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 870-888 Atlantic Avenue Rezoning

1. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
21DCP146K	
ULURP REFERENCE NUMBER (if applicable)	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)
210335K ZMK, 210336 ZRK, 210260 ZSK	

2a. *Lead Agency Information*			**2b. *Applicant Information***		
NAME OF LEAD AGENCY New York City Planning Commission			NAME OF APPLICANT Y & T Development LLC		
NAME OF LEAD AGENCY CONTACT PERSON Stephanie Shellooe, AICP, Deputy Director Environmental Assessment and Review Division New York City Department of City Planning			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON Richard Lobel, Sheldon Lobel, P.C.		
ADDRESS 120 Broadway, 31st Floor			ADDRESS 18 East 41st Street, 5th Fl.		
CITY New York	STATE NY	ZIP 10271	CITY New York	STATE NY	ZIP 10017
TELEPHONE 212-730-3328	EMAIL sshellooe@planning.nyc.gov		TELEPHONE 212-725-2727	EMAIL rlobel@sheldonlobelpc.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)(9)

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

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

4. *Project Description*

Y & T Development LLC (the "Applicant") is seeking a Zoning Map Amendment, a Zoning Text Amendment, and a Special Permit (the "Proposed Actions") to facilitate a mixed-use development at 870-888 Atlantic Avenue, Brooklyn (Block 1122, Lots 21 and 26; the "Development Site"). The Proposed Actions include: (1) a zoning map amendment to rezone the Development Site and several adjacent properties (Block 1122, Lots 11, 12, 14, 15, 16, and part of Lot 10; which, collectively with the Development Site, constitute the "Project Area") from the existing M1-1 zoning to C6-3A (R9A equivalent); (2) a zoning text amendment to Appendix F of the Zoning Resolution (ZR) to designate the Project Area as a Mandatory Inclusionary Housing Area (MIHA), and to modify ZR 35-66 to allow a 20-foot sidewalk along Atlantic Avenue within the Project Area; and (3), a special permit pursuant to ZR Section 74-533 to reduce the number of accessory parking spaces required. Several lots within the proposed rezoning area would likely be redeveloped as a result of the Proposed Actions in addition to the Development Site (also known as Projected Development Site 1). These additional sites include Projected Development Site 2, consisting of Lots 14, 15, and 16, and Projected Development Site 3, consisting of Lot 11. Lot 12 and the portion of Lot 10 within the Project Area are not anticipated to be redeveloped as a result of the Proposed Actions.

The Proposed Actions would facilitate a 17-story (up to 175-foot tall), approximately 211,560 gross square feet (gsf) building (the "Proposed Project") on the Development Site containing 181,200 gsf of residential uses, with up to 228 dwelling units (DUs) of which 69 DUs would be affordable under MIH, 14,660 gsf of local retail uses, 5,500 gsf of community facility uses, and 12,500 gsf of cellar-level parking uses (40 spaces). Up to 80,475 gsf of development would also be facilitated on Projected Development Sites 2 and 3 by the Proposed Actions, which would include up to 71,775 gsf of residential uses (84 DUs, of which 25 DUs would be affordable) and 8,700 gsf of local retail uses in buildings assumed to be up to 175 feet tall.

See also Attachment A, "Project Description."

Project Location

BOROUGH Brooklyn	COMMUNITY DISTRICT(S) 8	STREET ADDRESS 870-888 Atlantic Avenue (Development Site); 856-888 Atlantic Avenue (Project Area)
TAX BLOCK(S) AND LOT(S) Block 1122, Lots 11, 12, 14, 15, 16, 21, 26 and part of Lot 10		ZIP CODE 11238

DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS Portion of the block bounded by Atlantic Avenue to the north, Underhill Avenue to the east, Pacific Street to the south, and Vanderbilt Avenue to the west

EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY M1-1 | ZONING SECTIONAL MAP NUMBER 16c

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

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

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

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION ZR 35-66, ZR 74-533, Appendix F

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

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

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

***Department of Environmental Protection*:** ☐ YES ☒ NO If "yes," specify:

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

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

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

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

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

6. *Site Description:* *The directly affected area consists of the project site and the area subject to any change in regulatory controls. Except where otherwise indicated, provide the following information with regard to the directly affected area.*

***Graphics*:** *The following graphics must be attached and each box must be checked off before the EAS is complete. Each map must clearly depict the boundaries of the directly affected area or areas and indicate a 400-foot radius drawn from the outer boundaries of the project site. Maps may not exceed 11 x 17 inches in size and, for paper filings, must be folded to 8.5 x 11 inches.*

- ☒ SITE LOCATION MAP
- ☒ TAX MAP
- ☒ PHOTOGRAPHS OF THE PROJECT SITE TAKEN WITHIN 6 MONTHS OF EAS SUBMISSION AND KEYED TO THE SITE LOCATION MAP
- ☒ ZONING MAP
- ☐ FOR LARGE AREAS OR MULTIPLE SITES, A GIS SHAPE FILE THAT DEFINES THE PROJECT SITE(S)
- ☒ SANBORN OR OTHER LAND USE MAP

Physical Setting (both developed and undeveloped areas)

Total directly affected area (sq. ft.): 28,700 | Waterbody area (sq. ft.) and type: 0

Roads, buildings, and other paved surfaces (sq. ft.): 28,700 | Other, describe (sq. ft.): 0

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):

Proposed Project - 211,560 gsf

Projected Development Sites 2 & 3 - 80,475 gsf

NUMBER OF BUILDINGS: 3

GROSS FLOOR AREA OF EACH BUILDING (sq. ft.):

Proposed Project - 211,560 gsf

Projected Development Site 2 - 55,500 gsf

Projected Development Site 3 - 24,975 gsf

HEIGHT OF EACH BUILDING (ft.): 175 feet (all buildings) NUMBER OF STORIES OF EACH BUILDING: 17 (all buildings)

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: 20,000 sf

The total square feet not owned or controlled by the applicant: 8,700

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: 20,000 sq. ft. (width x length) VOLUME OF DISTURBANCE: 300,000 cubic ft. (width x length x depth)

AREA OF PERMANENT DISTURBANCE: 20,000 sq. ft. (width x length)

8. *Analysis Year* CEQR Technical Manual Chapter 2

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

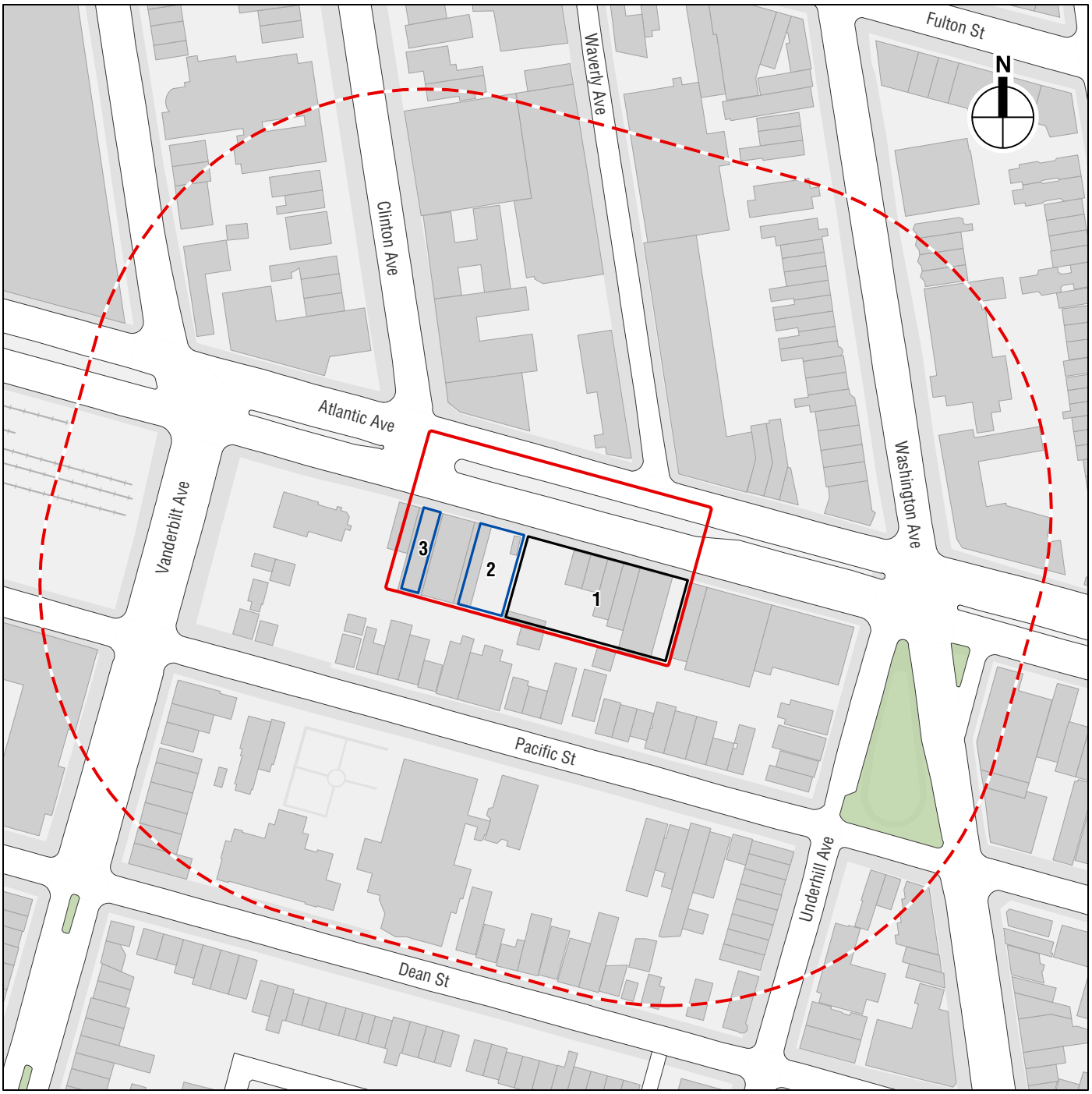
ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 22.5 months (Proposed Project)

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

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: Assuming approval of the requested Proposed Actions in 2022, demolition through construction of the Proposed Project is expected to occur in one phase over a period of approximately 22.5 months, with construction completion and occupancy expected in 2024. However, development within the Project Area facilitated by the Proposed Actions for development on other lots is assumed to occur over a 3-year period. Therefore, the full build-out of the Project Area would be complete in 2025. Since Projected Devlopoment Sites 2 and 3 are substantially smaller than the Proposed Project, a shorter construction duration is expected for these developments and, like the Proposed Project, would be short-term.

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

☒ RESIDENTIAL ☒ MANUFACTURING ☒ COMMERCIAL ☐ PARK/FOREST/OPEN SPACE ☒ OTHER, specify: vacant land, public facilities and institutions, open space, paring facilities

