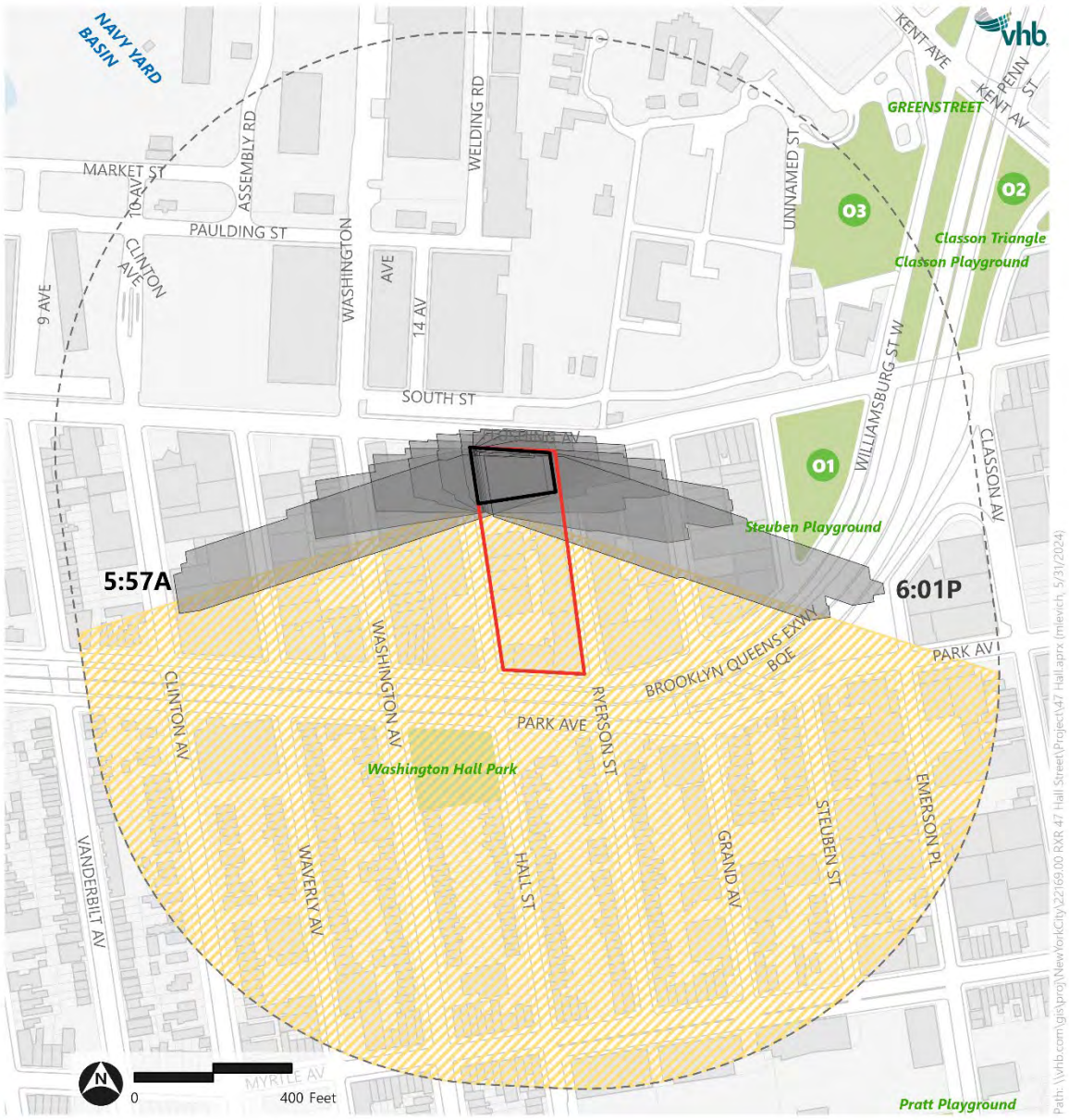
Figure 6-4 Tier 3 Screening May 6/August 6 Analysis Day



Source: MapPLUTO

Source: MapPLUTO

Figure 6-5 Tier 3 Screening June 21 Analysis Day



Source: MapPLUTO

Source: MapPLUTO

Detailed Assessment

As discussed above, a detailed shadow analysis accounts for incremental shadows cast by existing buildings or buildings that may be constructed in an area in the No-Action condition. The detailed shadow analysis models a baseline condition (future No-Action condition) that is compared to the future condition with the Proposed Project (future With-Action condition) to distinguish the additional (incremental) shadow cast by the Proposed Project.

No-Action Condition

In the future without the Proposed Actions, as discussed in **Part I: Project Description,** a new three-story (bulkhead height of roughly 45 feet) self-storage building would be constructed in the area of Buildings A and J. No other changes to building height or massing would occur at the Development Site.

As discussed in **Section 2, Land Use, Zoning, and Public Policy**, one nearby project is anticipated to be completed by the analysis year of 2030.

- **Brooklyn Navy Yard (BNY) Master Plan:** The BNY Master Plan includes three new buildings that would total to approximately 5 million gsf of manufacturing and commercial office/retail. The Brooklyn Navy Yard Armory building is expected to be redeveloped with two new eight-story industrial, commercial, and community facility buildings containing a total of approximately 1.4 million gsf. It is anticipated that these buildings would be complete by 2030, though the exact design, massing, and site plan are unknown.

Detailed information about the proposed massing and building height for development in the Brooklyn Navy Yard was unavailable at the time of this Environmental Assessment Study. Therefore, this project was excluded from the detailed shadows analysis.

With-Action Condition

In the future with the Proposed Actions, the Applicant would undertake the Proposed Project. A new 21-story building with a bulkhead height of up to 245 feet would be constructed in the location of the existing Buildings A and J. No other changes to building massing or height would take place at the Development Site as a result of the Proposed Actions. The detailed shadow analysis builds on the three-dimensional modeling used in the Tier 3 analysis to identify whether the buildings proposed under the With-Action condition could cast shadows on the identified resources of concern compared to the No-Action condition. Any new shadows projected to be cast onto the identified resources from the Proposed Project are considered incremental shadows.

Table 6-3 provides the modeled incremental shadow entry/exit times for the sunlight-sensitive resource (Steuben Park) that requires a detailed analysis.

Table 6-3 Detailed Analysis Summary of Incremental Shadow Entry/Exit Times

Resource Analysis Time Frame	Analysis Day Dec 21 8:51 AM–02:53 PM	March 21/Sept 21 7:36 AM–4:29 PM	May 6/Aug 6 6:27 AM–5:18 PM	June 21 5:57 AM–6:01 PM
Open-Space Resources				
O1 – Steuben Playground	No incremental shading	4:21 PM–4:29 PM (8 minutes)[1]	5:05 PM–5:18 PM (13 minutes)	5:35 PM–5:55 PM (20 minutes)

Notes:
Per the *2021 CEQR Technical Manual*, the selected time zone for the analysis is Eastern Standard Time and daylight savings time was not used.
[1] The *CEQR Technical Manual* does not require a detailed analysis for sunlight-sensitive resources that receive less than 10 minutes of incremental shading.

Detailed shadow analyses are discussed for Steuben Playground below.

Open-Space Resources

O1 – Steuben Playground

Steuben Playground (O1) is a public playground owned and operated by NYC Parks. Located to the northwest of the Development Site, Steuben Playground consists of basketball and handball courts located in the northern portion of the open space, while its southern portion is occupied by a landscaped grass field with seating areas.

The Proposed Project would not cast incremental shadow on Steuben Playground on the December 21 analysis day.

March 21/September 21 Analysis Day

The detailed analysis indicates that the Proposed Project would cast incremental shadows on Steuben Playground on the March 21/September 21 analysis day for a duration of approximately 8 minutes. Per *CEQR Technical Manual* guidance, an incremental shadow is not considered significant when its duration is no longer than 10 minutes at any time of year and the resource continues to receive substantial direct sunlight. Steuben Playground receives substantial direct sunlight throughout the day on the March 21/September 21 analysis day, given the limited heights of the buildings surrounding the open space. Therefore, no significant adverse impacts would occur due to project-generated incremental shadows on Steuben Playground during the March 21/September 21 analysis day.

May 6/August 6 Analysis Day

The detailed analysis indicates that the Proposed Project would cast incremental shadows on Steuben Playground on the May 6/August 6 analysis day for a duration of approximately 13 minutes (from 5:05 PM to 5:18 PM, which is the end of the analysis day). Incremental shadows would enter the open space from the west and travel east throughout the southern portion of the park until the end of the analysis day at 5:18 PM, at which time the incremental shadow would cover its greatest extent, as shown in **Figure 6-6.** Throughout this period, incremental shadows generated by the Proposed Project would shade the pathways, landscaped areas, and seating areas in the southern half of the playground. Given that the size and duration of the incremental shadow would be limited,

and since the shadow would be cast in the evening, when the shadows of existing buildings would also begin to fall on the playground, incremental shadows from the Proposed Project would not affect the public continued use or enjoyment of this resource.

June 21 Analysis Day

The detailed analysis indicates that the Proposed Project would cast incremental shadows on Steuben Playground on the June 21 analysis day for a duration of approximately 20 minutes (from 5:35 PM to 5:55 PM, which is the end of the analysis day). Incremental shadows would enter the open space from the west and travel southeast until the end of the analysis day. The incremental shadow would reach its greatest extent at approximately 5:45 PM (see **Figure 6-7**), at which point it would begin to exit the playground to the southeast. Project-generated incremental shadows on June 21 would cover the southernmost tip of the playground, which contains vegetation. June 21 is during the growing season, when the mature trees in this part of the playground could tolerate a minimum of 6 to 8 hours of direct sunlight a day. The trees in this area would continue to receive over 10 hours of sunlight on June 21. Given that the size and duration of the incremental shadow would be limited, and the vegetation in the southern portion of Steuben Playground would continue to receive sufficient sunlight, incremental shadows from the Proposed Project would not affect the public use or enjoyment of this resource.

Conclusion

Development resulting from the Proposed Actions would cause incremental shadows to reach one open space resource, Steuben Playground. A detailed analysis of shadows on Steuben Playground found that project-generated incremental shadows would reach Steuben Playground in the late afternoon on 3 analysis days for a duration of up to 20 minutes. Incremental shadows from the Proposed Project would not inhibit the growth of vegetation in Steuben Playground, nor would they affect the ability of the public to use or enjoy the open-space resource. Therefore, no significant adverse impacts would occur due to incremental shadows on Steuben Playground as a result of the Proposed Actions.

O1 – Steuben Playground

Figure 6-6 May 6/August 6 – 5:18 PM

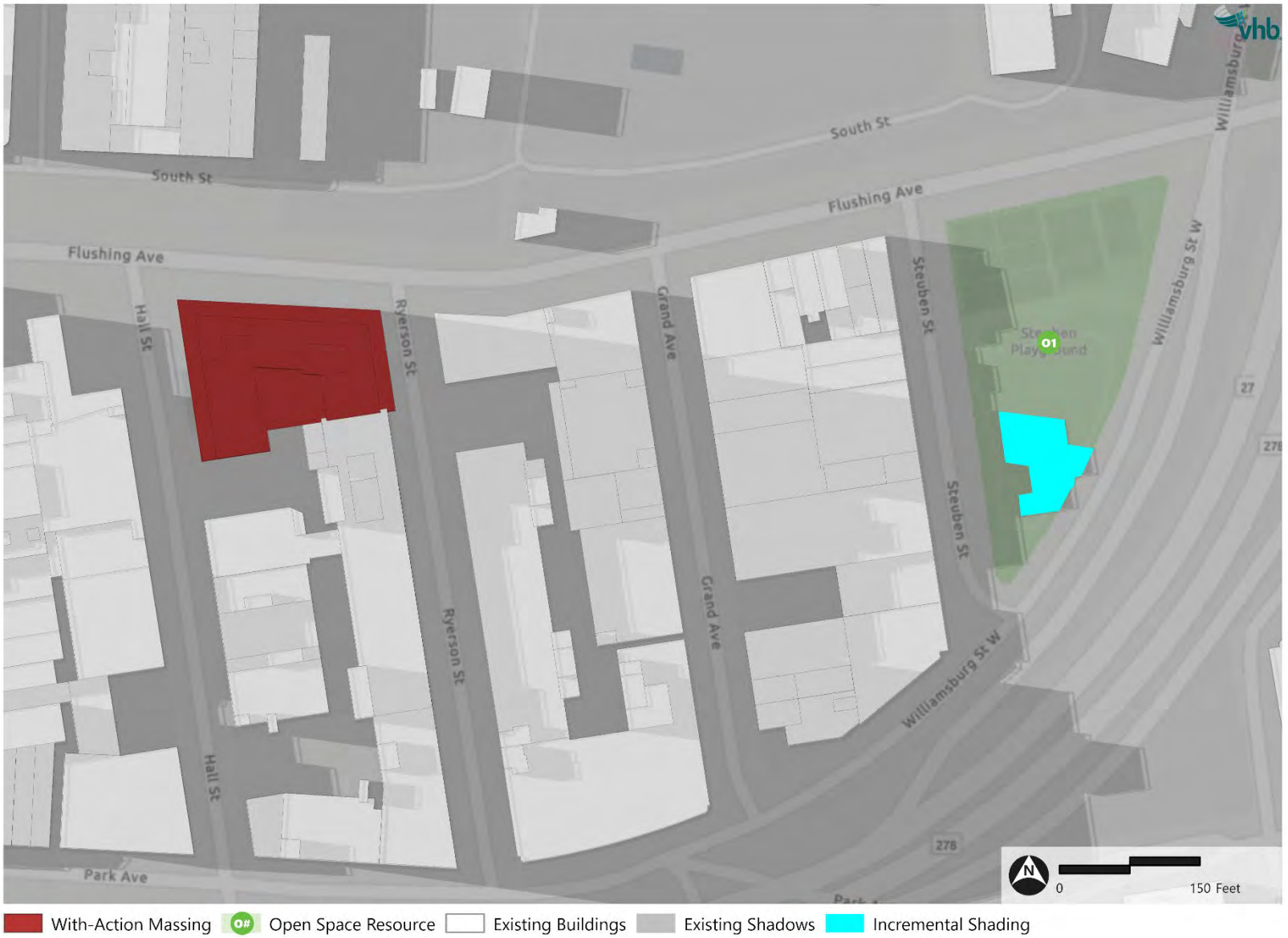
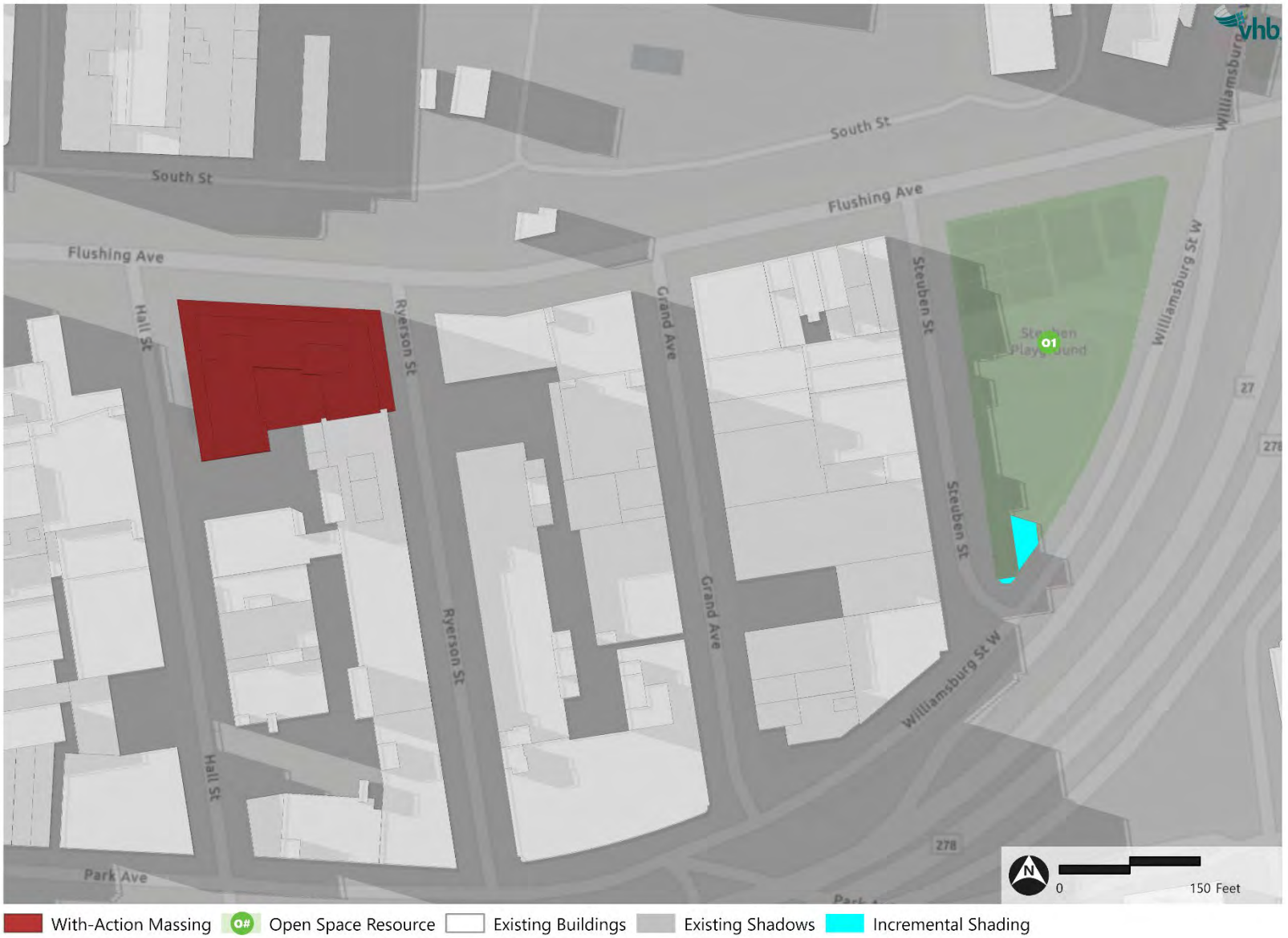


Figure 6-7 June 21 – 5:45 PM



7

Historic and Cultural Resources

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

Introduction

As described in **Part I: Project Description**, the Proposed Actions would facilitate the construction of a new 21-story mixed-use residential and commercial building in the area of Buildings A and J; conversion of Building B to residential use with up to approximately 60 accessory parking spaces; and renovation and re-tenanting of the remaining seven existing buildings (C, D, E, F, G, H, and I) with a mix of commercial office, retail, self-storage, and/or "maker" space.

The *2021 City Environmental Quality Review* (*CEQR) Technical Manual* recommends that a historic and cultural resources assessment be performed if a proposed action would result in any of the following actions: in-ground disturbance; new construction, demolition, or significant physical alteration of any building, structure, or object; the change in scale, visual prominence, or visual context of any building, structure, or object or landscape feature; or the screening or elimination of publicly accessible views, even if no known historic resources are located nearby. This analysis has been prepared in accordance with CEQR and in consultation with the New York City Landmarks Preservation Commission (LPC).

Consistent with CEQR guidance, historic and cultural resources consist of the following:

- Designated New York City landmarks (NYCLs), interior landmarks, scenic landmarks, and properties within designated New York City historic districts (or resources calendared for consideration by LPC);
- Resources listed on, or formally determined eligible for inclusion on, the State and/or National Register of Historic Places (S/NR), or contained within a district listed on, or formally determined eligible for listing on, the S/NR;

- Resources recommended by the New York State Board for Historic Preservation for listing on the S/NR;
- National Historic Landmarks; and
- Resources not identified by one of the programs listed above, but that meet their eligibility requirements.

Methodology

The *CEQR Technical Manual* notes that environmental review for historic and cultural resources includes a survey and planning process that helps protect New York City cultural heritage from the potential impacts of projects undergoing CEQR. Historic and cultural resources include both archaeological and architectural resources. Archaeological resources are physical remains, usually subsurface, of pre-contact, post-contact, and historic periods—such as burials, foundations, artifacts, wells, and privies. Architectural resources generally include historically important buildings, structures, objects, sites, and districts. They may include bridges, canals, piers, wharves, and railroad transfer bridges that may be wholly or partially visible above ground.

Archaeological resources are usually assessed for projects that would result in any in-ground disturbance. This is any disturbance to an area not previously excavated, including new excavation that's deeper and/or wider than previous excavation on the same site.

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; and
- 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.

The study area for this analysis is the area within 400 feet of the Development Site, which is generally bounded by South Street to the north, Grand Avenue to the east, Park Avenue to the south, and Washington Avenue to the west (see **Figure 7-1**). This is the area in which the Proposed Project would be most likely to have effects on historic resources.

Preliminary Assessment

Existing Conditions

Archaeological Resources

Based on correspondence with LPC, the Development Site has no archaeological significance. Therefore, no further analysis of archaeological resources is warranted.

Architectural Resources

Development Site

The Development Site is not a designated NYCL or New York City Historic District and is not calendared for consideration by LPC. Review of the New York State Historic Preservation Office Cultural Resource Information System indicates that there is a previously identified S/NR-listed historic resource within the Development Site—the Wallabout Industrial Historic District (see description below). The Wallabout Industrial Historic District covers five blocks and includes approximately 40 contributing buildings. Of the 10 commercial/industrial buildings on the Development Site (Buildings A through J), nine are considered contributing resources to the district (see **Photo 7-1** through **Photo 7-8**). As described in the National Register of Historic Places Registration Form, buildings on the Development Site include the following[1]:

- Building A, located at 248-252 Flushing Avenue (aka 2-12 Ryerson Street), was built ca. 1890. The Romanesque Revival brick building is 5 stories tall and was designed by Theobald Engelhardt for the B.A. Jurgens grocery warehouse;
- Building B, located at 14-42 Ryerson Street, was built ca. 1927. It was designed by architect/engineer Herman Foughner for the Mergenthaler Linotype Company. The reinforced-concrete factory building is 8 stories tall, with a raised basement (total 9 stories);
- Building C, located at 307-313 Park Avenue (aka 44-60 Ryerson Street), was built ca. 1907. It is a reinforced-concrete factory building designed by Albert Kahn for the Mergenthaler Linotype Company. It is 8 stories tall with a raised basement (total 9 stories);
- Building D, 299-305 Park Avenue, was built in the early twentieth century for the Trussed Concrete Building Company as an extension to 307-313 Park Avenue. It was designed by Albert Kahn, architect; Herman Foughner, local architect; and P. R. Moses, consulting engineer. It is an 8-story reinforced-concrete factory building with a raised basement (total 9 stories);

[1] Dolkart, Andrew 2012. *National Register of Historic Places Registration Form: Wallabout Industrial Historic District*.

- Building E, located at 297 Park Avenue (aka 55-57 Hall Street) was built in the early twentieth century for the Mergenthaler Linotype Company. It is a 1-story concrete building partially below grade;
- Building F, located at 39-43 Hall Street, was completed ca. 1917. It was designed by Herman Foughner, architect/engineer, for the Mergenthaler Linotype Company. It is an 8-story reinforced concrete factory building;
- Building G, located at 33-37 Hall Street, was built ca. 1900 to 1910 for the Mergenthaler Linotype Company. It is 3 stories tall and was described as a factory/garage/stable;
- Building H, located at 31 Hall Street, was built ca. 1895 for the Mergenthaler Linotype Company. It may have been designed by F. Patterson Smith, architect, and was later altered in 1911 (alteration design attributed to Albert Kahn) with a reinforced concrete addition to the rear. It is a 5-story brick building;
- Building I, located at 23-29 Hall Street, was constructed in the early twentieth century. It is a 5-story brick factory building of mill construction; and
- Building J is located at the southeast corner of Flushing Avenue and Hall Street. It is a 1-story brick building that is considered a non-contributing resource to the Wallabout Industrial Historic District.

The Applicant renovated the buildings on the Development Site after acquiring the site in 2016 to restore it as a fully integrated modern commercial campus. Renovations were completed in 2019. However, due to challenges with the post-COVID commercial/office market, substantially all the property remained vacant for approximately four years, when the Humanitarian Emergency Response and Relief Center (HERRC) began occupancy in October 2023.

Study Area

There are five previously identified architectural resources within the study area. These include the following:

- Wallabout Industrial Historic District (S/NR-listed)
- Rockwood Chocolate Factory Historic District (S/NR-listed)
- Wallabout Historic District (S/NR-listed)
- Brooklyn Navy Yard Historic District (S/NR-listed)
- Old United States Naval Hospital, Brooklyn Navy Yard (NYCL, S/NR-listed as a contributing resource to the Brooklyn Navy Yard Historic District)

These historic resources are shown in **Figure 7-1** and described in the sections below. Representative photographs of the study area (see **Photo 7-1** through **Photo 7-8**) are also included in the discussion below; **Figure 7-1** also provides a key map depicting the location and viewing direction from which each photograph was captured.

Wallabout Industrial Historic District

The Wallabout Industrial Historic District (S/NR-listed) is generally bounded by Flushing Avenue to the north, Park Avenue to the south, Clinton Avenue to the west, and Grand Avenue to the east. The boundary of the Wallabout Industrial Historic District includes the Rockwood Chocolate Factory

Historic District, which was previously listed on the S/NR. As described above, the Wallabout Industrial Historic District covers five blocks and includes approximately 40 contributing buildings.

The Historic District includes a cluster of late-nineteenth and early- to mid-twentieth-century industrial buildings that reflect the importance of industry in Brooklyn from this period; it includes brick buildings with load-bearing walls and reinforced-concrete factories. Buildings in the district range in height from 1 story to 9 stories. Important building complexes within the district were built by companies that were leaders in their fields, including the Rockwood Chocolate Company, a major American chocolate manufacturer, and the Merganthaler Linotype Company, a manufacturer of the linotype machines used by most newspapers and other publishing houses for much of the twentieth century.[2]

The Wallabout Industrial Historic District was found eligible for the S/NR under Criterion A, "for its importance as a manifestation of the broad patterns of our history as represented by industrialization," and under Criterion C, "as a district with the distinctive characteristics of type and period." The period of significance for the Wallabout Industrial Historic District is ca. 1890, when the earliest industrial building was constructed in the district, to ca. 1942, when construction of new industrial buildings in the district ended.[3]

Rockwood Chocolate Factory Historic District

The Rockwood Chocolate Factory Historic District (S/NR-listed) is located at 54-88 Washington Avenue, 13-53 Waverly Avenue, and 255-275 Park Avenue, two blocks west of the Development Site. It is also located within the boundary of the S/NR-listed Wallabout Industrial Historic District. Buildings within the district were constructed between 1891 and 1928. As summarized in the National Register of Historic Places Registration Form, the Rockwood Chocolate Factory Historic District is "architecturally and historically significant as an intact representative example of a late nineteenth–early twentieth century factory complex in Brooklyn." The Rockwood Chocolate Factory was one of the largest chocolate manufacturing and cocoa processing facilities of its kind in the world and the second largest in the United States.[4]

Wallabout Historic District

The far eastern edge of the Wallabout Historic District (S/NR-listed) is located within the southwest portion of the study area, along Washington Avenue, approximately three blocks southwest of the Development Site. The Historic District is generally bounded by Park Avenue to the north, Myrtle Avenue to the south, Clermont Avenue to the west, and Washington Avenue to the east.

The district includes both residential and industrial/commercial buildings. As summarized in the National Register of Historic Places Registration Form, the Wallabout Historic District is "locally significant under Criterion C for its rare and diverse group of primarily residential buildings dating from the nineteenth century. The district is especially rich in pre-Civil War wood houses, providing what appears to be the largest concentration of such vernacular buildings in New York City."[5]

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[2] Dolkart, Andrew 2012. *National Register of Historic Places Registration Form: Wallabout Industrial Historic District*.

[3] Dolkart, Andrew 2012. *National Register of Historic Registration Form: Wallabout Industrial Historic District*.

[4] Gobrecht, Larry E. 1983. *National Register of Historic Places Registration Form: Rockwood Chocolate Factory Historic District.* Prepared by the Historic Preservation Field Services Bureau, New York State Office of Parks, Recreation and Historic Preservation.

[5] Dolkart, Andrew D. 2010. *National Register of Historic Places Registration Form: Wallabout Historic District.*

The district is also significant under Criterion A in the area of community planning and development. The period of significance for the district begins in ca. 1830, when the earliest buildings were constructed, and it extends through ca. 1930, when construction in the district ceased.[6]

Brooklyn Navy Yard Historic District

A portion of the Brooklyn Navy Yard Historic District (S/NR-listed) is located within the northern section of the study area, just north of Flushing Avenue and across the Development Site. The district occupies 236 acres and includes resources representing six significant periods in the Navy Yard's history, which correspond with important periods in the history of the U.S. Navy itself. The period of significance for the district begins in 1805–06, with the construction of a residence for the Navy Yard's first commandant (Quarters A) and concludes in 1966, the date of the yard's decommissioning.[7]

As summarized in the National Register of Historic Places Registration form, the Brooklyn Navy Yard Historic District is nationally significant under Criterion A, "in the area of military history as a collection of nineteenth- and twentieth-century industrial, residential, and institutional resources associated with the establishment and development of one of the nation's oldest naval installations."[8] The Navy Yard is also significant under Criterion C as "a collection of military architecture and engineering structures that exhibit the changes in architectural styles, forms and technology on American naval yards during the nineteenth and twentieth centuries."[9]

A small portion of the district along Flushing Avenue is located within the study area. Based on the National Register of Historic Places Registration Form for the Brooklyn Navy Yard Historic District, resources within the study area include the following:[10]

- Building 4 (former Building 424), Ordnance/Gun Shed, was built ca. 1944. It is a simple gabled-roofed shed structure with a concrete water table, brick upper walls, and corrugated metal facing and vents on the upper facades. This building is a non-contributing resource to the district.
- Building 1 (former Building 291), Materials Testing Laboratory, was built ca. 1941–42. The brick and concrete Moderne-style building is seven stories tall with metal multi-light ribbon windows and redbrick bands that wrap the curved corners of the building. A large catenary antenna array and a water tower are located on the roof of the building.
- Building 2 (former Building 290), Foundry, was built ca. 1942. The Moderne-style industrial building has a brick exterior and is organized into three bays; it has a tall central bay flanked by two shorter bays.
- Building R104, Guard House and Gate Keeper Lodge, is a one- and two-story, flat-roofed, brick Italianate-style structure that is L-shaped in plan. It was constructed in 1850 as a gate house and served as the main entrance to the naval hospital grounds. The Flushing Avenue facade is blank except for one window at the upper story.

[6] Dolkart, Andrew D. 2010. *National Register of Historic Places Registration Form: Wallabout Historic District.*

[7] Peterson, Lindsay 2014. *National Register of Historic Places Registration Form: Brooklyn Navy Yard Historic District*.

[8] Peterson, Lindsay 2014. *National Register of Historic Places Registration Form: Brooklyn Navy Yard Historic District*.

[9] Peterson, Lindsay 2014. *National Register of Historic Places Registration Form: Brooklyn Navy Yard Historic District*.

[10] Peterson, Lindsay 2014. *National Register of Historic Places Registration Form: Brooklyn Navy Yard Historic District*.

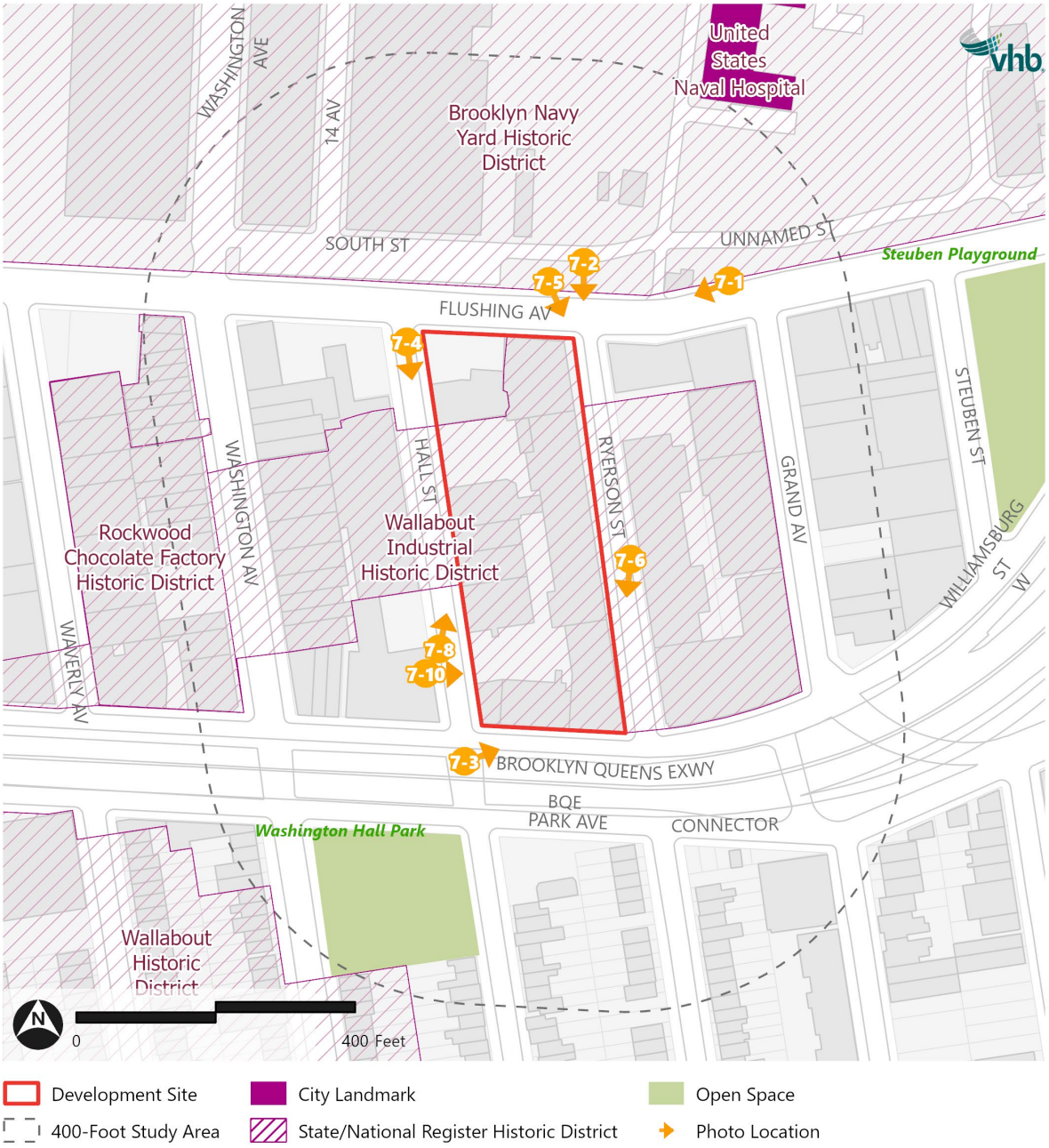
- Buildings R8 and R9, Bachelor Officers' Quarters, are two Colonial Revival semi-detached houses constructed in the 1920s. They are two stories tall, with brick exteriors and side-gabled roofs. These two buildings are not visible from publicly accessible locations within the study area.
- Structure X34, Chicken Coop, is a wood chicken coop located to the west of Buildings R8 and R9. It was noted as a non-contributing resource to the district. This structure is not visible from publicly accessible locations within the study area.
- Object 999, Barrier Forts Monument, is a marble monument that was constructed in 1858 to commemorate soldiers who died in the Canton River (now Guangzhou and Pearl River) in 1856 during the Battle of the Barrier Forts at the beginning of the Second Opium War. It was relocated to its current location in 1979. This object is not visible from publicly accessible locations within the study area.
- Structure 671 is a pool that was constructed ca. 1978. It is a non-contributing resource to the district. This structure is not visible from publicly accessible locations within the study area.
- Building 672 is a concrete-block bathhouse that was constructed ca. 1978. It is a non-contributing resource to the district. This building is not visible from publicly accessible locations within the study area.

Old United States Naval Hospital, Brooklyn Navy Yard

The Old United States Naval Hospital, Brooklyn Navy Yard (NYCL, S/NR-listed as a contributing resource to the Brooklyn Navy Yard Historic District), is located within the northeast portion of the study area on Hospital Road between Squibb Place and Oman Road. The building is not visible from publicly accessible locations within the study area. The naval hospital building was designed by Martin E. Thompson in the Greek Revival style. The building was begun in 1830 and was completed in 1838. It is two stories tall and constructed of granite.[11]

[11] Landmarks Preservation Commission. October 14, 1965, Calendar No. 3 (LP-0003).

Figure 7-1 Historic Resources Map



Source: NYX DCP MapPLUTO, NYC LPC, NYS OPRHP

Photo 7-1 Facing Southwest along Flushing Avenue toward Building A



Photo Captured 03/03/2024

Photo 7-2 Facing South along Ryerson Street from Flushing Avenue



Photo Captured 11/06/2023

Photo 7-3 Facing East along Park Avenue beneath the Brooklyn-Queens Expressway (BQE) from the Corner of Hall Street



Photo Captured 11/06/2023

Photo 7-4 Facing South along Hall Street between Flushing and Park Avenues



Photo Captured 11/06/2023

Photo 7-5 View of Building A Facing Southeast across Flushing Avenue



Photo Captured 11/06/2023

Photo 7-6 View of Building C Facing South along Ryerson Street

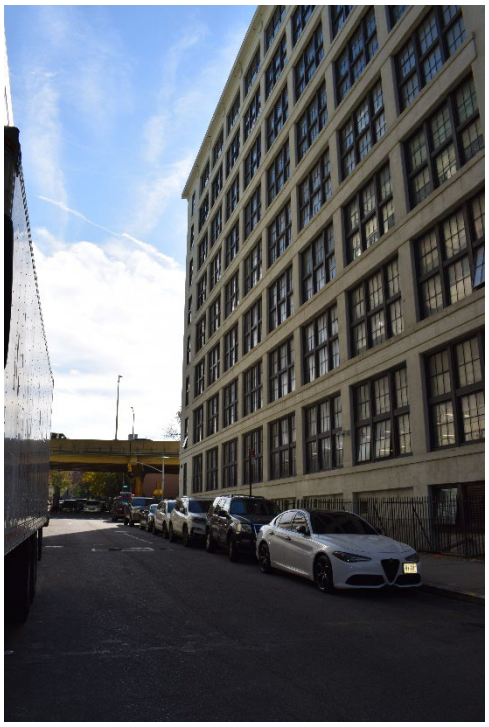


Photo Captured 11/06/2023

Photo 7-7 View of Buildings D and E Facing Southeast along Hall Street



Photo Captured 03/03/2024

Photo 7-8 View of Buildings G, H, and I Facing Northeast along Hall Street



Photo Captured 03/03/2024

No-Action Condition

It is anticipated that the temporary HERRC shelter facility located at the Development Site will conclude operations in 2025 upon expiration of the initial 18-month term, and the HERRC facility is therefore expected to conclude operations by that time as well. As described in **Part I: Project Description**, absent the Proposed Actions, it is anticipated that Buildings A and J within the Development Site would be demolished and replaced with a purpose-built self-storage facility.

The Applicant has determined self-storage to be one of the few financially available and feasible uses currently for Buildings B, C, and D. In fact, storage, including mini-storage, is found in many of the adjacent areas. When considering Building B's existing floorplates and location, it is likely that Building B would be occupied by as-of-right self-storage space, which is consistent with anticipated development for the neighboring Buildings C and D.

Building A is assumed to be demolished along with Building J to allow for construction of a new as-of-right, purpose-built self-storage facility. Building A would not be converted to self-storage, as the building's existing timber frame structure does not support the 125-pounds-per-sf live load capacity required for storage use. Meeting the loading requirement would entail an extensive upgrade of the flooring, reinforcement of the existing timber columns and girders, and potentially the foundation. Such extensive modifications would result in a significant cost premium, rendering a conversion unfeasible.

Buildings E through I, which have smaller floor plates and separate entrances, are assumed to be occupied by office/maker spaces on the upper levels and retail at the base, which is consistent with the Applicant's future plans for the buildings. Building A, which is a larger building with large and irregular floor plates, is expected to experience greater difficulty in leasing for commercial uses due to the lack of large commercial tenants in this submarket. This is consistent with recent tenanting trends at the Development Site, where Buildings A, B, C, and D have struggled to attract commercial tenants and have remained vacant as buildings along Hall Street have attracted some retail and office tenants. Given this difficulty, the Applicant does not expect Building A to be reoccupied by the build year and is planning, along with Building J, to demolish and rebuild the floor area in the absence of the Proposed Actions as a self-storage facility.

As explained in **Section 2, Land Use, Zoning, and Public Policy**, there is one new development that is anticipated within the study area under the No-Action condition—the Brooklyn Navy Yard Master Plan. This would include the construction of three new buildings and publicly accessible open space.

With-Action Condition

Archaeological Resources

Based on correspondence with LPC, the Development Site has no archaeological significance. Therefore, no further analysis of archaeological resources is warranted and there would be no impact to archaeological resources.

Architectural Resources

In the future With-Action condition, as in the No-Action condition, Buildings A and J would be demolished. The remaining S/NR-listed buildings on the Development Site would be preserved and renovated. As detailed in **Part I: Project Description**, the Proposed Actions would facilitate construction of a new 21-story residential and commercial building rising to a height of 215 feet (245

feet including mechanical bulkhead). Building B would be gut renovated and converted to residential use with enclosed accessory parking and the remaining seven existing buildings (C, D, E, F, G, H, and I) would be renovated and re-tenanted with a mix of commercial office, retail, self-storage, and/or maker space. No changes in height or bulk would occur at Buildings B through I.

Because Building A, which is listed in the S/NR as a contributing resource to the Wallabout Industrial Historic District, would be demolished in any event, as described in the No-Action condition, construction of the Proposed Project would not constitute a significant adverse impact to the district as compared to the No-Action condition. A Construction Protection Plan (CPP) pursuant to the New York City Department of Buildings' (DOB) Technical Policy and Procedure Notice (TPPN) #10/88 will be required for the Development Site. The CPP will be developed in consultation with LPC to avoid any direct impacts to historic resources located within 90 linear feet of proposed construction activities at the Development Site. TPPN #10/88 supplements the standard building protections afforded by the Building Code by requiring, among other things, a monitoring program to reduce the likelihood of construction damage to adjacent NYCL-designated or S/NR-listed resources (within 90 feet) and to detect at an early stage the beginnings of damage so that construction procedures can be changed.

As explained in **Section 8, Urban Design and Visual Resources**, given the configuration of the existing buildings that would remain in the With-Action condition, the new development would be visible from locations along Flushing Avenue, Hall Street, and Ryerson Street. The Proposed Actions would result in development of the new building's street wall at the street line along Flushing Avenue, Ryerson Street, and Hall Street, consistent with existing industrial, mixed-use, and commercial development along the blocks located between Flushing Avenue and Park Avenue. At 21 stories, the proposed new building would be taller than the existing buildings that would remain on the Development Site and other buildings in the study area, which generally vary from 1 to 9 stories. The new mixed-use building would have a base height of approximately 130 feet; above such base height, the building would be set back 15 feet from the street line before rising to a maximum height of approximately 215 feet (245 feet including mechanical bulkhead). This set back would be in keeping with the height of the adjacent building as well as other buildings in the district and study area. It is likely that the scale of the proposed new building would be similar to that of planned commercial development within the Brooklyn Navy Yard that would occur under the No-Action condition. See **Section 8, Urban Design and Visual Resources**, **Figure 8-2** through **Figure 8-5**, for comparative visualizations of pedestrian viewpoints of the Development Site in the future No-Action and With-Action conditions.

With its proposed height and massing, the proposed new building would introduce a change to the visual context of historic resources located along and near Flushing Avenue, including properties within the Wallabout Industrial Historic District and within the southern boundary of the Brooklyn Navy Yard Historic District. However, the visual context of historic properties in the study area has already been altered to some degree by the recent development of high-rise modern buildings in the surrounding area as well as the construction of the elevated Brooklyn-Queens Expressway (BQE). Although the proposed new building would introduce a change to the visual context of historic resources in the study area, this change would not result in a significant adverse impact.

There are no architectural resources with sunlight-sensitive features located within the study area; therefore, there would be no impact to architectural resources with regard to shadows.

Because Building A would be demolished in the No-Action condition and with the requirement of a CPP to protect other buildings in the Development Site, construction of the Proposed Project would not result in a significant adverse impact on architectural resources.

Conclusion

Because Building A, which is listed in the S/NR as a contributing resource to the Wallabout Industrial Historic District, would be demolished in the No-Action condition, construction of the Proposed Project under future With-Action conditions would not result in a significant adverse impact to the district as compared to the No-Action condition. As discussed above, the required CPP would avoid direct impacts to other historic resources located within 90 linear feet of proposed construction activities.

The Proposed Actions would not have indirect impacts on historic resources, such as the isolation of a property from its surrounding environment or the introduction of visual, audible, or atmospheric (i.e., pollutants) elements that are out of character with a property or that alter its historic setting and context (e.g., contextual effects). As explained above, the visual context of historic properties in the study area has already been altered to some degree by the recent development of high-rise modern buildings in the surrounding area as well as the construction of the elevated BQE. The Proposed Project would not obstruct existing views of the surrounding historic buildings and the study area's historic buildings would continue to be visible from publicly accessible locations.

As a result, construction of the Proposed Project would not result in a significant adverse impact on architectural resources.

8

Urban Design and Visual Resources

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

Introduction

This section considers the potential for the Proposed Actions to result in significant adverse urban design and visual resources impacts. As defined in the *2021 City Environmental Quality Review (CEQR) Technical Manual*, urban design is the totality of components that may affect a pedestrian's experience of public space. 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.

Based on the *CEQR Technical Manual*, a preliminary assessment of urban design and visual resources 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. Examples include projects that permit the modification of yard, height, and setback requirements, and projects that result in an increase in built floor area beyond what would be allowed "as-of-right," or in the future No-Action condition.

The Proposed Actions consist of a zoning map amendment and zoning text amendment and would result in an increase in allowable height and bulk at the Development Site (Brooklyn Block 1876, Lot 1) compared to what would be allowed in absence of the Proposed Actions. Therefore, a preliminary assessment of urban design and visual resources is warranted.

Methodology

In accordance with the *CEQR Technical Manual* guidelines, the following preliminary urban design and visual resources assessment considers a 400-foot radius study area where the Proposed Actions would be most likely to influence the built environment. The preliminary assessment focuses on those project elements that have the potential to alter the built environment, or urban design, of the development site, which is collectively formed by the following components:

- **Street Pattern and Streetscape:** The arrangement and orientation of streets define location, flow of activity, street views, and create blocks on which buildings and open spaces are arranged. Other elements including sidewalks, plantings, streetlights, curb cuts, and street furniture also contribute to an area's streetscape.
- **Buildings:** A building's size, shape, setbacks, pedestrian and vehicular entrances, lot coverage, and orientation to the street are important urban design components that define the appearance of the built environment.
- **Open Space:** Open space includes public and private areas that do not contain structures, including parks and other landscaped areas, cemeteries, and parking lots.
- **Natural Features:** Natural features include vegetation and geologic and aquatic features that are natural to the area.
- **View Corridors and Visual Resources:** Visual resources include significant natural or built features, including important view corridors, public parks, landmark structures or districts, or otherwise distinct buildings.

The following information 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.

Preliminary Assessment

Study Area

The urban design and visual resources study area is typically defined as the area within 400 feet of the Development Site, consistent with the study area for Land Use, Zoning, and Public Policy (see **Section 2, Land Use, Zoning, and Public Policy**). The study area for the Proposed Project is generally bounded by a half a block beyond South Street to the north, Grand Avenue to the east, Park Avenue to the south, and Washington Avenue to the west. This is the area in which the Proposed Actions would most likely have effects in terms of urban design and visual resources. A field survey was conducted to document existing conditions in the study area. Representative photographs of the study area are included in the discussion below; **Figure 8-1** provides a key map depicting the location and viewing direction from which each photograph was captured.

Figure 8-1 Study Area Photograph Location Map



Source: MapPLUTO; NYS OPRHP

Source: MapPLUTO, NYS OPRHP

Existing Conditions

Urban Design: Streets, Buildings, Open Space, and Natural Features

Development Site

Street Pattern and Streetscape

The full-block Development Site is bounded by Flushing Avenue to the north, Ryerson Avenue to the east, Park Avenue and the elevated Brooklyn Queens Expressway (BQE) to the south, and Hall Street to the west. In general, the streetscape surrounding the Development Site is industrial and commercial in character. Commercial loading docks, curb cuts, and service entrances are common along these street frontages.

Flushing Avenue is a 70-foot-wide (Narrow Street), two-way road running east-west directly north of the Development Site, with a protected two-way bike lane along the north side and an eastbound bike lane along the south side (see **Photo 8-1**). There is one travel lane in each direction and on-street parking along portions of the south side of the street. Sidewalks are roughly 9-10 feet wide. A landscaped median separates the protected bike lane from the vehicle lanes. A driveway along the south side of the street provides access to the paved area between the Development Site lot line and Building J, while the ground floor of Building A is built to the lot line and features tall, arched windows. The north side of the street is bordered by a chain-link fence. Streetscape elements along this street include street trees, utility poles, standard signage, and fire hydrants.

Ryerson Street is a 60-foot-wide (Narrow Street) one-way northbound road directly east of the Development Site, with one travel lane and on-street parking along both sides. Sidewalks are roughly 10-14 feet wide and feature limited streetscape elements (mailboxes, street trees, and standard signage). Buildings A, B, and C are located along the west side of the street; both sides of the street feature commercial or industrial garage entrances, loading docks, and street-level windows at or near the lot lines (see **Photo 8-2**).

Park Avenue is a 150-foot-wide (Wide Street), two-way road directly south of the Development Site. The eastbound lanes (two travel lanes and on-street parking) are separated from the westbound lanes (one travel lane and on-street parking) by an approximately 95-foot wide median with two rows of parking. The BQE is a six-lane highway elevated over the Park Avenue median on a roughly 20-foot-tall steel structure (see **Photo 8-3**). The elevated highway limits a pedestrian's visibility across Park Avenue in either direction. Ground floor windows of Buildings C, D, and E are visible at street level along the north side of the street, while the south side is fronted by a fenced parking lot and a blank brick wall.

Between Park and Flushing avenues, Hall Street is a 60-foot-wide (Narrow Street), one-way northbound road directly west of the Development Site, with one travel lane and on-street parking along both sides. For the portions of Hall Street south of Park Avenue, one-way traffic is directed southbound. Sidewalks are roughly 15 feet wide. Similar to Ryerson Street, Hall Street features commercial and industrial garage entrances, loading docks, and street-level windows at or near the lot lines along both sides as well as mailboxes, street trees, and standard signage (see **Photo 8-4**). There are several places along Hall Street where buildings are set back from the lot lines, including the paved courtyard and walkway areas between Buildings D, E, and F.

Photo 8-1 **Facing West Along Flushing Avenue from the Corner of Hall Street**



Photo Captured 11/06/2023

Photo 8-2 **Facing South Along Ryerson Street from Flushing Avenue**

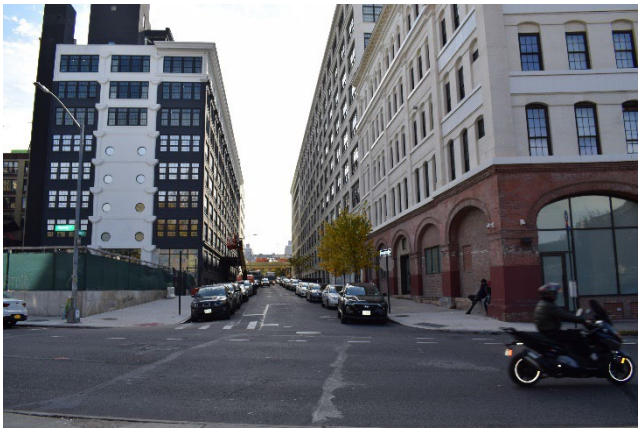


Photo Captured 11/06/2023

Photo 8-3 **Facing East Along Park Avenue Beneath the BQE from the Corner of Hall Street**



Photo Captured 11/06/2023

Photo 8-4 **Facing South Along Hall Street Between Flushing and Park Avenues**



Photo Captured 11/06/2023

Buildings

As discussed in **Part I: Project Description,** the Development Site is occupied by ten commercial/industrial buildings (Buildings A through J) that were initially constructed between 1889 and 1927 and range in height from 1 to 9 stories. Buildings A through E, with frontages on Flushing Avenue, Ryerson Street, Park Avenue, and Hall Street are built to the lot line and abut other buildings. Buildings F, G, H and I, with frontage on Hall Street, are also built to the lot line and abut other buildings. Building J, with frontages on Flushing Avenue and Hall Street, is built to the lot line only on its Hall Street frontage and abuts Building A. There are two openings from Hall Street, providing access to the courtyard area connected internally by an interior walkway separating Buildings F, G, H, and I from the remaining buildings. All ten buildings rise to their full roof heights with no setbacks.

Located at the corner of Flushing Avenue and Ryerson Street, Building A is 5 stories tall with a double-height first floor (see **Photo 8-5**). The Romanesque-revival style building has a brick exterior; the upper floors are painted white and the first floor is unpainted. There are large, arched floor-to-

ceiling windows at the first floor along Flushing Avenue. The windows on floors two through five along flushing Avenue and Ryerson Street are divided into bays of two to three windows each. The building is built to the lot lines along Flushing Avenue and Ryerson Street. There are windows facing west at the interior of the lot overlooking the single-story Building J (visible in **Photo 8-9**).

Located midblock along Ryerson Street between Flushing and Park Avenues, Building B is a 9-story, white-painted brick-and-reinforced-concrete warehouse that is built out to the lot lines with no setbacks (see **Photo 8-6**). At 218,923 gsf, Building B is the largest existing building on the Development Site. The building has loading docks along Ryerson Street and has large loft windows on each floor. There are windows facing west towards the interior of the lot, where there is also a windowless elevator core (visible in **Photo 8-9**).

Buildings C (located at the corner of Ryerson Street and Park Avenue) and D (located along Park Avenue between Hall and Ryerson Streets are both 9-story reinforced-concrete and brick warehouse buildings, similar in appearance to Building B. Both of these buildings have their entrances along Park Avenue. Building E is a small single-story reinforced-concrete building (attached to Building D) located at the corner of Hall Street and Park Avenue. Building C is shown in **Photo 8-6** and **Photo 8-7**. Buildings D and E are visible in **Photo 8-3.**

Buildings F through I are four attached buildings located along Hall Street, separated from the remaining buildings by courtyard areas and an interior walkway. Building F is an 8-story reinforced-concrete white painted warehouse. The south wall of the building has windows that overlook the courtyard area between Buildings E and F. Buildings G through I are brick warehouse buildings ranging from 3 to 5 stories. The arrangement of the entrances and windows varies between each of these buildings (Building G has floor-to-ceiling windows at the ground floor, while Buildings H and I have their entrances at ground levels and their first floors raised above grade). Buildings G, H, and I are shown in **Photo 8-8**. Building I has north-facing windows overlooking the courtyard area between it and Building J (see **Photo 8-9**). Building J is a single-story brick building set back approximately 60 feet from Flushing Avenue. The building is relatively nondescript; its main entrance faces Flushing Avenue and there are small windows along each wall. There is a service entrance along Hall Street.

As discussed below and in **Section 7, Historic and Cultural Resources**, Buildings A through I are considered contributing buildings to the Wallabout Industrial Historic District listed on the State and National Register of Historic Places (S/NR).

Photo 8-5 View of Building A Facing Southeast Across Flushing Avenue



Photo Captured 11/06/2023

Photo 8-6 View of Building C Facing South Along Ryerson Street

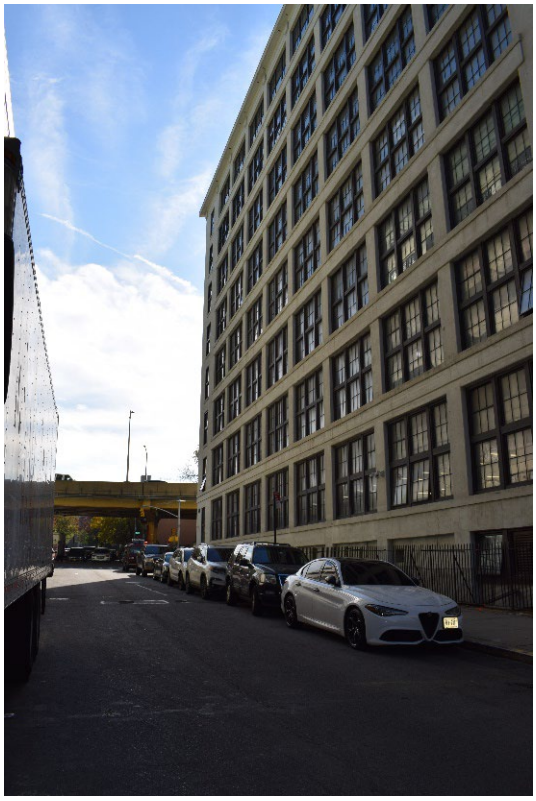


Photo Captured 11/06/2023

Photo 8-7 View of Building C Facing West at the Corner of Park Avenue and Ryerson Street

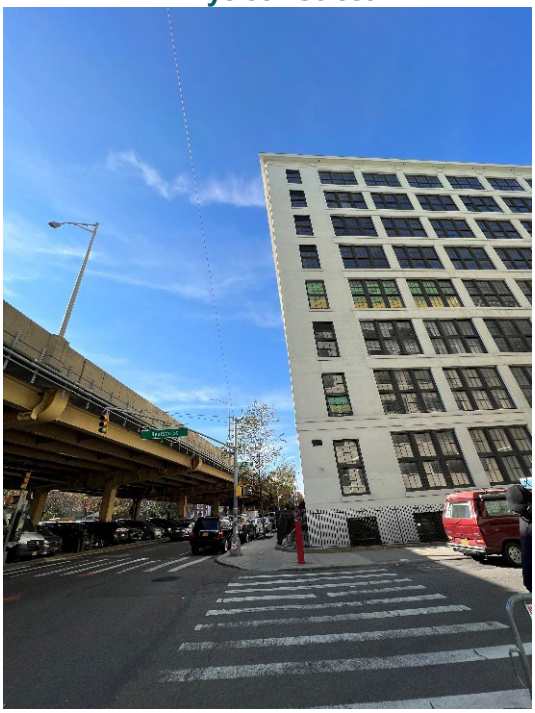


Photo Captured 11/06/2023

Photo 8-8 View of Buildings G, H, and I Facing Northeast Along Hall Street



Photo Captured 11/06/2023

Open Space and Natural Features

There are two openings from Hall Street providing access to the courtyard area (between Buildings E and F and Buildings I and J) intersected by an interior walkway through the Development Site (see **Photo 8-9** and **Photo 8-10**). In total, the courtyard areas and the interior walkway comprise approximately 24,968 sf of open space The open space on the Development Site includes some planting beds and potted shrubs. There is also approximately 7,608 sf of unbuilt paved area between Building J and the lot line along Flushing Avenue. This space contains a driveway and minimal landscaping. There is no other open space (including parking lots or mapped parkland) at the Development Site.

There are no natural features, as defined in the *CEQR Technical Manual*, at the Development Site.

Photo 8-9 View of the Courtyard Area Between Buildings I and J Facing East Across Hall Street

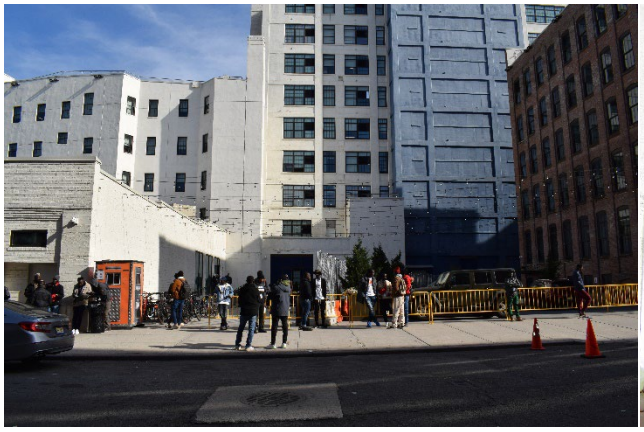


Photo Captured 11/06/2023

Photo 8-10 View of the Courtyard Area Between Buildings E and F



Photo Captured 11/06/2023

Study Area

Street Pattern and Streetscape

As discussed above and shown in **Figure 8-1**, the study area for urban design and visual resources is approximately a 400-foot radius from the Development Site and is generally bounded by half a block beyond South Street to the north, Grand Avenue to the east, Park Avenue to the south, and Washington Avenue to the west. In general, the street pattern in the study area is characterized by large blocks with a north-south orientation. The study area is divided by Flushing Avenue and Park Avenue (including the elevated BQE), which are the main traffic corridors flowing east and west. These streets separate the portions of the study area directly north and south of the Development Site. North of Flushing Avenue, the street patterns and streetscape are characterized by the Brooklyn Navy Yard, which is a commercial and industrial complex with limited public pedestrian and vehicle access. The elevated BQE roadway, located south of the Development Site, divides the Development Site and its surroundings directly east and west of the Development Site from the residential neighborhood located south of Park Avenue.

Flushing Avenue runs east-west directly north of the Development Site, separating the Brooklyn Navy Yard from the rest of the study area to the south (see **Photo 8-11** and **Photo 8-12**). As discussed

above, Flushing Avenue is a two-way, 70-foot-wide street with bike lanes. Along with several parking lots, commercial and industrial development along Flushing Avenue creates a varied streetscape with inconsistent street walls. Development within the Brooklyn Navy Yard along the north side of Flushing Avenue is set back from the property line with parking lots and landscaping. These areas are separated from the streetscape by fences—a plain chain-link fence on the north side of Flushing Avenue, west of Ryerson Street, and a combination of iron and chain-link fences on a stone base east of Ryerson Street (the location of the Naval Cemetery within the Navy Yard). Along with standard streetscape elements such as utility poles, signage, street trees, and fire hydrants, a distinctive feature of Flushing Avenue in the study area is the two-way, protected bike lane running along the north side of the street.

Aside from Washington Avenue, the remaining north-south streets (Hall Street, Ryerson Street, and Grand Avenue) in the study area terminate at their intersection with Flushing Avenue. The streets within the Brooklyn Navy Yard are unmapped. Washington Avenue terminates at a gate approximately 350 feet north of Flushing Avenue that provides private access to Steiner Studios, which is a film and television studio complex within the Navy Yard (visible in **Photo 8-20**). There is no public pedestrian access to the Navy Yard itself from within the study area.

As described above, Park Avenue and the Elevated BQE roadway run east-west through the south portion of the study area (see **Photo 8-11**). Given the width of Park Avenue (150 feet) and the limited visibility caused by the elevated structure, the blocks south of the BQE within the study area are separated from the streetscape north of the BQE. Towards the eastern boundary of the study area, Park Avenue and the BQE begin to widen and curve to the north. The northern (westbound) Park Avenue roadway curves south to run under the BQE and join the eastbound Park Avenue roadway east of the study area boundary. The elevated BQE roadway widens to accommodate the entrance and exit lanes that lead to Flushing Avenue, northeast of the study area boundary.

Along the north side of Park Avenue in the study area, buildings are generally built to the lot line. There are limited ground-floor windows, and the character of the street is industrial. Streetscape elements include street trees, standard signage, utility poles, mailboxes, and fire hydrants. There are stops for the MTA B62 bus at Ryerson Street and Washington Avenue. Relatively tall buildings with no setbacks and the elevated BQE roadway limit sunlight and visibility at the street level along the north side of Park Avenue in the study area.

In contrast, the south side of Park Avenue in the study area is bordered by shorter 1- to 3-story buildings, parking lots, and open space (Washington Hall Park), allowing more light and greater visibility at the street level (visible in **Photo 8-11**). Streetscape elements along the south side of Park Avenue are similar to those along the north side, with the addition of bus shelters at Ryerson Street and Washington Avenue. There are few street trees, with the exception of the block between Washington Avenue and Hall Street, where there are several mature London Planetrees in the sidewalk near the property line of Washington Hall Park.

South of Park Avenue within the study area, Hall Street and Ryerson Street have a more residential character than to the north (the segments of Hall Street and Ryerson Street that border the Development Site are discussed above), with the wide Park Avenue and the elevated BQE forming a buffer between the dense industrial/commercial streetscape to the north and the residential streetscape to the south. South of Park Avenue, Hall and Ryerson Streets are both 60-foot wide, one-way streets; Hall Street is southbound and Ryerson Street is northbound. The portion of Hall Street south of Park Avenue and within the study area is bordered by Washington Hall Park and a commercial parking lot, with residential uses occurring towards the southern boundary of the study

area (see **Photo 8-19**). Along this street segment, there are park benches and many street trees along with standard signage and utility poles. Residential buildings on both sides of the street are set back several feet from the property lines, with small, fenced front yards. South of Park Avenue, Ryerson Street has a residential streetscape featuring street trees, planters, and standard signage and utility poles. Residential buildings along both sides of the street have staircase entrances and ground-floor windows, with small front yards used to store trash and recycling cans.

Washington Avenue is a two-way, 80-foot-wide (Wide Street) street running north-south near the western boundary of the study area. There is one vehicle travel lane in each direction, and both sidewalks are roughly 20 feet wide. Relative to other streets in the study area, Washington Avenue has an active pedestrian streetscape with a variety of streetscape elements supporting a mixed-use retail corridor, particularly near Flushing Avenue (see **Photo 8-14**). Along the block between Flushing Avenue and Park Avenue, Washington Avenue features bike racks, benches, planters, and street tree pits along with outdoor restaurant seating areas. Further south towards Park Avenue, there are more industrial uses, with several loading docks and garages (with associated curb cuts) on both sides of the street. There is a large CitiBike rack near the corner of Park Avenue. South of Park Avenue, the small portion of Washington Avenue in the study area has a more residential character. Here, the street is bordered by Washington Hall Park to the west, with several benches, large trees, and bike racks. Along the eastern sidewalk are residential building entrances with staircases and small fenced front yards.