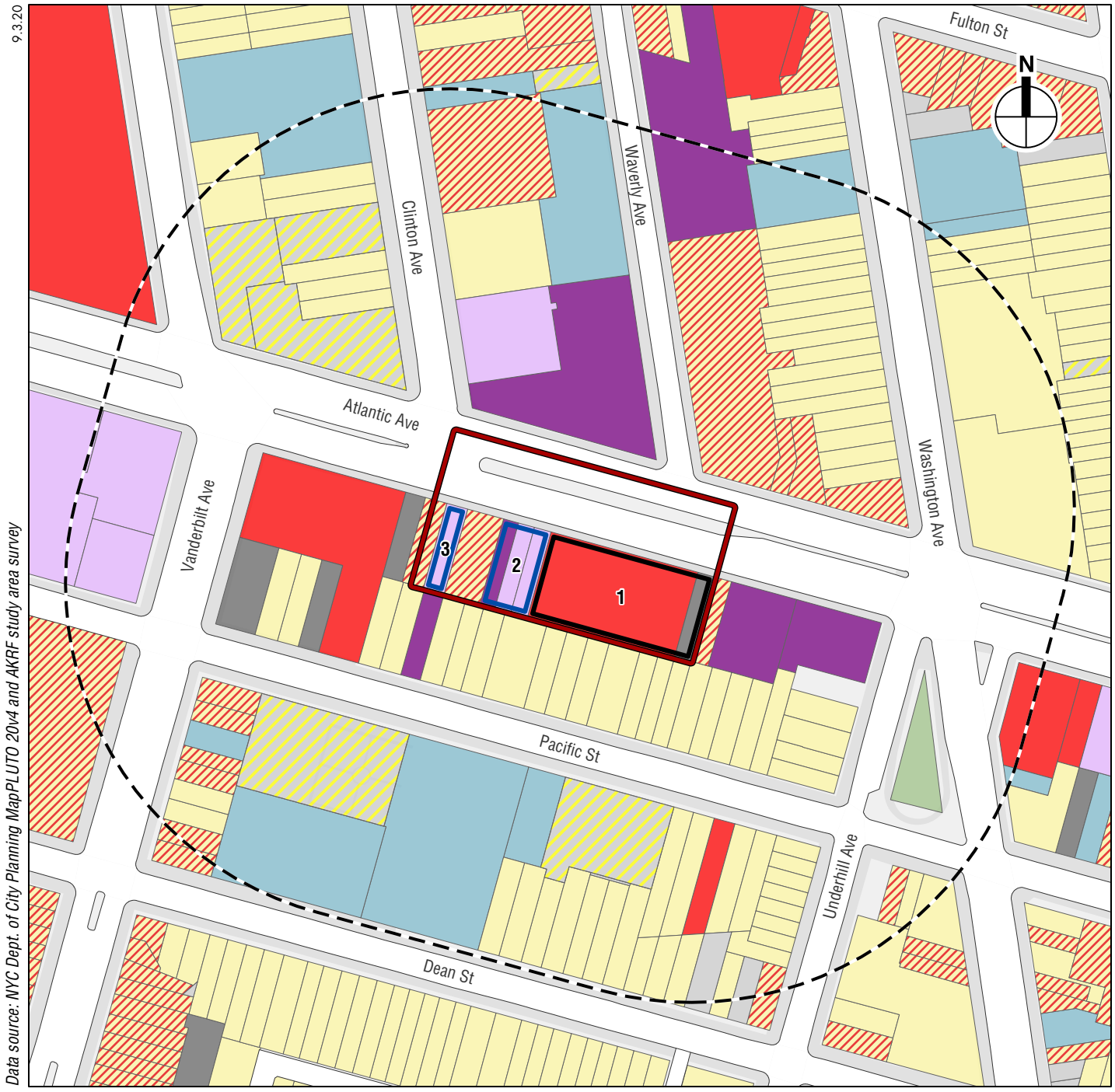


Project Location

870-888 ATLANTIC AVENUE REZONING

Figure 1

Existing Zoning



Existing Land Use

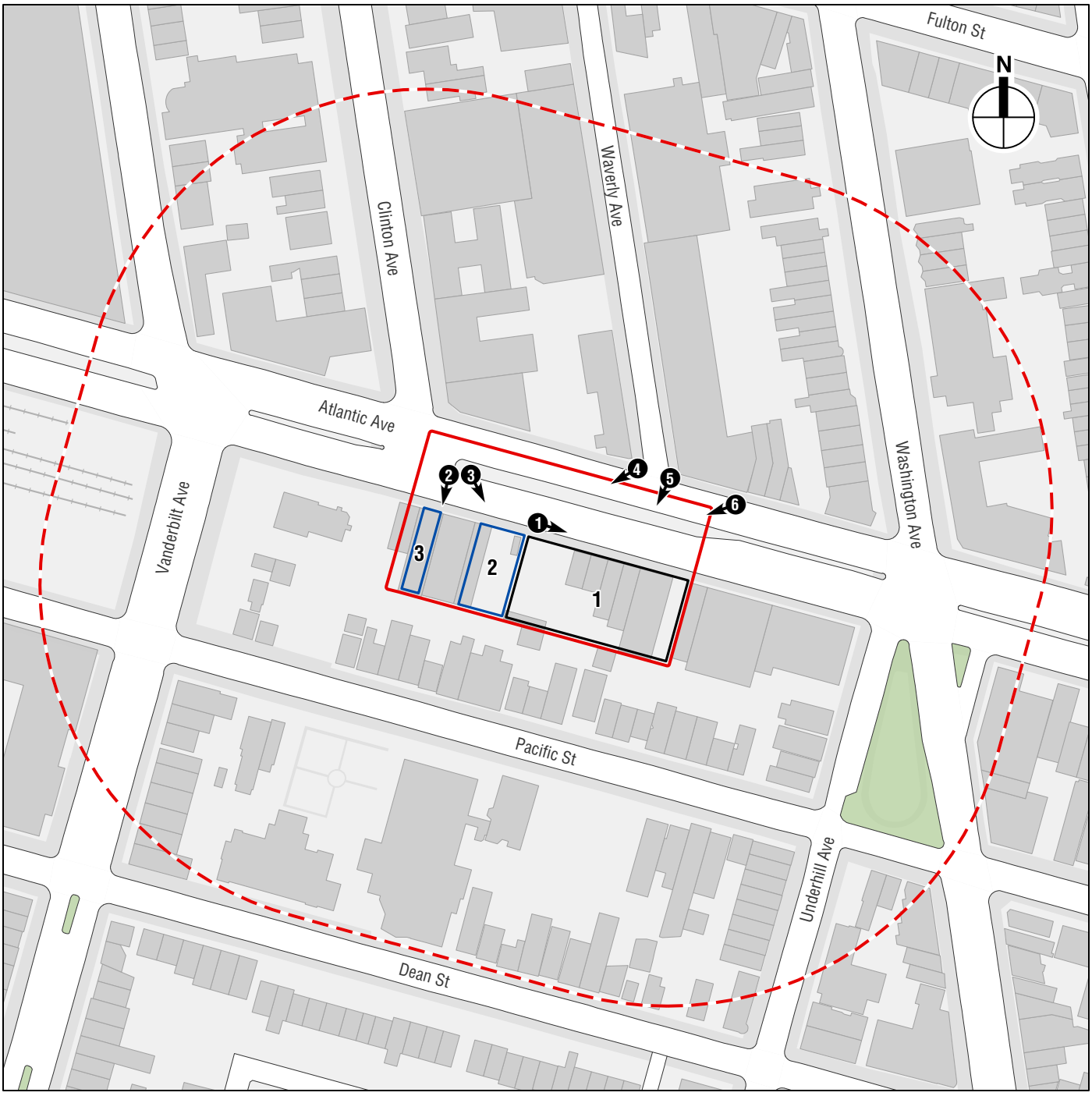
870-888 ATLANTIC AVENUE REZONING

Figure 3

Tax Map

870-888 ATLANTIC AVENUE REZONING

Figure 4



Photograph Locations

1

2

Photographs
Figure 6a

3

4

Photographs
Figure 6b


CUBESMART
800-800-1717
890 SPA
ALL TRAFFIC

5


890 SPA
A CLASS AUTO SALES INC

6

Existing and Proposed Zoning

870-888 ATLANTIC AVENUE REZONING

Figure 7

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	Walk-up Apartments	Walk-up Apartments	Elevator Apartments	
No. of dwelling units	6	6	312	+306
No. of low- to moderate-income units	0	0	62	+62
Gross floor area (sq. ft.)	6,700	6,700	252,975	+246,275
Commercial	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Describe type (retail, office, other)	Retail	Retail	Retail	
Gross floor area (sq. ft.)	6,700	6,700	23,360	+16,660
Manufacturing/Industrial	☒ YES ☐ NO	☒ YES ☐ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Type of use	Warehouse; Parking Facilities	Warehouse; Parking Facilities		
Gross floor area (sq. ft.)	4,700	4,700		-4,700
Open storage area (sq. ft.)	4,000	4,000		-4,000
If any unenclosed activities, specify:	Automotive Sales and Service; Restaurant Equipment	Automotive Sales and Service; Restaurant Equipment		- Automotive Sales and Service; Restaurant Equipment
Community Facility	☐ YES ☒ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Type			Community Facility (medical office)	+ Community Facility (medical office)
Gross floor area (sq. ft.)			5,500	+5,500
Vacant Land	☒ YES ☐ NO	☒ YES ☐ NO	☐ YES ☒ NO	
If "yes," describe:	2,000	2,000		-2,000
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				
No. of accessory spaces			40	+40
Operating hours			24/7	+24/7
Attended or non-attended			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				

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
Residents	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify number:	14	14	743	+729
Briefly explain how the number of residents was calculated:	The residential population was determined by multiplying the Existing Conditions/No Action Condition unit count (6) and the With Action unit count (312) by the average household size in Brooklyn PUMA Ditrict 4006 (2.38 persons per household according to the Social Profile, NYCDCP Population Fact Finder, 2014-2018 American Community Survey)			
Businesses	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
No. and type	6 Retail; 2 Industrial	6 Retail; 2 Industrial	(No. TBD) Retail; 2 Community Facility	
No. and type of workers by business	21	21	64	+43
No. and type of non-residents who are not workers				
Briefly explain how the number of businesses was calculated:	Retail: 400 sf/employee; Industrial: 1,000 gsf/employee; Community Facility: 1,000 gsf/employee			
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:				
ZONING				
Zoning classification	M1-1	M1-1	C6-3A	-M1-1 +C6-3A
Maximum amount of floor area that can be developed	1.0 FAR	1.0 FAR	8.5 FAR	+7.5 FAR
Predominant land use and zoning classifications within land use study area(s) or a 400 ft. radius of proposed project	Land Uses: Residential, Commercial, Industrial and Manufacturing, Public Facilities and Institutions, Parking Facilities, Open Space, Vacant Land Zoning: M1-1, R6B, R7A/C2-4, R7A/C1-4, R6A/C2-4, R9/C2-5	Land Uses: Residential, Commercial, Industrial and Manufacturing, Public Facilities and Institutions, Parking Facilities, Open Space, Vacant Land Zoning: M1-1, R6B, R7A/C2-4, R7A/C1-4, R6A/C2-4, R9/C2-5	Land Uses: Residential, Commercial, Industrial and Manufacturing, Public Facilities and Institutions, Parking Facilities, Open Space, Vacant Land Zoning: M1-1, R6B, R7A/C2-4, R7A/C1-4, R6A/C2-4, R9/C2-5, C6-3A	+C6-3A
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 Attachment B		
(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,	☐	☒

	YES	NO
enhance, or otherwise protect it?		
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. Child Care Centers		
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 group child care/Head Start centers 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. 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?	☐	☐
iii. 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 collective utilization rate of the elementary and/or intermediate schools in the study area that is equal to or greater than 100 percent?	☐	☐
o If "yes," would the project increase this collective utilization rate by 5 percent or more from the No-Action scenario?	☐	☐
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) Is the project located within an under-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☐	☒
(c) If "yes," would the project generate more than 50 additional residents or 125 additional employees?	☐	☐
(d) Is the project located within a well-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☒	☐
(e) If "yes," would the project generate more than 350 additional residents or 750 additional employees?	☒	☐
(f) If the project is located in an area that is neither under-served nor well-served, would it generate more than 200 additional residents or 500 additional employees?	☐	☐
(g) If "yes" to questions (c), (e), or (f) above, attach supporting information to answer the following:		
o If in an under-served area, would the project result in a decrease in the open space ratio by more than 1 percent?	☐	☐
o If in an area that is not under-served, would the project result in a decrease in the open space ratio by more than 5	☐	☐

	YES	NO
percent?		
o If "yes," are there qualitative considerations, such as the quality of open space, that need to be considered? Please specify:	☐	☐
5. *SHADOWS*: CEQR Technical Manual Chapter 8		
(a) Would the proposed project result in a net height increase of any structure of 50 feet or more?	☒	☐
(b) Would the proposed project result in any increase in structure height and be located adjacent to or across the street from a sunlight-sensitive resource?	☐	☐
(c) If "yes" to either of the above questions, attach supporting information explaining whether the project's shadow would reach any sunlight-sensitive resource at any time of the year. See Attachment E		
6. *HISTORIC AND CULTURAL RESOURCES*: CEQR Technical Manual Chapter 9		
(a) Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; that is listed or eligible for listing on the New York State or National Register of Historic Places; or that is within a designated or eligible New York City, New York State or National Register Historic District? (See the GIS System for Archaeology and National Register to confirm)	☒	☐
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	☒	☐
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting information on whether the proposed project would potentially affect any architectural or archeological resources. See Attachment F		
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 Attachment G		
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 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) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to hazardous materials that preclude the potential for significant adverse impacts?	☐	☒
(c) Would the project require soil disturbance in a manufacturing area or any development on or near a manufacturing area or existing/historic facilities listed in Appendix 1 (including nonconforming uses)?	☒	☐
(d) Would the project result in the development of a site where there is reason to suspect the presence of hazardous materials, contamination, illegal dumping or fill, or fill material of unknown origin?	☒	☐
(e) Would the project result in development on or near a site that has or had underground and/or aboveground storage tanks (*e.g.*, gas stations, oil storage facilities, heating oil storage)?	☒	☐
(f) Would the project result in renovation of interior existing space on a site with the potential for compromised air quality; vapor intrusion from either on-site or off-site sources; or the presence of asbestos, PCBs, mercury or lead-based paint?	☐	☒
(g) Would the project result in development on or near a site with potential hazardous materials issues such as government-listed voluntary cleanup/brownfield site, current or former power generation/transmission facilities, coal gasification or gas storage sites, railroad tracks or rights-of-way, or municipal incinerators?	☐	☒
(h) Has a Phase I Environmental Site Assessment been performed for the site?	☒	☐
o If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: [To Come]	☐	☐
(i) Based on the Phase I Assessment, is a Phase II Investigation needed? [To Come]	☐	☐
10. *WATER AND SEWER INFRASTRUCTURE*: CEQR Technical Manual Chapter 13		
(a) Would the project result in water demand of more than one million gallons per day?	☐	☒
(b) If the proposed project located in a combined sewer area, would it result in at least 1,000 residential units or 250,000 square feet or more of commercial space in Manhattan, or at least 400 residential units or 150,000 square feet or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens?	☐	☒

	YES	NO
(c) If the proposed project located in a separately sewered area, would it result in the same or greater development than that listed in Table 13-1 in Chapter 13?	☐	☐
(d) Would the project involve development on a site that is 5 acres or larger where the amount of impervious surface would increase?	☐	☒
(e) If the project is located within the Jamaica Bay Watershed or in certain specific drainage areas, including Bronx River, Coney Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, or Westchester Creek, would it involve development on a site that is 1 acre or larger where the amount of impervious surface would increase?	☐	☐
(f) Would the proposed project be located in an area that is partially sewered or currently unsewered?	☐	☒
(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or contribute contaminated stormwater to a separate storm sewer system?	☐	☒
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	☐	☒
(i) If "yes" to any of the above, conduct the appropriate preliminary analyses and attach supporting documentation.		
11. *SOLID WASTE AND SANITATION SERVICES*: CEQR Technical Manual Chapter 14		
(a) Using Table 14-1 in Chapter 14, the project's projected operational solid waste generation is estimated to be (pounds per week): 17,687		
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): 38,470,573		
(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 or bus trips per project peak hour?	☒	☐
If "yes," would the proposed project result, per project peak hour, in 50 or more bus trips on a single line (in one direction) or 200 subway/rail trips per station or line?	☐	☒
o Would the proposed project result in more than 200 pedestrian trips per project peak hour?	☒	☐
If "yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, or bus stop?	☒	☐
14. *AIR QUALITY*: CEQR Technical Manual Chapter 17		
(a) *Mobile Sources*: Would the proposed project result in the conditions outlined in Section 210 in Chapter 17?	☐	☒
(b) *Stationary Sources*: Would the proposed project result in the conditions outlined in Section 220 in Chapter 17?	☒	☐
o If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in Chapter 17? (Attach graph as needed)	☐	☒
(c) Does the proposed project involve multiple buildings on the project site?	☒	☐
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?	☐	☒
(e) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts?	☐	☒
(f) If "yes" to any of the above, conduct the appropriate analyses and attach any supporting documentation. See Attachment H		
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-	☐	☐