Grand Avenue is a 60-foot-wide (Narrow Street), one-way southbound street near the western boundary of the study area (see **Photo 8-13**). There is one travel lane and on-street parking on both sides, with sidewalks approximately 12-15 feet wide. Grand Avenue forms a complicated intersection with Park Avenue beneath the elevated BQE at the southeastern corner of the study area. Along the block between Flushing Avenue and Park Avenue, Grand Avenue has a nondescript, industrial streetscape. There are several garage entrances and loading docks opening onto the sidewalk along both sides; there are also auto repair lots along the east side surrounded by metal fences. Cars are stored on the sidewalk near these uses.

Photo 8-11 Facing West Along the South Side of Park Avenue from Washington Avenue

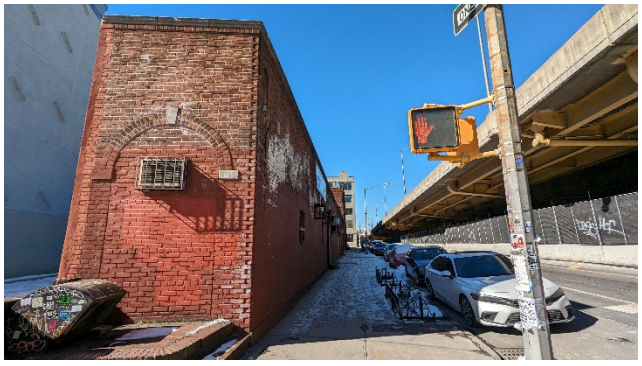


Photo Captured 2/20/2024

Photo 8-12 Looking East Along Flushing Avenue from Washington Avenue



Photo Captured 2/20/2024

Photo 8-13 Facing Southwest Across Grand Avenue Between Flushing and Park Avenues

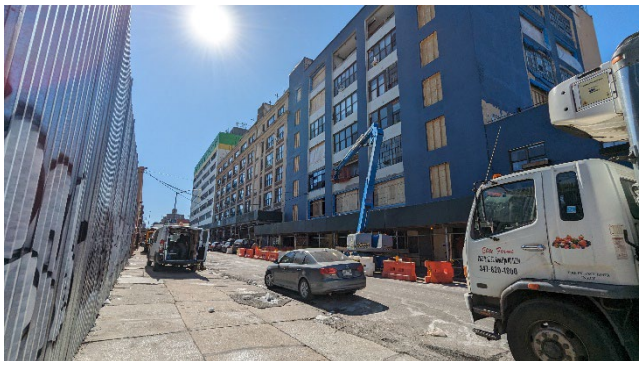


Photo Captured 2/20/2024

Photo 8-14 Facing North Along Washington Avenue Between Park and Flushing Avenues



Photo Captured 2/20/2024

Photo 8-15 Facing Northeast Across Ryerson Street Near Flushing Avenue



Photo Captured 2/20/2024

Photo 8-16 Facing Northeast Across Grand Avenue from the Corner of Park Avenue

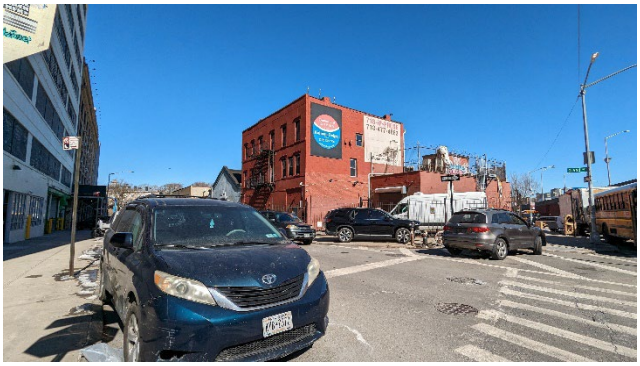


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Buildings

Brooklyn Navy Yard

Though the Brooklyn Navy Yard pedestrian streetscape in the northern portion of the study area is largely inaccessible, buildings in the Navy Yard are visible to pedestrians along Flushing Avenue and nearby streets. The atypical, irregular layout of the Navy Yard means that the locations of these buildings are not dictated by a public street grid or typical lot-line boundaries (since tax lots in the Navy Yard are very large and contain multiple buildings). The most prominent Navy Yard buildings in the study area are industrial buildings located between Washington Avenue and Hall Street (though these streets do not extend into the Navy Yard). The 7-story, S/NR-eligible, Moderne-style industrial building located at 25 Washington Avenue (Brooklyn Navy Yard Building 1, formerly known as Building 291) is accessible along Washington Avenue near the gated Steiner Studios entrance (see **Photo 8-20**). The building has a simple, functional design, and features wide, rectangular windows that span much of the façade. Notable features include rounded corners and a radio antenna on the roof that is visible from street level. East of the building at 25 Washington Avenue, there is a large 3-story Moderne-style brick industrial building that is not accessible from public streets (Brooklyn Navy Yard Building 2, formerly known as Building 290). The building appears to be vacant and undergoing

renovations. The façade facing Flushing Avenue is divided into three bays featuring large windows and recessed brick bands. West of Washington Avenue, there is a third S/NR-eligible building (Brooklyn Navy Yard Building 4, formerly known as Building 424). This building has a plain corrugated-steel exterior with no windows. It is mostly located outside the study area. All three of these buildings were initially constructed in 1958. All three are set back roughly 50 to 70 feet from the Flushing Avenue streetline; this space is occupied by surface parking. The LPC-designated Brooklyn Naval Hospital Building is located just outside the study area to the northwest. There is limited visibility of this building along Flushing Avenue.

Flushing Avenue to Park Avenue

The area between Flushing Avenue and Park Avenue within the study area is occupied by a variety of industrial and mixed-use building typologies that are different from the mix of buildings found in the Brooklyn Navy Yard or in the residential neighborhood south of Park Avenue. In general, the buildings in this area can be classified into three broad categories—low-rise industrial workshops and warehouses, mid-rise industrial or commercial buildings, and low- to mid-rise residential or mixed-use buildings.

This area includes portions of the S/NR-listed Wallabout Industrial Historic District and S/NR-listed Rockwood Chocolate Factory Historic District (refer to **Section 7, Historic and Cultural Resources**). The Wallabout Industrial Historic District comprises 203 buildings, 40 of which are contributing buildings (including Buildings A through I on the Development Site) located across five blocks between Flushing Avenue and Park Avenue. The buildings within the district were all built as (or converted to) factories, industrial warehouses, or related uses and were erected mostly in the late 19th and early 20th centuries. Contributing buildings in this district fit into the low-rise and mid-rise industrial and commercial building typologies listed above. Contributing buildings in the Wallabout Industrial Historic District exhibit a variety of construction materials and architectural details reflecting the evolution of structural technologies during the late 19th and early 20th centuries.

The Rockwood Chocolate Factory Historic District is mapped on portions of Block 1874 (two blocks west of the Development Site), contains 16 contributing buildings, and is located entirely within the Wallabout Industrial Historic District boundary. These buildings were built between 1891 and 1928. The Rockwood Chocolate Factory Historic District was S/NR-listed in 1983 and was subsequently incorporated into the Wallabout Industrial Historic District.

Low-rise industrial workshops and warehouse buildings are scattered throughout the study area between Flushing and Park Avenues. A cluster of these buildings along Washington Avenue was constructed during the early 1930s (several of which are contributing buildings in the S/NR-listed Wallabout Industrial Historic District), and several were built during the 1980s along the east side of Grand Avenue. Generally, these buildings are made of brick and built out to the lot line with no setbacks. They largely feature plain, functional architecture with brick exteriors and little or no decoration. Depending on their use, these buildings may have windowless facades featuring only a service entrance, garage, or loading dock (see the buildings on the right in **Photo 8-14** and **Photo 8-16**, for example), or they may have retail facades with full-height windows. A common feature of this type of building is a double-height first floor. The single- and 2-story industrial warehouse and workshop buildings found throughout the study area generally contribute to an industrial streetscape that is more vehicle- than pedestrian-oriented (particularly where these buildings feature garage entrances opening onto the sidewalk). However, in some locations these buildings have been repurposed with commercial storefronts that offer a more active pedestrian experience, particularly

along Washington Avenue. Other examples of single- and 2-story industrial buildings include a portion of the Hall Street Storage warehouse at 220 Flushing Avenue (shown in **Photo 8-24**) featuring several recessed loading docks, and the building at 8 Grand Avenue that is currently in use as a gym (seen at the far left in **Photo 8-21**). As noted below, there are few single- and 2-story warehouse buildings located south of Park Avenue in the study area.

Mid-rise industrial and commercial buildings are common in the study area between Flushing and Park Avenues. These buildings make up the majority of Block 1877 (the block directly east of the Development Site) and the portion of Block 1875 (directly west of the Development Site) fronting on Hall Street. Four of the six buildings on Block 1877 (excluding the two buildings fronting on Flushing Avenue) are contributing buildings in the Wallabout Industrial Historic District. 12 buildings located at mid-block along Hall Street and Washington Avenue on Block 1875 are also contributing buildings to the Wallabout Industrial Historic District. The other buildings of this type are located along Washington Avenue near Park Avenue. Compared to the low-rise buildings described above, these larger industrial and commercial buildings exhibit a greater variety in urban design characteristics. They are mostly built out to the property lines (with some exceptions where the buildings are set back to accommodate parking or loading areas), and all rise to their full heights with no setbacks. The 8- to 10-story industrial buildings directly east of the Development Site are visually very similar to the existing buildings on the Development Site, featuring brick and reinforced-concrete construction and a simple, functional aesthetic (see **Photo 8-13**, which shows the contributing building in the Wallabout Industrial Historic District at 14-42 Ryerson Street). The self-storage warehouse at 47-57 Ryerson Street is also a contributing building, notable for its curved footprint that follows the street line of Park Avenue as it turns northward in the east of the study area (see **Photo 8-17**). The 9-story Moderne-style industrial building features horizontal bands of glass block windows, most of which have been blacked out. Along Hall Street directly west of the Development Site, Hall Street Storage (a commercial storage facility), occupies several cold-storage warehouses rising 5 to 7 stories; all are contributing buildings in the Wallabout Industrial Historic District. The unpainted brick and reinforced concrete facades of these buildings are windowless or have filled-in windows. There is a corrugated-metal awning above the first floor, which contains raised loading docks and service entrances. Other buildings that fit into this general typology are found along Washington Avenue, where there is relatively more variety in terms of their built form and function. There are several three- and 4-story brick warehouse and office buildings along the west side of Washington Avenue featuring small windows on the upper stories above garage entrances at the ground floor. These buildings feature more decorative brickwork than the buildings described above. The Rockwood Chocolate Factory building at the northwest corner of Park Avenue and Washington Avenue is a 5-story brick industrial building with unique decorative brickwork compared to other buildings in the study area (see **Photo 8-18**). It is a contributing building in both the Rockwood Chocolate Factory and Wallabout Industrial Historic Districts. The adjacent warehouse building directly to the north features an L-shaped layout built around a surface parking lot with its entrance along Washington Avenue.

Low- to mid-rise residential and mixed-use buildings are relatively uncommon in this area but can be found along Washington Avenue, where they contribute to the relatively active pedestrian environment with commercial ground floors (see **Photo 8-14**, which shows the east side of Washington Avenue, and **Photo 8-23**, which shows contributing buildings in the Wallabout Industrial Historic District along the west side of Washington Avenue). Elsewhere, there are scattered residential buildings such as the example at 37 Grand Avenue, shown in **Photo 8-16** at the right. In general, these buildings are brick

construction and rise 2 to 5 stories. Though residential and mixed-use buildings do exist in the study area, the character of the buildings is that of an industrial neighborhood.

Photo 8-17 View of a Self-Storage Building at the Corner of Grand and Park Avenues, Looking West



Photo Captured 2/20/2024

Photo 8-18 View of Mixed-Use Buildings at the Corner of Washington and Park Avenues, Looking West



Photo Captured 2/20/2024

South of Park Avenue

As discussed above, Park Avenue and the BQE divide the streetscape to the north and south, with the neighborhood south of Park Avenue exhibiting a more residential character relative to the rest of the study area. South of Park Avenue, typical buildings within the study area are 2- to 4-story, multi-family residential buildings with a mix of styles and materials, including brick, stone, and vinyl siding exteriors (see **Photo 8-19**). These buildings are mainly set back several feet from the property lines, accommodating small front yards with staircases that lead to raised entrances. Lot sizes are generally smaller in this portion of the study compared to the area to the north, leading to smaller building footprints with less variation from one lot to another. These buildings generally form continuous streetwalls. As mentioned above, there are several non-residential buildings (single- or 2-story industrial/commercial garages or workshops) scattered in this area, consistent with a transition away from of the dense industrial development to the north.

Photo 8-19 Facing south along Hall Street between Park and Myrtle Avenues



Photo Captured 2/20/2024

Photo 8-20 View of the Steiner Studios Building Looking Northeast Across Flushing Avenue



Photo Captured 2/20/2024

Photo 8-21 Facing West Along Flushing Avenue Near Grand Avenue

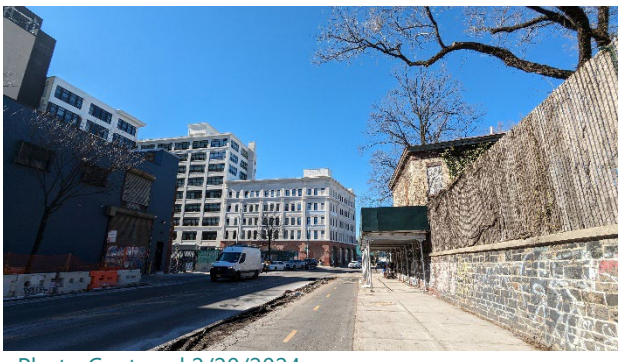


Photo Captured 2/20/2024

Photo 8-22 View of Washington Hall Park Looking Southeast Along Washington Avenue



Photo Captured 2/20/2024

Photo 8-23 Facing West Across Washington Avenue at The Corner of Flushing Avenue



Photo Captured 2/20/2024

Photo 8-24 View of Industrial Development Facing Northwest Across Hall Street Between Park and Flushing Avenues



Photo Captured 2/20/2024

Open Space and Natural Features

Washington Hall Park is located along the south side of Park Avenue between Washington Avenue and Hall Street. The roughly 0.9-acre park is surrounded by a chain-link fence and features asphalt basketball and handball courts, play equipment, seating areas, and a small, single-story brick restroom structure. The park is elevated roughly 3 feet along its Park Avenue frontage to accommodate a slight change in topography at the southern end of the study area (elevation increases moving south).

There are no other open spaces in the study area (as defined in Chapter 10 of the *CEQR Technical Manual*). The Naval Cemetery is located in the northeast of the study area, but it is not publicly accessible by pedestrians. The cemetery features landscaped paths and seating. There are several paved surface parking lots throughout the study area, however, none are pedestrian accessible.

There are no natural features, as defined in the *CEQR Technical Manual*, in the study area.

Visual Resources

There are no visual resources, as defined in the *CEQR Technical Manual*, in the study area. Though the East River waterfront is located approximately 0.5 miles northwest of the Development Site, it is not visible from within the study area, and there are no views of the skyline of downtown Manhattan within the study area.

No-Action Condition

Development Site

Urban Design

As described in **Part I: Project Description**, absent the Proposed Actions, Buildings A and J within the Development Site would be demolished and replaced with a purpose-built, 5-story self-storage facility. With respect to urban design and visual resources, no other changes would occur to the

street pattern and streetscape or buildings at the Development Site. An illustrative view of the Development Site in the future without the Proposed Actions is shown in **Figure 8-2**.

Visual Resources

In the future without the Proposed Actions, there would continue to be no visual resources on, or visible from, the Development Site, same as in the existing conditions.

Study Area

Urban Design

There is one development project in the study area that would result in a change in built form by the 2030 analysis year. As discussed in **Section 2, Land Use, Zoning, and Public Policy**, an approved zoning text amendment to the Special Brooklyn Navy Yard District is expected to facilitate the redevelopment of the armory building (Brooklyn Navy Yard Building 4, described above) along with two other nearby buildings, with new development consistent with the recommendations of the Brooklyn Navy Yard Master Plan. The buildings would be replaced with two new 8-story industrial, commercial, and community-facility buildings containing a total of approximately 1.4 million gsf. It is anticipated that these buildings would be complete by 2030, though the exact design, massing, and site plan are unknown. The buildings would be largely outside the study area but would be visible to pedestrians along Flushing Avenue.

Visual Resources

In the future without the Proposed Actions, there would continue to be no visual resources on, or visible from, the study area, same as in the existing conditions.

With-Action Condition

As described in **Part I: Project Description**, a new mixed-use building with ground-floor retail and residential units on the upper floors would be constructed in the area of Buildings A and J. The new mixed-use building would contain approximately 420,784 gsf (393,280 zsf) of floor area, including 408,089 gsf (381,220 zsf) of residential floor area and 12,695 gsf (12,060 zsf) of ground floor commercial retail. It would provide approximately 464 new DUs, including 116 to 139 permanently affordable housing units, in accordance with the applicable MIH requirements. Prominent retail spaces would be allocated at the corners covering a majority of the building's ground-floor street frontages. Flanked between the two retail spaces would be the residential lobby entrance located along Flushing Avenue. The new mixed-use building would have a base height of approximately 130 feet. Above such base height, the building would be set back 15 feet from the street line before rising to a maximum height of approximately 215 feet (245 feet including mechanical bulkhead).

Urban Design

Figure 8-2 through **Figure 8-5** provide comparative visualizations of pedestrian viewpoints of the Development Site in the future No-Action and With Action conditions.

The With-Action condition would introduce a new multi-story, mixed-use building at the northern portion of the Development Site, replacing the existing Buildings A and J. Similar to the No-Action condition, development resulting in changes in building height and massing would only occur in the

locations of Buildings A and J, while Buildings B through I would undergo internal renovations and/or use conversions. The Proposed Actions would facilitate a change in the visual character of the Development Site, with increased height and bulk primarily along Flushing Avenue. As detailed above, the Development Site is located in a predominately industrial area; the Brooklyn Navy Yard is located directly to the north across Flushing Avenue, and a residential neighborhood is located to the south of the BQE.

The Proposed Actions would introduce a building greater in height than the balance of the buildings that would remain on the Development Site and the surrounding commercial and industrial buildings along Flushing Avenue, as shown in **Figure 8-2** through **Figure 8-5**. Given the configuration of the existing buildings that would remain in the With-Action condition, the new development would be visible along Flushing Avenue and portions of Hall Street and Ryerson Street. The Proposed Actions would result in the introduction of new residential and retail uses along the full Flushing Avenue frontage, replacing the existing paved lot in front of Building J. This will create an active street frontage and street wall presence along Flushing Avenue.

The With-Action condition would result in development at the street lines along Flushing Avenue, Ryerson Street, and Hall Street, consistent with existing industrial, mixed-use, and commercial development along the blocks located between Flushing Avenue and Park Avenue/BQE. Rising to 21 stories and a building height of 215 feet, the new Building A under With-Action conditions would be greater in height than to the balance of the buildings that would remain on the Development Site and other buildings in the surrounding neighborhood, all of which generally vary from 1 to 9 stories. However, though the proposed Building A would be taller than surrounding buildings, the study area generally exhibits a variety of building heights, and it is common for existing buildings to abut other buildings with significantly different heights. Further, from the pedestrian streetscape surrounding the Development Site, several buildings of a similar or larger height and scale are present and visible, particularly along and from Flushing Avenue. Additionally, the proposed massing for Building A would feature setbacks at an elevation of approximately 130 feet, at a height equivalent to the roof height of the adjacent Building B, and would be comparable to the heights of other mid-rise industrial buildings in the study area. Moreover, the scale of the proposed Building A is similar to that of planned commercial development within the Brooklyn Navy Yard that is expected by the Build Year (discussed in **No-Action Condition**, above). As such, the proposed height and massing of the new Building A under With-Action conditions woulld not result in significant adverse urban design impacts.

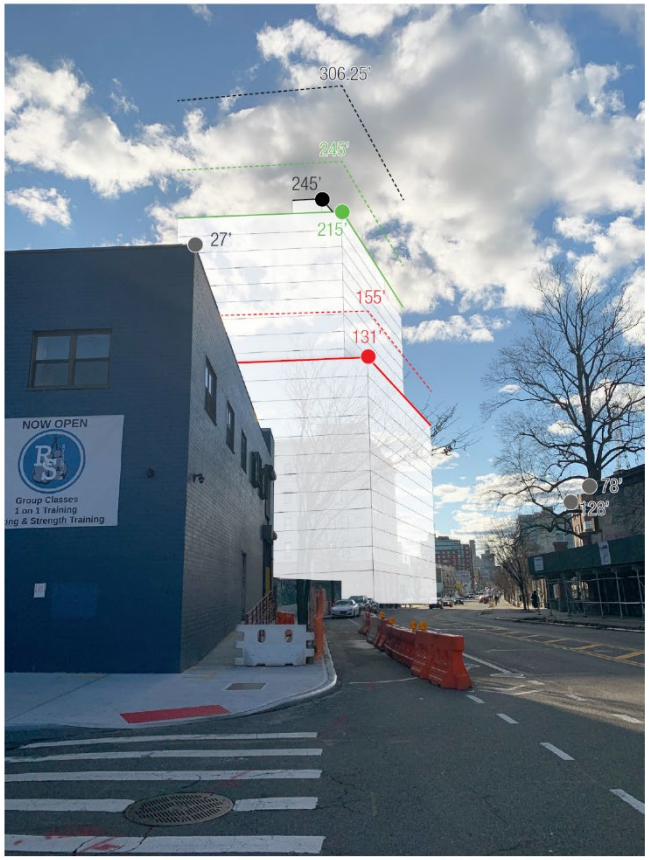
Figure 8-2 Building Massings: View Along Flushing Avenue Facing West from Grand Avenue

No-Action



Permitted building height within setback: 60'
Proposed building height: 43'
Adjacent building height: as indicated

With-Action



Permitted base height: 155'
Permitted building height: 245'
Permitted building height: 306.25'
(25% increase for lots ≥ 20,000 sf)
Proposed base height: 131'
Proposed building height: 215'
Proposed bulkhead height: 245'
Adjacent building height: as indicated

Figure 8-3 Building Massings: View Across Flushing Avenue Facing Southwest

No-Action



Permitted building height within setback: 60'
Proposed building height: 43'
Adjacent building height: as indicated

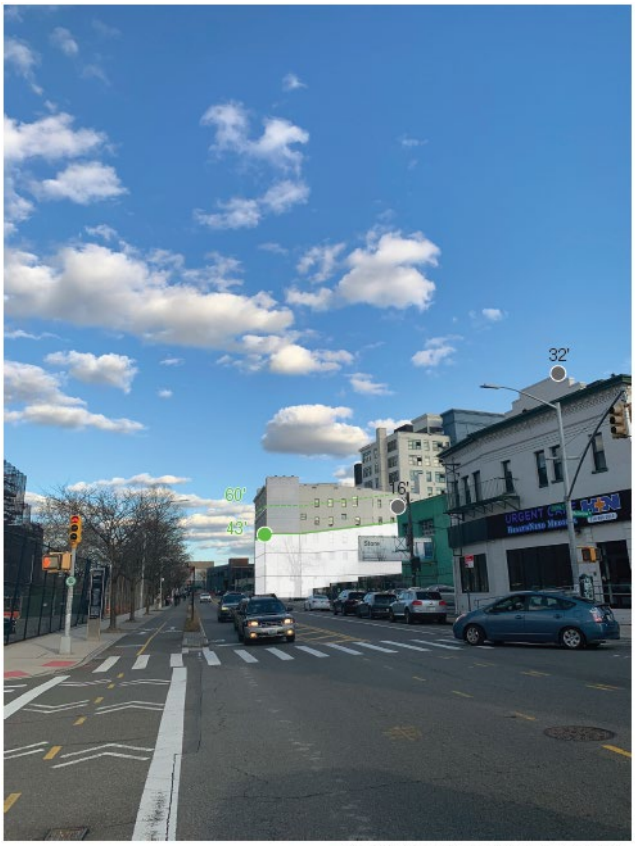
With-Action



Permitted base height: 155'
Permitted building height: 245'
Permitted building height: 306.25'
(25% increase for lots ≥ 20,000 sf)
Proposed base height: 131'
Proposed building height: 215'
Proposed bulkhead height: 245'
Adjacent building height: as indicated

Figure 8-4 Building Massings: View Along Flushing Avenue Facing East

No-Action



With-Action

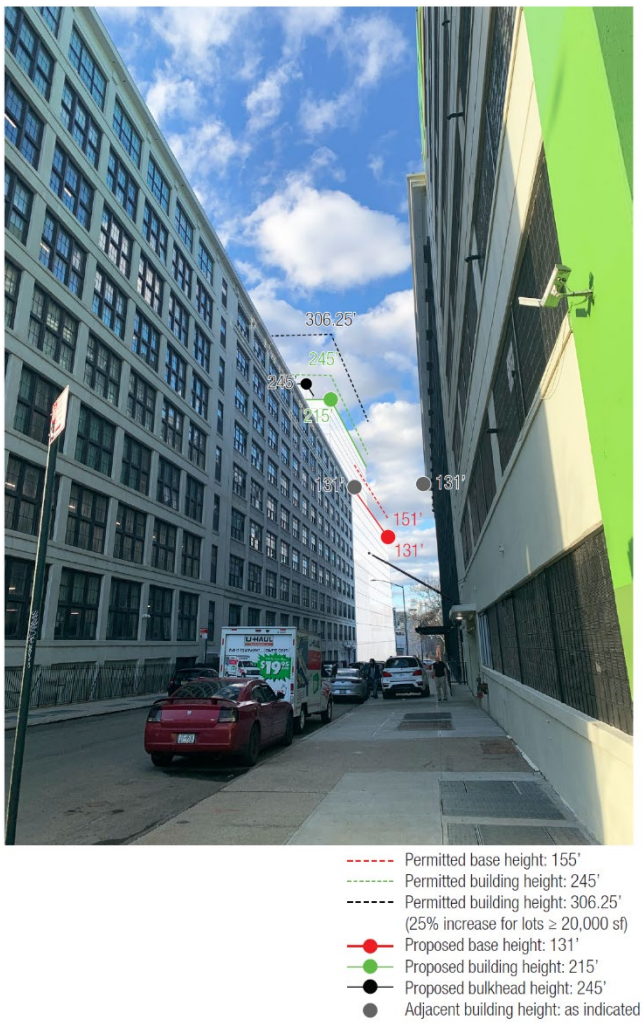


Figure 8-5 Building Massings: View Along Ryerson Street Facing North

No-Action



With-Action



Conclusion

Overall, the future With-Action condition would lead to conditions at the Development Site that would be compatible with the surrounding and emerging built form and streetscape. The Proposed Actions would result in the replacement of a 5-story building and a single-story building with a new 21-story building, which would create an uninterrupted streetwall along Flushing Avenue. Along with pedestrian improvements throughout the Development Site, the new building would contribute to a revitalized streetscape, particularly along Flushing Avenue. No public streets would be altered in the future with the Proposed Actions, and development would only occur within existing mapped tax blocks. No visual resources would be altered as a result of the Proposed Actions. Therefore, the Proposed Actions would not result in a significant adverse impact on urban design and visual resources, and no further analysis is necessary.

9

Hazardous Materials

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

Introduction

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

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

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

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

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

Methodology

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

› Phase I Environmental Site Assessment (ESA) dated March 22, 2024, prepared by VHB Engineering, Surveying, Landscape Architecture and Geology, P.C. (VHB).

A Phase I ESA was prepared on March 22, 2024, in accordance with ASTM Practice E1527-21, 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 **Part I: Project Description**, the Proposed Actions would facilitate the construction of a new 21-story mixed-use residential and commercial building in the area of Buildings A and J; conversion of Building B to residential use with some enclosed accessory parking; and renovation and re-tenanting of the remaining seven existing buildings (C, D, E, F, G, H, and I) with a mix of commercial office, retail, self-storage, and/or "maker" space.

Preliminary Assessment

Existing Conditions

The Development Site is improved with ten existing former manufacturing buildings (Buildings A through J), each of which were initially constructed between 1889 and 1927. Building A is a 5-story structure located at the corner of Flushing Avenue and Ryerson Street. Building B is a 9-story structure with a basement located at the midblock, with frontage on Ryerson Street. Building C is a 9-story structure with a basement located at the corner of Ryerson Street and Park Avenue. Building D is a 9-story structure with a basement with frontage on Park Avenue. Building E is a single-story structure located at the corner of Park Avenue and Hall Street. Buildings F, G, H, and I range from 5- to 8-stories tall and are located at the midblock with frontage on Hall Street.

Portions of the Development Site were recently licensed by the NYC Health and Hospitals Corporation to temporarily operate as a Humanitarian Emergency Response and Relief Center (HERRC). Building I operates as a HERRC, with the exception of a small commercial tenant on the 5th floor. The rest of the Development Site is in use by the HERRC.

Phase I Environmental Site Assessment

The Phase I ESA dated March 22, 2024, was completed for the Development Site and included analyses as specified in the ASTM Method E1527-21. The goal of the Phase I ESA process is to identify Recognized Environmental Conditions (RECs), which means the presence or likely presence of

any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of release of said 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 Development Site and observation of surrounding properties. The following REC was identified in the Phase I ESA:

- According to the findings of the site reconnaissance, historical records review, and the online NYCDOB database, the Development Site has been formerly utilized as a printing and typewriter manufacturer (Mergenthaler Linotype Factory), woodworking shop, knitting/textile mill, and an electric lighting company between 1887 and 1969. The handling, storage, and/or disposal of hazardous materials and substances used during the historical operations are unknown. According to the New York State Department of Environmental Conservation (NYSDEC) Petroleum Bulk Storage (PBS) database, a closed-in-place 5,000-gallon fuel oil underground storage tank (UST) is located on the southwest corner of the Subject Property. As such, the Development Site's historical uses and the potential presence of a closed-in-place UST may have resulted in inadvertent impacts to onsite soils, groundwater, and soil vapor, which constitutes a REC.

In addition, the following business environmental risks were identified:

- Two 660-gallon No. 2 fuel oil ASTs were observed within the basement of Buildings C and F. Both tanks were double walled and located within a secondary containment. The tanks appeared to be in good condition with no evidence of leaks or spills. A 2015 Phase I ESA report noted that a former boiler room containing vaulted ASTs with access for inspection and boiler maintenance was previously located in the lowest level of the 21 Hall Street[1] building. The former boiler room was inaccessible during VHB's 2023 site reconnaissance as the access door was sealed with concrete. Accordingly, the presence of the vaulted ASTs cannot be ruled out. The aforementioned ASTs were not identified on the NYSDEC PBS-AST database. As there are no reported spills or leaking tanks associated with the Development Site, the presence of ASTs at the Development Site is not considered a REC. However, the presence of the aforementioned ASTs at the Development Site is considered a Business Environmental Risk (BER). The ASTs should be registered with the NYSDEC and removed in accordance with all prevailing regulations prior to any redevelopment activities at the Development Site, requiring the removal of the ASTs.
- Based upon the construction of the on-site buildings (circa 1912-1924) the presence of asbestos-containing materials (ACM) and lead-based paint (LBP) cannot be ruled out at the Development Site. As such, the potential presence of ACM and LBP (i.e., peeling paint was observed on some walls throughout the complex, and suspect ACM observed in multiple buildings throughout the Development Site. In addition, a limited ACM survey was conducted in 2015 which confirmed ACM in 9"x9" floor tiles and associated mastics, aircell and mag block thermal pipe insulation, and window glazing. Should any of these structures require removal, the ACM and LBP contents of same should be determined, and if same are determined to be present, disposal should be handled in accordance with all prevailing regulations.

[1] Also known as Building B.

- Although not identified during VHB's 2023 site reconnaissance, a groundwater monitoring well was observed in the paved driveway in the north loading dock adjacent to 25 Hall Street (or Building I) in the 2015 Phase I ESA report. The Development Site Representative was not aware of any previous subsurface investigations or the reason for the installation of the well. Various investigations of general groundwater conditions related to the former adjoining Brooklyn Naval Yard have been performed in the Development Site vicinity, and this groundwater monitoring is potentially associated with these investigations. No other groundwater investigations have been identified for the Development Site. Based on the absence of a release, the well on the Development Site is not considered a REC. However, the absence of ownership information and/or copies of any sampling reports for the groundwater monitoring well is considered a BER. The onsite groundwater monitoring well should be abandoned in accordance with NYSDEC regulations prior to redevelopment of the Development Site.
- Based upon review of historic resources, the presence of historic urban fill material is likely, as there were former commercial buildings constructed on the northeastern portion of the Development Site between 1887 and 1961. As such, the potential presence of historic urban fill material is considered a BER for the Development Site. If same is determined to be present, disposal should be handled in accordance with all prevailing regulations.