	YES	NO
803 of the Administrative Code of the City of New York). Please attach supporting documentation.		
16. *NOISE*: CEQR Technical Manual Chapter 19		
(a) Would the proposed project generate or reroute vehicular traffic?	☒	☐
(b) Would the proposed project introduce new or additional receptors (see Section 124 in Chapter 19) near heavily trafficked roadways, within one horizontal mile of an existing or proposed flight path, or within 1,500 feet of an existing or proposed rail line with a direct line of site to that rail line?	☒	☐
(c) Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise?	☐	☒
(d) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?	☐	☒
(e) If "yes" to any of the above, conduct the appropriate analyses and attach any supporting documentation. See Attachment I		
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. See Attachment A		
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 Attachment A		

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
Noah Bernstein, AICP AKRF, Inc.		September 17, 2021

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

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

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

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

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

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

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

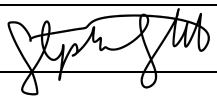
3. Check determination to be issued by the lead agency:

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

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

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

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

TITLE	LEAD AGENCY
Deputy Director, Environmental Assessment and Review Division	NYC Department of City Planning on behalf of the City Planning Commission
NAME Stephanie Shellooe	DATE 9/17/21
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. Y&T Development LLC (the "Applicant") is seeking a zoning map amendment, a zoning text amendment, and special permits (the "Proposed Actions") to facilitate the development of a mixed-use building at 870-888 Atlantic Avenue, in the Crown Heights neighborhood of Brooklyn, Community District 8. The Proposed Actions would rezone the Development Site and several adjacent properties to the west (Block 1122, Lots 11, 12, 14, 15, 16, 21, 26 and a portion of Lot 10), the "Project Area", from the existing M1-1 zoning to C6-3A (R9A equivalent), designate the Project Area as a Mandatory Inclusionary Housing (MIH) area, and allow a 20-foot sidewalk along Atlantic Avenue within the Project Area. Additionally, the Applicant seeks a special permit pursuant to Zoning Resolution (ZR) Section 74-533 to reduce the number of accessory parking spaces required on the two Applicant-controlled lots that comprise the 870-888 Atlantic Avenue site (Block 1122, Lots 21 and 26; "Projected Development Site 1"). In addition to Projected Development Site 1, two projected development sites were identified: Projected Development Site 2, consisting of Lots 14, 15, and 16, and Projected Development Site 3, consisting of Lot 11. The Proposed Actions would facilitate a development of an up to approximately 211,560 gross square foot (gsf), 17-story (at a maximum building height of 175') mixed use building on Projected Development Site 1, containing up to 228 DUs in 181,200 gsf of residential uses, of which approximately 30 percent (69 DUs) would be permanently affordable under the MIH Program, up to 14,600 gsf of local retail commercial uses on the ground floor, up to 5,500 gsf of community facility uses (medical office space), and 10,200 gsf of cellar-level parking uses with 40 accessory parking spaces. Projected Development Sites 2 and 3 would also be developed with mixed use buildings, similarly rising to a maximum building height of 175', with a combined total of up to 80,475 gsf, including 84 DUs (71,775 gsf residential), of which 25 DUs would be affordable under MIH, and 8,700 gsf of local retail uses on the ground floors.

The Proposed Actions would not result in any land use changes within the study area. The study area would continue to have a mix of manufacturing, residential, mixed residential and commercial, commercial, and public facility and institutional uses. The development and uses facilitated by the Proposed Actions would be consistent with existing uses in the study area, and the buildings at all Projected Development Sites would have heights consistent with other buildings in the surrounding area. The proposed zoning is similar to a nearby C6-3A district and an R9 district with a C2-5 commercial overlay, located to the northwest of the Project Area across Atlantic Avenue, and these districts feature commercial and mixed-use developments of similar size to the Proposed Project. The Proposed Actions would be compatible and consistent with public policies that currently apply to the Project Area and surrounding study area, and would contribute to the goals of Housing New York and OneNYC's Thriving Neighborhoods goal by providing approximately 94 affordable DUs. The Proposed Actions would also contribute to OneNYC's Efficient Mobility goal by facilitating new development in a transit-rich area with easy access to regional employment centers and by reducing the parking requirement within the Project Area, which together would promote the use of more sustainable forms of mobility such as public transit, walking, or cycling. Overall, the Proposed Actions would not result in any significant adverse impacts to land use, zoning or public policy, and no further analysis is required.

Socioeconomic Conditions

An analysis related to socioeconomic conditions for Indirect Residential Displacement is included in this EAS. The Proposed Actions would result in 306 incremental residential DUs, which exceeds the 200-DU development threshold identified by the CEQR Technical Manual as warranting assessment for potential impacts. As the Proposed Actions would introduce a combination of market rate and permanently affordable residential units, incomes were estimated for the residents of both housing types. The Proposed Actions are expected to introduce permanently affordable units occupied by households who have an average income that is lower than the average for the existing study area population, while the project's market-rate units would introduce residents who have a higher average household income than the existing study area population. The analysis finds that the projected average household income introduced by the proposed actions, $134,957, would not exceed the average for the existing study area ($137,214). The analysis concludes that the Proposed Actions would not result in significant adverse impacts due to indirect residential displacement, and no further analysis is warranted.

Open Space

A detailed analysis related to open space is included in this EAS. The Proposed Actions would introduce an estimated 729 residents to the Project Area, which exceeds the threshold for residential analysis identified in the CEQR Technical Manual of 350 new residents. The analysis finds that the residential (0.5-mile) study area's total open space ratio (0.220 acres per thousand residents) would be below the City's guideline of 1.5 acres per thousand residents. The population resulting from the Proposed Actions would result in a decrease in Open Space Ratio for the study area of slightly above the CEQR Technical Manual threshold of 1%. While the analysis finds that proposed actions would result in further reductions in the open space ratio within the study area, significant adverse impacts would not result from the Proposed Actions due to several qualitative factors, including open space resources that are located just outside study area but within a 15-minute walk from the Project Area, such as Prospect Park, Fort Greene Park, and Stroud Playground; the Project Area is also close to several community gardens as well as other passive open spaces in good condition. The analysis concludes that the Proposed Actions would therefore not result in significant adverse impacts on open space resources, and no further analysis is warranted.

Shadows

A detailed analysis related to socioeconomic conditions is included in this EAS. The analysis finds that incremental shadow resulting from the Proposed Actions would potentially reach two sunlight-sensitive resources: the Church of St. Luke & St. Matthew (a sunlight-sensitive historic resource) and Lowry Triangle (an open space resource). Per the CEQR Technical Manual, shadows within 90 minutes of sunrise and 90 minutes of sunset are considered on the following representative days: the summer solstice (June 21), winter solstice (December 21) and spring and fall equinoxes (March 21 and September 21) and one additional representative day (May 6 or August 6). The

analysis shows that there would be some incremental shadow on the Church of St. Luke & St. Matthew early on the December 21st analysis day, but it would be within 90 minutes from sunrise, and there would be some incremental shadow on the Lowry Triangle, but it would be within 90 minutes of sunset. Additionally, these resources would already receive shadow from nearby intervening buildings. The analysis concludes that the Proposed Actions would therefore not result in significant adverse shadows impacts, and no further analysis is warranted.

Historic and Cultural Resources

A detailed analysis related to historic and cultural resources is included in this EAS. Historic and cultural resources include both archaeological and architectural resources. The New York City Landmarks Preservation Commission (LPC) was consulted as part of this environmental review and they determined that the project site has no archaeological significance; therefore, this analysis focuses on architectural resources only. There are six known architectural resources and no potential architectural resources located in the 400-foot study area: the Clinton Avenue Historic District (S/NR-eligible), 547-555 Clinton Avenue (individually S/NR eligible), the Clinton Hill South Historic District (S/NR-listed), Prospect Heights Historic District (S/NR-listed; LPC designated), the Church of St. Luke and St. Matthew (S/NR-listed; LPC designated), and the Co-Cathedral of St. Joseph/St. Teresa of Avila and former St. Joseph's School (S/NR-eligible) . None of these resources are within 90 feet of the Project Area. While the Proposed Actions would result in taller buildings with more modern design than the architectural resources in the study area, the new development would not adversely impact the visibility or context of these architectural resources because the architectural resources would be located away from the Project Area and do not have meaningful visual or contextual relationships to the Project Area. The development permitted by the Proposed Actions would moreover not obstruct public views of any known architectural resources in the study area. the Proposed Actions would not introduce incompatible visual, audible, or atmospheric elements to a resource's setting, nor would it isolate a resource from its relationship with the streetscape. Therefore, the Proposed Actions would not result in any significant adverse impacts on historic and cultural resources, and no further analysis is warranted.

Urban Design and Visual Resources

A detailed analysis related to urban design and visual resources is included in this EAS. The analysis finds that while the development resulting from the Proposed Actions would result in physical alterations beyond those allowed by existing zoning, the Proposed Actions would not adversely affect urban design features in the study area so that the context of a natural or significant built resource is adversely altered. The Proposed Actions would not significantly affect urban design or visual resources, or the pedestrian's experience of these characteristics of the built and natural environment. The Proposed Actions would not adversely impact the vitality, the walkability, or visual character of the area. Therefore, the Proposed Actions would not result in any significant adverse impacts to urban design and visual resources, and no further analysis is warranted.

Hazardous Materials, Air Quality, and Noise

An (E) designation (E-642) 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 ANNABELLE MEUNIER at +1 212-720-3426.

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 | 212.720.3328
NAME Stephanie Shellooe, AICP	DATE September 17, 2021
SIGNATURE	
TITLE Acting Chair, City Planning Commission	
NAME Kenneth Knuckles	DATE September 20, 2021
SIGNATURE	

Project Name: 870 - 888 Atlantic Avenue Rezoning
CEQR # 21DCP146K
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	BK	Block 1122, Lots 21 and 26
Projected Development Site 2	BK	Block 1122, Lots 14, 15, and 16
Projected Development Site 3	BK	Block 1122, Lot 11

(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-642**) would be established as part of approval of the proposed actions on **Projected Development Sites 1, 2 and 3** as described below:

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

Hazardous Materials

The (E) designation requirements applicable to **Projected Development Sites 1, 2 and 3** 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.

Project Name: 870 - 888 Atlantic Avenue Rezoning
CEQR # 21DCP146K
SEQRA Classification: Type I

Air Quality

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

Projected Development Site 1 (Block 1122, Lots 21 and 26)
Any new residential, community facility and/or commercial development must exclusively use natural gas as the type of fuel for the heating, ventilating, and air conditioning (HVAC) and hot water systems. If the HVAC and hot water systems exhaust through a single stack, the stack must be located at the highest tier and at least 190 feet above grade; If the HVAC and hot water systems exhaust through two separate stacks, the western-most exhaust stack must be located at the highest tier and at least 190 feet above grade, and at least 30 feet away from the lot line of Lot 21 facing Vanderbilt Avenue, and the eastern-most exhaust stack must be located at the highest tier and at least at least 180 feet above grade and at least 125 feet away from the lot line facing Vanderbilt Avenue to avoid any potential significant adverse air quality impacts.

Projected Development Site 2 (Block 1122, Lots 14, 15, and 16)
Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for the HVAC and hot water systems, be fitted with low NOx (30 ppm) burners and ensure the exhaust stack(s) is located at the highest tier and at least 185 feet above grade to avoid any potential significant adverse air quality impacts.

Projected Development Site 3 (Block 1122, Lot 11)
Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for the HVAC and hot water systems, be fitted with low NOx (30 ppm) burners, and ensure the exhaust stack(s) is located at the highest tier and at least 178 feet above grade to avoid any potential significant adverse air quality impacts.

Noise

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

Projected Development Site 1 (Block 1122, Lots 21 and 26)
To ensure an acceptable interior noise environment, future residential/community facility uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on all facades in order to maintain an interior noise level not greater than 45 dBA for residential and community facility uses. To maintain a closed-window condition, an alternate means of ventilation must also be provided. An alternate means of ventilation includes, but is not limited to, air conditioning.

Projected Development Site 2 (Block 1122, Lots 14, 15, and 16)
To ensure an acceptable interior noise environment, future residential uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on all facades in order to maintain an interior noise level not greater than 45 dBA for residential uses. To maintain a closed-window condition, an alternate means of ventilation must also be provided. An alternate means of ventilation includes, but is not limited to, air conditioning.

Projected Development Site 3 (Block 1122, Lot 11)
To ensure an acceptable interior noise environment, future residential uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on all facades in order to maintain an interior noise level not greater than 45 dBA for residential uses. To maintain a closed-window condition, an alternate means of ventilation must also be provided. An alternate means of ventilation includes, but is not limited to, air conditioning.

Attachment A: Project Description and Screening Analyses

A. INTRODUCTION

Y&T Development LLC (the "Applicant") is seeking a zoning map amendment, a zoning text amendment, and special permits (the "Proposed Actions") to facilitate the development of a mixed-use building at 870-888 Atlantic Avenue, Brooklyn. The Applicant controls two properties that make up the 870-888 Atlantic Avenue site (Block 1122, Lots 21 and 26; the "Development Site"). The Proposed Actions include a zoning map amendment that would rezone the Development Site and several adjacent properties to the west (Block 1122, Lots 11, 12, 14, 15, 16, and a portion of [p/o] Lot 10) from the existing M1-1 zoning to C6-3A (R9A equivalent). For the purposes of this assessment, the Development Site and the additional lots to be rezoned collectively constitute the "Project Area" or "Rezoning Area" (see **Figure A-1**). The Proposed Actions would also include a zoning text amendment to Appendix F of the Zoning Resolution (ZR) to designate the Project Area as a Mandatory Inclusionary Housing Area and to modify ZR 35-66 to allow a 20-foot sidewalk along Atlantic Avenue, as well as a special permit pursuant to ZR 74-533 to reduce the number of accessory parking spaces required. The Proposed Actions would facilitate the development of a 17-story (up to 175-foot tall), approximately 211,560 gross square foot (gsf), mixed-use building on the Development Site (the "Proposed Project").