Future No-Action Condition

Absent the approval of the Proposed Actions, Buildings E through I would each be occupied by as-of-right commercial office, retail, and/or "maker" space, and Buildings B, C and D would be occupied by as-of-right self-storage space. While Buildings B through I are expected to be re-tenanted by a mix of commercial office, retail, "maker" space, and/or self-storage space, it is expected that Buildings A and J would be demolished and reconstructed as a purpose-built self-storage facility. Under the No-Action condition, an (E)-Designation for hazardous materials may not be applied, and the REC identified in the Phase I ESA would not be investigated or mitigated.

Future With-Action Condition

In the future With-Action condition, the Applicant would construct a new 21-story mixed-use building, renovate and convert Building B for residential use with an enclosed accessory parking facility, renovate Buildings C and D to accommodate new self-storage facility uses, and use the remaining existing buildings to accommodate a mix of commercial office, retail, and/or "maker" space. To address any concerns relating to hazardous materials at the Development Site, a subsurface remedial investigation (RI) would be required to identify potential subsurface contamination relating to the RECs identified in the Phase I ESA. The RI would characterize the Development Site for contaminants relating to soil, groundwater, and soil vapor conditions in accordance with the *CEQR Technical Manual*. Subsurface contaminants would subsequently be addressed through the development and implementation of a RAP and Construction Health and Safety Plan (CHASP) under the jurisdiction of OER. This would mitigate potential risk and exposure relating to the presence of hazardous materials in the subsurface by implementing institutional and/or engineering controls, as necessary.

The Development Site (except for portions of Building I) has been licensed by the NYC Health and Hospitals Corporation and is occupied as a HERRC. The Development Site, including the ground floor and basement levels, is actively being used as a shelter for asylum seekers, the majority of which include families with children. This makes performing a complete subsurface investigation to

characterize current environmental conditions at the Development Site infeasible with capable equipment. As such, the Proposed Action would include an (E)-Designation for hazardous materials (E-831), which would be applied to Brooklyn Block 1876, Lot 1. Applying an (E)-Designation for hazardous materials provides a mechanism for regulatory oversight for future remedial action as a post-demolition and/or pre-construction/renovation requirement that would reduce or eliminate the potential for future risk or exposure as it relates to hazardous materials and the conditions identified in the Phase I ESA. Compliance in association with the hazardous materials (E)-Designation on the Development Site would be conducted under the administration of OER. The applicable text for the (E)-Designation to be applied to Brooklyn Block 1876, Lot 1 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.

Conclusion

The Phase I ESA identified a REC and several BERs at the Development Site. Potential impacts relating to this condition would be addressed through the placement of a hazardous materials (E)-Designation (E-831) on the Development Site (Brooklyn Block 1876, Lot 1). Compliance in association with the hazardous materials (E)-Designation on the Development Site would be conducted under the administration of OER.

In addition to the above, regulatory requirements pertaining to building materials containing ACM, LBP, and/or PCBs would be addressed under standard demolition/renovation procedures. With the implementation of the above measures, there would be no significant adverse impacts with respect to hazardous materials.

10

Water and Sewer Infrastructure

This section evaluates, in accordance with the *2021 CEQR Technical Manual*, the potential effects of the Proposed Actions on the City's water supply, wastewater treatment, and stormwater management infrastructure in order to assess whether the Proposed Actions may adversely affect the City's water distribution or sewer system.

Introduction

As discussed in **Part I: Project Description**, the Applicant is requesting a zoning map amendment and zoning text amendment (the Proposed Actions) to facilitate the transformation of the Development Site (Brooklyn Block 1876, Lot 1) into an active mixed-use campus. The Proposed Actions would facilitate the construction of a new 21-story mixed-use residential and commercial building in the area of Buildings A and J; conversion of Building B to residential use with some enclosed accessory parking; and renovation and re-tenanting of the remaining seven existing buildings (C, D, E, F, G, H, and I) with a mix of commercial office, retail, self-storage, and/or "maker" space.

New York City's water and sewer network is fundamental to the operation, health, safety, and quality of life of the City and its surrounding environment. It must be sized to fit the users and surface conditions in order to function adequately. Ensuring its systems have capacity to accommodate land use or density changes and new development is critical to avoid environmental and health problems such as sewer back-ups, street flooding, or pressure reductions.

According to the *CEQR Technical Manual*, actions that would increase density or change drainage conditions warrant a water and sewer infrastructure analysis. Specifically, developments that would result in an exceptionally large demand for water (more than one million gallons per day [mgd]) or that are located in an area that experiences low water pressure require an analysis of potential impacts on the water supply system. Additionally, projects located in specific drainage areas, such as the Gowanus Canal, that would involve development on a site one acre or larger where the amount of impervious surface would increase, require an analysis of potential impacts on the wastewater and stormwater conveyance and treatment system.

As described in **Part II: Supplemental Analyses**, the Proposed Actions would result in new development generating a total water demand of approximately 170,356 gallons per day (gpd) at the Development Site, which is less than one million gpd. Therefore, no further analysis of water supply is warranted. Since the Proposed Actions would result in the introduction of more than 400 residential units in a combined sewer area within Brooklyn, a preliminary assessment of wastewater and stormwater conveyance is warranted, per *CEQR Technical Manual* guidance.

Methodology

Existing and future water demand and sanitary sewage generation are calculated based on use rates set by the *CEQR Technical Manual*. The New York City Department of Environmental Protection (NYC DEP) Flow Volume Calculation Matrix is then used to calculate the overall stormwater runoff volume for four rainfall volume scenarios with varying durations. The ability of the City's sewer infrastructure to handle the anticipated demand from the Proposed Project is assessed by estimating existing sewage generation rates, and then comparing these existing rates with the No-Action and With-Action conditions, per *CEQR Technical Manual* methodology. Water consumption and wastewater generation rates applicable to the existing conditions and the future With-Action condition at the Development Site were derived from the *CEQR Technical Manual* and are provided in **Table 10-1**.

Table 10-1 Water Consumption and Wastewater Generation Rates

	Rate			
Land Use	**Domestic[1]**	**Units**	**Air Conditioning[1]**	**Units**
Residential	100	gpd/person	0.00	gpd/sf
Retail	0.24	gpd/sf	0.17	gpd/sf
School	10	gpd/seat	0.17	gpd/sf
Office[2]	0.10	gpd/sf	0.17	gpd/sf
Community Facility[3]	0.10	gpd/sf	0.17	gpd/sf
Self-Storage[4]	0	gpd/sf	0	gpd/sf

Notes:
[1] Consumption rates obtained from the *2021 CEQR Technical Manual* Table 13-2 "Water Usage and Sewage Generation Rates for Use in Impact Assessment"
[2] For the Proposed Actions, maker space is categorized under office space
[3] Consistent with the *Stevenson Commons EIS*, the water consumption and wastewater generation rates for Community Facility utilizes the same CEQR rates as office space
[4] For conservative analysis purposes, it is assumed that self-storage space does not produce water demand or generate sewage.

Preliminary Assessment

Existing Conditions

Water Supply

The New York City water supply system consists of a network of reservoirs, lakes, and aqueducts extending north into the Catskill region of New York State, and a grid of underground distribution mains that distributes water within the city. Approximately 1.3 billion gpd of water are consumed within New York City through this water supply system.

Most of New York City obtains water from three surface water supply systems operated by NYC DEP—Delaware, Catskill, and Croton. The watersheds of the three systems cover almost 2,000 square miles, with 19 reservoirs and three control lakes, which have a combined storage capacity of approximately 550 billion gallons.

Two of the three surface water systems, the Delaware and Catskill systems, collect water from watershed areas in the Catskill Mountains and deliver it to the Hillview Reservoir in Yonkers. From there, it is distributed to the city through three tunnels: City Tunnel 1, which runs through the Bronx and Manhattan to Brooklyn; City Tunnel 2, which goes through the Bronx, Queens, and Brooklyn (and from there through the Richmond Tunnel to Staten Island); and City Tunnel 3 (Stage 1), which goes through the Bronx and Manhattan and ends in Queens. Stage 2 of City Tunnel 3 is currently under construction in Queens and Brooklyn.

The third surface water system, the Croton system, collects water from watershed areas in Dutchess, Putnam, and Westchester Counties and delivers it to the Jerome Park Reservoir in the Bronx. From there, it is distributed to the Bronx and Manhattan through the New Croton Aqueduct.

Once in the city, the aqueducts distribute water into a network of water mains. Water mains up to 96 inches in diameter feed smaller mains, such as 20, 12, and 8-inch mains, which deliver water to their destination, including to fire hydrants along many of the City's streets. Nearly all of the water reaches consumers by gravity alone, with roughly four percent (generally located at the outer limits of the system where in-line pressure is lowest, at high elevations, or at pressure extremity such as Far Rockaway) being pumped to its final destination. Water pressure throughout the City's water supply system is monitored and controlled by pressure regulators.

As mentioned above, New York City consumes approximately 1.3 billion gallons of water per day from the reservoir system which has a total storage capacity of approximately 550 billion gallons.[1, 2]

As discussed in **Part I: Project Description**, The Development is currently occupied by ten buildings (Buildings A through J) containing a total of 589,228 gsf, the majority of which is in use as a Humanitarian Emergency Response and Relief Center (HERRC). Under Existing Conditions, the Development Site generates a total water demand of approximately 359,647 gpd. Existing water consumption and sewage generation for the Development Site is shown in **Table 10-2**.

[1] Source: New York City's Wastewater Treatment System, NYC DEP; https://www1.nyc.gov/site/dep/water/

[2] Source: *2021 CEQR Technical Manual.*

Table 10-2 Existing Water Consumption and Sewage Generation

Land Use	Area (sf)	Dwelling Units/Seats/ Occupants	Domestic Water Demand/ Wastewater Generation (gpd)	Air Conditioning Water Consumption (gpd)
HERRC[1]	574,327	3,540	354,000	0
Retail	11,601[2]	N/A	2,784	1,972
Office	3,300	N/A	330	561
Water Demand Subtotals			60,547	2,533
Sewage Generation Subtotal			357,114	
Total Water Consumption			359,647	
Total Wastewater Generation			2,533	

Notes:

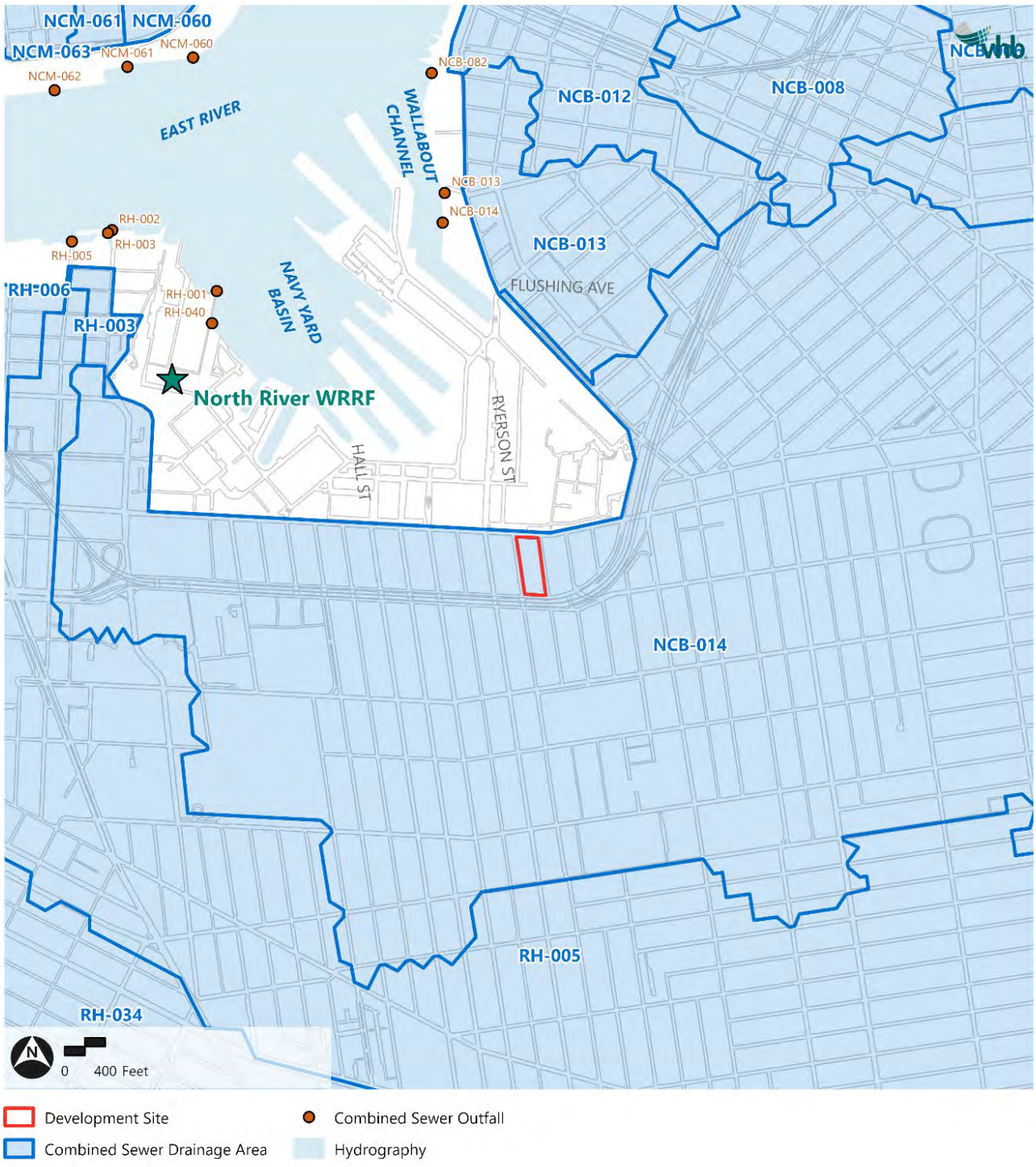
[1]The existing HERRC community facility space is assumed to generate water demand at the same rate as residential uses.

[2]It should be noted that the existing retail space is currently vacant. However, for conservative purposes, the retail space was included in the calculations for existing water demand/consumption and sewage/wastewater generation.

Sanitary Flows

The Development Site is located in a part of Brooklyn that is served by combined sewer systems. The Development Site drains to a single Combined Sewer Outfall (CSO): NCB-014. **Figure 10-1** shows the CSO and combined sewer drainage area serving the Development Site as well as the location of the North River WRRF relative to the Development Site.

Figure 10-1 Sewer Infrastructure Map



Based on existing schematic sewer maps provided by NYC DEP on June 14, 2024, the Development Site is served by combined sewers under Hall Street, Park Avenue, and Ryerson Street—all of which drain into a combined sewer that runs east under Flushing Avenue.

The sewer under Hall Street consists of circular pipes with varying diameters and construction materials, for which the construction date is unknown. These pipes consist of an 18-inch sewer of unknown material, a 9-inch clay pipe, a 15-inch reinforced concrete pipe, an 18-inch vitrified clay pipe, and a 30-inch reinforced concrete pipe. The sewer under Hall Street flows north, where it drains directly into the sewer under Flushing Avenue, which is a 156-inch-wide by 108-inch-tall box-shaped reinforced concrete sewer constructed in 1955. There are also three catch basins along Hall Street near its intersection with Flushing Avenue.

The sewer under Park Avenue does not connect to the sewer under Hall Street adjacent to the Development Site; instead, it flows east to drain into the sewer under Ryerson Street. The Park Avenue sewer is a 24-inch circular vitrified clay pipe built in 1955. It is fed by several catch basins, including at least seven with scupper connectors. The sewer under Ryerson Street is a 24-inch circular vitrified clay pipe constructed in 1957 that flows north to connect with the Flushing Avenue sewer. Similar to Hall Street, there are three catch basins along Ryerson Street near its intersection with Flushing Avenue.

Sanitary sewage generated by the Development Site would discharge to the Newtown Creek WRRF, which has a State Pollutant Discharge Elimination System (SPDES)-permitted dry weather flow capacity of 310 mgd. The average monthly flow to Newtown Creek WRRF over a 12-month period is 182 mgd (see **Table 10-3**).

Table 10-3 Newtown Creek Average Monthly Flows

	Month	Flow (MGD)
2022	July	178
	August	182
	September	183
	October	189
	November	181
	December	183
2023	January	177
	February	185
	March	186
	April	175
	May	182
	June	182
Average		**182**

Note:
[1]Average Monthly flows were provided by NYC DEP

Stormwater Flows

The Development Site is currently occupied by ten buildings and several paved areas. **Table 10-4** summarizes the existing surface areas as well as the weighted runoff coefficient (the fraction of precipitation that becomes surface runoff for each surface type) for outfall area NCB-014.

Table 10-4 Existing Conditions – Weighted Runoff Coefficient (C)

Surface Type	Roof	Pavement/Walks	Other	Grass/Softscape	Total
Area (%)	70	30	0	0	100
Surface Area (sf)	78,852	34,981	0	0	113,833
Runoff Coefficient[1]	1.00	0.85	-	0.20	**0.95**[2]

Notes:
[1]Runoff coefficients for each surface type as per DEP, as provided in the CEQR DEP Flow Volume Calculation Matrix.
[2]Weighted runoff coefficient calculations are based on the DEP Flow Volume Calculation Matrix provided in the CEQR Technical Manual.

The NYC DEP Flow Volume Calculation Matrix was completed for the existing conditions and includes four rainfall volume scenarios with varying durations. The summary table of the Flow Volume Calculation Matrix to NCB-014 is included in **Table 10-5**. As shown in **Table 10-5**, depending on the rainfall volume and duration, the total volume to the combined sewer system from the Development Site under the existing conditions for outfall area NCB-014 would be between approximately 0.01 million gallons (mg) and 0.22 mg.

Table 10-5 DEP Flow Volume Matrix – Existing Conditions, Sewage and Stormwater Generation During Different Storm Events

Rainfall (in.)[1]	Rainfall Duration (hr.)	Total Area (Acre)	Weighted Runoff Coefficient (C)	Sewage to Combined Sewer System (MG)	Stormwater Runoff (MG)[2]	Total Volume to CSS (MG)
0.00	3.80	2.60	0.95	0.010	0.00	0.01
0.40	3.80	2.60	0.95	0.010	0.03	0.04
1.20	11.30	2.60	0.95	0.029	0.08	0.11
2.50	19.50	2.60	0.95	0.049	0.17	0.22

[1] Storm event rainfalls per NYC DEP Volume Calculation Matrix
[2] Stormwater runoff derived from NYC DEP Volume Calculation Matrix

Future No-Action Condition

As described in **Part I: Project Description**, in the future without the Proposed Actions, the Development Site would be occupied by a mix of commercial uses including local retail, office and maker space, and self-storage. A new self-storage building would be constructed along Flushing Avenue. Total sewage generation would decrease from 357,114 gpd under existing conditions to 18,301 gpd in the No-Action condition. The anticipated decreases in water demand and sewage generation are mainly driven by the addition of self-storage space, which would not generate demand for water or produce sewage, based on conservative assumptions (refer to **Table 10-1**).

Water Supply

Total water consumption would decrease from 359,647 gpd in the existing conditions to approximately 41,118 gpd in the No-Action condition (see **Table 10-6**). No changes to the water supply system serving the Development Site are expected to occur in the future without the Proposed Actions.

Table 10-6 No-Action Water Consumption and Sewage Generation

Land Use	Area (sf)	Dwelling Units/Seats	Domestic Water Demand/ Wastewater Generation (gpd)	Air Conditioning Water Consumption (gpd)
Retail	34,857	N/A	8,366	5,926
Office/Maker Space	99,357	N/A	9,936	16,891
Self-Storage[1]	455,014	N/A	0	0
Water Demand Subtotals			18,301	22,816
Sewage Generation Subtotal			18,301	
Total Water Consumption			41,118	
Total Wastewater Generation			18,301	

Notes:
[1] It is assumed that self-storage space does not produce water demand or generate sewage.

Sanitary Flows

Total sewage generation would decrease from 357,114 gpd under existing conditions to 18,301 gpd in the No-Action condition. In the future without the Proposed Actions, sanitary flows are expected to continue to drain to CSO NCB-014 and would continue to be treated by the Newtown Creek WRRF, just as under existing conditions.

Stormwater Flows

Table 10-7 summarizes the surface areas and weighted runoff coefficient in the future without the Proposed Actions for outfall area NCB-014, which includes the entire Development Site. No changes are expected to occur in the future without the Proposed Actions with respect to Outfall NCB-014. The weighted runoff coefficient for the Development Site in the future No-Action condition was calculated to be 0.95, which is the same as the existing conditions.

Table 10-7 No-Action Condition – Weighted Runoff Coefficient (C)

Surface Type	Roof	Pavement/Walks[1]	Other	Grass/Softscape	Total
Area (%)	67	33	0	0	100
Surface Area (sf)	76,567	37,266	0	0	113,833
Runoff Coefficient	1.00	0.85	-	0.20	**0.95**[2]

Notes:
Runoff coefficients for each surface type as per DEP, as provided in the CEQR DEP Flow Volume Calculation Matrix
[1] It is conservatively assumed that Pavement/Walks would make up the remainder of the Development Site not occupied by buildings
[2] Weighted runoff coefficient calculations are based on the DEP Flow Volume Calculation Matrix provided in the CEQR Technical Manual

The NYC DEP Flow Volume Calculation Matrix was completed for the No-Action conditions. The summary table of the No-Action Flow Volume Calculation Matrix to NCB-014 is included in **Table 10-8**.

As shown in **Table 10-8**, depending on the rainfall volume and duration, the total volume to the combined sewer system from the Development Site under the No-Action conditions for outfall area NCB-014 would be between approximately 0.00 mg and 0.19 mg.

Table 10-8 DEP Flow Volume Matrix – No-Action Conditions, Sewage and Stormwater Generation During Different Storm Events

Rainfall (in.)	Rainfall Duration (hr.)	Total Area (Acre)	Weighted Runoff Coefficient (C)	Sewage to Combined Sewer System (MG)	Stormwater Runoff (MG)	Total Volume to CSS (MG)
0.00	3.80	2.60	0.95	0.019	0.00	0.00
0.40	3.80	2.60	0.95	0.019	0.03	0.03
1.20	11.30	2.60	0.95	0.058	0.08	0.09
2.50	19.50	2.60	0.95	0.100	0.17	0.19

Future With-Action Condition

As described in **Part I: Project Description,** in the future with the Proposed Actions, the Development Site would be redeveloped with a mix of residential and commercial uses including 611 residential units (which would introduce an estimated population of 1,240 new residents), 47,552 gsf of local retail, 99,357 gsf of office and maker space, and 160,474 gsf of self-storage space. A new 21-story, mixed-use building would be constructed along Flushing Avenue. The results of the analysis of the With-Action condition on water and sewer infrastructure is described below.

Water Supply

As shown in **Table 10-9**, in the future with the Proposed Actions the Development Site is expected to generate a total water demand of 170,356 gpd. This represents an increase of 129,238 gpd compared to the No-Action condition.

Table 10-9 With-Action Water Consumption and Sewage Generation

Land Use	Area (sf)	Dwelling Units/Seats	Domestic Water Demand/ Wastewater Generation (gpd)	Air Conditioning Water Consumption (gpd)
Residential	590,147	611	124,033	0
Retail	47,552	N/A	11,412	8,084
Office/Maker Space	99,357	N/A	9,936	16,891
Self-Storage[1]	160,474	N/A	0	0
Water Demand Subtotals			145,381	24,975
Sewage Generation Subtotal			145,381	
Total Water Consumption			170,356	
Total Wastewater Generation			145,381	

Notes:
[1] Water consumption and sewage generation rates for office space were used for self-storage space.

Sanitary Flows

As shown in **Table 10-9**, in the future with the Proposed Actions, the Development Site is expected to generate approximately 145,381 gpd of sanitary sewage.

The incremental sanitary sewage generated by the With-Action condition, as compared with the No-Action condition, would be 127,080 gpd. This increase in wastewater generation would be approximately 0.04 percent of the Newtown Creek WRRF capacity of 310 mgd.

Under the Proposed Actions, it is assumed that the new building to be developed in the area of existing Buildings A and J at the northern portion of the Development Site would provide a connection to the existing 156-inch-wide by 108-inch-tall box sewer located under Flushing Avenue.

In accordance with the New York City Plumbing Code (Local Law 33 of 2007), the Proposed Project would be required to utilize low-flow plumbing fixtures, which would reduce sanitary flows to the plant. Therefore, the With-Action condition would not result in a significant adverse impact to the City's sanitary sewage conveyance and treatment system.

Stormwater Flows

Table 10-10 summarizes the surface areas and weighted runoff coefficient in the future with the Proposed Actions for outfall area NCB-014, which includes the entire Development Site. The weighted runoff coefficient for the Development Site in the future With-Action condition was calculated to be 0.96.

Table 10-10 With-Action Condition – Weighted Runoff Coefficient (C)

Surface Type	Roof	Pavement/Walks[1]	Other	Grass/Softscape	Total
Area (%)	75	25	0	0	100
Surface Area (sf)	85,430	28,403	0	0	113,833
Runoff Coefficient	1.00	0.85	-	0.20	**0.96**[2]

Notes:
Runoff coefficients for each surface type as per DEP, as provided in the CEQR DEP Flow Volume Calculation Matrix
[1] It is conservatively assumed that Pavement/Walks would make up the remainder of the Development Site not occupied by buildings
[2]Weighted runoff coefficient calculations are based on the DEP Flow Volume Calculation Matrix provided in the CEQR Technical Manual

The NYC DEP Flow Volume Calculation Matrix was completed for the With-Action conditions. The calculations from the Flow Volume Calculation Matrix help to determine the change in wastewater flow volumes to the combined sewer system from No-Action to With-Action conditions and include four rainfall volume scenarios with varying durations. The summary table of the Flow Volume Calculation Matrix to NCB-014 is included in **Table 10-11.**

As shown in **Table 10-11**, depending on the rainfall volume and duration, the total volume to the combined sewer system from the Development Site under the With-Action conditions for outfall area NCB-014 would be between approximately 0.02 mg and 0.29 mg.

Table 10-11 DEP Flow Volume Matrix – With-Action Condition, Sewage and Stormwater Generation During Different Storm Events

Rainfall (in.)	Rainfall Duration (hr.)	Total Area (Acre)	Weighted Runoff Coefficient (C)	Sewage to Combined Sewer System (MG)	Stormwater Runoff (MG)	Total Volume to CSS (MG)
0.00	3.80	2.60	0.96	0.023	0.00	0.02
0.40	3.80	2.60	0.96	0.023	0.03	0.05
1.20	11.30	2.60	0.96	0.068	0.08	0.15
2.50	19.50	2.60	0.96	0.118	0.17	0.29

Table 10-12 compares the estimated total volume under No-Action and With-Action conditions using the NYC DEP Flow Volume Calculation Matrix. As shown in the table, depending on the rainfall volume and duration, the With-Action increment would be between 0.02 and 0.10 mg. Typically, an increase of five percent or more at the site over existing conditions would warrant further review by NYC DEP, in which the implementation of BMPs would help mitigate that increase. Although the five percent threshold is exceeded, these increments represent only a 0.006 to 0.03 percent increase of the Newtown Creek WRRF capacity and do not reflect the controls discussed below.

Table 10-12 DEP Flow Volume Matrix – No-Action and With-Action Volume Comparison

Rainfall Volume (in.)	Rainfall Duration (hr.)	Total Volume to Newtown Creek WRRF (MG)		Increment	
		No-Action Conditions	With-Action Condition	Increased Volume to Newtown Creek WRRF	
				MG	%
0.00	3.80	0.00	0.02	0.02	666.7
0.40	3.80	0.03	0.05	0.02	60.7
1.20	11.30	0.09	0.15	0.06	66.3
2.50	19.50	0.19	0.29	0.10	55.7

The Flow Volume Matrix calculations do not reflect the use of any sanitary and stormwater source control BMPs to reduce sanitary flow and stormwater runoff volumes to the combined sewer system. As noted above, the Proposed Project would incorporate low flow plumbing fixtures to reduce sanitary flow in accordance with the New York City Plumbing Code. In addition, stormwater BMPs would be required in accordance with the NYC DEP Unified Stormwater Rule (USWR) guidelines, which includes requirements for bringing the Development Site into compliance with the allowable stormwater release rate.

The USWR increases onsite stormwater detention requirements and updates release rates for developments discharging to combined sewer systems and requires a retention-first approach to stormwater management practice (SMP) design. The water quality requirement (WQv) aims to manage and reduce runoff from small, frequent storms that often trigger the majority of CSO events. The USWR manual defines this event as the 90th percentile rain event. Runoff reduction (RR) criteria aims to maintain a minimum level of RR during small storms, and which is generally always met when treating the entire WQv. If site constraints make it impossible to treat the WQv, then a minimum Runoff Reduction Volume (RRv) for all newly constructed impervious areas must be met. The sewer operations volume (Vv) and maximum release rate (Qdrr) requirements are associated with the 10-year event, and work in tandem to maintain optimal flow rates in the City's combined sewer system to further limit the amount of CSO events. The existing buildings on the Development Site were developed prior to the USWR; however, the construction of a new building is required to meet the new stormwater requirements, for which the calculations are based on the entire tributary area to the existing site connection. Therefore, the entire area tributary to the existing site connection will be brought into compliance as part of the Proposed Project.

Based on the USWR guidelines, the required WQv and Vv is equal to 13,518 cubic feet and 16,847 cubic feet, respectively. If using infiltration SMPs to manage the WQv, then half of the water quality volume provided can be counted towards the Vv, so the total required storage volume is approximately 23,606 cubic feet. The maximum release rate (Qdrr) is equal to 0.1 cfs/acre, which is approximately 0.26 cfs for the site.

To achieve this release rate, stormwater could be managed by utilizing one or a combination of detention or infiltration techniques identified in the manual. Green technologies, such as green and blue roofs, subsurface detention and infiltration, and permeable pavement, could be implemented to retain or release stormwater with slowed discharge rates to control peak runoff rates. Specific BMP methods will be determined with further refinement of the building and site design and in consultation with NYC DEP.

The incorporation of the appropriate sanitary flow and stormwater source control SMPs would reduce the overall volume of sanitary sewer discharge and stormwater runoff as well as the peak stormwater runoff rate from the Development Site. Sewer treatment capacity at the Newtown Creek WRRF could adequately handle wastewater flow resulting from the Proposed Project.

Conclusion

As described above, a preliminary assessment was conducted and determined that the Proposed Actions would not result in a significant adverse impact on the City's water and sewer infrastructure. The Proposed Actions would result in new development generating a total water demand of approximately 170,356 gallons per day (gpd) at the Development Site, which is less than one million gpd and, therefore, would not lead to a significant adverse impact. Although the Proposed Actions would create new demand for water and treatment of sewage in comparison to the existing and No-Action conditions, based on the methodology set forth in the *CEQR Technical Manual*, the incremental increases would be well within the capacity of the City's systems, and the effects would not be considered significant or adverse.

11

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.

Introduction

The Development Site (Block 1876, Lot 1) encompasses an entire block bounded by Flushing Avenue to the north, Ryerson Street to the east, Park Avenue to the south, and Hall Street to the west in the Wallabout neighborhood of Brooklyn. **Figure 11-1** shows the location of the Development Site. As detailed in **Part I: Project Description**, the Proposed Actions would transform the full-block Development Site into an active mixed-use campus, introducing new residential uses with affordable housing, a variety of commercial spaces including ground floor retail to activate the street frontages, a parking facility, and a self-storage facility (the Proposed Project). The Proposed Project would consist of nine buildings (one new building, one existing building to be converted to residential use, and seven existing buildings to be renovated and reoccupied) with a total of 933,422 gross square feet (gsf) and would provide 611 total dwelling units (DUs) and up to approximately 60 accessory parking spaces.

Figure 11-1 Site Location



Source: MapPLUTO

The Proposed Project would involve the construction of a new 21-story mixed-use residential and commercial building in the area of Buildings A and J; conversion of Building B to residential use with enclosed accessory parking; and renovation and re-tenanting of the remaining seven existing buildings (C, D, E, F, G, H, and I) with a mix of commercial office, retail, self-storage, and/or "maker" space (see **Figure 1** and **Figure 2** in **Part I: Project Description)**. **Table 11-1** shows a comparison of the change in uses between existing conditions, No-Action conditions (Future without the Proposed Actions), and With-Action conditions (future with the Proposed Actions).