B. PROJECT DESCRIPTION

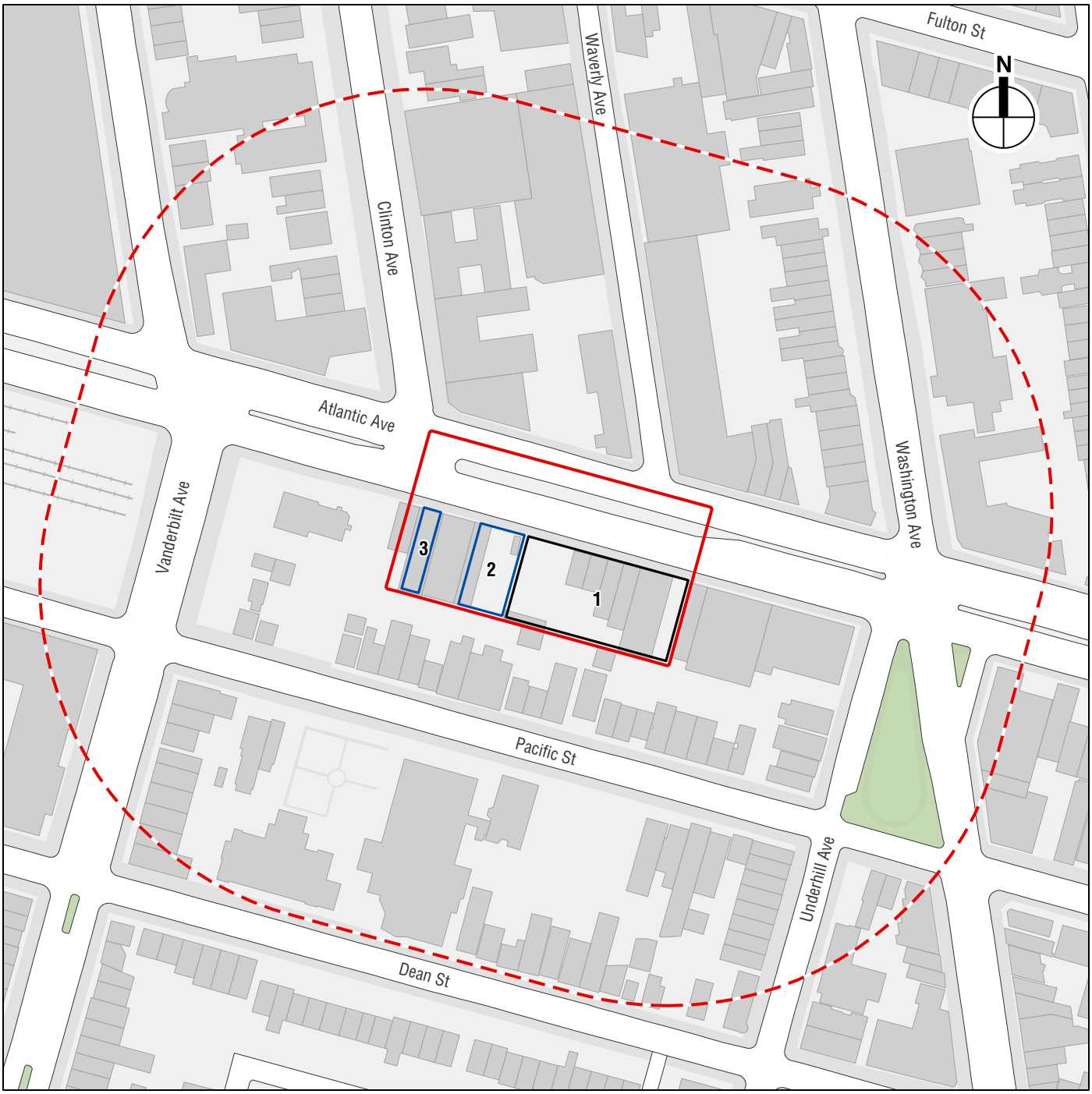
DESCRIPTION OF THE PROJECT AREA

The Project Area includes the Development Site (Block 1122, Lots 21 and 26), which is controlled by the Applicant, as well adjacent properties to the west (Block 1122, Lots 11, 12, 14, 15, 16, and p/o Lot 10) that would also be rezoned under the Proposed Actions, some of which are anticipated to see development as a result (see **Figure A-2**).

The Development Site (also known as Projected Development Site 1) is approximately 20,000 square feet (sf) in size with approximately 200 feet of frontage on Atlantic Avenue. Lot 21, the larger of the two component properties at approximately 18,000 sf, currently contains six attached two-story mixed-use buildings with ground floor retail uses (approximately 6,700 gsf) and six DUs above. A used car dealership lot located in the western portion of the property. Lot 26, the other component property of the Development Site, is an unimproved, approximately 2,000 sf vacant lot currently used for parking.

The remainder of the Project Area is composed of Projected Development Site 2 (Lots 14, 15, and 16), Projected Development Site 3 (Lot 11), and Lot 12 and p/o Lot 10 which are not anticipated to see development. The approximately 6,000-sf Projected Development Site 2 is controlled by a single entity and currently contains a one-story warehouse building and accessory parking lot. Projected Development Site 3 is approximately 2,700 sf and is also controlled by a single entity and contains a one-story automotive repair and sales garage. Lot 12 has an area of approximately 4,000 sf and contains a four-story mixed-use building with an approximately 3,200-gsf hardware

9.3.20



Project Area

Development Site (Projected Development Site 1)

Non-Applicant Owned Projected Development Sites

Study Area (400-foot perimeter)

Project Location

870-888 ATLANTIC AVENUE REZONING

Figure A-1

Tax Map

870-888 ATLANTIC AVENUE REZONING

Figure A-2

store on the ground floor and seven DUs[1] above. The eastern 20 feet of Lot 10 that would be rezoned under the Proposed Actions is included in the Project Area. Lot 10 currently contains a three-story mixed-use building with an approximately 800-gsf restaurant/bar on the ground floor and two DUs above.

Table A-1
Properties Affected by the Proposed Actions

Block	Lot	Address
Development Site (Projected Development Site 1)		
1122	21	870-878 Atlantic Avenue
	26	888 Atlantic Avenue
Projected Development Site 2		
1122	14	864 Atlantic Avenue
	15	866 Atlantic Avenue
	16	868 Atlantic Avenue
Projected Development Site 3		
1122	11	858 Atlantic Avenue
Additional Property in the Project Area*		
1122	p/o 10**	856 Atlantic Avenue
	12	860 Atlantic Avenue

***No development is anticipated on Block 1122, p/o Lot 10 or Lot 12 as a result of the Proposed Actions
** The eastern 18-foot portion of Lot 10 is located within the proposed rezoning area and therefore is included within the Project Area.

PROPOSED ACTIONS

The Proposed Actions include the following:

1. A zoning map amendment to rezone the Project Area from the existing M1-1 manufacturing district designation to a C6-3A commercial district designation (R9A equivalent), see **Figure A-3**.
2. Zoning text amendments to:
   a. Appendix F of the New York City Zoning Resolution (ZR) to designate the Project Area as a Mandatory Inclusionary Housing Area (MIHA); and
   b. ZR Section 35-66 to provide flexibility in the street wall requirements to allow a 20-foot sidewalk along Atlantic Avenue within the Project Area.
3. A special permit pursuant to ZR Section 74-533 to reduce the number of accessory parking spaces required under the proposed zoning.

PURPOSE AND NEED

The Proposed Actions would facilitate the redevelopment of the Development Site and increase residential space and permanently affordable DUs in the Project Area. The Project Area is within the Transit Zone, and has nearby access to the A and C subway lines at the Clinton-Washington Avenue station (0.2 miles from the Development Site) and the Long Island Railroad at the Atlantic Terminal station (0.7 miles from the Development Site). In the applicant's opinion, the proposed

[1] The DUs are assumed to be rent stabilized because the building contains at least six units and was built prior to 1976.

Existing and Proposed Zoning

870-888 ATLANTIC AVENUE REZONING

Figure A-3

mixed-use development would be consistent with existing mixed uses in the area, which include 18- and 19-story mixed-use buildings to the west of the Project Area. The Applicant intends to create a new mixed-use development that would increase the amount of DUs, including permanently affordable DUs, retail, and community facility space in the local Prospect Heights area.

The proposed zoning map amendment is required to facilitate the Proposed Project as the existing M1-1 zoning within the Project Area precludes residential uses. The proposed C6-3A zoning would facilitate the proposed residential density, and its allowance of mixed residential, commercial, and community facility uses is in line with the emerging density and mixed-used character of the Atlantic Avenue corridor. The permitted bulk and uses in a C6-3A district (R9A equivalent) are consistent with what is permitted in the other existing commercial zoning districts mapped along Atlantic Avenue (C4-4A, C6-1, C6-2, C6-3A, C6-4) and with the prevailing trend towards mixed-uses at higher densities in the surrounding area. The C6-3A district in particular allows for the residential density required for the proposed project while also allowing a substantial amount commercial and community facility uses to help facilitate active neighborhood uses along Atlantic Avenue. Additionally, the built context of the south side of Atlantic Avenue has increased in density with the introduction of the Pacific Park development to the west. The proposed C6-3A district would act as a continuation of this density while stepping down in height towards the lower density districts to the west.

The residential component would include new permanently affordable DUs through the proposed zoning text amendment's application of an MIH area to the Project Area. The applicant proposes to map MIH Option 2 and Option 4, which would require new development to set aside 30 percent of residential floor area for permanently affordable housing, ensuring new development addresses the need for new permanently affordable housing in Brooklyn Community District 8.

The proposed text amendment to widen the sidewalk along Atlantic Avenue would enhance the streetscape adjacent to the Project Area, and accommodate the increased pedestrian activity that would be created by the new development. The proposed special permit for a parking waiver would limit the amount of loading and parking on Atlantic Avenue, and would improve pedestrian safety and retail continuity.

BACKGROUND AND PRIOR ACTIONS

The area has historically been occupied primarily by office, manufacturing, and residential uses. According to Certificates of Occupancy, the Development Site has historically contained factory uses, metal finishing and spraying, residential uses on upper stories, and auto sales. The Development Site has been zoned as an M1-1 manufacturing district since the introduction of zoning districts in 1961, but the surrounding area has increasingly been rezoned for residential and commercial uses. Prior rezonings in the vicinity of the Project Area include the following:

- A rezoning of the southern portion of Block 1122 adjacent from the Project Area from M1-1 to an R6 residential designation in 1975;
- The Fort Greene/Clinton Hill Rezoning (ULURP#: C070430 ZMK), undertaken by the New York City Department of City Planning (DCP) in 2007, rezoned the area near the Project Site north of Atlantic Avenue from M1-1 to R6A, R6B, and R7A contextual residential districts while also introducing C2-4 and C2-5 commercial overlays on Atlantic Avenue and other select streets as part of the area-wide rezoning effort;

- The 470 Vanderbilt Avenue Rezoning (ULURP#: C090441 ZMK), initiated by a private applicant, rezoned Brooklyn Block 2009 to the northwest of the Project Area from a M1-1 and R6 (with a C2-3 commercial overlay) to a C6-3A commercial district and mapped it as an Inclusionary Housing Designated Area in 2009 to facilitate the development of a new mixed-use building; and
- The 809 Atlantic Avenue Rezoning (ULURP#: C199071 ZMK), also initiated by a private applicant, rezoned the southernmost portion of Block 2010 in 2019 from R7A with a C2-5 commercial overlay (designations that were introduced by the aforementioned Fort Greene/Clinton Hill Rezoning) to an R9 district with a C2-5 commercial overlay (with a small area also rezoned to R6A to better match zoning to lot boundaries) and mapped it as MIHA in order to facilitate the development of two mixed-use buildings.
- The 840 Atlantic Avenue Rezoning (ULURP#s: 210249 ZMK, 210250 ZRK), also initiated by a private applicant, is proposing to rezone the western portion of Block 1122 (adjacent to the Project Area) from M1-1 and R6B to C6-3X and map it as an MIHA, and is proposing a text amendment to create a new ZR Section 35-662 to allow flexibility in the location of street wall to facilitate the development of new 18-story mixed use residential and commercial/community facility building.

DESCRIPTION OF THE PROPOSED PROJECT

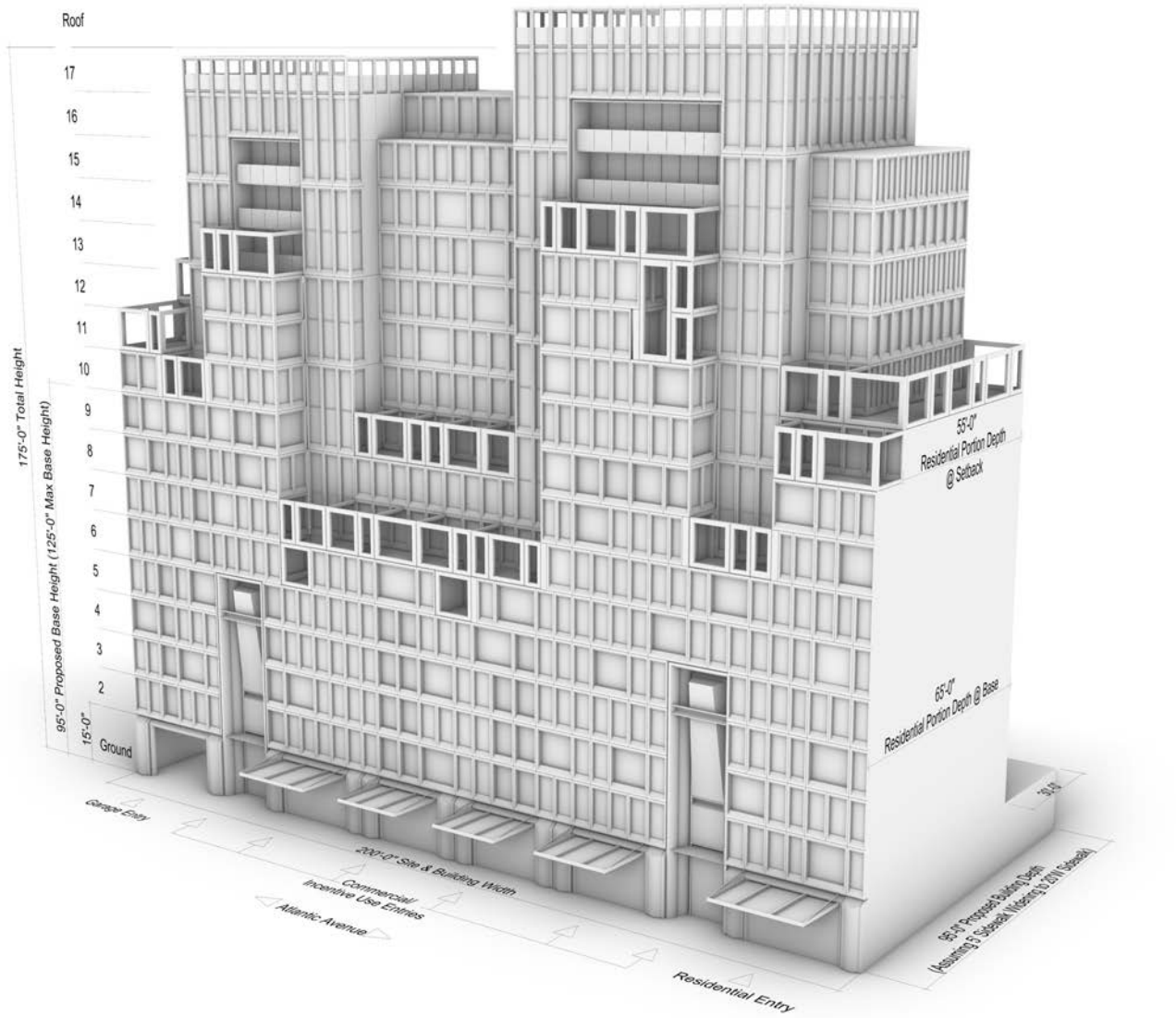
The Proposed Actions would facilitate the development of an approximately 211,560-gsf mixed-use building on the Development Site (the Proposed Project). The building would have 17 stories, be 175 feet tall with a base height of 95 feet, and would occupy approximately 65 percent of the Development Site with a residential lobby, commercial, and community facility uses on the ground floor and DUs above. The building is proposed to contain up to 228 DUs in 181,200 gsf of residential uses, of which approximately 30 percent (69 DUs) would be permanently affordable under the Mandatory Inclusionary Housing (MIH) Program. Commercial uses on the ground floor would include up to 14,600 gsf of local retail and community facility uses on the ground floor would include up to 5,500 gsf of medical office space. There would also be 10,200 gsf of cellar-level parking uses with 40 accessory parking spaces (see **Figures A-4 through A-7**).

The Proposed Project would be facilitated through the Proposed Actions, as under the proposed C6-3A zoning within an MIHA, the Development Site's allowable floor to area ratio (FAR) would increase to 8.5 FAR compared to the currently allowed 1.0 FAR. At 20,000 sf in size, the Development Site could therefore be developed with up to a maximum of 170,000 zoning square feet (zsf) of floor area, with an allowable height of up to 175 feet. As the Proposed Project would be subject to the requirements of MIH under the Proposed Actions, a portion of the residential floor area generated by the proposed rezoning would be set aside for permanently affordable DUs.

C. FRAMEWORK FOR ANALYSIS

DEVELOPMENT SITE AND PROJECT AREA ASSUMPTIONS

As described above, the Proposed Actions, which include zoning changes, would affect the Development Site as well as other adjacent properties to the west of the Development Site that are within the Project Area. In addition to facilitating new development on the Development Site, the Proposed Actions and additional FAR allowed by them are also anticipated to result in new



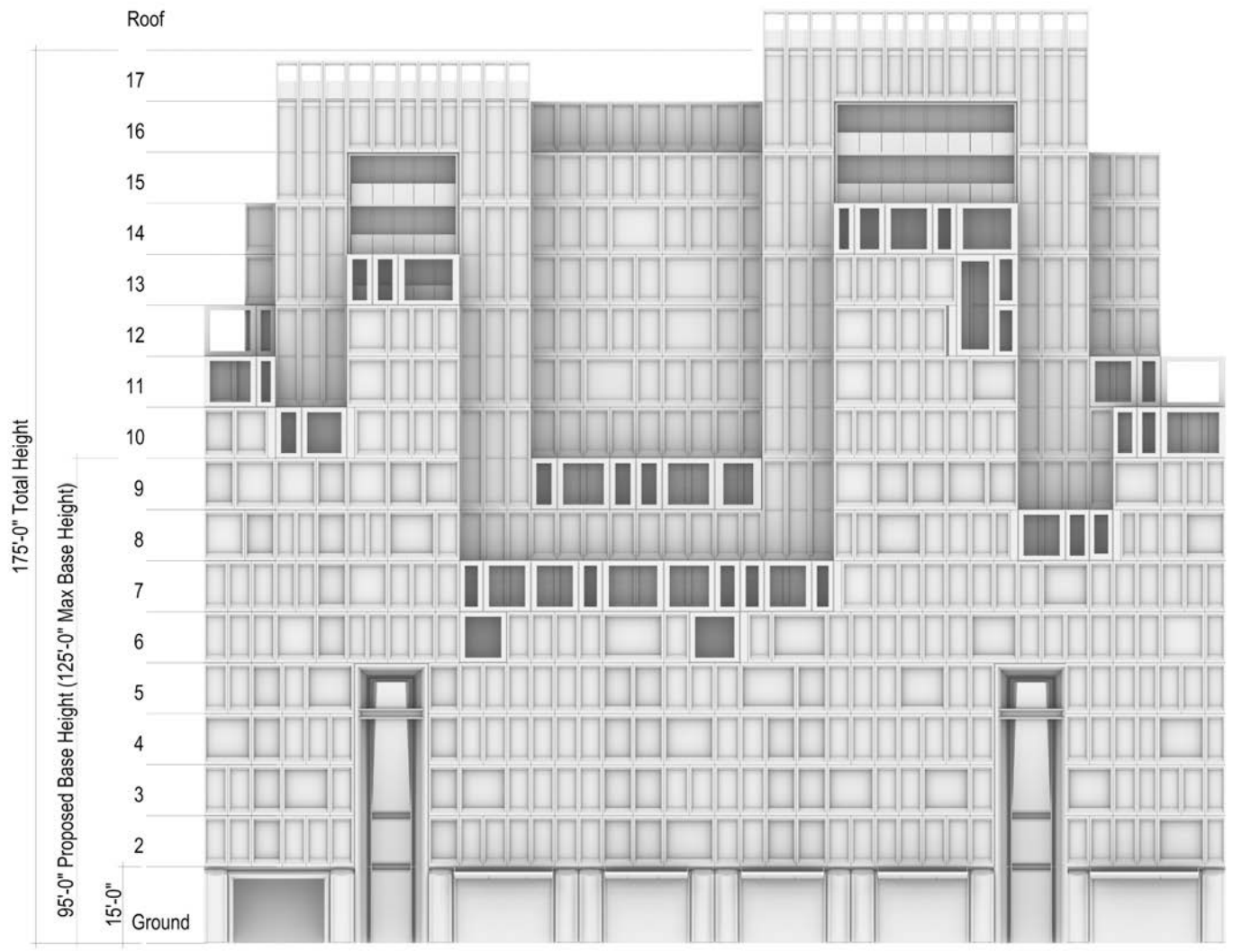
Source: ARCHIMAERA

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Proposed Project: Axonometric Diagram

870-888 ATLANTIC AVENUE REZONING

Figure A-4

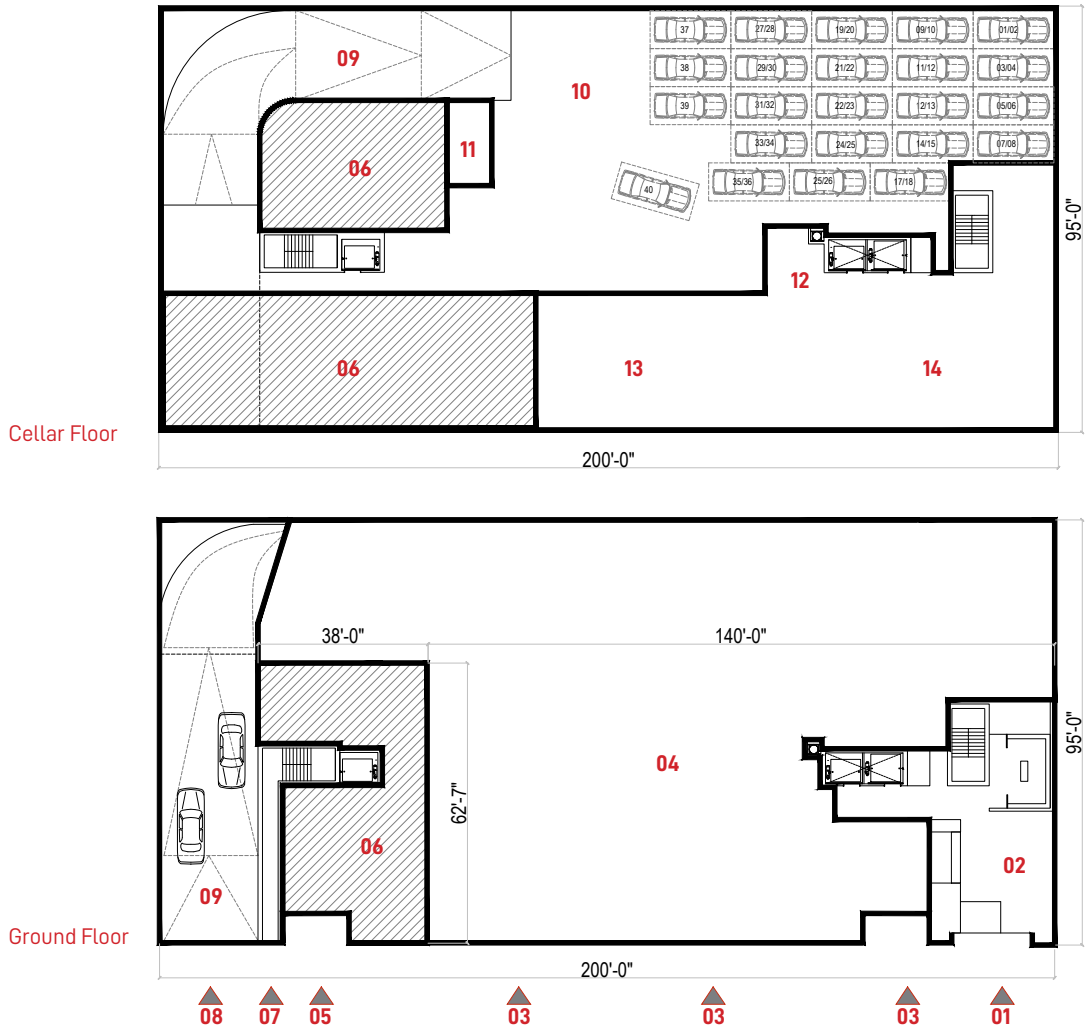


Source: ARCHIMAERA

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Proposed Project: Elevation

Figure A-5



01_Residential Entry

02_Residential Lobby

03_Commercial Entries

04_Commercial Space - 12,700 zsf / 14,660 gsf

05_Incentive Use Entry

06_Incentive Use Space - 1,800 zsf / 5,500 gsf

07_Egress Passage

08_Ramp Entry

09_Ramp to Garage

10_Attended Parking Garage

11_Attendant Office

12_Compactor Room and Trash Storage

13_Mechanical Rooms and Bike Storage

14_Building Amenity

Source: ARCHIMAERA

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Proposed Project: Cellar and Ground Floor Plans

Source: ARCHIMAERA

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

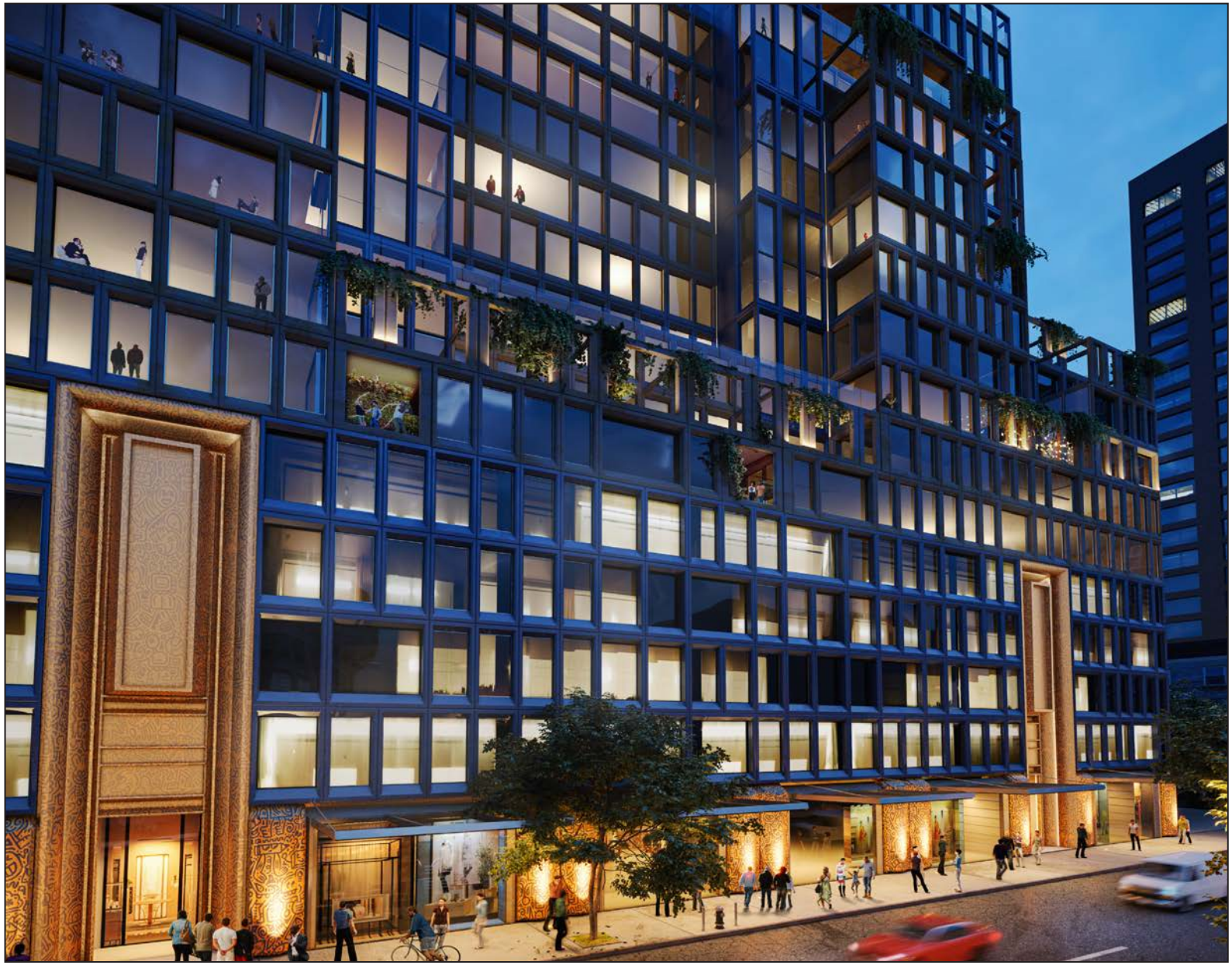
Proposed Project: Renderings

Source: ARCHIMAERA

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Proposed Project: Renderings

Figure A-7b



Source: ARCHIMAERA

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Proposed Project: Renderings

870-888 ATLANTIC AVENUE REZONING

Figure A-7c

development on several of these properties, which are considered to be "soft sites." These sites, in addition to the Development Site, are considered to be projected development sites.