Table 11-1 Development Comparison – Total

	Existing	No-Action	With-Action	Increment
Commercial Office (GSF)[1]	3,300	99,357	99,357	--
Retail (GSF)	11,601*	34,857	47,552	+12,695
Self-Storage(GSF)	--	455,014	160,474	-294,540
Residential (DUs)	--	--	611	+611
Accessory Parking Spaces	--	--	60	+60
Community Facility (GSF)[2]	574,321	--	--	--

Notes:

* Indicates space is currently vacant

[1] Includes studio and maker space

[2] Portions of the Development Site were recently licensed by the NYC Health and Hospitals Corporation to temporarily operate as a Humanitarian Emergency Response and Relief Center (HERRC).

The uses in the existing buildings to remain (Buildings C through I) would not change between No-Action and With-Action conditions. The change in uses between No-Action and With-Action are associated with the new mixed-use building that would replace Buildings A and J and the conversion of Building B. The increment determined for analyses is the change in uses for these two portions of the Proposed Project as summarized in **Table 11-2**. Overall, the Proposed Actions would result in an increase of 12,695 gsf of retail space, 611 DUs, 60 accessory parking spaces, and a reduction of 294,540 gsf of self-storage space.

Table 11-2 Development Comparison – New and Renovated Buildings

	New Mixed-Use Building[1]			Renovated Building B		
	No-Action	With-Action	Increment	No-Action	With-Action	Increment
Retail (GSF)	--	12,695	+12,695	--	--	--
Self-Storage(GSF)	75,617	--	-75,617	218,923	--	-218,923
Residential (DUs)	--	464	+464	--	147	+147
Accessory Parking Spaces	--	--	--	--	60	+60

Notes:

[1] The proposed 21-story mixed use building would replace existing Buildings A and J

Methodology

According to the *2021 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;
- 50 City Wide Ferry Service (CWFS) ferry riders;
- 200 peak hour subway/rail or bus transit riders; and
- 200 peak hour pedestrian trips.

If a 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 a project site through their respective networks (streets, bus and subway lines, sidewalks, etc.) based on expected origin-destination patterns and travel routes.

Level 1 (Trip Generation) Screening Assessment

The travel demand factors used to calculate the projected number of trips were obtained primarily from the *CEQR Technical Manual*, American Community Survey (ACS) journey to work data, the *Gowanus Neighborhood Rezoning and Related Actions FEIS (2021)*, the *Self-Storage Text Amendment FEIS (2017)* and information provided by the New York City Department of Transportation (NYC DOT). As shown in **Table 11-2**, the uses that would generate a change in trips are residential, retail (assumed local variety), and self-storage uses. **Table 11-3** provides the travel demand assumptions used for the weekday AM, weekday midday, weekday PM, and Saturday midday peak hours.

Residential

For the residential use, trip generation rates of 8.18 daily person trips per DU for weekdays and 9.08 daily person trips per DU for Saturday, and temporal distributions (9.3 percent, 5.6 percent, 8.5 percent, and 8.4 percent for the weekday AM, weekday midday, weekday PM, and Saturday midday peak hours, respectively) were based on the *CEQR Technical Manual*. The modal splits for all peak hours of 20.5 percent by auto, 0.4 percent by taxi, 5.9 percent by bus, 37.2 percent by subway, 0.8 percent by ferry, 35.2 percent by walk, and a vehicle occupancy rate of 1.10 persons per auto for weekday AM and PM, were obtained from the ACS JTW data and a rate of 1.57 persons per auto was used for the weekday midday and Saturday midday peak hours based on the *Gowanus Neighborhood Rezoning and Related Actions FEIS (2021)*. Vehicle occupancy rates of 1.30 persons per taxi for weekday AM and PM and 1.82 persons per taxi for weekday midday and Saturday midday were based on the *Gowanus Neighborhood Rezoning and Related Actions FEIS*. Directional distributions (22 percent "in" for the weekday AM peak hour, 50 percent "in" for the weekday midday peak hour, 63 percent "in" for the weekday PM peak hour, and 51 percent "in" for the Saturday midday peak hour) were also based on the *CEQR Technical Manual*.

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, weekday midday, weekday PM, and Saturday midday peak hours, respectively, were obtained from the *CEQR Technical Manual*.

Table 11-3 Travel Demand Characteristics

Rates	Residential	Local Retail	Self-Storage
Person Trip Generation Rate (Weekday/ Saturday)	8.18/9.08[1] per unit	329/358[1] per 1,000 sf	1.42/2.34[5] per 1,000 sf
Linked Trip	-	*5%*	-
Temporal Distribution			
Weekday AM Peak	9.3%[1]	4.8%[1]	4.3%[5]
Weekday Midday Peak	5.6%[1]	8.0%[1]	9.3%[5]
Weekday PM Peak	8.5%[1]	10.9%[1]	8.6%[5]
Saturday Midday Peak	8.4%[1]	11.7%[1]	12.4%[5]
Modal Split			
Auto	20.5%[2]	11%[4]	100%[5]
Taxi	0.4%[2]	--[4]	--[5]
Bus	5.9%[2]	2%[4]	--[5]
Subway	37.2%[2]	3%[4]	--[5]
Walk	35.2%[2]	84%[4]	--[5]
Vehicle Occupancy	**AM & PM/MD & Sat**	**All Periods**	**All Periods**
Auto	1.10[2]/1.57[3]	2.00[3]	1.20[5]
Taxi	1.30/1.82[3]	2.00[3]	--[5]
Directional Split (In/Out)			
Weekday AM Peak	22%/78%[1]	53%/47%[1]	57%/43%[5]
Weekday Midday Peak	50%/50%[1]	50%/50%[1]	47%/53%[5]
Weekday PM Peak	63%/37%[1]	50%/50%[1]	50%/50%[5]
Saturday Midday Peak	51%/49%[1]	50%/50%[1]	52%/48%[5]
Delivery Trip Generation Rate (Weekday/ Saturday)	0.06/0.02[1] *per unit*	0.35/0.04[1] *per 1,000 sf*	--/--[5] *per 1,000 sf*
Delivery Truck Temporal Distribution			
Weekday AM Peak	12%[1]	8%[1]	--[5]
Weekday Midday Peak	9%[1]	11%[1]	--[5]
Weekday PM Peak	2%[1]	2%[1]	--[5]
Saturday Midday Peak	9%[1]	11%[1]	--[5]
Delivery Truck Trip Directional Split (In/out) - 50%/ 50%			

Source:

1) *2021 CEQR Technical Manual*

2) 2015 - 2019 ACS journey-to-work data for Brooklyn Census Tracts 187, 191, 211, 537, 543 and 1237

3) *2021 Gowanus Neighborhood Rezoning and Related Actions FEIS*

4) NYC DOT survey data

5) *2017 Self-Storage Text Amendment FEIS*

Local Retail

For the local retail use, trip generation rates of 329 and 358 daily person trips per 1,000 sf for weekday and Saturday, respectively, and temporal distributions of 4.8 percent, 8 percent, 10.9 percent, and 11.7 percent were used for the weekday AM, weekday midday, weekday PM, and Saturday midday peak hours, respectively, based on *CEQR Technical Manual*. The modal splits used for all periods were 11 percent by auto, 2 percent by bus, 3 percent by subway and 84 percent by walk, and were obtained from information provided by NYC DOT. The vehicle occupancies of 2.00 persons per auto or taxi for all periods were based on the *Gowanus Neighborhood Rezoning and Related Actions FEIS (2021).* Directional distributions of 53 percent "in" during the weekday AM peak hour and 50 percent "in" during the weekday midday, weekday PM, and Saturday midday peak hours were obtained from the *CEQR Technica Manual*.

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 temporal distributions of 8 percent, 11 percent, 2 percent, and 11 percent for the weekday AM, weekday midday, weekday PM, and Saturday midday peak hours, respectively, were obtained from the *CEQR Technical Manual*.

Self-Storage

For the self-storage use, all rates were obtained from the *Self-Storage Text Amendment FEIS (2017)*. The trip generation rates used were 1.42 and 2.34 daily person trips per 1,000 sf for weekday and Saturday, respectively. Temporal distributions of 4.3 percent, 9.3 percent, 8.6 percent, and 12.4 percent were used for the weekday AM, weekday midday, weekday PM, and Saturday midday peak hours, respectively. The modal splits for all periods assumed 100 percent by auto with a vehicle occupancy rate of 1.20 persons per auto. The Directional distributions used were 57 percent "in" during the weekday AM peak hour, 47 percent "in" during the weekday midday peak hour, 50 percent "in" during the weekday PM peak hour, and 52 percent "in" during the Saturday midday peak hour. Consistent with the *Self-Storage Text Amendment FEIS*, no delivery trips are expected.

Level 1 Screening Results

Transit and Pedestrians

The total numbers of person trips generated by the Proposed Actions are provided in **Table 11-4**. These trips were calculated for the increment shown in **Table 11-2** using the rates summarized above.

Table 11-4 Trip Generation Summary – Person Trips

Mode	Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Midday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
New Mixed-Use Building												
Taxi – Pick-up/Drop-off	0	1	1	0	0	0	1	0	1	1	1	2
Auto – Garage	5	13	18	8	8	16	13	9	22	11	11	22
Auto – Pick-up/Drop-off	-4	-2	-6	-6	-6	-12	-5	-5	-10	-11	-11	-22
Auto – On-Street	23	53	76	32	32	64	53	39	92	46	45	91
Bus	7	18	25	9	9	18	16	11	27	15	14	29
Subway	32	105	137	45	45	90	82	50	132	72	70	142
Ferry	1	2	3	1	1	2	2	1	3	1	1	2
Walk	112	172	284	170	170	340	254	224	478	217	214	431
Total	**176**	**362**	**538**	**259**	**259**	**518**	**416**	**329**	**745**	**352**	**345**	**697**
Renovated Building B												
Taxi – Pick-up/Drop-off	0	0	0	0	0	0	0	0	0	0	0	0
Auto – Garage	1	4	5	1	1	2	2	2	4	2	2	4
Auto – Pick-up/Drop-off	-8	-6	-14	-13	-14	-27	-13	-13	-26	-33	-30	-63
Auto – On-Street	4	14	18	5	5	10	11	6	17	10	9	19
Bus	1	5	6	2	2	4	4	2	6	3	3	6
Subway	9	32	41	13	13	26	24	14	38	21	20	41
Ferry	0	1	1	0	0	0	1	0	1	0	0	0
Walk	9	31	40	12	12	24	23	13	36	20	19	39
Total	**16**	**81**	**97**	**20**	**19**	**39**	**52**	**24**	**76**	**23**	**23**	**46**
Total												
Taxi – Pick-up/Drop-off	0	1	1	0	0	0	1	0	1	1	1	2
Auto – Garage	6	17	23	9	9	18	15	11	26	13	13	26
Auto – Pick-up/Drop-off	-12	-8	-20	-19	-20	-39	-18	-18	-36	-44	-41	-85
Auto – On-Street	27	67	94	37	37	74	64	45	109	56	54	110
Bus	8	23	31	11	11	22	20	13	33	18	17	35
Subway	41	137	178	58	58	116	106	64	170	93	90	183
Ferry	1	3	4	1	1	2	3	1	4	1	1	2
Walk	121	203	324	182	182	364	277	237	514	237	233	470
Total	**192**	**443**	**635**	**279**	**278**	**557**	**468**	**353**	**821**	**375**	**368**	**743**

Total pedestrian trips include walk-only persons and persons walking to and from subway stations, bus stops, ferry landings, and to and from vehicles parked on-street through the study area. As the Proposed Project would provide some accessory parking space, it is assumed a portion of the new residential and local retail trips would park on-site; the remaining parking vehicles would utilize on-street parking around the study area.[1]

The number of bus, subway, ferry and total pedestrian trips by peak hour are as follows:

- During the weekday AM peak hour, the Proposed Project would generate 31 bus trips, 178 subway trips, four ferry trips, and 631 total pedestrian trips (walk-only plus transit, ferry and auto on-street parking trips).
- During the weekday midday peak hour, the Proposed Project would generate 22 bus trips, 116 subway trips, two ferry trips, and 578 total pedestrian trips (walk-only plus transit, ferry and auto on-street parking trips).
- During the weekday PM peak hour, the Proposed Project would generate 33 bus trips, 170 subway trips, four ferry trips, and 830 total pedestrian trips (walk-only plus transit, ferry and auto on-street parking trips).
- During the Saturday midday peak hour, the Proposed Project would generate 35 bus trips, 183 subway trips, two ferry trips, and 800 total pedestrian trips (walk-only plus transit, ferry and auto on-street parking trips).
- The number of bus or subway trips generated would not exceed the CEQR threshold of 200 bus or subway trips per hour, therefore no further transit analyses are needed. The number of pedestrian trips generated would exceed the CEQR threshold of 200 pedestrian trips per hour for the weekday AM, weekday midday, weekday PM, and Saturday midday peak hours. Therefore, a Level 2 screening assessment is needed for these peak hours to determine if a detailed pedestrian analysis is warranted.

Traffic and Parking

Table 11-5 summarizes the project-generated vehicle trips during the peak hours analyzed. The Proposed Project would result in an increase of 89 vehicle trips during the weekday AM peak hour, 23 vehicle trips during the weekday midday peak hour, 75 vehicle trips during the weekday PM peak hour, and 15 vehicle trips during the Saturday midday peak hour. As the volume of vehicle trips generated by the Proposed Project would exceed the CEQR threshold of 50 peak hour vehicle trips during the weekday AM peak hour (89 incremental vehicle trips) and weekday PM peak hour (75 incremental vehicle trips), a Level 2 trip assignment is necessary to determine if a detailed traffic and parking analysis is warranted for those periods per CEQR guidelines. Further analysis is not needed for the weekday midday and Saturday midday peak hours as the project-generated trips during these periods would not exceed the 50-trip threshold.

[1] It is assumed that up to 20 percent of new residential and retail autos would use the proposed on-site garage . Self-storage autos are expected to be pick-up/drop-off trips. All other autos would park on-street.

Table 11-5 Trip Generation Summary – Vehicle Trips

Mode	Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Midday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
New Mixed-Use Building												
Taxi	1	1	2	0	0	0	1	1	2	2	2	4
Auto - Garage	4	11	15	5	5	10	10	7	17	7	7	14
Auto - Pick-up/Drop-off	-3	-2	-5	-4	-4	-8	-4	-4	-8	-9	-9	-18
Auto - On-Street	17	45	62	18	18	36	40	27	67	27	26	53
Truck	2	2	4	1	1	2	0	0	0	0	0	0
Total	**21**	**57**	**78**	**20**	**20**	**40**	**47**	**31**	**78**	**27**	**26**	**53**
Renovated Building B												
Taxi	0	0	0	0	0	0	0	0	0	0	0	0
Auto - Garage	1	3	4	1	1	2	2	1	3	2	1	3
Auto - Pick-up/Drop-off	-7	-5	-12	-12	-13	-25	-11	-11	-22	-28	-25	-53
Auto - On-Street	4	13	17	3	3	6	10	6	16	6	6	12
Truck	1	1	2	0	0	0	0	0	0	0	0	0
Total	**-1**	**12**	**11**	**-8**	**-9**	**-17**	**1**	**-4**	**-3**	**-20**	**-18**	**-38**
Total												
Taxi	1	1	2	0	0	0	1	1	2	2	2	4
Auto - Garage	5	14	19	6	6	12	12	8	20	9	8	17
Auto - Pick-up/Drop-off	-10	-7	-17	-16	-17	-33	-15	-15	-30	-37	-34	-71
Auto - On-Street	21	58	79	21	21	42	50	33	83	33	32	65
Truck	3	3	6	1	1	2	0	0	0	0	0	0
Total	**20**	**69**	**89**	**12**	**11**	**23**	**48**	**27**	**75**	**7**	**8**	**15**

Level 2 (Trip Assignment) Screening Assessment

As reported above, the number of trips generated by the Proposed Project would exceed the *CEQR Technical Manual* Level 1 screening thresholds for vehicle trips during the weekday AM and weekday PM peak hours, and pedestrian trips would exceed Level 1 screening thresholds during the weekday AM, weekday midday, weekday PM, and Saturday midday peak hours. Project-generated vehicle and pedestrian trips were assigned through the surrounding street network based on expected routes to and from the Development Site.

Traffic and Parking

Project-generated auto/taxi trips were assigned through the surrounding street network based on anticipated trip origins, the configuration of the street network, expected routes to the Development Site, the new parking spaces being provided on-site, and on-street parking spaces potentially available near the Development Site

Residential trips were assigned along key roadways such as Flushing Avenue, the Brooklyn-Queens Expressway (I-278) and Park Avenue. The local retail and self-storage space would serve the surrounding areas. Auto/taxi trips associated with these uses were assigned to the local streets within the immediate surrounding area. Delivery trips were assigned along Flushing Avenue, a local truck route that serves as a connector to the Brooklyn-Queens Expressway and, subsequently, the Long Island Expressway. Overall, approaching the area around the Development Site, project-generated vehicle trips were assigned along the following corridors near the Development Site: Flushing Avenue, Park Avenue, Williamsburg Street West, Williamsburg Street East, Washington Avenue, Hall Street, Grand Avenue, Steuben Street, and Emerson Place. In the immediate area around the Development Site, vehicles were concentrated along Flushing Avenue and Ryerson Street.

Per *CEQR Technical Manual* guidelines, a detailed level-of-service analysis is warranted for study area traffic intersections that would exceed the Level 2 threshold of 50 or more project-generated vehicle trips during analysis peak hours. **Figure 11-2** and **Figure 11-3** present the project-generated vehicle trips assigned to the street network during the weekday AM and weekday PM peak hours, respectively. As shown in the figures, the Level 2 threshold is not expected to be exceeded at any intersection within the study area during either period. Therefore, no further detailed analyses of traffic and parking is warranted, and the project would not be expected to result in significant adverse traffic impacts.

Figure 11-2 Project-Generated Vehicle Trips – Weekday AM Peak Hour

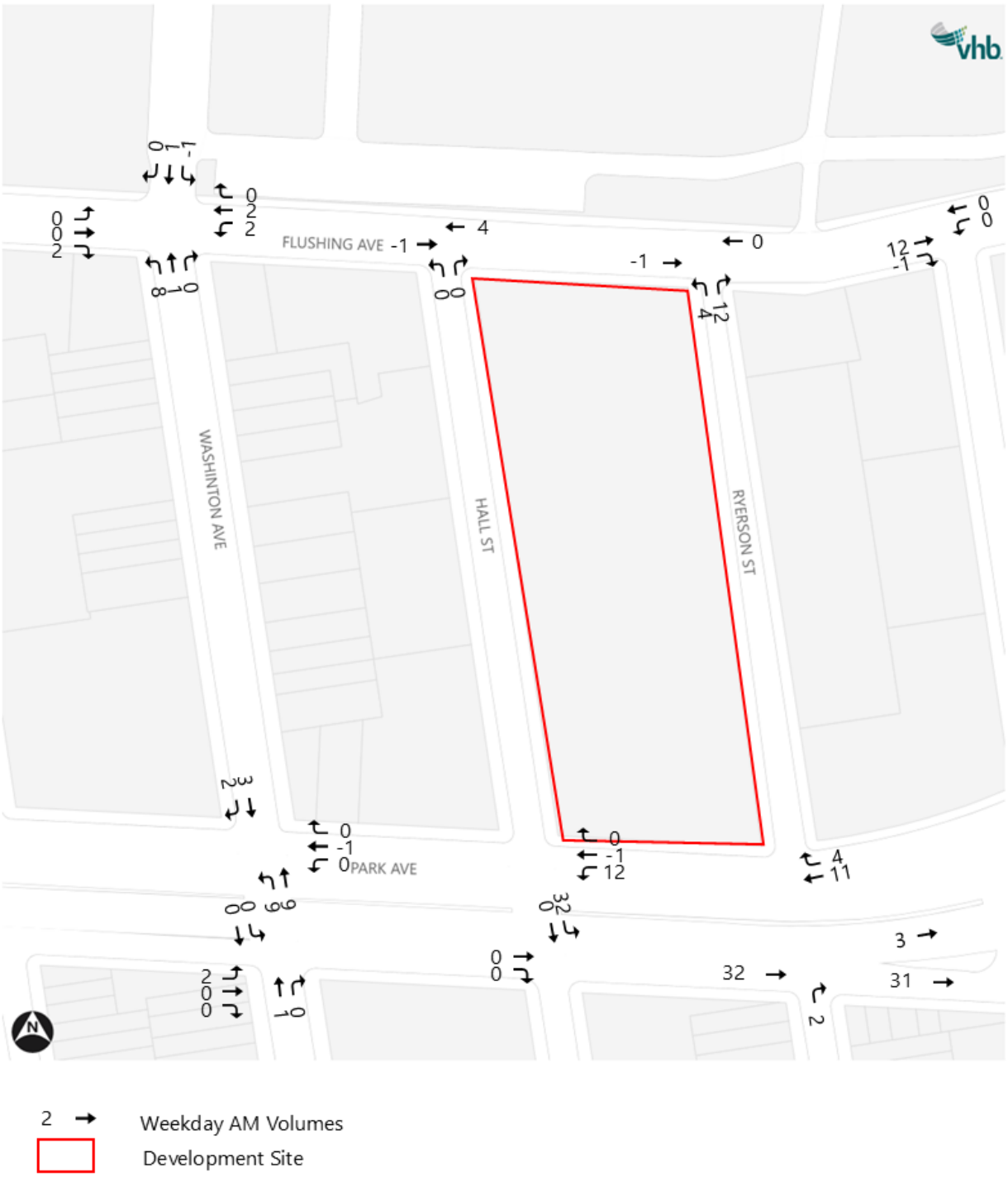
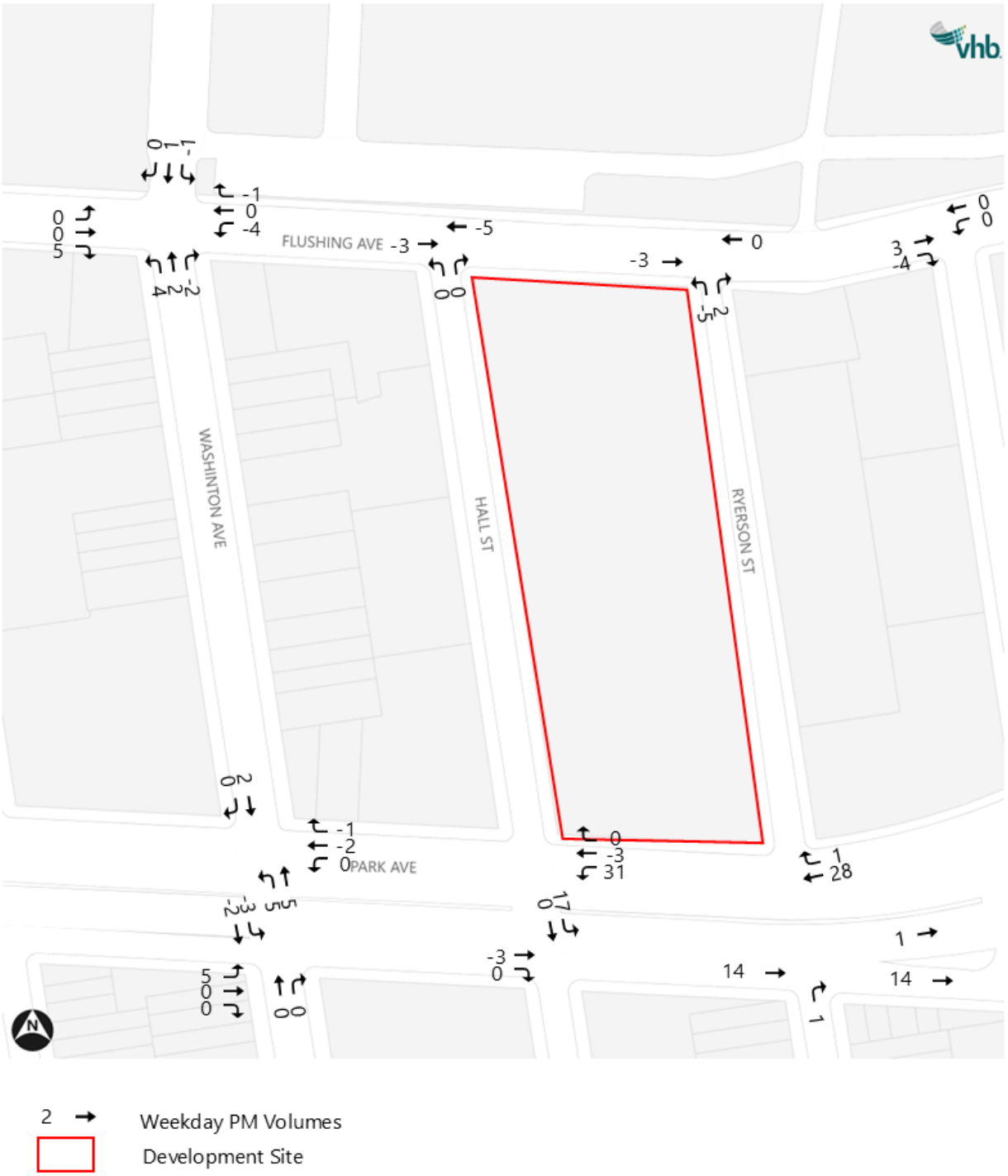


Figure 11-3 Project-Generated Vehicle Trips – Weekday PM Peak Hour



Transit and Pedestrians

Transit and pedestrian trips were assigned through the pedestrian network based on logical and direct travel routes to and from the Development Site from neighborhood attractions, and subway stations and/or bus stops, to determine if the number of additional pedestrian trips generated by the Proposed Project would exceed 200 peak hour pedestrian trips at key pedestrian elements (e.g., crosswalk, sidewalk, corner reservoir areas) approaching the site – the threshold for detailed pedestrian analysis. The Development Site has multiple entrances along its Flushing Avenue and Hall Street frontages.

Bus transit options within the Development Site vicinity include the B54, B57 and B62 bus routes. Within the study area, the B54 bus route along Myrtle Avenue has stops south of the Development Site, the B57 bus route along Flushing Avenue has stops to the north, and the B62 bus route along Park Avenue has stops to the south.

The nearest subway station is the Clinton-Washington Avenues Station located on Lafayette Avenue south of the Development Site. This station is an approximately 13 to 15-minute walk from the Development Site and provides service to the G subway line. Considering this walking time, it is expected that most subway riders would use the three bus routes noted above to reach subway stations in neighborhoods east and west of the Development Site – i.e. Bushwick, Broadway Triangle and Bedford-Stuyvesant to the east, Downtown Brooklyn and Dumbo to the west. Overall, the buses within the study area provide riders with access to stations served by the 4, 5, A, B, C, D, F, J, N, Q, R, W and Z subway lines.

Walk-only pedestrian trips were assigned based on the surrounding land uses in the area. Notable attractions within the Development Site vicinity include the Brooklyn Navy Yard industrial park and the retail corridor along Myrtle Avenue. In addition, walk trips from on-street parked vehicles were also assigned to street frontages near the Development Site block.

Pedestrian volume increment maps for the weekday AM, weekday midday, weekday PM and Saturday midday peak hours are shown in **Figure 11-4** through **Figure 11-7**.

Based on pedestrian assignments detailed above, two pedestrian sidewalk elements and one signal-controlled corner element would be expected to exceed the CEQR Level 2 screening thresholds of 200 pedestrian trips during all four peak hours and warrant detailed pedestrian analyses. The sidewalks to be analyzed are the south sidewalks along Flushing Avenue between Washington Avenue and Hall Street, and between Hall Street and Ryerson Street. The corner to be analyzed is the southeast corner at the intersection of Flushing Avenue and Washington Avenue.