- The Development Site (also known as Projected Development Site 1), would be developed with the Proposed Project up to the maximum FAR of 8.5 allowed under the Proposed Actions, as described above.
- Projected Development Site 2 (Lots 14, 15, and 16) and Projected Development Site 3 (Lot 11) would also see an increase in permitted FAR from 1.0 to 8.5 under the Proposed Actions. These properties are generally underdeveloped (e.g., the existing buildings contain less than half of the floor area that would be permitted under the proposed C6-3A zoning), and are likely to be redeveloped under the Proposed Actions. It is therefore assumed that with the Proposed Actions, these sites would be built out to the maximum allowable 8.5 FAR, of which 7.5 FAR would be residential uses and 1.0 FAR would be for commercial uses (assumed to be local retail). A residential grossing factor of 10 percent and an average DU size of 850 gsf per DU are also assumed.
- Lot 12 is considered unlikely to be redeveloped, as though the allowable FAR would also increase on this site under the Proposed Actions, the existing building contains seven DUs, which are assumed to be rent-stabilized since the building has at least six DUs and was built prior to 1976. According to the criteria listed in the 2020 *City Environmental Quality Review (CEQR) Technical Manual*, sites containing rent-stabilized DUs are typically excluded from development scenarios, as such buildings are difficult to legally demolish due to tenant re-location requirements.
- The portion of Lot 10 within the Project Area would also not be redeveloped as a result of the Proposed Actions, as Lot 10 is included within another land use application, 840 Atlantic Avenue (CEQR#: 20DCP162K), which proposes to develop an 18-story mixed-use building on Lot 10 as well as Lots 1, 9, 68, 69, 70, and 71 to the west of the Project Area.

Construction of the three projected developments is expected to be completed and fully occupied by 2025, which is the Build Year for the Proposed Actions. For each technical area, the analysis includes a description of the existing conditions, and an assessment of the conditions in the Future without the Proposed Actions (the "No Action" condition), and in the Future with the Proposed Actions (the "With Action" condition).

NO ACTION CONDITION

In the No Action condition, the Development Site and other projected development sites within the Project Area are assumed to remain in their existing condition. The existing M1-1 zoning, with its maximum permitted FAR of 1.0, parking requirement of 1 space per 300 sf, and prohibition of residential uses, would remain in place and would likely preclude viable new development consistent with the prevailing trend towards mixed-uses at higher densities in the surrounding area.

WITH ACTION CONDITION

In the With Action condition, the Development Site would be redeveloped with the approximately 211,560-gsf Proposed Project, which would contain approximately 228 DUs approximately 30 percent of which (69 DUs) would be permanently affordable in 181,200 gsf of residential space, 14,600 gsf of local retail uses, 5,500 gsf of medical office uses, and 40 accessory parking spaces. The building would have 17 stories and would be 175 feet tall. Though the Proposed Project has a base height of 95 feet, the With Action condition assumes a base height of 125 feet in order to

conservatively analyze the maximum building enveloped allowed under the Proposed Actions (see **Figure A-8**).

In accordance with the City's MIH policy, under the Proposed Actions (which would map an MIHA for MIH Options 2 and 4), 30 percent of the residential floor area would be designated as affordable housing units for residents with a range of incomes. However, for the purposes of publicly funded early childhood programs, the environmental analysis assumes that 20 percent of the overall residential floor area (approximately 46 DUs) of the RWCDS would be affordable to households with income levels 80 percent or below the Area Median Income (AMI), regardless of which MIH program is used.

In the With Action condition, Projected Development Sites 2 and 3 would also be developed with a combined total of up to 80,475 gsf, including 84 DUs (71,775 gsf residential), of which 25 DUs would be affordable under MIH (20 percent or approximately 16 DUs would be affordable to incomes of 80 percent AMI or below for early childhood program analysis purposes), and 8,700 gsf of local retail uses on the ground floors. The buildings are also assumed to be up to 175 feet tall. The other remaining properties in the Project Area, Block 1122, Lot 12 and p/o Lot 10, are not expected to be developed as a result of the Proposed Actions.

Under the With Action condition, the Development Site and the other projected development sites would contain a total of 312 DUs (94 affordable DUs), 23,360 gsf of local retail uses, and 5,500 gsf of medical office uses. This represents an increment of 306 DUs, 16,660 gsf of local retail uses and 5,500 gsf of medical office uses. The elimination of the existing uses on these sites would result in a decrease of 4,700 gsf of light manufacturing uses, 4,000 gsf of open storage area, and 2,000 gsf of vacant land.

Table A-2
Reasonable Worst Case Development Scenario

Site	Total GSF	DUs	Affordable DUs	Residential GSF	Retail GSF	Community Facility GSF	Light Manufacturing GSF	Open Storage SF	Vacant SF	Accessory Parking Spaces
No Action Condition										
PD1	13,400	6	0	6,700	6,700	0	0	4,000	2,000	0
PD2	2,000	0	0	0	0	0	2,000	0	0	0
PD3	2,700	0	0	0	0	0	2,700	0	0	0
No Action Totals	**18,100**	**6**	**0**	**6,700**	**6,700**	**0**	**4,700**	**4,000**	**2,000**	**0**
With Action Condition										
PD1	211,560	228	69	181,200	14,660	5,500	0	0	0	40
PD2	55,500	58	17	49,500	6,000	0	0	0	0	0
PD3	22,975	26	8	22,275	2,700	0	0	0	0	0
With Action Totals	**290,035**	**312**	**94**	**252,975**	**23,360**	**5,500**	**0**	**0**	**0**	**40**
Increment										
PD1	187,960	222	69	174,500	7,960	5,500	0	-4,000	-2,000	0
PD2	53,500	58	17	49,500	6,000	0	-2,000	0	0	0
PD3	20,275	26	8	22,275	2,700	0	-,2700	0	0	0
Increment Totals	**271,935**	**306**	**94**	**246,275**	**16,660**	**5,500**	**-4,700**	**-4,000**	**-2,000**	**40**

Notes:
PD1 – Projected Development Site 1 (the Development Site, Lots 21 and 26)
PD2 – Projected Development Site 2 (Lots 14, 15, 16)
PD3 – Projected Development Site 3 (Lot 11)

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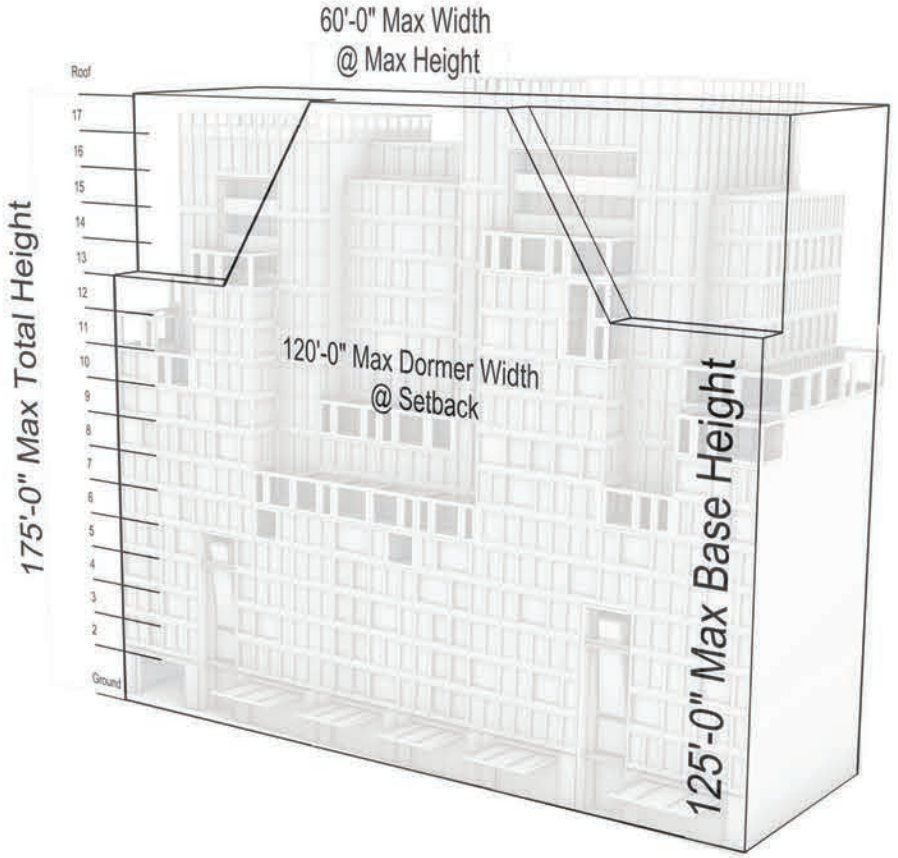


Source: ARCHIMAERA

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

With Action Maximum Zoning Envelope

D. ENVIRONMENTAL ANALYSES

All analyses were performed in accordance with the guidance contained in the *CEQR Technical Manual*. For environmental categories in which the proposed project would not have the potential to result in any significant adverse impacts, no further analysis is necessary. Further assessments of Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Open Space; Shadows; Historic and Cultural Resources; Urban Design and Visual Resources; Hazardous Materials; Transportation; Air Quality; and Noise are provided as part of this EAS.

The identification of potential environmental impacts is based upon the comparison of the No Action and With Action conditions. In certain technical areas (e.g., traffic, air quality, and noise) this comparison can be quantified and the severity of any potential impact rated in accordance with the *CEQR Technical Manual*. In other technical areas, (e.g., urban design) the analysis is qualitative in nature. The methodology for each analysis is presented at the start of each technical analysis. As summarized below and in the attachments to this EAS, the proposed action would not result in any significant adverse environmental impacts.

LAND USE, ZONING, AND PUBLIC POLICY

See Attachment B, "Land Use, Zoning, and Public Policy."

SOCIOECONOMIC CONDITIONS

See Attachment C, "Socioeconomic Conditions."

COMMUNITY FACILITIES AND SERVICES

The Proposed Actions would not displace any community facilities. In addition, the Proposed Actions do not require an analysis of potential indirect effects on community facilities, following the guidance of the *CEQR Technical Manual*:

- Public Schools and Publicly Funded Early Childhood Programs: The Proposed Actions would introduce 306 additional DUs to the project area which would result in approximately 15 new elementary school students, 3 new intermediate school students, 15 new high school students, and 11 children eligible for publicly funded child care, and would be below the thresholds for analysis (50 or more elementary/intermediate school students and 20 or more children eligible for publicly funded child care). Therefore, no further analyses are warranted.
- Libraries: The number of DUs generated by the Proposed Actions does not meet the threshold listed in the *CEQR Technical Manual* (734 DUs for projects in Brooklyn) requiring analysis of indirect impacts to libraries in the area; therefore, an assessment of libraries is not warranted.
- Police/Fire Protection Services and Health Care Facilities: Because the Proposed Actions would not introduce a sizeable new neighborhood, an assessment of police/fire protection services and health care facilities is not warranted.

Overall, the Proposed Actions would not result in any significant adverse impacts to community facilities and services and no further analysis is warranted.

OPEN SPACE

See Attachment D, "Open Space."

SHADOWS

See Attachment E, "Shadows."

HISTORIC AND CULTURAL RESOURCES

See Attachment F, "Historic and Cultural Resources."

URBAN DESIGN AND VISUAL RESOURCES

See Attachment G, "Urban Design and Visual Resources."

NATURAL RESOURCES

A natural resources assessment is conducted when a natural resource is present on or near the project site and when an action involves the disturbance of that resource. The *CEQR Technical Manual* defines natural resources as water resources, including surface waterbodies and groundwater; wetland resources, including freshwater and tidal wetlands; upland resources, including beaches, dunes, and bluffs, thickets, grasslands, meadows and old fields, woodlands and forests, and gardens and other ornamental landscaping; and built resources, including piers and other waterfront structures. The Project Area is occupied by existing buildings, storage yards, and vacant lots currently used for parking and is located in a fully developed area in Prospect Heights. There are no significant natural resources within the Project Area. Therefore, in accordance with *CEQR Technical Manual* guidelines, a natural resources analysis is not warranted and the Proposed Actions would not result in any significant adverse impacts on natural resources.

HAZARDOUS MATERIALS

See Attachment H, "Hazardous Materials."

WATER AND SEWER INFRASTRUCTURE

The Proposed Actions would not result in an increase in the demand for water of more than 1 million gallons per day (gdp). In addition, the Proposed Actions would not result in development exceeding the thresholds of analysis for sewer infrastructure. The Project Area is located in an area served by a combined sewer system, and the incremental development expected with the Proposed Actions would not exceed the applicable threshold for Brooklyn (400 DUs and/or 150,000 sf of commercial space). Therefore, the Proposed Actions would not result in any significant adverse impacts on water and sewer infrastructure.

SOLID WASTE AND SANITATION SERVICES

The *CEQR Technical Manual* states that few projects generate substantial amounts of solid waste (50 tons per week or more) that would result in a significant adverse impact. Based on Table 14-1 of the *CEQR Technical Manual,* the Proposed Actions would generate 17,687 pounds per week of solid waste (approximately 8.84 tons), well under the 50 tons per week.[2] Therefore, the

[2] This number was conservatively calculated by multiplying the projected number of residents anticipated within the Project Area (743) by a residential rate of 17 pounds of solid waste per week, and the number of employees anticipated within the Project Area (64) by a retail rate of 79 pounds of solid waste per week, based on *CEQR Technical Manual* Table 14-1.

Proposed Actions would not result in any significant adverse impacts to solid waste and sanitation services, and no further analysis is required.

ENERGY

According to the *CEQR Technical Manual*, a detailed assessment of energy impacts is only required for projects that would significantly affect the transmission or generation of energy or that would result in substantial consumption of energy. The Proposed Actions are not expected to generate a substantial new demand for energy and would not affect the transmission or generation of energy.[3] Therefore, the Proposed Actions would not result in significant adverse impacts to energy supply or consumption, and no further analysis is warranted.

TRANSPORTATION

See Attachment I, "Transportation."

AIR QUALITY

See Attachment J, "Air Quality."

GREENHOUSE GAS EMISSIONS

Increased greenhouse gas (GHG) emissions are changing the global climate, which is predicted to lead to wide-ranging effects on the environment, including rising sea levels, increases in temperature, and changes in precipitation levels. According to the *CEQR Technical Manual*, a GHG emissions assessment is typically conducted only for larger projects undergoing an EIS, as well as in certain cases when the project would undergo an EIS and would result in development of 350,000 gsf or greater, when the project is a City capital project, or when the project includes larger-scale power generation or has the potential to fundamentally change the City's solid waste management system. A GHG emissions assessment has not been performed, as the development projected to result from the Proposed Actions do not meet the criteria that would warrant assessment.

NOISE

See Attachment K, "Noise."

PUBLIC HEALTH

Under CEQR, a public health assessment considers if a project will have adverse impacts on public health and, if so, identifies ways to mitigate these effects. A public health assessment is warranted if a project would result in significant unmitigated adverse impacts in the areas of air quality, water quality, hazardous materials, or noise. As the Proposed Actions would not result in significant

[3] The Proposed Actions are expected to consume 38,470,573 additional MBtu's, calculated by multiplying the anticipated residential square footage of 252,975 gsf by the Large Residential rate of 126.7 MBtu/sf, the anticipated local retail square footage of 23,300 gsf by the Commercial rate of 216.3 MBtu/sf, and the anticipated community facility square footage of 5,500 gsf by the Institutional rate of 250.7 MBtu/sf, based on *CEQR Technical Manual* Table 15-1.

adverse impacts in any of the areas that affect public health, a public health assessment is not warranted.

NEIGHBORHOOD CHARACTER

Under CEQR, a neighborhood character assessment considers how elements of the environment combine to create the context and feeling of a neighborhood and how a project may affect that context and feeling. In order to determine a project's effects on neighborhood character, the elements that contribute to a neighborhood's context and feeling are considered together. These elements include land use, zoning, and public policy; socioeconomic conditions; open space; historic and cultural resources; urban design and visual resources; shadows; transportation; and noise. According to the *CEQR Technical Manual*, an assessment of neighborhood character is needed when a proposed project has the potential to result in significant adverse impacts in any of the technical areas presented above or when a project may have moderate effects on several of the elements that define a neighborhood's character. As indicated throughout this EAS, the Proposed Actions would not result in significant adverse impacts in any of the elements that define neighborhood character; therefore, the Proposed Actions would not result in significant adverse impacts on neighborhood character.

CONSTRUCTION

The activities associated with construction of the Proposed Project would be expected to result in conditions typical of construction projects in New York City. According to the Applicant, the overall construction duration of the Proposed Project is anticipated to be approximately 22.5 months and is considered to be short-term (i.e., less than 24 months) in accordance with the *CEQR Technical Manual*. Construction of the proposed building would consist of the following primary construction stages, which would overlap at certain times to achieve the 22.5-month schedule: excavation and foundation (approximately 5 months); superstructure and exteriors (approximately 10.5 months); and interiors and finishing (approximately 14 months and overlaps with the exterior stage of construction for approximately 7 months). The 22.5-month construction schedule is possible, in part, because of minimal support of excavation and excavation work required, favorable soil profiles, an absence of groundwater, a straightforward building superstructure and relatively low height. Additionally, the building design incorporates considerations of construction staging that allow for increased maneuvering space on-site that would ameliorate potential material/trucking ingress/egress bottlenecks that could impact construction timelines. Additional details on the anticipated construction schedule for the Proposed Project developed by the Applicant's Construction Manager is provided in Appendix 1. As with all construction projects, work at the Project Site would result in temporary disruptions to the surrounding area, including occasional noise and dust. However, such effects would be temporary and would be limited to the construction period.

The Proposed Actions are also expected to result in new development on two projected developments sites (Projected Development Sites 2 and 3) in the Project Area. Based on the proposed rezoning and current market and site conditions, these projected developments sites could be constructed by the proposed analysis year of 2025. The buildings that would be developed at each of the two projected development sites under the RWCDS are assumed to be 55,000 and 22,975 gsf, respectively, and would be substantially smaller than the proposed project building. Therefore, a shorter construction duration is expected for these developments and, like the Proposed Project, would be short term.

In addition, based on recently approved city-wide rezoning projects[4], buildings of these sizes typically take approximately 12 to 15 months to complete, with the most intense construction activities in terms of noise levels and air pollutant emissions—demolition, excavation, and foundation work during which a number of large non-road diesel engines may be employed—taking only approximately 2 to 3 months to complete.

Construction activities would be carried out in accordance with New York City laws and regulations, which allow construction activities between 7:00 AM and 6:00 PM on weekdays. If work is required outside of normal hours, necessary approvals would be obtained from the appropriate agencies (i.e., the New York City Department of Buildings [DOB] and New York City Department of Environmental Protection [DEP]). During construction of the Proposed Project, all necessary measures would be implemented to ensure adherence to the New York City Air Pollution Control Code to minimize construction-related air and dust emissions. In addition, construction noise is regulated by the requirements of the New York City Noise Control Code (also known as Chapter 24 of the Administrative Code of the City of New York, or Local Law 113) and DEP's Notice of Adoption of Rules for Citywide Construction Noise Mitigation (also known as Chapter 28). These requirements mandate that specific construction equipment and motor vehicles meet specified noise emission standards; that construction activities be limited to weekdays between the hours of 7:00 AM and 6:00 PM; and that construction materials be handled and transported in such a manner as not to create unnecessary noise. If needed, Maintenance and Protection of Traffic (MPT) plans would be developed for any curb-lane and/or sidewalk closures or narrowing. Approval of these plans and implementation of all temporary closures during construction would be coordinated with the New York City Department of Transportation (DOT)'s Office of Construction Mitigation and Coordination (OCMC).

Overall, through implementation of the measures described above, adverse effects associated with the construction activities would be minimized. Accordingly, the Proposed Actions would not result in significant adverse construction impacts, and no further analysis is required. ✷

[4] New York City Department of City Planning, *East Harlem Rezoning Final Environmental Impact Statement,* September 2017.

Attachment B: Land Use, Zoning, and Public Policy

A. INTRODUCTION

This attachment assesses the potential impacts of the Proposed Actions on land use, zoning, and public policy. According to the 2020 *City Environmental Quality Review (CEQR) Technical Manual* guidelines, a land use analysis evaluates the uses and development trends in the area that may be affected by a proposed action, and determines whether a proposed action is compatible with those conditions or may affect them. The analysis also considers a proposed action's compliance with, and effect on, the area's zoning and other applicable public policies.

The Project Area, coterminous with the proposed rezoning area, is located in the Prospect Heights neighborhood of Brooklyn and includes Block 1122, Lots 11, 12, 14, 15, 16, 21, 26, and portion of (p/o) Lot 10. The Project Area consists of the Development Site (Block 1122, Lots 21 and 26; also known as Projected Development Site 1), controlled by the Applicant, as well as adjacent properties not controlled by the Applicant (Block 1122; Lots 11, 12, 14, 15, 16 and p/o Lot 10) that are located within the proposed rezoning area. The Applicant is proposing a zoning map amendment, a zoning text amendment, and special permits (the "Proposed Actions") to facilitate the development of a 17-story mixed-use building on the Development Site (the "Proposed Project"). The Proposed Project would be up to 175 feet tall with approximately 211,560 gross square feet (gsf) of floor area, including 181,200 gsf of residential uses, with up to 228 dwelling units (DUs) of which 69 DUs would be affordable under Mandatory Inclusionary Housing (MIH), 14,600 gsf of local retail uses, 5,500 gsf of community facility uses (assumed to be medical offices), and 10,200 gsf of cellar-level parking (40 spaces). Two additional sites within the Project Area are anticipated to be redeveloped as a result of the Proposed Actions, Projected Development Site 2 (Block 1122; Lots 14, 15, and 16), and Projected Development Site 3 (Block 1122; Lot 11), with up to 80,475 gsf of new space including 71,775 gsf of residential uses 84 DUs, of which 25 DUs would be affordable under MIH and 8,700 gsf of local retail uses in buildings assumed to be up to 175 feet tall. The final properties in the Project Area (Block 1122, Lot 12 and p/o Lot 10) are not expected to be developed as a result of the Proposed Actions.

As described below, this assessment concludes that the Proposed Actions would not result in significant adverse impacts on land use, zoning, or public policy.

B. METHODOLOGY

According to the *CEQR Technical Manual*, a preliminary land use assessment, which includes a basic description of existing and future land uses and public policy, should be provided for all projects that would affect land use or public policy on a site, regardless of the project's anticipated effects. Accordingly, a preliminary analysis has been prepared that describes existing and anticipated future conditions for the 2025 analysis year, assesses the nature of any changes to these conditions that would be created by the proposed actions, and identifies those changes, if any, that could be significant or adverse.

This analysis of land use, zoning, and public policy examines the area within 400 feet of Project Area, which is the area where the Proposed Actions could reasonably be expected to cause potential effects. As shown on **Figure B-1**, the 400 foot study area roughly extends from approximately the midpoint between Fulton Street and Atlantic Avenue to the north, Washington Avenue to the east, Dean Street to the south, and Vanderbilt Avenue to the west. The Project Area and portion of the study area south of Atlantic Avenue are located in the Prospect Heights neighborhood, and are within the boundaries of Brooklyn Community District (CD) 8. The portion of the study area north of Atlantic Avenue is located in the Clinton Hill neighborhood, and is within the boundaries of Brooklyn CD 2. Sources for this analysis include online resources provided by the New York City Department of City Planning (DCP) and the New York City Department of Buildings (DOB) as well as environmental review documents for other nearby projects.

C. EXISTING CONDITIONS

LAND USE

PROJECT AREA

The Project Area is located in the northern portion of the block bounded by Atlantic Avenue to the north, Underhill Avenue to the east, Pacific Street to the south, and Vanderbilt Avenue to the west, see **Figure B-1**. The Project Area consists of the Development Site and adjacent properties not controlled by the Applicant that are located within the proposed rezoning area.