Figure 11-4 Project-Generated Pedestrian Trips – Weekday AM Peak Hour

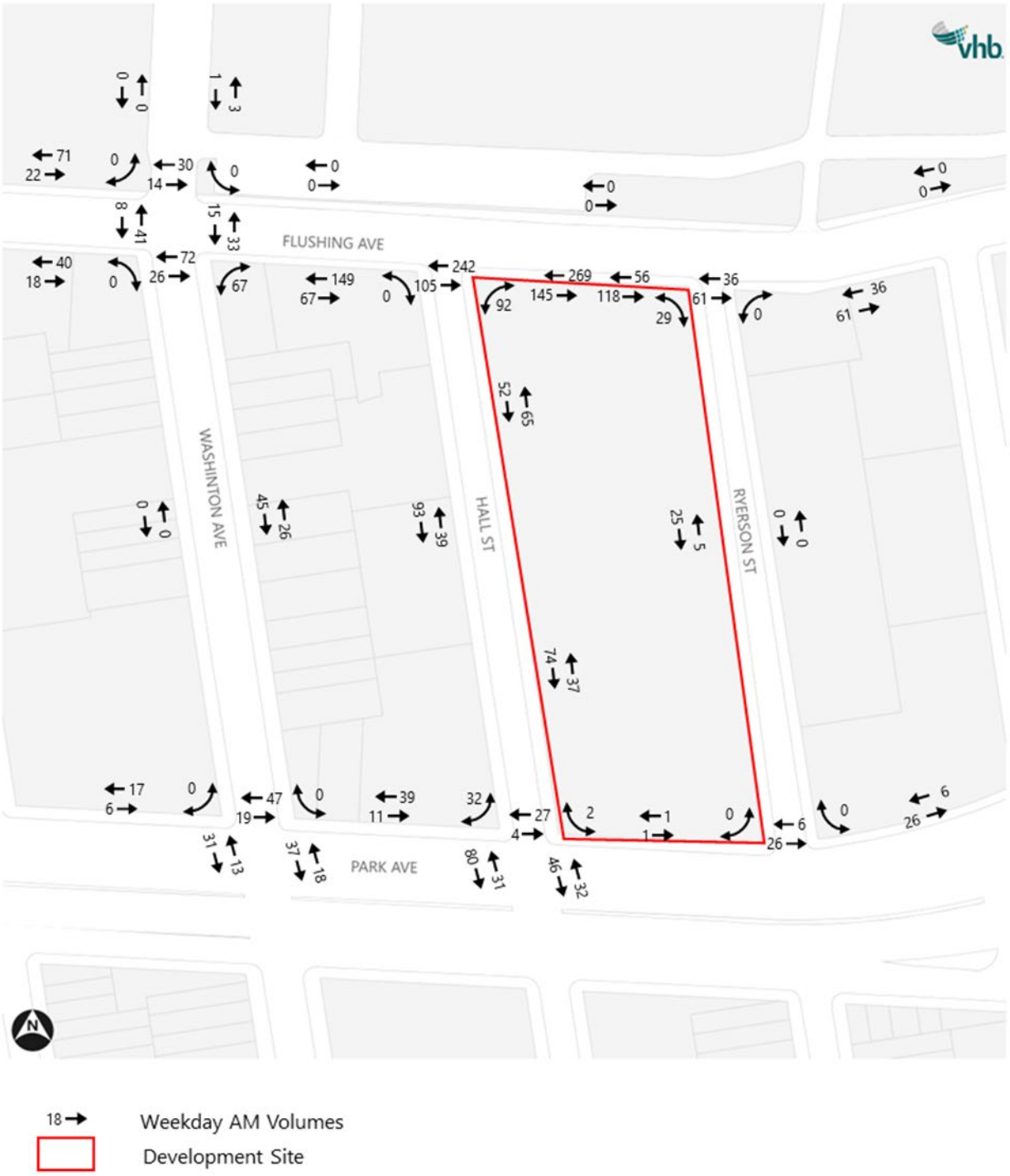


Figure 11-5 Project-Generated Pedestrian Trips – Weekday Midday Peak Hour

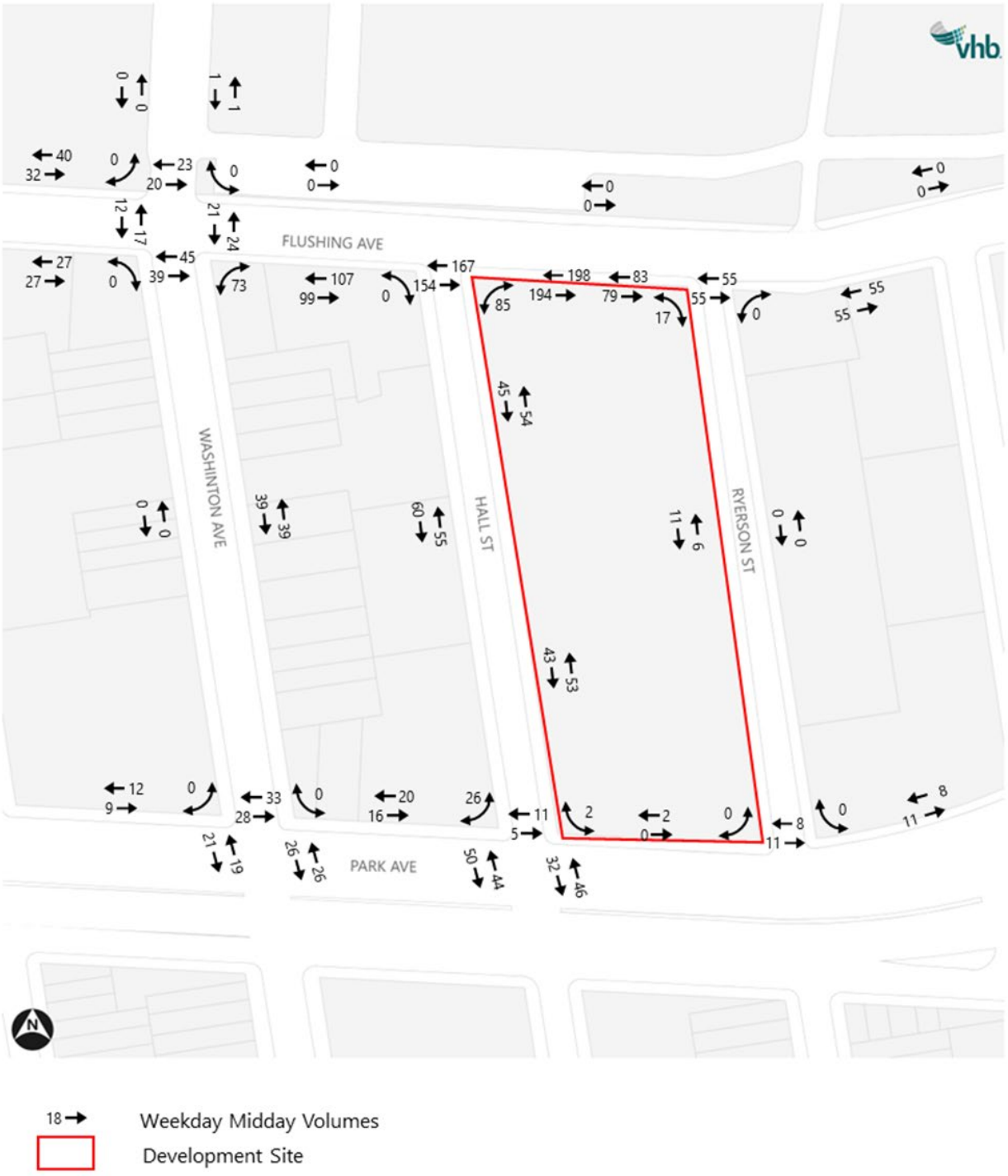


Figure 11-6 Project-Generated Pedestrian Trips – Weekday PM Peak Hour

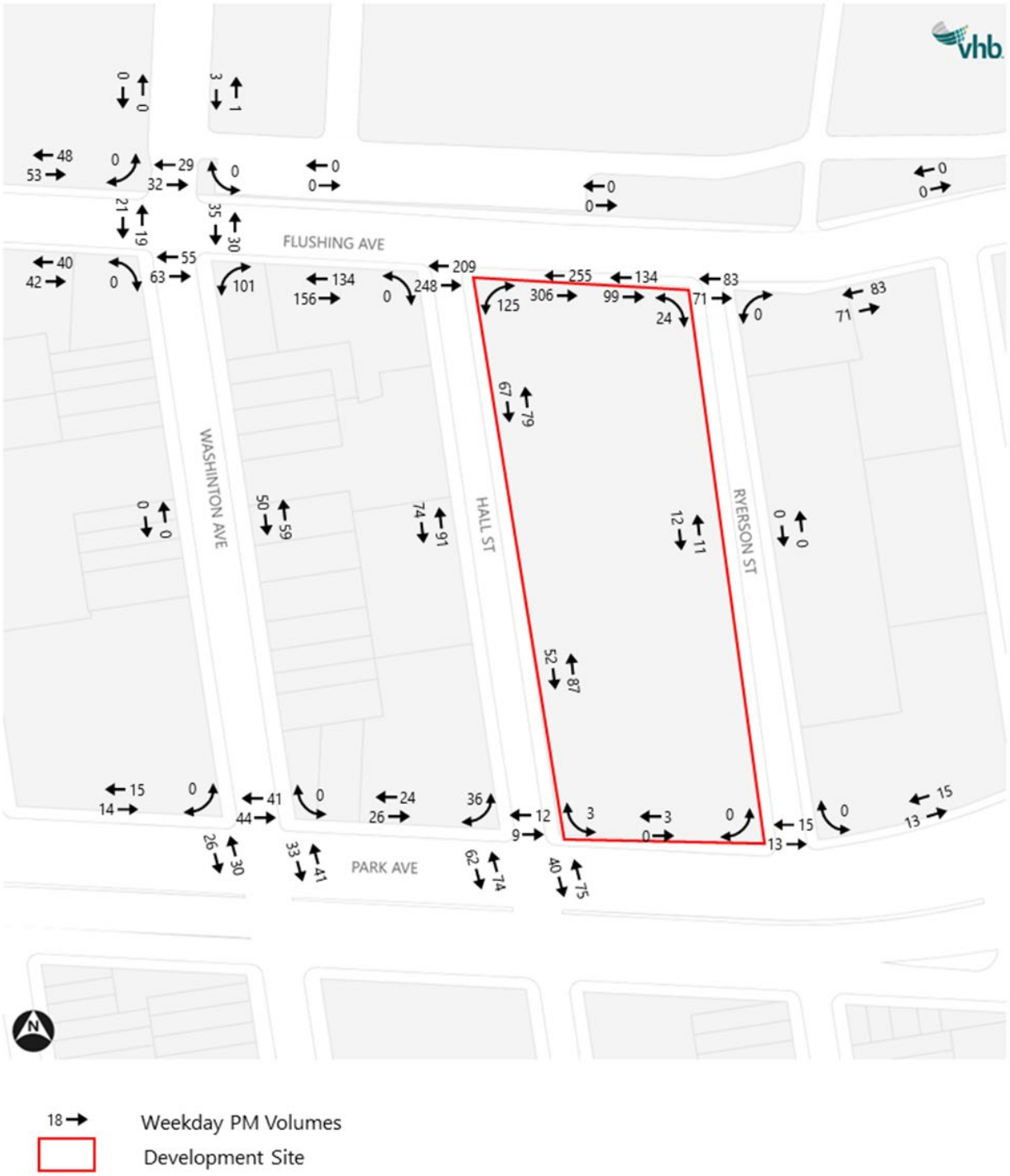
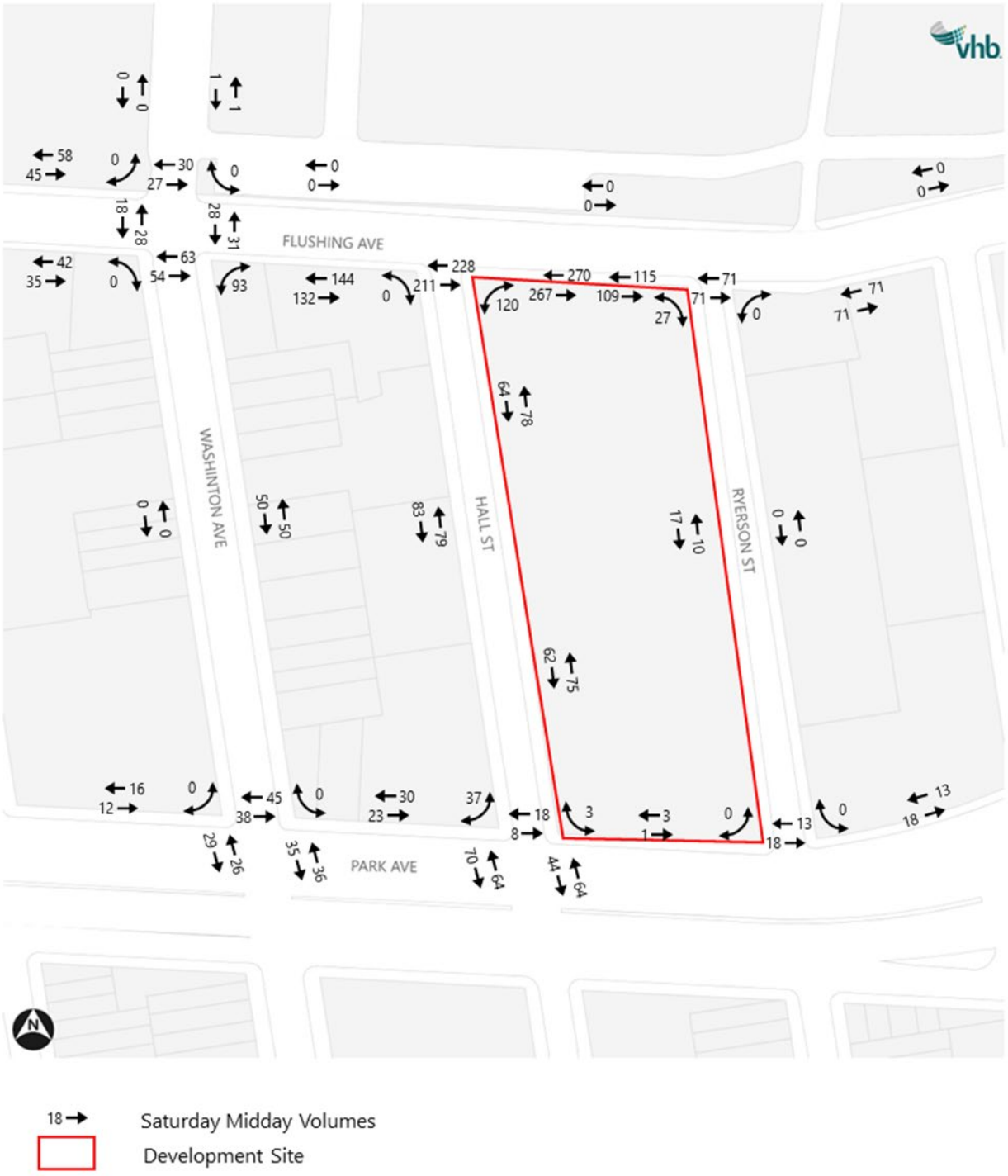


Figure 11-7 Project-Generated Pedestrian Trips – Saturday Midday Peak Hour



Detailed Analysis Methodology

This section describes the methodology used for the detailed pedestrian analyses.

Pedestrians

Pedestrian level-of-service standards are determined on the basis of walking speed, and pedestrian spacing and are assessed based on the methodologies presented in the *2010 Highway Capacity Manual* and the *CEQR Technical Manual*. These standards are primarily based on the space needs of people involved in various activities and are widely used for planning and design of facilities for pedestrians. Analyses of crosswalks, street corners, and sidewalks along key walking paths to and from the Development Site are performed to assess the adequacy of these pedestrian elements.

To evaluate sidewalks, the pedestrian flow per unit width (p/ft/min) is calculated based on the pedestrian flow and the effective walkway width.[2] The analysis of sidewalk conditions is based on pedestrian platooned flow, which is more representative of pedestrian activities within New York City regardless of whether within a Central Business District (CBD) or not. Platooning occurs when pedestrians move in groups, or "platoons," as a result of pedestrian metering from a traffic signal or from attractions such as subway stations or bus stops. The ratio of the walking speed[3] over the pedestrian flow per unit width determines the average pedestrian space (sf/p).

Crosswalk conditions are expressed as a measurement of the area available (the area consists of the crosswalk width multiplied by the crossing distance) and available pedestrian crossing time. The pedestrian flow is compared to the "time-space" available to determine the crosswalk level of service, which is expressed as square feet per pedestrian (sf/p). This analysis also takes account of pedestrian conflicts in the crosswalk with turning vehicles.

Similar to crosswalks, street corners must provide sufficient space for a mix of standing pedestrians (queued to cross a street) and circulating pedestrians (crossing the other street or passing around the corner). The analysis applies a measure of time and space availability based on the area of the corner reservoir, pedestrian crossing time available, and the estimated time used by circulating pedestrians.

The level-of-service standards for pedestrian elements are based on the time and space available per pedestrian during the analysis period. Level-of-service grades from A to F are assigned, with LOS A representative of free flow conditions without pedestrian conflicts and LOS F depicting significant capacity limitations and inconvenience. **Table 11-6** defines the level-of-service criteria for crosswalks, corner area, and sidewalk conditions, as per the *2010 HCM*. The Development Site is located in a non-CBD area. The *CEQR Technical Manual* identifies acceptable levels of service in non-CBD areas (such as the area in this study) as LOS C or better, and mid-LOS D or better for CBD areas.

[2] The effective walkway width is the space along the walkway that pedestrians could use that is free of obstruction. This width also takes account of the "shy distance" (the space between pedestrians and the obstacle such as a wall or building façade).

[3] The *CEQR Technical Manual* recommends an average free-flow walking speed of 4.4 feet per second (ft/s) if the pedestrian population is no more than 20 percent elderly. If more than 20% of pedestrians are elderly it is recommended that an average free-flow walking speed of 3.3 ft/s be used. In addition, if a study intersection has a crosswalk carrying students or is located within Senior Pedestrian Focus Areas (SPFA), an average free-flow pedestrian walking speed of 3.3 ft/s is used. For the analysis sidewalks, a walking speed of 4.4 ft/s was assumed as the elements are not located in a SPFA nor adjacent school crosswalks.

Table 11-6 Level-of-service Criteria for Pedestrian Elements

LOS	Sidewalk	Corner Reservoir and Crosswalk
A	> 530 sf/p	> 60 sf/p
B	> 90 and ≤ 530 sf/p	> 40 and ≤ 60 sf/p
C	> 40 and ≤ 90 sf/p	> 24 and ≤ 40 sf/p
D	> 23 and ≤ 40 sf/p	> 15 and ≤ 24 sf/p
E	> 11 and ≤ 23 sf/p	> 8 and ≤ 15 sf/p
F	≤ 11 sf/p	≤ 8 sf/p

Significant Impact Criteria

The identification of significant pedestrian impacts is dependent on the area type (CBD or non-CBD) and is determined by the decrease of time and space available for pedestrians between the No-Action and With-Action conditions. The Development Site and surrounding analysis locations are located in a non-CBD area. The *CEQR Technical Manual* identifies significant impacts for the pedestrian sidewalk, crosswalk, and corner elements on a sliding scale detailed below. With-Action pedestrian level of service that is considered acceptable (LOS C or better in non-CBD areas, and mid-LOS D or better in CBD areas) would not have a potential for significant impacts.

For sidewalks, the assessment of potential significant impacts is based on a sliding-scale formula provided in the *CEQR Technical Manual*. Consideration as to whether the sidewalk being analyzed is in a CBD or non-CBD condition is necessary.

For sidewalks with platoon pedestrian flow, the formula to determine if the decrease in pedestrian space would trigger a significant impact is $Y \geq X / (9.5 - 0.321)$. **Table 11-7** provides a summary of the sliding-scale guidelines provided in the *CEQR Technical Manual* for non-CBD areas.

For corners and crosswalks, the assessment of potential significant impacts is also based on a sliding-scale formula provided in the *CEQR Technical Manual*. The formula used to determine the decrease in pedestrian space from the No-Action to With-Action condition that would trigger a significant impact is $Y \geq (X / 9.0) - 0.31$, where Y is the decrease in pedestrian space (sf/p) to be considered a potential significant impact and X is the No-Action pedestrian space (sf/p). If the decrease in pedestrian space is greater than Y and the With-Action level of service is considered to be unacceptable, the corner or crosswalk is considered to be significantly impacted. **Table 11-8** provides a summary of the sliding-scale guidelines provided in the *CEQR Technical Manual* for non-CBD areas.

Table 11-7 Significant Impact Criteria for Sidewalks with Platoon Flow (non-CBD Areas)

No-Action Ped Space (sf/p)	With-Action Ped Space Reduction (sf/p)	No-Action Ped Space (sf/p)	With-Action Ped Space Reduction (sf/p)
> 44.3	With-Action Condition ≤ 40.0	24.5 to 25.3	≥ 2.3
43.5 to 44.3	≥ 4.3	23.5 to 24.4	≥ 2.2
42.5 to 43.4	≥ 4.2	22.6 to 23.4	≥ 2.1
41.6 to 42.4	≥ 4.1	21.6 to 22.5	≥ 2.0
40.6 to 41.5	≥ 4.0	20.7 to 21.5	≥ 1.9
39.7 to 40.5	≥ 3.9	19.7 to 20.6	≥ 1.8
38.7 to 39.	≥ 3.8	18.8 to 19.6	≥ 1.7
37.8 to 38.6	≥ 3.7	17.8 to 18.7	≥ 1.6
36.8 to 37.7	≥ 3.6	16.9 to 17.7	≥ 1.5
35.9 to 36.7	≥ 3.5	15.9 to 16.8	≥ 1.4
34.9 to 35.8	≥ 3.4	15.0 to 15.8	≥ 1.3
34.0 to 34.8	≥ 3.3	14.0 to 14.9	≥ 1.2
33.0 to 33.9	≥ 3.2	13.1 to 13.9	≥ 1.1
32.1 to 32.9	≥ 3.1	12.1 to 13.0	≥ 1.0
31.1 to 32.0	≥ 3.0	11.2 to 12.0	≥ 0.9
30.2 to 31.0	≥ 2.9	10.2 to 11.1	≥ 0.8
29.2 to 30.1	≥ 2.8	9..3 to 10.1	7≥ 0.9
28.3 to 29.1	≥ 2.7	8.3 to 9.2	6≥ 0.9
27.3 to 28.2	≥ 2.6	7.4 to 8.2	≥ 0.5
26.4 to 27.2	≥ 2.5	6.4 to 7.3	≥ 0.4
25.4 to 26.3	≥ 2.4	< 6.4	≥ 0.3

Source: *CEQR Technical Manual*

Table 11-8 Significant Impact Criteria for Corners and Crosswalks (non-CBD Areas)

No-Action Ped Space (sf/p)	With-Action Ped Space Reduction (sf/p)	No-Action Ped Space (sf/p)	With-Action Ped Space Reduction (sf/p)
>26.6	With-Action Condition <24.0	15.0 to 15.8	≥ 1.4
25.8 to 26.6	≥ 2.6	14.1 to 14.9	≥ 1.3
24.9 to 25.7	≥ 2.5	13.2 to 14.0	≥ 1.2
24.0 to 24.8	≥ 2.4	12.3 to 13.1	≥ 1.1
23.1 to 23.9	≥ 2.3	11.4 to 12.2	≥ 1.0
22.2 to 23.0	≥ 2.2	10.5 to 11.3	≥ 0.9
21.3 to 22.1	≥ 2.1	9.6 to 10.4	≥ 0.8
20.4 to 21.2	≥ 2.0	8.7 to 9.5	≥ 0.7
19.5 to 20.3	≥ 1.9	7.8 to 8.6	≥ 0.6
18.6 to 19.4	≥ 1.8	6.9 to 7.7	≥ 0.5
17.7 to 18.5	≥ 1.7	6.0 to 6.8	≥ 0.4
16.8 to 17.6	≥ 1.6	5.1 to 5.9	≥ 0.3
15.9 to 16.7	≥ 1.5	< 5.1	≥ .2

Source: *CEQR Technical Manual*

Existing Conditions

Pedestrians

Pedestrian counts were conducted in May and June 2024 at the three potential impact locations for the weekday AM, weekday midday, weekday PM and Saturday midday peak period – the south sidewalk of Flushing Avenue between Washington Avenue and Hall Street, the south sidewalk of Flushing Avenue between Hall Street and Ryerson Street, and the southeast corner of the Flushing Avenue and Washington Avenue intersection. Study area pedestrian volumes are modest due to the uses in the area, predominantly residential and industrial. The weekday AM peak hour of 8:00 AM to 9:00 AM, weekday midday peak hour of 11:45 PM to 12:45 PM, weekday PM peak hour of 4:00 PM to 5:00 PM, and Saturday midday peak hour of 1:45 PM to 2:45 PM, were selected for analysis.

Existing conditions peak hour volumes and levels of service for the sidewalk and corner are presented in **Table 11-9** and **Table 11-10**, respectively. As shown in **Table 11-9** and **Table 11-10**, all analyzed elements operate at LOS B or better during all analyzed peak hours.

Table 11-9 Year 2024 Existing Pedestrian Level of Service - Sidewalks

		Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Midday Peak Hour		
Sidewalk	Effective Width, ft	Volume, ped/hr	Avg Ped Space, SF/P	LOS	Volume, ped/hr	Avg Ped Space, SF/P	LOS	Volume, ped/hr	Avg Ped Space, SF/P	LOS	Volume, ped/hr	Avg Ped Space, SF/P	LOS
Flushing Avenue between Washington Avenue and Hall Street (south side)	3.0	120	249.3	B	106	331.6	B	143	209.1	B	105	398.1	B
Flushing Avenue between Hall Street and Ryerson Street (south side)	4.5	156	296.8	B	189	256.2	B	174	319.4	B	209	306.8	B

Table 11-10 Year 2024 Existing Pedestrian Level of Service - Corners

		Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Midday Peak Hour		
Intersection	Corner	Volume, ped/hr	Avg Ped Space, SF/P	LOS	Volume, ped/hr	Avg Ped Space, SF/P	LOS	Volume, ped/hr	Avg Ped Space, SF/P	LOS	Volume, ped/hr	Avg Ped Space, SF/P	LOS
Flushing Avenue and Washington Avenue	Southeast	233	554.3	A	261	462.4	A	185	594.1	A	150	792.7	A

No-Action Conditions

This section establishes the baseline No-Action condition against which potential impacts of the project can be identified. Future year conditions were analyzed for the year 2030. Under the future No-Action condition, it is expected that the Development Site would be redeveloped to primarily include self-storage use with commercial office and local retail, as shown in **Table 11-1**. These uses would replace the existing HERRC use which has a capacity of 3,540 persons and is operated by approximately 418 staffers. As the Development Site would primarily be occupied by self-storage use, which is a modest trip generator, it is expected that pedestrian activity around the study area would be lower than pedestrian activities under the existing condition. Therefore, to be conservative, the No-Action pedestrian volumes reflect the existing pedestrian volumes as a baseline and do not reflect a reduced level of pedestrian activity associated with the No-Action development.

No-Action pedestrian volumes were established by applying a background growth rate of 0.50 percent per year for five years (2024-2029) and 0.25 percent for one year (2029-2030) to the baseline volumes in accordance with *CEQR Technical Manual* guidelines for Brooklyn projects. This background growth is applied to baseline pedestrian volumes and accounts for modest volume increases as a result of small development projects. No large-scale development projects nor rezonings are anticipated in the immediate area by the Proposed Project's estimated 2030 completion.

Pedestrians

The No-Action condition pedestrian levels of service were determined for the two sidewalk elements and one corner area during the weekday AM, weekday midday, weekday PM and Saturday midday peak hours. Pedestrian volumes and levels of service are provided in **Table 11-11** and **Table 11-12** for the sidewalks and corner, respectively. The two sidewalk elements and one corner area can be expected to continue to operate at LOS B or better during the analyzed peak hours in the No-Action condition, similar to existing conditions.

Table 11-11 Year 2030 No-Action Pedestrian Level of Service - Sidewalks

		Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Midday Peak Hour		
Sidewalk	Effective Width, ft	Volume, ped/hr	Avg Ped Space, SF/P	LOS	Volume, ped/hr	Avg Ped Space, SF/P	LOS	Volume, ped/hr	Avg Ped Space, SF/P	LOS	Volume, ped/hr	Avg Ped Space, SF/P	LOS
Flushing Avenue between Washington Avenue and Hall Street (south side)	3.0	123	243.2	B	109	322.4	B	147	203.4	B	108	387.1	B
Flushing Avenue between Hall Street and Ryerson Street (south side)	4.5	160	289.4	B	195	248.3	B	178	312.2	B	215	298.2	B

Table 11-12 Year 2024 No-Action Pedestrian Level of Service - Corners

		Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Midday Peak Hour		
Intersection	Corner	Volume, ped/hr	Avg Ped Space, SF/P	LOS	Volume, ped/hr	Avg Ped Space, SF/P	LOS	Volume, ped/hr	Avg Ped Space, SF/P	LOS	Volume, ped/hr	Avg Ped Space, SF/P	LOS
Flushing Avenue and Washington Avenue	Southeast	240	537.5	A	268	448.3	A	192	571.9	A	153	778.1	A

With-Action Conditions

Pedestrians

The project-generated pedestrian volumes were distributed through the pedestrian network and added to the 2030 No-Action volumes to develop the 2030 With-Action pedestrian volumes. A level-of-service analysis was performed at the two sidewalk elements and one corner area based on these volumes. The results of this analysis are shown in **Table 11-13** through **Table 11-20**. Under the With-Action condition, all analyzed sidewalks and corners would operate at LOS C or better, and as such significant pedestrian impacts would not result due to the Proposed Project according to CEQR impact criteria.

Table 11-13 Year 2030 No-Action vs With-Action Sidewalk Level of Service – Weekday AM

		No-Action			With-Action		
Sidewalk	Effective Width, ft	Volume	Avg Ped Space, SF/P	LOS	Volume	Avg Ped Space, SF/P	LOS
Flushing Avenue between Washington Avenue and Hall Street (south side)	3.0	123	243.2	B	339	87.7	C
Flushing Avenue between Hall Street and Ryerson Street (south side)	4.5	160	289.4	B	574	80.0	C

Table 11-14 Year 2030 No-Action vs With-Action Sidewalk Level of Service – Weekday Midday

		No-Action			With-Action		
Sidewalk	Effective Width, ft	Volume	Avg Ped Space, SF/P	LOS	Volume	Avg Ped Space, SF/P	LOS
Flushing Avenue between Washington Avenue and Hall Street (south side)	3.0	109	322.4	B	315	111.1	B
Flushing Avenue between Hall Street and Ryerson Street (south side)	4.5	195	248.3	B	587	81.9	C

Table 11-15 Year 2023 No-Action vs With-Action Sidewalk Level of Service – Weekday PM

Sidewalk	Effective Width, ft	No-Action			With-Action		
		Volume	Avg Ped Space, SF/P	LOS	Volume	Avg Ped Space, SF/P	LOS
Flushing Avenue between Washington Avenue and Hall Street (south side)	3.0	147	203.4	B	437	67.7	C
Flushing Avenue between Hall Street and Ryerson Street (south side)	4.5	178	312.2	B	739	74.5	C

Table 11-16 Year 2023 No-Action vs With-Action Sidewalk Level of Service – Saturday Midday

Sidewalk	Effective Width, ft	No-Action			With-Action		
		Volume	Avg Ped Space, SF/P	LOS	Volume	Avg Ped Space, SF/P	LOS
Flushing Avenue between Washington Avenue and Hall Street (south side)	3.0	108	387.1	B	384	108.4	B
Flushing Avenue between Hall Street and Ryerson Street (south side)	4.5	215	298.2	B	752	84.7	C

Table 11-17 Year 2030 No-Action vs With-Action Corner Level of Service – Weekday AM

Intersection	Corner	No-Action			With-Action		
		Volume	Avg Ped Space, SF/P	LOS	Volume	Avg Ped Space, SF/P	LOS
Flushing Avenue and Washington Avenue	Southeast	240	537.5	A	453	271.5	A

Table 11-18 Year 2030 No-Action vs With-Action Corner Level of Service – Weekday Midday

Intersection	Corner	No-Action			With-Action		
		Volume	Avg Ped Space, SF/P	LOS	Volume	Avg Ped Space, SF/P	LOS
Flushing Avenue and Washington Avenue	Southeast	268	448.3	A	470	243.0	A

Table 11-19 Year 2030 No-Action vs With-Action Corner Level of Service – Weekday PM

Intersection	Corner	No-Action			With-Action		
		Volume	Avg Ped Space, SF/P	LOS	Volume	Avg Ped Space, SF/P	LOS
Flushing Avenue and Washington Avenue	Southeast	192	571.9	A	476	218.0	A

Table 11-20 Year 2030 No-Action vs With-Action Corner Level of Service – Saturday Midday

Intersection	Corner	No-Action			With-Action		
		Volume	Avg Ped Space, SF/P	LOS	Volume	Avg Ped Space, SF/P	LOS
Flushing Avenue and Washington Avenue	Southeast	153	778.1	A	422	265.2	A

Conclusion

The projected number of transit (bus and subway) and ferry trips generated by the Proposed Project would not exceed the CEQR Level 1 screening thresholds. Although the number of project-generated vehicle trips would exceed the CEQR Level 1 screening threshold, they would not exceed Level 2 thresholds. As a result, further detailed analysis of transit, ferry, traffic and parking are not needed.

Project-generated pedestrian trips would exceed the CEQR screening thresholds (Levels 1 and 2), and a detailed analysis was performed for two pedestrian sidewalks and one corner area during the weekday AM, weekday midday, weekday PM and Saturday midday peak hours. The pedestrian analysis showed that all pedestrian elements analyzed would be expected to operate at LOS C or better during all peak hours analyzed, therefore, the Proposed Project would not result in significant adverse pedestrian impacts.

12

Air Quality

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

Introduction

The Proposed Actions would facilitate the redevelopment of Brooklyn Block 1876, Lot 1 into an active mixed-use campus, introducing new residential uses with affordable housing, a variety of commercial spaces including ground floor retail to activate the street frontages, a parking facility, and a self-storage facility (the Proposed Project). The Proposed Project would consist of nine buildings (one new building, one existing building to be converted to residential use, and seven existing buildings to be renovated and reoccupied) with a total of 933,422 gross square feet (gsf) comprising approximately 590,147 gsf of residential floor area (611 dwelling units [DUs]), 307,383 gsf of commercial floor area, and up to 60 accessory parking spaces. Potential air quality impacts associated with the Proposed Action include:

- Emissions impact from the project-generated vehicular travel on air quality near affected intersections;
- Emissions impact from the HVAC and hot water systems of the Proposed Project on existing and proposed sensitive uses;
- Emissions impact from industrial and manufacturing facilities on the Proposed Project.
- Emissions impact from nearby atypical sources on sensitive uses at the Development Site.

The following analyses were considered, but not required for the Proposed Project:

- Parking analysis: The Proposed Project would result in an increment of 60 parking spaces between the With-Action and No-Action condition. As this is below the incremental threshold of 85 parking spaces required for further assessment, an analysis of parking emissions is not required.
- Large/major source analysis: The Development Site is not within 1,000 feet of any large or major sources, and therefore such an analysis is not warranted.

Air Quality Standards

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

The EPA Office of Air Quality Planning and Standards (OAQPS) has set NAAQS for six principal pollutants, which are called "criteria" pollutants. These six pollutants are ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter (PM) less than 10 microns in aerodynamic diameter (PM_{10}) and less than 2.5 microns in aerodynamic diameter ($PM_{2.5}$), and lead (Pb). These standards are reviewed from time to time and may be revised, and these pollutants are found and formed from various sources. Ambient concentrations of O_3 are formed in the atmosphere by complex photochemical processes that include nitrogen oxides (nitric oxide (NO) and NO_2, collectively referred to as NO_x) and volatile organic compounds (VOCs). CO is predominantly influenced by mobile source emissions. PM, VOCs, and NO_x are emitted from both mobile and stationary sources. Fine PM is also formed when emissions of NO_x, sulfur oxides (SO_x), ammonia, organic compounds, and other gases react or condense in the atmosphere. Emissions of SO_2 are associated mainly with stationary sources, and some sources utilizing non-road diesel such as large international marine engines. On-road diesel vehicles currently contribute very little to SO_2 emissions since the sulfur content of on-road diesel fuel, which is federally regulated, is extremely low.

The EPA's NAAQS are presented in **Table 12-1**.

Table 12-1 National Ambient Air Quality Standards

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

Notes:

[1] In areas designated nonattainment for the Pb standards prior to the promulgation of the current (2008) standards, and for which implementation plans to attain or maintain the current (2008) standards have not been submitted and approved, the previous standards (1.5 µg/m^3 as a calendar quarter average) also remain in effect.

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

[3] Final rule signed October 1, 2015, and effective December 28, 2015. Additionally, the previous (2008) O_3 standards remain in effect in some areas. Some areas may have continuing implementation obligations under the prior revoked 1-hour (1979) and 8-hour (1997) O_3 standards.

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

Source: EPA NAAQS Table, https://www.epa.gov/criteria-air-pollutants/naaqs-table, accessed June 2024

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

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

Regulatory Context

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

Kings County is designated as a severe non-attainment area for the 2008 8-hour ozone standard and a moderate non-attainment area for the 2015 8-hour ozone standard. Both designations are part of a larger New York-Northern New Jersey-Long Island, NY-NJ-CT non-attainment areas.

The county has been designated as a CO maintenance area on May 20, 2002, and as a $PM_{2.5}$ maintenance area for the 2006 24-hour $PM_{2.5}$ standard on April 18, 2014. EPA plans to designate all US areas to the new $PM_{2.5}$ annual standard that was finalized on February 7, 2024 in two years. Until then, designation for the previous 2012 annual $PM_{2.5}$ standard remains valid.

Kings County is in attainment for all other criteria pollutants (PM_{10}, Pb, NO_2, and SO_2).

Pollutants of Concern

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

Carbon monoxide (CO) is a colorless and odorless gas that is a product of incomplete combustion. CO 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 (PM) is made up of small solid particles and liquid droplets. PM_{10} refers to PM with a nominal aerodynamic diameter of 10 micrometers or less, and $PM_{2.5}$ refers to PM 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 (NO_X), the most significant of which are NO and 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. NO_2 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.

Non-criteria (air toxic) pollutants may be of concern in addition to the criteria pollutants discussed above. Federal ambient air quality standards do not exist for non-criteria pollutants; however, the NYSDEC has issued standards for certain non-criteria compounds, including (but not limited to) beryllium, gaseous fluorides, and hydrogen sulfide. NYSDEC has also developed guidance document DAR-1 (February 2021), which contains a compilation of annual and short term (1-hour) guideline concentration thresholds for these compounds. The NYSDEC's DAR-1 guidance thresholds represent ambient levels that are considered safe for public exposure. The EPA has also developed guidelines for assessing exposure to non-criteria pollutants. These exposure guidelines are used in health risk assessments to determine the potential effects to the public.

Impact Criteria

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

The NYSDEC DAR-1 guidance document presents guideline concentrations in micrograms per cubic meter ($\mu g/m^3$) for the one-hour (SGC) and annual average time (AGC) periods for various air toxic compounds.[1] In order to evaluate residual risk of non-carcinogenic toxic air emissions, a hazard index is calculated based on annual exposure limits. If the sum of pollutant concentration divided by its annual exposure threshold for each of the toxic pollutants is found to be less than 2.0, according to DAR-1, the residual risk is deemed acceptable. In addition, the potential cancer risk associated with each carcinogenic pollutant, as well as the total cancer risk of the releases of all the carcinogenic toxic pollutants combined, can be estimated. If the total incremental cancer risk of all the carcinogenic toxic pollutants combined is less than ten-in-one million, the residual risk is deemed acceptable.

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 *2021 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 8 ppm or between 8.0 and 9.0 ppm; or

[1] https://www.dec.ny.gov/docs/air_pdf/dar1.pdf

› 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:

› 24-hour maximum $PM_{2.5}$ concentration increase which is predicted to be 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. The latest three years of NYSDEC monitoring data (2019 to 2021) from monitoring stations representative of the Development Site were used to develop background concentrations for all pollutants. These concentrations were estimated using the form of the NAAQS (see the "Form" column in **Table 12-1** for more information). **Table 12-2** summarizes the background concentrations for each of the pollutants.

Table 12-2 Background Concentrations

Pollutant	Averaging Time	Monitoring Location	Background Concentration
CO	1-Hour	Queens College	2.1 ppm
	8-Hour		1.6 ppm
NO_2	1-Hour	Queens College	97.2 $\mu g/m^3$
	Annual		26.7 $\mu g/m^3$
PM_{10}	24-Hour	Queens College	38.0 $\mu g/m^3$
$PM_{2.5}$	24-Hour	JHS 126	19.8 $\mu g/m^3$
	Annual		7.5 $\mu g/m^3$

The CO, NO_2 and PM_{10} background concentrations were developed from monitoring data collected at the Queens College monitoring station at 65-30 Kissena Boulevard. The $PM_{2.5}$ background concentrations were developed from monitoring data collected at the JHS 126 monitoring station at 424 Leonard Street.

The CEQR *de minimis* 24-hour threshold, based on the Queens College $PM_{2.5}$ monitoring data, was estimated to be 7.6 $\mu g/m^3$.

Methodology

Mobile Sources

Intersection Screening Analysis

As described in Chapter 17, Sections 210 and 311 of the *CEQR Technical Manual*, projects that increase or redistribute existing peak hour traffic require an analysis of mobile source air quality impacts. Pollutants of concern at intersections affected by a project include CO and Particulate Matter (PM).

The threshold for conducting a refined analysis of CO emissions in the project's study area is 170 project-generated vehicles at a given intersection in the peak hour. The need for conducting an analysis of $PM_{2.5}$ emissions is based on road type and the number of project-generated peak hour heavy-duty diesel vehicles (HDDVs) or their equivalency in vehicular $PM_{2.5}$ emissions as determined using the worksheet referenced on page 17-12 of the *CEQR Technical Manual*. The thresholds for $PM_{2.5}$ are the following:

- 12 or more HDDV or equivalent on paved roads with average daily traffic fewer than 5,000 vehicles
- 19 or more for collector roads
- 23 or more for arterial roads and limited access roads

The type of road is determined based on the functional class map maintained by the New York State Department of Transportation. The screening for PM emissions assumes that if a project would not exceed the Level 1 or Level 2 traffic screening analysis threshold to conduct detailed traffic analysis, it would not exceed the threshold for a detailed PM intersection impact analysis.

A screening analysis of mobile source emissions of CO and $PM_{2.5}$ on ambient pollutant levels in the study area was conducted per the CEQR guidance.

Atypical Source Analysis

Section 210 of the *CEQR Technical Manual* requires the analysis of vehicular emissions from atypical sources within 200 feet of sensitive uses introduced by a proposed project. "Atypical" sources of pollution could include, but are not limited to, multilane highways or not-at-grade multilane roadways like a bridge. Due to the proximity of the Development Site to Brooklyn-Queens Expressway (BQE)—a multilane, elevated highway—an Atypical Source analysis was performed.

Emission factors for CO and PM ($PM_{2.5}$, and PM_{10}) were estimated using the MOVES4 model, based on the speeds, volumes, and vehicle classification data published by the New York State Department of Transportation (NYSDOT). Annual background growth rates consistent with guidance in the *CEQR Technical Manual* were used to project traffic volumes in the 2030 Build Year, as well as additional trips generated by the Proposed Actions. The analysis was conducted using hourly inputs for 24 hours volumes and speeds.

Receptors were placed at various locations and elevations representing facades of the Proposed Project's Building E to predict concentrations from vehicles, since Building E is the closest building to the BQE (35 feet away) that is expected to be occupied by sensitive uses under future With-Action conditions.

The dispersion modeling analysis was performed using AERMOD, with the area source option, following EPA guidance. The predicted CO, $PM_{2.5}$, and PM_{10} concentrations at Building E were compared to the NAAQS.

Stationary Sources

HVAC and Hot Water Analysis

As described in Section 220 and Section 322 in Chapter 17 of the *CEQR Technical Manual*, an air quality assessment is required for projects that would result in fossil fuel emissions from heating, ventilation, air conditioning and hot water (HVAC and hot water) systems and that would introduce sensitive uses near such sources. Pollutants of concern from fossil fuel combustion are $PM_{2.5}$ and NO_2.

Under With-Action conditions, the Development Site would comprise a total of 933,422 gsf containing variety of mixed uses, including residential, commercial office, retail, and "maker" space, self-storage, and accessory parking space. Existing Buildings A and J would be replaced with a 21-story primarily mixed-use residential building totaling 420,784 gsf. While the structures of existing Buildings B through I would remain in the With-Action condition, the nine-story structure of Building B would be converted to a residential building with enclosed parking spaces totaling 217,950 gsf. The remaining seven existing buildings (Buildings C though I) would be converted to mix of commercial office, retail, self-storage, and/or "maker" space. Furthermore, while proposed Building A would have an all-electric HVAC and hot water system, Buildings B through I would have an electric system for hot water and a natural gas fired system for HVAC under With-Action conditions. The *2021 CEQR Technical Manual* requires a detailed dispersion analysis using the EPA's AERMOD model for multiple buildings that burn fossil fuels onsite near surrounding new sensitive uses. As Buildings B through I would be located in close proximity to the proposed Building A under With-Action conditions, a detailed HVAC analysis was conducted.

AERMOD Dispersion Modeling

The dispersion modeling for the HVAC analysis was conducted using AERMOD version 23132. 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 and Stack Parameters

When available, information about the proposed boiler and stack parameters from the project engineering team are used to obtain emission rates and stack parameters. Information from the project engineering team indicated that there would be three natural gas-fired boilers at Building B.

The boilers would serve the HVAC systems of Buildings B through I. Each boiler is associated with 1 exhaust stack (i.e., a total of 3 stacks) that rises several feet above the roof of building B.

Short-term emission rates for the proposed HVAC systems were estimated using the MEP-provided boiler outputs and emission factors from AP-42, EPA's Compilation of Air Emissions. [2] Annual emission rates were calculated using short-term emission rates and a factor of 7/12 (i.e., to represent usage of 7 out of 12 months).

In absence of project-specific information, exhaust stack parameters such as temperature, velocity and diameter for the proposed HVAC systems were obtained from the DEP boiler database. Information from the project team indicated that the 3 proposed exhaust stacks are currently located above Building B's boiler prefab plant. They would remain in the same location in the With-Action condition.

Methodology Utilized for Estimating NO_2 Concentrations

Although information from the project engineering team indicated that the proposed boilers would be low NO_x, an uncontrolled NOx emission factor from USEPA's AP-42 was used for conservative analysis purposes.

1-hour NO_2: The 1-hour NO_2 concentration associated with the Proposed Project was estimated using the AERMOD Plume Volume Molar Ratio Method (PVMRM) module. The PVMRM module limits the NO_x to NO_2 conversion by considering NO_2 formation based on the amount of ozone within the plume volume. An in-stack NO_2 to NO_x ratio of 0.1 and NO_2/NO_x equilibrium ratio of 0.9 were applied. Both ozone and NO_2 background data from DEC were incorporated in the model:

- Background ozone concentrations from the Queens College ambient monitoring station for the latest five years (2017-2021) of hourly data were incorporated into the model.
- Hourly background NO_2 concentrations from the Queens College monitoring station for 2019 through 2021 were used.

Overall, the total 1-hour NO_2 concentration was estimated using 5 years of background ozone concentrations and seasonal hourly background NO_2 concentrations directly in the model.

Annual NO_2: The annual NO_2 concentrations were estimated by combining the product of the modeled NO_x concentrations and a 0.75 conversion rate with the background concentration from **Table 12-2**.

Receptor Locations

Receptors were placed on the nearest affected receptor buildings to the stacks above Building B. The nearest receptors to Building B would be operable windows and air intakes at proposed Building A. Therefore, receptors were placed 20 feet apart horizontally on each floor of proposed Building A.

Meteorological Data

The dispersion analysis used the latest available five years (2017-2021) of hourly meteorological observations from LaGuardia Airport in conjunction with upper air data from Brookhaven.

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

Industrial Source Analysis

As described in Section 220 and Section 322 in Chapter 17 of the *CEQR Technical Manual*, an air quality assessment is required to evaluate the potential impacts of air toxics emissions from ventilation exhaust systems of manufacturing or processing facilities within a 400-foot radius of a project site when a project would result in new sensitive uses (particularly residences, schools, hospitals, or parks). If any sources are identified, a screening analysis is performed using Table 17-3 in Chapter 17 of the *CEQR Technical Manual*. The screening table provides maximum 1-hour, 8-hour, 24-hour and annual average modeled pollutant concentration values at a 20-foot-tall receptor for distances of 30 to 400 feet from a 20-foot-tall stack. These values are based on a generic emission rate of 1 gram per second of a pollutant from the 20-foot-tall point source. Pollutant concentrations predicted from the industrial source of concern based on the screen table are compared with the short-term guideline concentrations (SGCs) and annual guideline concentration (AGCs) recommended in NYSDEC's DAR-1 AGC/SGC tables.

Additionally, according to the NYSDEC's DAR-1 guidance, residual risk of carcinogenic emissions is evaluated through the excess cancer risks per one million people associated with the carcinogenic pollutants. If the total cancer risk of all the carcinogenic toxic pollutants combined is less than 10-in-one million, the residual risk is deemed acceptable, and no significant adverse air quality impacts are predicted to occur due to these pollutant releases. Additionally, the risk of non-carcinogenic toxic air emissions is evaluated through the hazard index, which is based on annual exposure limits. If the sum of all the toxic pollutants' concentrations divided by their annual exposure thresholds is found to be less than 2.0, the residual risk is acceptable and no significant adverse air quality impacts are predicted to occur due to these pollutant releases.

If a proposed project fails the above screening analysis, or the screening analysis methodology is not applicable to the project, a refined analysis using EPA's AERSCREEN and/or AERMOD model is warranted to determine any potential for significant adverse impacts.

Assessment

Mobile Sources

Intersection Screening Analysis

As described in **Chapter 11, Transportation**, a Level 2 transportation screening for project-generated vehicular trips was conducted for the weekday AM and weekday PM peak hours using *CEQR Technical Manual* guidance. As project-generated vehicular trips during the weekday midday and Saturday peak periods are not expected to exceed the Level 1 screening threshold, further analysis during these periods is not warranted. As indicated in **Chapter 11, Transportation**, the Proposed Project is expected to generate a maximum of 48 passenger car trips per hour during the weekday PM peak hour at the intersection of Hall Street and Park Avenue. This is below the CEQR threshold of 170 trips per hour for CO at the Development Site, and thus no further analysis of mobile source CO emissions is needed. All 48 auto trips would occur at the intersection of Hall Street and the parking lots along Park Avenue, which are paved local roadways. As this is below the Level 2 traffic screening threshold of 50 vehicle trips per hour, and thus does not require a detailed traffic analysis, a detailed $PM_{2.5}$ analysis is not required for the Proposed Project. As such, no adverse CO or $PM_{2.5}$ impacts would occur as a result of the Proposed Project due to mobile sources.

Atypical Analysis

As described above, an analysis was performed to determine if pollutant concentrations related to emissions from vehicular traffic on the elevated BQE would have the potential to result in significant adverse air quality impacts at the Development Site. The impact of both CO, PM_{10} and $PM_{2.5}$ emissions was considered. 2030 vehicular CO and PM emission rates were estimated using the EPA MOVES4 model and the NYSDEC inputs for Brooklyn. The AERMOD was run to estimate maximum impacts from BQE traffic emissions on the Proposed Project. The results of this analysis are presented in **Table 12-3.**

Table 12-3 Atypical Source Analysis Results

Pollutant	Averaging Period	Background	Modeled Concentration	With Action Total	NAAQS
CO	1-hour	2.1 ppm	0.9 ppm	3.0 ppm	35 ppm
CO	8-hour	1.6 ppm	0.4 ppm	2.0 ppm	9 ppm
$PM_{2.5}$	24-hour	19.8 µg/m^3	2.7 µg/m^3	22.5 µg/m^3	35 µg/m^3
$PM_{2.5}$	Annual	7.5 µg/m^3	0.4 µg/m^3	7.9 µg/m^3	9 µg/m^3
PM_{10}	24-hour	38 µg/m^3	15.9 µg/m^3	53.9 µg/m^3	150 µg/m^3

The results indicate that the highest CO, PM_{10} and $PM_{2.5}$ concentrations at the Proposed Project locations from the emissions along BQE would be less than the applicable NAAQS. As such, emissions from vehicular traffic on the elevated BQE would not result in significant adverse air quality impacts on any of the Proposed Project's sensitive receptors, and therefore, no further analyses are warranted.

Stationary Sources

HVAC and Hot Water Analysis

A detailed HVAC analysis was conducted for the Proposed Project because of the use of natural gas for Building B though I's HVAC systems, and the proximity of the emission sources to the new sensitive use of proposed Building A. Three boilers with a maximum boiler output of 2.883 MMBtu/hr each would serve the HVAC systems of Buildings B though I. Each boiler would be served by one exhaust stack for a total of 3 stacks: The existing stacks that rise 3 feet above the existing 150-inch-tall prefab plant at the roof of Building B would remain in the With-Action condition. Emission rates and stack parameters were obtained using the methodology outlined above. **Table 12-4** and **Table 12-5** present the emission rates and stack parameters for each boiler.

Table 12-4 HVAC Systems Emission Rates (per boiler)

Boiler location	No. of Boilers	1-hr NOx Emission Rate (g/s)	Annual NOx Emission Rate (g/s)	24-hr PM2.5 Emission Rate (g/s)	Annual PM2.5 Emission Rate (g/s)
Building B	3	3.56E-02	2.08E-02	2.71E-03	2.71E-03

Source: VHB, Inc.

Table 12-5 Exhaust Stack Parameters (per boiler)

Stack location	No. of Stacks	Height above grade (m)	Temperature (K)	Velocity (m/s)	Diameter (m)
Building B	3	42.06	426.3	2.0	0.6096

Source: VHB, Inc.

AERMOD was run with and without the downwash algorithm to assess the potential direct impact of the HVAC exhaust and potential impact with the added turbulence from building structures. The highest results of the dispersion analysis are presented in **Table 12-6** for NO_2 and $PM_{2.5}$. As shown in **Table 12-6**, all resultant concentrations and impacts are below the relevant NAAQS and CEQR *de minimis* criteria. Therefore, no significant adverse impacts from the HVAC and hot water systems of the Proposed Project would occur.

Table 12-6 Maximum NO_2 and $PM_{2.5}$ Concentrations ($\mu g/m^3$)

Building	1-hr NO_2 Concentration	Annual NO_2 Concentration	24-hr $PM_{2.5}$ Concentration	Annual $PM_{2.5}$ Concentration
B	186.9	30	4.74	0.26
NAAQS/CEQR *de minimis*	**188**	**100**	**7.6**	**0.3**

Source: VHB, Inc.

To preclude the potential for significant adverse air quality impacts on the future sensitive uses at the Development Site from project-on-project heat and hot water emissions, an (E)-Designation (E-831) would be mapped as part of the Proposed Actions for the Development Site. The designation (detailed further below) would specify the various restrictions, such as type of fuel to be used and stack locations, needed to fully avoid the potential for project-on-project impacts related to heat and hot water emissions.

Industrial Source Analysis

To assess potential air quality impacts on the Proposed Project from existing industrial sources that emit toxic air contaminants, an investigation of existing land uses within a 400-foot radius of the Development Site was conducted to identify potential sources and determine if there are active NYCDEP-issued industrial permits associated with those sources. These sources are typically sites classified as industrial/manufacturing, transportation/utility, public facilities/institutions, or commercial buildings.

A review of land use maps, the NYCDEP's Clean Air Tracking System (NYCDEP CATS) website, and DEP registration forms were conducted to identify land uses that could have NYCDEP-issued industrial permits and land uses that are unpermitted sources of air toxics within 400 feet of the Development Site. Although permits were identified at several sites, further detailed analysis was required for only one facility, which was the Grand Collision Inc. autobody shop at 33 Grand Avenue. The remaining permits were not analyzed for the following reasons:

- Permit PG000619: The coffee roasting facility at 43 Washington Avenue uses a small combustion engine (natural gas fired burner) for their operations, and that is not an air toxic source. Therefore, an industrial source analysis is not warranted for this site.

- Permits PR022116 and PW003816: The existing use at 55 Washington Ave (listed as 12 Hall Street in the permit records) is self-storage space. Permit PR022116 is a registration for an emergency use generator. Permit PW003816 is an expired permit for sources only used for emergency purposes and as a part of the Con Edison Demand Response program. The CEQR guidance does not require an analysis of sources that are used infrequently for emergency purposes. Therefore, an industrial source analysis is not warranted for this site.
- Permit PB004915: The existing uses at 8 Grand Ave (listed as 268 Brooklyn Navy Yard in the permit record) include a gym and an art studio. Permit PB004915 is an expired permit for a portable generator whose average annual use is 7 hours per year. The CEQR guidance does not require an analysis of sources that are used infrequently for emergency purposes. Therefore, an industrial source analysis is not warranted for this site.
- Permits PA039291 and PA039391: Both permits PA039291 and PA039391 expired over 20 years ago and were for the purposes of woodworking operations. The current site at 20 Grand Avenue contains an art studio and a photography studio that do not emit air toxics. Therefore, an industrial source analysis is not warranted for this site.
- Permit PB031512: Permit PB031512 expired in 2018 and was for paint spraying at an auto body shop. The current site at 284 Flushing Avenue is a closed cold beer store. Therefore, an industrial source analysis is not warranted for this site.
- Permits PA044074, PA044174 and PA044274: PA044074, PA044174 and PA044274 are all over 5-year-old expired permits. Permits PA044074 and PA044174 are associated with woodworking operations and permit PA044274 is associated with paint spraying at a spray booth. The current site is a permanently closed building. Therefore, an industrial source analysis is not warranted for this site.

There is an active permit for the Grand Collision Inc. auto body shop at 33 Grand Avenue[3]. This shop is approximately 310 feet away from the Development Site. Industrial permit PB076801 indicated that there is an auto body spray booth at this facility. Therefore, a *CEQR Technical Manual* industrial screening analysis was performed for the spray booth to assess impacts from paint spraying emissions on the Proposed Project. The list of contaminants and their corresponding hourly and annual emission rates from the permit records were used for the analysis.

The emission rates and results of this analysis are presented in the **Table 12-7**. The results indicate that all individual contaminant concentrations are below their respective short and long-term guidance levels obtained from the DEC DAR-1 Guidelines for the Evaluation and Control of Ambient Air Contaminants[4]. They also show that solid particulates 2.5 and 10 ($PM_{2.5}$ and PM_{10}) are below their respective short-term and annual NAAQS.

[3] While the permit records show that the permit expired on September 25, 2023, the DEP CATS site shows a permit expiration date of October 22, 2025.

[4] https://www.dec.ny.gov/docs/air_pdf/dar1.pdf

Table 12-7 Results of Industrial Source Analysis

Chemical Name	CAS	Short-term Emission Rate (g/s)	Total Short-term Concentration (µg/m³)	SGC (µg/m³)[3]	Annual Emission Rate (g/s)	Total Annual Concentration (µg/m³)	AGC (µg/m³)[3]
Solids ($PM_{2.5}$)[1,2]	NY075-02-5	0.00029	20.01	35	0.00003	7.50	9
Solids (PM_{10})[1,2]	NY075-00-5	0.00047	38.35	150	0.00004	-	-
Acetone	00067-64-1	0.01269	21.67	180,000	0.0012	0.10	30,000
Ligroine	08032-32-4	0.00976	16.67	-	0.0009	0.07	900
Methanol	00067-56-1	0.02929	50.00	33,000	0.0027	0.22	4,000
Toluene	00108-88-3	0.05859	100.01	37,000	0.0054	0.45	5,000

Notes:
[1] Based on AP-42 Appendix B.1, Table 4.2.2.8, 28.6% of emissions of solids from paint are assumed to be $PM_{2.5}$, 46.7% are PM_{10}.
[2] Total $PM_{2.5}$ and PM_{10} concentrations includes background concentration from **Table 12-2**.
[3] Particulates are compared against the NAAQS, as there are no SGCs or AGCs for particulate matter.

Health risk is characterized using excess cancer risks per one million people for carcinogenic compounds and as hazard index for non-carcinogens. None of the chemicals present have been identified as carcinogenic. Therefore, a cancer risk assessment was not warranted. Non-cancer health risk (i.e., hazard index) was estimated using procedures from the NYSDEC DAR-1 based on the annual concentrations and AGC levels. The non-cancer hazard index is presented in **Table 12-8**.

Table 12-8 Hazard Index Assessment

Chemical Name	CAS	DAR-1 Classification	Hazard Quotient
Acetone	00067-64-1	Low toxicity	3.24E-06
Ligroine	08032-32-4	Medium toxicity	8.30E-05
Methanol	00067-56-1	Medium toxicity	5.60E-05
Toluene	00108-88-3	Low toxicity	8.96E-05
Hazard Index			**0.0002**

Source: VHB, 2024.

As shown above, the hazard index at the Proposed Project is below the threshold of 2.0. Therefore, no significant adverse air quality impacts from the spray booth would occur at the Proposed Project.

Conclusion

The results of the mobile source intersection screening analysis indicate that significant adverse air quality impacts would not occur from project-generated mobile sources at intersections near the Development Site.

The result of the atypical mobile source analysis concluded that the emissions from vehicular traffic on the BQE would not result in significant adverse air quality impacts to any existing or future sensitive uses at the Development Site.

The detailed HVAC systems analysis demonstrates that the Proposed Project would not result in significant adverse air quality impacts on new and nearby sensitive uses with the E-designations implemented.

Air toxic pollutant concentrations from industrial sources identified within 400 feet of the Development Site were below their respective DEC DAR-1 SGC and AGC thresholds, and as such, adverse air quality impacts would not result from industrial sources on the Proposed Project.

Overall, no significant adverse air quality impacts would occur from mobile or stationary sources of air pollution associated with the Proposed Project.

(E)-Designation Requirements

Heating and Hot Water System (E)-Designations

As detailed above, a refined analysis was performed utilizing the AERMOD dispersion model for the Development Site. To preclude the potential for significant adverse air quality impacts on the Development Site from heating and hot water system emissions, an (E)-Designation (E-831) would be incorporated into the Development Site. The descriptions and requirements of the proposed (E)-Designation for the site with respect to heating and hot water systems are as presented below:

> *Block 1876, Lot 1 (Building A): Any new residential and/or commercial development on the above-referenced property must ensure the HVAC system and hot water equipment are powered by electricity only with no venting or stacks, to avoid any potential significant adverse air quality impacts.*
>
> *Block 1876, Lot 1 (Buildings B, C, D, E, F, G, H, and I): Any new residential, commercial and/or self-storage development on the above-referenced property must ensure the hot water equipment are powered by natural gas only. The HVAC stacks must be located at the highest tier and at least 138 feet above grade on Building B, and at least 200 feet from Building A to avoid any potential significant adverse air quality impacts.*

13

Noise

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

Introduction

The Applicant, RXR 9-47 Hall Street Owner LLC, is seeking a zoning map amendment and zoning text amendment (the Proposed Actions) to facilitate the redevelopment of Applicant-owned Brooklyn Block 1876, Lot 1 (the Development Site) at 47 Hall Street in the Wallabout neighborhood of Brooklyn Community District (CD) 2. The Proposed Actions would transform the full-block Development Site into an active mixed-use campus, introducing new residential uses with affordable housing, a variety of commercial spaces including ground floor retail to activate the street frontages, a parking facility, and a self-storage facility (the "Proposed Project"). The Proposed Project would consist of nine buildings (one new building, one existing building to be converted to residential use, and seven existing buildings to be renovated and reoccupied) with a total of 933,422 gross square feet (gsf) and would provide 611 total dwelling units (DUs), including 153 to 183 permanently-affordable housing units, pursuant to applicable requirements of the City's Mandatory Inclusionary Housing (MIH) program, and up to approximately 60 accessory parking spaces (35,892 gsf).

The Development Site is located on the block bounded by Flushing Avenue to the north, Ryerson Street to the east, Hall Street to the west, and Park Avenue to the south. It has a total lot area of approximately 113,833 sf (see **Figure 13-1**). Comprised of Lot 1, on Brooklyn Block 1876, the Development Site has approximately 569 feet of frontage on Ryerson Street and Hall Street, and approximately 204 Feet of frontage on Flushing Avenue and Park Avenue.

Because the Proposed Action would introduce new noise-sensitive receptors to the Development Site, a noise assessment is required under CEQR to determine if:

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

Per the *2021 CEQR Technical Manual*, a noise analysis is appropriate if an 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.

The noise assessment includes the following:

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

Noise Background

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

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

Audible sound is composed of acoustic energy over a range of frequencies typically from 20 to 20,000 Hz. The human ear does not perceive sound levels at each frequency as equally loud. To compensate for this phenomenon in perception, a frequency filter known as A-weighting (dBA) is used to evaluate environmental noise levels. **Table 13-1** presents a list of common outdoor and indoor sound levels.

Table 13-1 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 *CEQR Technical Manual* to evaluate acceptable thresholds for noise exposure for new receptors that would be introduced by a proposed development.
- L_{eq} is the continuous equivalent A-weighted sound level. The L_{eq} is a single value that contains the same sound energy as the actual fluctuating sound levels over a given period of time. Therefore, the L_{eq} considers how loud noise events are during the period, how long they last, and how many times they occur. L_{eq} is commonly used to describe environmental noise and relates well to human annoyance. In accordance with the *CEQR Technical Manual*, the L_{eq} sound level is

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

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

Assessment Methodology

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

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

Noise Assessment for Existing Receptors

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

Mobile Sources

The dominant noise source in the area is vehicular traffic along Flushing Avenue to the north and I-278/Park Avenue to the south of the Development Site. Since, according to Table 16-1 in the *CEQR Technical Manual*, the Proposed Action would not generate sufficient vehicular traffic to exceed the threshold for a detailed transportation analysis, and considering the relatively moderate numbers of vehicles in the immediate area, the Proposed Action would not result in the doubling of noise passenger car equivalents (PCEs) that would be necessary to cause a 3-dBA increase in noise levels. Therefore, the Proposed Action would not cause a significant adverse vehicular noise impact.

Stationary Sources

The Proposed Project would not 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 project heating, ventilation, and air conditioning equipment would incorporate sufficient noise reduction to comply with applicable noise regulations and standards, including the standards contained in the revised New York City Noise Control Code. This would ensure that mechanical equipment does not result in any significant increases in noise levels by itself or cumulatively with other project noise sources.

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 at residential receptors (which would equate to an interior noise level of 45 dBA) are considered to be Marginally Unacceptable and the need to provide window/wall sound attenuation that is sufficient to reduce interior sound levels to acceptable levels must be considered.

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

Noise Exposure Guidelines

The *CEQR Technical Manual* provides noise exposure guidelines for assessing ambient noise conditions at new residential, community facility, and commercial office receptors, as shown in **Table 13-2**.

Existing Sound Levels

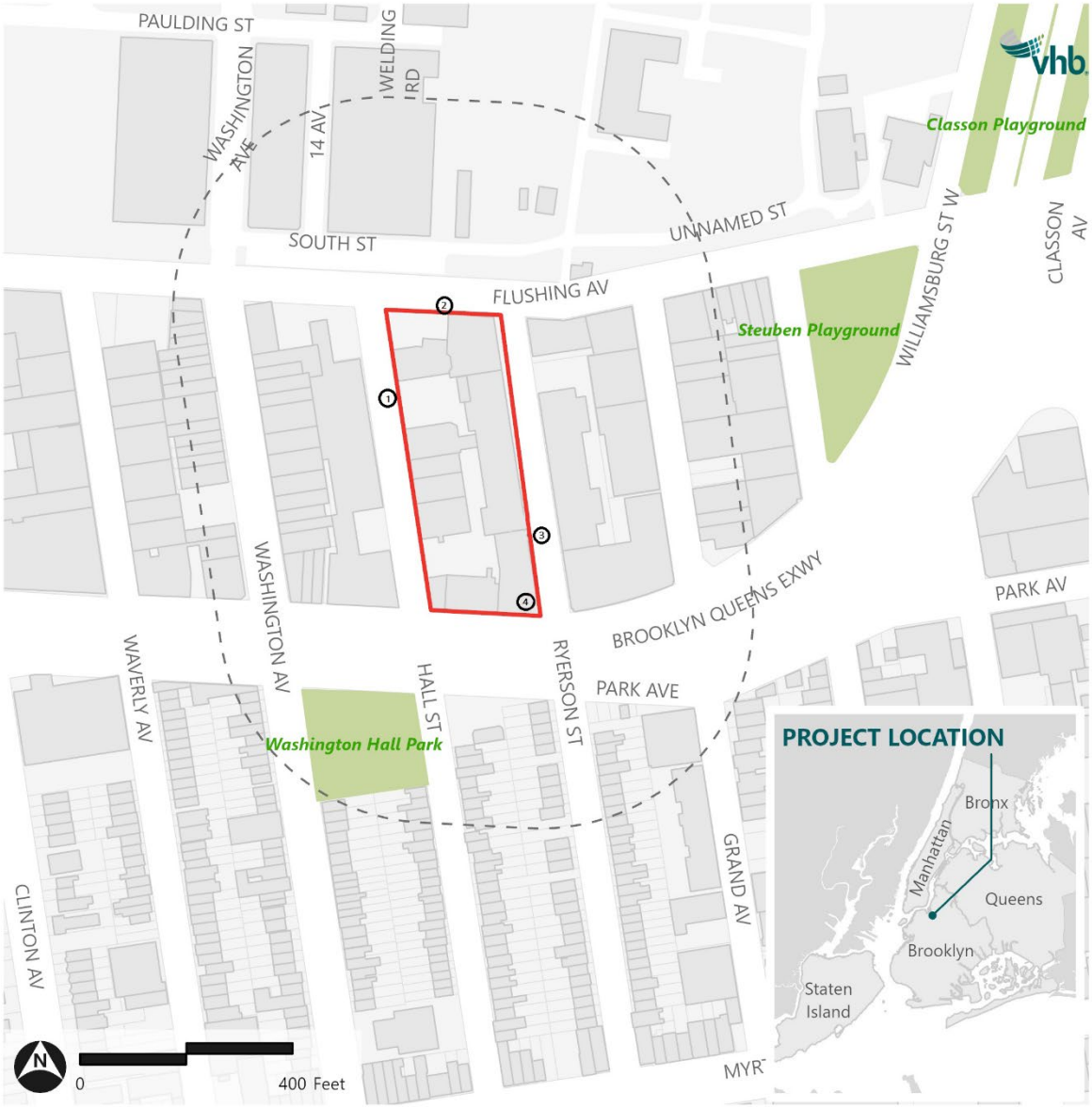
Noise monitoring was conducted around the perimeter of the Development Site at four locations on May 14, 2024, in accordance with the *CEQR Technical Manual*. The locations of the three short-term measurement sites and one long-term measurement site are shown in **Table 13-1**. Noise monitors were placed with a minimum of five feet between the microphone and nearby reflecting surfaces.

20-minute noise measurements were conducted during morning peak periods (7:00 – 9:00 AM), midday period (12:00 – 2:00 PM), and evening peak period (4:00 – 6:00 PM). Measurements were conducted using Type I sound level meters, which were calibrated by a laboratory following procedures traceable to the National Institute of Standards and Technology, and field-calibrated at the start and end of each measurement.

An additional noise meter has also been placed facing Brooklyn Queens Expressway (I-278) to document the hourly noise level for 24 hours to understand the noise levels for peak and non-peak periods.

As shown in **Table 13-3**, measured L_{10} levels ranged from 64.7 dBA to 70.8 dBA, and the existing L_{dn} level at the rooftop of Site C is 79.0 dBA. Hourly noise levels were shown in **Figure 13-1.**

Figure 13-1 Ambient Noise Measurement Locations



Source: MapPLUTO

Table 13-2 Noise Exposure Guidelines for Use in City Environmental Impact Review

Receptor Type	Time Period	Acceptable General External Exposure	Airport[3] Exposure	Marginally Acceptable General External Exposure	Airport[3] Exposure	Marginally Unacceptable General External Exposure	Airport[3] Exposure	Clearly Unacceptable General External	Airport[3] Exposure
1.Outdoor area requiring serenity and quiet[2]		L10 ≤ 55 dBA	Ldn ≤ 60 dBA		60 dBA < Ldn ≤ 65 dBA		65 dBA < Ldn ≤ 75 dBA		75 dBA ≤ Ldn
2. Hospital, Nursing Home		L10 ≤ 55 dBA		55 <L10≤ 65 dBA		65<L10≤80 dBA		L10>80dBA	
3. Residence, residential hotel or motel	7 am to 10 pm	L10 ≤ 65dBA		65 <L10≤ 70 dBA		70<L10≤80 dBA		L10>80dBA	
	10 pm to 7 am	L10 ≤ 55dBA		55 <L10≤ 70 dBA		70<L10≤80 dBA		L10>80dBA	
4. School, museum, library, courthouse of worship, transient hotel or motel, public meeting room, auditorium, out- patient public health facility		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM- 10 PM)		Same as Residential Day (7 AM –10 PM)	
5. Commercial or office		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM –10 PM)		Same as Residential Day (7 AM-10 PM)	
6. Industrial, public areas only[4]	Note 4	Note 4		Note 4		Note 4		Note 4	

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

(i) In addition, any new activity shall comply with Impact Thresholds detailed in Section 410.

[1] Measurements and projections of noise exposures are to be made at appropriate heights above site boundaries as given by American National Standards Institute (ANSI) Standards; all values are for the worst hour in the time period.

[2] Tracts of land where serenity and quiet are extraordinarily important and serve as important public need, and where the preservation of these qualities is essential for the area to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions of parks, or open spaces dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet. Examples are grounds for ambulatory hospital patients and patients and residents of sanitariums and nursing homes.

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

[4] External Noise Exposure standards for industrial areas of sounds produced by industrial operations other than operating motor vehicles or other transportation facilities are spelled out in the New York City Zoning Resolution, Sections 42-20 and 42-21. The referenced standards apply to M1, M2, and M3 manufacturing districts and to adjoining residence districts (performance standards are listed by octave bands). Sources: New York City Department of Environmental Protection (adopted policy 1983).

Table 13-3 Existing Ambient Sound Level Measurements

#	Monitoring Location	Period	Duration	L_{eq}	L_{min}	L_{max}	L_{10}	L_{50}	L_{90}
1	Hall Street	Morning	20 mins	70.0	59.1	95.7	69.0	63.8	60.8
		Midday	20 mins	63.7	58.8	80.1	64.7	62.0	60.5
		Evening	20 mins	62.9	56.4	76.5	65.5	61.1	58.4
2	Flushing Avenue	Morning	20 mins	68.4	60.7	84.8	**70.8**	66.8	63.6
		Midday	20 mins	68.2	57.7	83.4	70.7	65.8	61.3
		Evening	20 mins	67.3	57.3	81.5	69.8	64.9	61.4
3	Ryerson Street	Morning	20 mins	68.0	62.4	83.2	69.6	66.6	64.6
		Midday	20 mins	68.4	61.8	84.6	69.2	65.9	64.0
		Evening	20 mins	66.3	58.0	83.9	67.2	62.2	59.5
4	Rooftop	Ldn	24-hr				**79.0**		

Source: Field Data collected by VHB on May 14, 2024.

Acceptability Assessment

The *CEQR Technical Manual* provides noise exposure guidelines for assessing ambient sound levels, as shown in **Table 13-4**. Based on these noise exposure guidelines, noise impact has been assessed to determine the level of acceptability for new sensitive receptors at the Development Site.

According to the noise exposure guidelines in the *CEQR Technical Manual*, existing L_{dn} sound levels at Location 4 (Rooftop) is 79.0 dBA and are **Clearly Unacceptable**. The existing L_{10} sound levels at Location 2 (Flushing Avenue) are above 70 dBA and are **Marginally Unacceptable**. The existing L_{10} sound levels at Location 1 and 3 are below 70 dBA and are **Acceptable**.

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

Table 13-4 Required Attenuation Values to Achieve Acceptable Interior Noise Levels

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

Notes:

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

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

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

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

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

The composite outdoor-to-indoor transmission classification (OITC) value of the window-wall structure is used to determine the necessary sound attenuation. Sound attenuation measures would be achieved through construction materials and techniques with sufficient OITC-rated windows and walls. Since the measured L_{dn} sound level is 79.0 dBA, the minimum composite window/wall attenuation required is 39 dBA. This requirement would apply to the southern facades of the Development Site. As the highest measured sound level (L_{10}) is between 70 dBA and 73 dBA, the minimum composite window/wall attenuation required is 28 dBA. This requirement would apply to the northern facades of the Development Site. As the measured sound levels (L_{10}) are below 70 dBA, there is no requirement for enhanced window/wall attenuation for the eastern façade and western facade.

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

Block 1876, Lot 1

In order to ensure an acceptable interior noise environment, future residential uses must provide a closed-window condition with a minimum of 39 dBA window/wall attenuation on the facade facing I-278 and Park Avenue, the eastern and western facades within 150 feet of Park Avenue, to maintain an interior noise level (L_{dn}) not greater than 40 dBA for residential uses; future residential uses must provide a closed-window condition with a minimum of 28 dBA window/wall attenuation on the facade facing Flushing Avenue, the eastern and western facades within 50 feet of Flushing Avenue, to maintain an interior noise level (L_{10}) not greater than 45 dBA for residential uses. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, well-sealed air conditioners, package-terminal air conditioners, or central air conditioning.

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 on the Development Site, and if new noise receptors that would be introduced by the Proposed Project would be in an acceptable ambient sound level environment.

The dominant noise source in the area is vehicular traffic along Flushing Avenue to the north and I-278/Park Avenue to the south of the Development Site. Since, according to Table 16-1 in the *CEQR Technical Manual*, the Proposed Action would not generate sufficient vehicular traffic to exceed the threshold for a detailed transportation analysis, and considering the relatively moderate numbers of vehicles in the immediate area, the Proposed Action would not result in the doubling of noise passenger car equivalents (PCEs) that would be necessary to cause a 3-dBA increase in noise levels. Therefore, the Proposed Action would not cause a significant adverse vehicular noise impact.

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

Noise monitoring was conducted at four locations in accordance with the *CEQR Technical Manual*. Based on measured L_{dn} sound levels of 79.0 dBA at Location 4, a composite outdoor-to-indoor window/wall sound attenuation of 39 dBA or more is required for the facade facing I-278 and Park Avenue to obtain acceptable interior noise conditions for residential and community facility uses. Based on the highest measured noise level (L_{10}) at Location 2, a composite outdoor-to-indoor window/wall sound attenuation of 28 dBA or more is required for the facade facing Flushing Avenue to obtain acceptable interior noise conditions for residential and community facility uses as illustrated in **Figure 13-2**. Additionally, alternate means of ventilation, such as well-sealed air conditioners, package-terminal air conditioners, or central air conditioning, is required.

Figure 13-2 Recommended (E)-Designation



Source: MapPLUTO

Appendix A: NYC Waterfront Revitalization Consistency Program Assessment Form

Docusign Envelope ID: F1805060-0416-423C-9032-125D3A15ABBF

FOR INTERNAL USE ONLY	WRP No. _____
Date Received: _____	DOS No. _____

NEW YORK CITY WATERFRONT REVITALIZATION PROGRAM
Consistency Assessment Form

Proposed actions that are subject to CEQR, ULURP or other local, state or federal discretionary review procedures, and that are within New York City's Coastal Zone, must be reviewed and assessed for their consistency with the *New York City Waterfront Revitalization Program (WRP)* which has been approved as part of the State's Coastal Management Program.

This form is intended to assist an applicant in certifying that the proposed activity is consistent with the WRP. It should be completed when the local, state, or federal application is prepared. The completed form and accompanying information will be used by the New York State Department of State, the New York City Department of City Planning, or other city or state agencies in their review of the applicant's certification of consistency.

A. APPLICANT INFORMATION

Name of Applicant: RXR 9-47 Hall Street Owner LLC

Name of Applicant Representative: Neelima Panoli

Address: 625 RXR Plaza, Uniondale, NY 11556

Telephone: _____ Email: NPanoli@rxr.com

Project site owner (if different than above): _____

B. PROPOSED ACTIVITY

If more space is needed, include as an attachment.

1. Brief description of activity

The Applicant is seeking several discretionary actions to facilitate the "Proposed Project" on Brooklyn Block 1876 Lot 1 in Brooklyn Community District 2 (the Development Site). The Proposed Project would transform the Development Site into an active mixed-use campus, introducing new residential uses with affordable housing, a variety of commercial spaces including ground-floor retail to activate street frontages, a parking facility, and a self-storage facility. The Applicant would demolish two existing buildings to facilitate construction of a new 21-story mixed-use residential and commercial building; convert one building to residential use with enclosed accessory parking; and renovate and re-tenant the remaining seven existing buildings with a mix of commercial office, retail, self-storage, and/or "maker" space. In total, the Proposed Project would contain approximately 933,422 gsf of floor area, including 590,147 gsf of residential space (611 DUs; of which, 153 to 183 units would be designated as permanently affordable pursuant to MIH); 47,552 gsf of retail space; 160,474 gsf of self-storage space; 99,357 gsf of office/maker space; and 35,892 gsf of accessory parking space (including up to approximately 60 parking spaces).

2. Purpose of activity

The Proposed Project would transform the underutilized buildings at the Development Site into an active mixed-use campus. The Proposed Actions are needed in order to allow the introduction of new residential uses at an appropriate density alongside a variety of commercial uses on the Development Site. Since acquisition of the Development Site in 2016, the Applicant has invested in extensive infrastructure and sustainability upgrades to reposition the Development Site as a creative office campus. However, substantially all the property has remained vacant due to ongoing challenges with the post-COVID office market in Brooklyn. The Proposed Project would create a significant amount of new housing (including affordable housing) while expanding opportunities for ground-floor retail, office, and maker/studio space. The commercial components of the Proposed Project would be designed to attract a variety of new commercial uses by offering flexible spaces catering to smaller, creative tenants.

Docusign Envelope ID: F1805060-0416-423C-9032-125D3A15ABBF

C. PROJECT LOCATION

Borough: Brooklyn Tax Block/Lot(s): Block 1876 Lot 1

Street Address: 47 Hall Street

Name of water body (if located on the waterfront): _____

D. REQUIRED ACTIONS OR APPROVALS

Check all that apply.

City Actions/Approvals/Funding

City Planning Commission ☑ Yes ☐ No

- ☐ City Map Amendment
- ☑ Zoning Map Amendment
- ☑ Zoning Text Amendment
- ☐ Site Selection – Public Facility
- ☐ Housing Plan & Project
- ☑ Special Permit
  (if appropriate, specify type: ☐ Modification ☐ Renewal ☐ other) Expiration Date: _____
- ☐ Zoning Certification
- ☐ Zoning Authorizations
- ☑ Acquisition – Real Property
- ☑ Disposition – Real Property
- ☐ Other, explain: _____
- ☐ Concession
- ☐ UDAAP
- ☐ Revocable Consent
- ☐ Franchise

Board of Standards and Appeals ☐ Yes ☑ No

- ☐ Variance (use)
- ☐ Variance (bulk)
- ☐ Special Permit
  (if appropriate, specify type: ☐ Modification ☐ Renewal ☐ other) Expiration Date: _____

Other City Approvals

- ☐ Legislation
- ☐ Rulemaking
- ☐ Construction of Public Facilities
- ☐ 384 (b) (4) Approval
- ☐ Other, explain: _____
- ☐ Funding for Construction, specify: _____
- ☐ Policy or Plan, specify: _____
- ☐ Funding of Program, specify: _____
- ☐ Permits, specify: _____

State Actions/Approvals/Funding

- ☐ State permit or license, specify Agency: _____ Permit type and number: _____
- ☐ Funding for Construction, specify: _____
- ☐ Funding of a Program, specify: _____
- ☐ Other, explain: _____

Federal Actions/Approvals/Funding

- ☐ Federal permit or license, specify Agency: _____ Permit type and number: _____
- ☐ Funding for Construction, specify: _____
- ☐ Funding of a Program, specify: _____
- ☐ Other, explain: _____

Is this being reviewed in conjunction with a Joint Application for Permits? ☐ Yes ☑ No

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E. LOCATION QUESTIONS

1.	Does the project require a waterfront site?	☐ Yes	☑ No
2.	Would the action result in a physical alteration to a waterfront site, including land along the shoreline, land under water or coastal waters?	☐ Yes	☑ No
3.	Is the project located on publicly owned land or receiving public assistance?	☐ Yes	☑ No
4.	Is the project located within a FEMA 1% annual chance floodplain? *(6.2)*	☐ Yes	☑ No
5.	Is the project located within a FEMA 0.2% annual chance floodplain? *(6.2)*	☐ Yes	☑ No
6.	Is the project located adjacent to or within a special area designation? *See Maps – Part III of the NYC WRP. If so, check appropriate boxes below and evaluate policies noted in parentheses as part of WRP Policy Assessment (Section F).*	☑ Yes	☐ No

- ☑ Significant Maritime and Industrial Area (SMIA) (*2.1*)
- ☐ Special Natural Waterfront Area (SNWA) (*4.1*)
- ☐ Priority Maritime Activity Zone (PMAZ) (*3.5*)
- ☐ Recognized Ecological Complex (REC) (*4.4*)
- ☐ West Shore Ecologically Sensitive Maritime and Industrial Area (ESMIA) (*2.2, 4.2*)

F. WRP POLICY ASSESSMENT

Review the project or action for consistency with the WRP policies. For each policy, check Promote, Hinder *or* Not Applicable (N/A). *For more information about consistency review process and determination, see* ***Part I*** *of the NYC Waterfront Revitalization Program. When assessing each policy, review the full policy language, including all sub-policies, contained within* ***Part II*** *of the WRP. The relevance of each applicable policy may vary depending upon the project type and where it is located (i.e. if it is located within one of the special area designations).*

For those policies checked Promote *or* Hinder, *provide a written statement on a separate page that assesses the effects of the proposed activity on the relevant policies or standards. If the project or action promotes a policy, explain how the action would be consistent with the goals of the policy. If it hinders a policy, consideration should be given toward any practical means of altering or modifying the project to eliminate the hindrance. Policies that would be advanced by the project should be balanced against those that would be hindered by the project. If reasonable modifications to eliminate the hindrance are not possible, consideration should be given as to whether the hindrance is of such a degree as to be substantial, and if so, those adverse effects should be mitigated to the extent practicable.*

		Promote	Hinder	N/A
1	**Support and facilitate commercial and residential redevelopment in areas well-suited to such development.**	☑	☐	☐
1.1	Encourage commercial and residential redevelopment in appropriate Coastal Zone areas.	☑	☐	☐
1.2	Encourage non-industrial development with uses and design features that enliven the waterfront and attract the public.	☐	☐	☑
1.3	Encourage redevelopment in the Coastal Zone where public facilities and infrastructure are adequate or will be developed.	☑	☐	☐
1.4	In areas adjacent to SMIAs, ensure new residential development maximizes compatibility with existing adjacent maritime and industrial uses.	☑	☐	☐
1.5	Integrate consideration of climate change and sea level rise into the planning and design of waterfront residential and commercial development, pursuant to WRP Policy 6.2.	☐	☐	☑

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		Promote	Hinder	N/A
2	**Support water-dependent and industrial uses in New York City coastal areas that are well-suited to their continued operation.**	☐	☐	☑
2.1	Promote water-dependent and industrial uses in Significant Maritime and Industrial Areas.	☐	☐	☑
2.2	Encourage a compatible relationship between working waterfront uses, upland development and natural resources within the Ecologically Sensitive Maritime and Industrial Area.	☐	☐	☑
2.3	Encourage working waterfront uses at appropriate sites outside the Significant Maritime and Industrial Areas or Ecologically Sensitive Maritime Industrial Area.	☐	☐	☑
2.4	Provide infrastructure improvements necessary to support working waterfront uses.	☐	☐	☑
2.5	Incorporate consideration of climate change and sea level rise into the planning and design of waterfront industrial development and infrastructure, pursuant to WRP Policy 6.2.	☐	☐	☑
3	**Promote use of New York City's waterways for commercial and recreational boating and water-dependent transportation.**	☐	☐	☑
3.1.	Support and encourage in-water recreational activities in suitable locations.	☐	☐	☑
3.2	Support and encourage recreational, educational and commercial boating in New York City's maritime centers.	☐	☐	☑
3.3	Minimize conflicts between recreational boating and commercial ship operations.	☐	☐	☑
3.4	Minimize impact of commercial and recreational boating activities on the aquatic environment and surrounding land and water uses.	☐	☐	☑
3.5	In Priority Marine Activity Zones, support the ongoing maintenance of maritime infrastructure for water-dependent uses.	☐	☐	☑
4	**Protect and restore the quality and function of ecological systems within the New York City coastal area.**	☐	☐	☑
4.1	Protect and restore the ecological quality and component habitats and resources within the Special Natural Waterfront Areas.	☐	☐	☑
4.2	Protect and restore the ecological quality and component habitats and resources within the Ecologically Sensitive Maritime and Industrial Area.	☐	☐	☑
4.3	Protect designated Significant Coastal Fish and Wildlife Habitats.	☐	☐	☑
4.4	Identify, remediate and restore ecological functions within Recognized Ecological Complexes.	☐	☐	☑
4.5	Protect and restore tidal and freshwater wetlands.	☐	☐	☑
4.6	In addition to wetlands, seek opportunities to create a mosaic of habitats with high ecological value and function that provide environmental and societal benefits. Restoration should strive to incorporate multiple habitat characteristics to achieve the greatest ecological benefit at a single location.	☐	☐	☑
4.7	Protect vulnerable plant, fish and wildlife species, and rare ecological communities. Design and develop land and water uses to maximize their integration or compatibility with the identified ecological community.	☐	☐	☑
4.8	Maintain and protect living aquatic resources.	☐	☐	☑

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		Promote	Hinder	N/A
5	**Protect and improve water quality in the New York City coastal area.**	☑	☐	☐
5.1	Manage direct or indirect discharges to waterbodies.	☐	☐	☑
5.2	Protect the quality of New York City's waters by managing activities that generate nonpoint source pollution.	☑	☐	☐
5.3	Protect water quality when excavating or placing fill in navigable waters and in or near marshes, estuaries, tidal marshes, and wetlands.	☐	☐	☑
5.4	Protect the quality and quantity of groundwater, streams, and the sources of water for wetlands.	☐	☐	☑
5.5	Protect and improve water quality through cost-effective grey-infrastructure and in-water ecological strategies.	☐	☐	☑
6	**Minimize loss of life, structures, infrastructure, and natural resources caused by flooding and erosion, and increase resilience to future conditions created by climate change.**	☐	☐	☑
6.1	Minimize losses from flooding and erosion by employing non-structural and structural management measures appropriate to the site, the use of the property to be protected, and the surrounding area.	☐	☐	☑
6.2	Integrate consideration of the latest New York City projections of climate change and sea level rise (as published in *New York City Panel on Climate Change 2015 Report, Chapter 2: Sea Level Rise and Coastal Storms*) into the planning and design of projects in the city's Coastal Zone.	☐	☐	☑
6.3	Direct public funding for flood prevention or erosion control measures to those locations where the investment will yield significant public benefit.	☐	☐	☑
6.4	Protect and preserve non-renewable sources of sand for beach nourishment.	☐	☐	☑
7	**Minimize environmental degradation and negative impacts on public health from solid waste, toxic pollutants, hazardous materials, and industrial materials that may pose risks to the environment and public health and safety.**	☑	☐	☐
7.1	Manage solid waste material, hazardous wastes, toxic pollutants, substances hazardous to the environment, and the unenclosed storage of industrial materials to protect public health, control pollution and prevent degradation of coastal ecosystems.	☑	☐	☐
7.2	Prevent and remediate discharge of petroleum products.	☑	☐	☐
7.3	Transport solid waste and hazardous materials and site solid and hazardous waste facilities in a manner that minimizes potential degradation of coastal resources.	☑	☐	☐
8	**Provide public access to, from, and along New York City's coastal waters.**	☐	☐	☑
8.1	Preserve, protect, maintain, and enhance physical, visual and recreational access to the waterfront.	☐	☐	☑
8.2	Incorporate public access into new public and private development where compatible with proposed land use and coastal location.	☐	☐	☑
8.3	Provide visual access to the waterfront where physically practical.	☐	☐	☑
8.4	Preserve and develop waterfront open space and recreation on publicly owned land at suitable locations.	☐	☐	☑

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		Promote	Hinder	N/A
8.5	Preserve the public interest in and use of lands and waters held in public trust by the State and City.	☐	☐	☑
8.6	Design waterfront public spaces to encourage the waterfront's identity and encourage stewardship.	☐	☐	☑
9	**Protect scenic resources that contribute to the visual quality of the New York City coastal area.**	☐	☐	☑
9.1	Protect and improve visual quality associated with New York City's urban context and the historic and working waterfront.	☐	☐	☑
9.2	Protect and enhance scenic values associated with natural resources.	☐	☐	☑
10	**Protect, preserve, and enhance resources significant to the historical, archaeological, architectural, and cultural legacy of the New York City coastal area.**	☐	☐	☑
10.1	Retain and preserve historic resources, and enhance resources significant to the coastal culture of New York City.	☐	☐	☑
10.2	Protect and preserve archaeological resources and artifacts.	☐	☐	☑

G. CERTIFICATION

The applicant or agent must certify that the proposed activity is consistent with New York City's approved Local Waterfront Revitalization Program, pursuant to New York State's Coastal Management Program. If this certification cannot be made, the proposed activity shall not be undertaken. If this certification can be made, complete this Section.

"The proposed activity complies with New York State's approved Coastal Management Program as expressed in New York City's approved Local Waterfront Revitalization Program, pursuant to New York State's Coastal Management Program, and will be conducted in a manner consistent with such program."

Applicant/Agent's Name: Todd Rechler, RXR 9-47 Hall Street Owner LLC

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Applicant/Agent's Signature: 

Date: 1/14/2025

Appendix A: Waterfront Consistency Assessment

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WRP Consistency Assessment

The New York City Waterfront Revitalization Program (WRP) establishes the City's policies and objectives for maximizing benefits derived from economic development, environmental preservation, and public use of the waterfront, while minimizing the conflicts among those objectives. The Development Site is located within the City's Coastal Zone (**Figure A-1**) and the Proposed Actions are consequently subject to the policies of New York City's Waterfront Revitalization Program (WRP).

The WRP Consistency Assessment Form (CAF) is used to identify the relevant WRP policies; the CAF is included in this appendix. For all relevant policies, a written assessment to determine consistency with the applicable WRP policy is provided.

As described in **Part I: Project Description** the Proposed Actions would result in the total development of approximately 933,422 gsf of floor area, including 590,147 gsf of residential space (611 DUs; of which, 153 to 183 units would be designated as permanently affordable pursuant to MIH); 47,552 gsf of retail space; 160,474 gsf of self-storage space; 99,357 gsf of office/maker space; and 35,892 gsf of accessory parking space (including up to approximately 60 parking spaces)(the Proposed Project). The Proposed Project would be located on Brooklyn Block 1876, Lot 1 (the "Development Site") at 47 Hall Street in the Wallabout neighborhood of Brooklyn Community District (CD) 2.

The following Proposed Actions are being sought in connection with the Proposed Project:

- Zoning map amendment to change the existing M1-2 district to (i) an M1-5 district at midblock along Hall Street and (ii) an M1-6A/R8 District (MX-26) over the remaining majority of the Rezoning Area
- Zoning text amendment to the Zoning Resolution (ZR) of the City of New York, as amended:
  - To amend Section 123-63 (Maximum Floor Area Ratio and Lot Coverage Requirements for Zoning Lots Containing Only Residential Buildings in R6, R7, R8 and R9 Districts) and 123-90 (Special Mixed Use Districts Specified) to add the R8 District to the new Special MX-26 in Community District 2, Borough of Brooklyn, and
  - To amend Appendix F of the Zoning Resolution to designate portions of the Rezoning Area proposed to be mapped as a mixed-use M1-6/R8 district as a MIH area.
- Zoning special permit pursuant to ZR Section 74-533 to waive the required residential accessory off-street parking spaces to facilitate affordable housing
- Acquisition of portions of the Development Site by the City in connection with transferring interest of the residential portions of the Development Site to the City

› Disposition of portions of the Development Site by the City through a lease agreement with New York City Economic Development Corporation (EDC) and the Applicant

Figure A-1 Current Flood Map



Source: MapPLUTO

Figure A-2 2050's Flood Map[1]



Source: MapPLUTO

[1] Data retrieved from NYC Department of City Planning

Figure A-3 Significant Maritime Industrial Area Map



Policy 1: Support and facilitate commercial and residential redevelopment in areas well-suited to such development.

Policy 1.1: Encourage commercial and residential redevelopment in appropriate Coastal Zone areas.

The Proposed Project includes the construction of an approximately 933,422 gross square feet (gsf) mixed-use development comprised of nine buildings (one new building, one existing building to be converted to residential use, and seven existing buildings to be renovated and reoccupied). It would consist of 590,147 gsf of residential space (611 DUs; of which, 153 to 183 units would be designated as permanently affordable pursuant to MIH); 47,552 gsf of retail space; 160,474 gsf of self-storage space; 99,357 gsf of office/maker space; and 35,892 gsf of accessory parking space (including up to approximately 60 parking spaces). As discussed in **Section 2, Land Use, Zoning, and Public Policy**, the Proposed Project would be consistent with the existing land use patterns within the area. Therefore, the Proposed Project is consistent with this policy.

Policy 1.3: Encourage redevelopment in the Coastal Zone where public facilities and infrastructure are adequate or will be developed.

The Development Site is already served by adequate transit service and roadway, bicycle, and pedestrian access as well as open space. The Development Site is located approximately 0.5 miles north of the Classon Avenue and Clinton-Washington Avenues stations (G-line) and 0.8 miles east of the DeKalb Avenue station (B/D/N/Q/R/W lines). Additionally, the B57 (providing service between Red Hook, Brooklyn and Maspeth, Queens), B62 (providing service between Downtown Brooklyn and Long Island City, Queens), B67 (providing service between Kensington and Downtown Brooklyn), and B69 (providing service between Kensington and Downtown Brooklyn) bus routes are all within a block of the Development Site. The Brooklyn Navy Yard landing, which is served by the Astoria route of the NYC Ferry system, is also within a block of the Development Site. Additionally, Flushing Avenue, which is directly north of the Development Site, provides both protected (on the north side of the street) and shared (on the south side of the street) bicycle lanes; the protected lanes on the north side of Flushing Avenue provide both east- and west-bound flows, whereas the shared bicycle lane on the south side of the street provides east-bound flows only. As described in **Section 5, Open Space**, the Development Site is in an area that is served by a number of open spaces, the largest of which include Fort Greene Park (30.2-acres), Commodore Barry Park (10-acres) and Classon Playground (3.2-acres). Additionally, due to the Development Site's proximity to the NYC Ferry, users of the site would have access to a number of publicly accessible open spaces along the City's waterfront, including Brooklyn Bridge Park, Bushwick Inlet Park, and Gantry Plaza State Park. As such, the Proposed Actions would, consistent with this policy, facilitate redevelopment in an area where adequate infrastructure exists.

Policy 1.4: In areas adjacent to SMIAs, ensure new residential development maximizes compatibility with existing adjacent maritime and industrial uses.

As described, the Proposed Project would consist of a mix of residential and commercial office, retail, maker space, and self-storage uses. The proposed maker space and self-storage uses are more intensive commercial uses that would be synergistic with existing adjacent industrial uses within the Brooklyn Navy Yard SMIA. As such, the Proposed Actions would be consistent with this policy,

Policy 5: Protect and improve water quality in the New York City coastal area.

Policy 5.2: Protect the quality of New York City's waters by managing activities that generate nonpoint source pollution.

As discussed in **Chapter 10, Water and Sewer Infrastructure**, the Proposed Development would be required to comply with City stormwater management regulations related to runoff and stormwater release rates to the combined sewer system and/or sewer outfalls. This compliance would result in an improvement over the Development Site's existing stormwater management and treatment conditions and would be beneficial to the water quality of the Navy Yard Basin, Wallabout Channel, and East River. Additionally, as described in **Chapter 10**, sewer treatment capacity at the Newtown Creak Wastewater Resource Recovery Facility (WRRF)—in which the Development Site is served by—is expected to adequately handle wastewater flow resulting from the Proposed Development.

Policy 7: Minimize environmental degradation and negative impacts on public health from solid waste, toxic pollutants, hazardous materials, and industrial materials that may pose risks to the environment and public health and safety.

Policy 7.1: Manage solid waste material, hazardous wastes, toxic pollutants, substances hazardous to the environment, and the unenclosed storage of industrial materials to protect public health, control pollution and prevent degradation of coastal ecosystems.

As described in Section 9, Hazardous Materials, a Phase I ESA, prepared on March 22, 2024, identified a REC and several BERs at the Development Site. Potential impacts relating to this condition would be addressed through the placement of a hazardous materials (E) Designation (E-831) on the Development Site (Brooklyn Block 1876, Lot 1). Compliance in association with the hazardous materials (E) Designation on the Development Site would be conducted under the administration of OER.

The Remedial Action Work Plan related to hazardous materials remediation should include provisions to limit the potential for soil erosion and discharge. The cleanup plan will include provisions for stormwater management, including physical barriers such as tarp covers and erosion fencing, and a program for frequent inspection. If soil is stockpiled temporarily because of excavation, stockpiles will be kept covered with tarps to prevent dust, odor and erosion. Silt fences or hay bales may be used, as needed, to protect storm water catch basins and other discharge points.

Community air monitoring will be performed during the cleanup project to limit airborne contaminants, dust and odors. Air samples will be tested in accordance with a detailed plan called the Community Air Monitoring Plan (CAMP). Monitoring results will be regularly reported to OER, as required by the (E) Designation Program.

In addition to the above, regulatory requirements pertaining to building materials containing ACM, LBP and/or PCBs would be addressed under standard demolition/renovation procedures. With the implementation of the above measures, the Proposed Actions would be consistent with this policy.

During the construction phase of the project, solid and hazardous waste best management practices would be employed including, but not limited to:

- Use of secure waste storage bins that are properly labeled, especially if in areas exposed to wind or rain.
- Proper segregation of recyclable and hazardous materials to facilitate offsite treatment and disposal.
- Storage of hazardous wastes within secondary containment systems and within leak-proof containers.
- Minimizing waste through pre-construction planning, lean construction techniques, and partnering with suppliers and contractors that implement waste reduction practices.
-

Long-term, the redeveloped site can implement additional best practices to manage the risk of pollution and protect public health, like:

- Monitoring of emissions and discharges of pollutants like carbon dioxide, carbon monoxide, and particulate matter.
- Train future employees on good housekeeping practices and the safe handling, storage, and disposal of hazardous materials, should they be encountered.

Policy 7.2: Prevent and remediate discharge of petroleum products.

Pursuant to the requirements of the E-designation, any identified presence of petroleum products on-site will be required to be removed or remediated properly, in accordance with the procedures laid out in the E-designation. Additionally, with exception of the storage of #2 fuel oil and gasoline at the Development Site which are being used for onsite backup generators and building equipment, no petroleum products would be stored at any of the Proposed Development's building under future conditions. Therefore, the Proposed Actions would be consistent with Policy 7.2.

Policy 7.3: Transport solid waste and hazardous materials and site solid and hazardous waste facilities in a manner that minimizes potential degradation of coastal resources.

Pursuant to the requirements of the E-designation, solid waste and hazardous materials will be required to be removed and remediated properly, in accordance with the procedures laid out in the E-designation. Therefore, the Proposed Actions would be consistent with Policy 7.3.