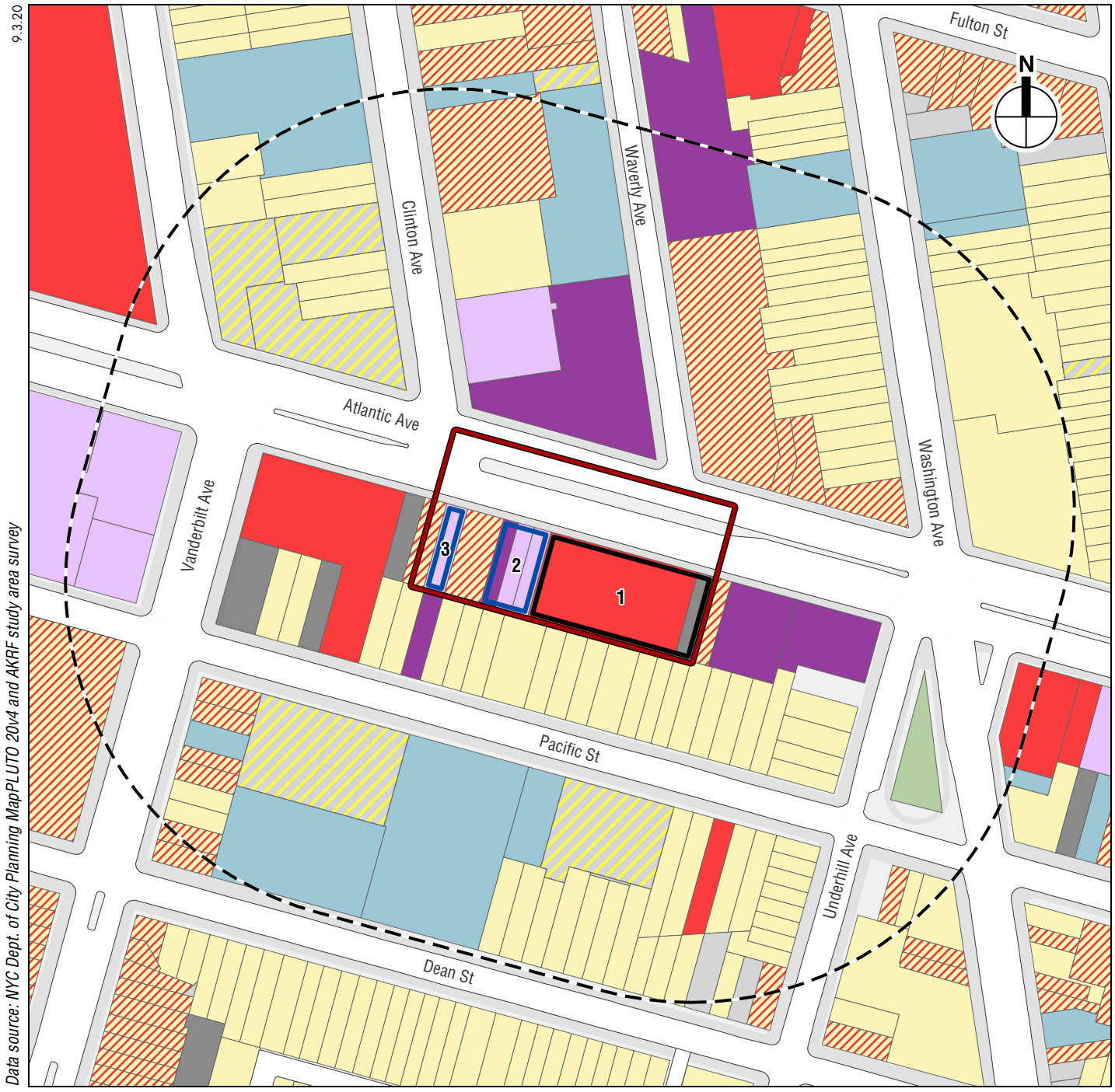
Development Site

The Development Site, also known as Projected Development Site 1, consists of Block 1122, Lots 21 and 26, is controlled by the Applicant, and is approximately 20,000 square feet (sf) with approximately 200 feet of frontage on Atlantic Avenue to the north. Lot 21, the larger of the two component properties at approximately 18,000 sf, currently contains six attached two-story mixed-use buildings with ground floor retail uses (approximately 6,700 gsf) and six DUs above. A used car dealership lot is located in the western portion of the property. Lot 26, the other component property of the Development Site, is an unimproved, approximately 2,000 sf lot currently used for parking.

Remainder of the Project Area

The remainder of the Project Area consists of Block 1122; Lots 14, 15, and 16, forming Projected Development Site 2; Block 1122; Lot 11, forming Projected Development Site 3; and Lot 12 and p/o Lot 10, which are not anticipated to see any development resulting from the Proposed Actions.

Projected Development Site 2, controlled by a single entity, is approximately 6,000 sf with approximately 60 feet of frontage on Atlantic Avenue to the north. All three component properties are approximately 2,000 sf. The site currently contains a one-story warehouse building on Lot 14 with an accessory parking lot on Lots 15 and 16. Projected Development Site 3 is approximately 2,700 sf and contains a one-story automotive repair and sales garage. Lot 12 is approximately 4,000 sf with approximately 40 feet of frontage on Atlantic Avenue to the north. It contains a four-story mixed-use building with an approximately 3,200-gsf hardware store on the ground floor and seven rent-stabilized DUs above. The eastern 18 feet of Lot 10 that would be rezoned under the Proposed Actions is included in the Project Area. Lot 10 currently contains a three-story mixed-use building with an approximately 800-gsf restaurant/bar on the ground floor and two DUs above.



Existing Land Use

STUDY AREA

As shown on **Figure B-1**, the study area contains a mix of manufacturing, residential, mixed residential and commercial, commercial, public facility and institutional, transportation and utility, and parking uses. The study area also contains open space, sites under construction, and vacant land.

The remainder of the Project Area block contains residential, commercial, manufacturing, and parking uses as well as vacant land. A small building with ground floor commercial uses and DUs above and large self-storage facility are located immediately to the east of the Project Area. The Underhill Avenue and Pacific Street frontages of the block are largely occupied by three- to five-story walk-up and elevator residential buildings, with the exception of a single manufacturing use on Dean Street, a single vacant lot on Underhill Avenue, and parking uses associated with the McDonald's drive-thru fast-food restaurant that occupies the northwestern corner of the block to the west of the Project Area.

The block to the south of the Project Area block contains residential, mixed residential and commercial, commercial, and institutional uses, as well as two sites under construction and vacant land. The block is dominated by the Co-Cathedral of St. Joseph/St. Teresa of Avila, located in the center of the block at 856 Pacific Street and spanning the length of the block from Pacific Street to Dean Street. An associated three-story rectory building is located to the east of the church on Pacific Street and an associated four-story senior residence is located to the west of the church on Dean Street. Two buildings are under construction at 860 Pacific Street to the east of the church and at 834 Pacific Street to the west of the church. A single one-story commercial building is located in the eastern portion of the block fronting Pacific Street. The Vanderbilt Avenue frontage of the block contains six three- to four-story mixed-use buildings with commercial uses on the ground floors and DUs above, as well as a Chabad Jewish Center at 569 Vanderbilt Avenue and two residential-only buildings. Two vacant lots fronting Dean Street are located in the southeast corner of the block. The remainder of the block is composed of two- to five-story walk-up and elevator residential buildings.

East of the Project Area block is Lowry Triangle, a public plaza with a statue, landscaping, and seating, The study area extends to the far western portion of the block east of Lowry Triangle, which contains a one-story car wash and house of worship located in a two-story walkup. The block to the south of Lowry Triangle at the southeastern corner of the study area contains residential and mixed residential and commercial uses, located in several three- to four-story walkups and one large six-floor residential building that occupies approximately half of the block.

West of the Project Area block is the Long Island Railroad's below-grade Vanderbilt Yard, the location of future development as part of the Pacific Park redevelopment project. South of the Vanderbilt Yard, at the southwestern portion of the study area, is the 18-story 550 Vanderbilt apartment building with retail uses on the ground floor.

The study area contains the southern portions of three blocks located to the north of Atlantic Avenue between Washington Avenue and Vanderbilt Avenue, and small portions of the blocks located to the east and west of each avenue respectively. The southwest portion of the eastern-most block in the study area, located north of Atlantic Avenue and east of Washington Avenue, contains residential uses in two large three- and seven-story apartment buildings and three four-story walkup residential buildings. The Zion Bible Institute, an institutional use, is located at the edge of the study area north of these residential uses.

The southern portion of block to the west of Washington Avenue that is within the study area includes manufacturing, residential, mixed residential and commercial, and institutional uses. The Bedford Zion Church, and associated parking lot are located midblock fronting Washington Avenue at the northern boundary of the study area. West of this is a two-story manufacturing building fronting Waverly Avenue at the northern boundary of the study area, south of which is the eight-story Waverly apartment building with retail uses on the ground floor that extends to Atlantic Avenue. The remainder of the block within the study area is composed of two three-story walkups and a six-story elevator building with retail on the ground floor and residential uses above that front Atlantic Avenue, north of which are three-story walkup residential buildings fronting Washington avenue.

The next block to the west, directly north of the Project Area across Atlantic Avenue, includes manufacturing, residential mixed residential and commercial, public facility, and transportation and utility uses. The Achievements First Endeavor Middle School is located midblock fronting Waverly Avenue. South of the school are two one-story manufacturing buildings fronting Atlantic Avenue and their associated parking. An eight-story Verizon telephone building is located to the north on the block's Clinton Avenue frontage, north of which is a six-floor elevator residential building. The remainder of the block within the study area north of this includes a 13-story condominium building and Lutheran Social Services institutional use in a three-story walkup.

The block to northwest of the Project Area across Atlantic Avenue, includes residential and institutional uses, as well as two sites under construction. The Church of St. Luke & St. Matthew is located midblock at the northern edge of the study area, spanning between Vanderbilt and Clinton Avenues. South of the church are several residential buildings which include three-story and five-story residential walkups, as well as a seven-story elevator residential building. A construction site at 532 Clinton Avenue is located between these residential structures fronting Clinton Avenue, and the southernmost portion of the block is the location of the under construction 809 Atlantic Avenue mixed-use project. A small portion of the block to the north of Atlantic Avenue and west of Vanderbilt is also within the study area. This entire southern portion of this block is occupied by the 10-story 470 Vanderbilt Avenue, a former manufacturing building converted to office space.

ZONING

PROJECT AREA

The Development Site and Project Area are located in an M1-1 manufacturing district that extends along the southern side of Atlantic Avenue, see **Figure B-2**. M1-1 districts are manufacturing districts with uses that typically include light industrial uses which are subject to performance standards, as well as most commercial uses, including retail, office, and hotels. Residential uses are not permitted in M1-1 districts, and certain community facilities are permitted only by special permit. The maximum manufacturing and commercial floor area ratio (FAR) for an M1-1 district is 1.0, and building heights and setbacks are governed by the sky exposure plane.

STUDY AREA

In addition to the M1-1 district that encompasses the Project Area, the study area also includes R6A, R6B, R7A, R9, and C6-3A districts as well as C1-4, C2-4, and C2-5 commercial overlays, see **Figure B-2**.

Existing Zoning

The Project Area block is split between an M1-1 district along the northern portion and southwest corner of the block, and an R6B district, which occupies the remainder of the block. The M1-1 district extends both eastward and westward along Atlantic Avenue, including the northern portion of the block to the east of the Project Area and the entire block to the west. The R6B district extends to the central and eastern portions of the block to the south. R6B zoning districts are medium-density contextual residential zoning districts. Contextual districts apply mandatory *Quality Housing* lot coverage and height and setback regulations intended to produce buildings set at or near the street line, that are compatible with older buildings in traditional residential neighborhoods. The maximum residential and community facility FAR in an R6B district is 2.0, with a maximum building height of 50 feet.

East of this R6B district, in the southeastern portion of the study area, is an R6A district. Similar to R6B district, R6A districts are also medium-density contextual residential zoning districts in which *Quality Housing* bulk regulations are mandatory. The maximum residential and community facility FAR in an R6A district is 3.0, with a maximum building height of 70 feet. The southwestern portion of the study area along Vanderbilt Avenue south of Pacific Street, west of the R6B district described above, is zoned as an R7A district. R7A districts are similar to the R6A districts, as both are medium-density contextual residential zoning districts, but R7A are slightly denser than their R6A counterparts. The maximum residential and community facility FAR in an R7A district is 4.0, with a maximum building height of 80 feet.

Another R7A district is located to the north of Atlantic Avenue, spanning along Atlantic Avenue to the east of Clinton Avenue as well as northwards along Waverly Avenue to the north of the Project Area. This R7A district, mapped as part of the Fort Greene/Clinton Hill Rezoning in 2007, is also part of an Inclusionary Housing Designated Area (IHDA), under which the maximum base residential FAR is reduced to 3.45, increasing to 4.6 with the application of the IHDA bonus. Another R7A district exists on the east side of Vanderbilt Avenue in the northwestern portion of the study area. The midblock areas in the northern portion of the study area are located in R6A districts (on Clinton Avenue) and R6B districts (on Washington Avenue), also mapped as part of the Fort Greene/Clinton Hill Rezoning.

An R9 district is mapped along the southern end of the block located between Clinton and Vanderbilt Avenues in the northwestern portion of the study area. R9 districts are high-density residential zoning districts typically mapped along major thoroughfares. Buildings in R9 districts can be developed under standard height factor or the alternative *Quality Housing* bulk regulations. Under standard bulk regulations, the maximum residential FAR in an R9 district ranges from 0.99 to 7.52 depending on lot coverage. Community facilities can be developed up to an FAR of 10.0, and maximum building heights are governed by the sky exposure plane. Under *Quality Housing* bulk regulations, the maximum residential FAR in an R9 district is 7.52, and community facilities can be developed up to an FAR of 10.0. The maximum building height is 145 feet on a wide street or 135 feet on a narrow street. This R9 district was also mapped as a Mandatory Inclusionary Housing Area (MIHA), under which a portion of units developed must be permanently affordable.

A C6-3A district is mapped on the block north of Atlantic Avenue and west of Vanderbilt Avenue, at the northwestern boundary of the study area. C6-3A districts are contextual commercial districts which allow medium- to high-density commercial developments such as large hotels, office buildings, department stores, and entertainment facilities. The maximum FAR for commercial uses in a C6-3A district is 6.0. The district also allows residential uses and community facility uses; the residential district equivalent of a C6-3A district is R9A, with a maximum residential FAR of 7.52. This C6-3A district was also mapped as an IHDA area as part of the 470 Vanderbilt

Avenue Rezoning in 2009, under which the maximum permitted residential FAR is reduced to 6.5, increasing to 8.5 with the application of the IHDA bonus.

The study area also contains several commercial overlays, which are paired with residential districts to serve local retail needs. C1-4, C2-5, and C2-5 overlays are present within the study area, which allow a maximum commercial FAR of 2.0 with commercial uses required to be located below residential uses. Compared to C1 overlays which are primarily intended to permit neighborhood retail facilities, C2 overlays permit a wider range of establishments that are not used for day-to-day activities that are found under Use Groups 7, 8, 9, and 14. C1-4 overlays are mapped along either side of Vanderbilt Avenue to the south of Pacific Street, and are paired with an R7A district. C2-4 overlays are mapped in the southeastern portion of the study area, paired with an R6A district as well as along the northern frontage of Atlantic Avenue east of Clinton Avenue and northwards along Waverly Avenue, paired with an R7A district. A C2-5 commercial overlay is paired with the R9 district mapped directly northwest of the Project Area.

The existing zoning districts within the study area are summarized in **Table B-1**.

Table B-1
Existing Zoning Districts in the Study Area

Zoning District	Maximum FAR[1]	Uses/Zone Type
Commercial Districts		
C1-4 overlay	2.0 commercial uses[2]	Commercial overlay mapped within residential districts; local shopping and services
C2-4 overlay	2.0 commercial uses[2]	Commercial overlay mapped within residential districts; includes local shopping and services as well as non-day-to-day retail establishments
C2-5 overlay	2.0 commercial uses[2]	Commercial overlay mapped within residential districts; includes local shopping and services as well as non-day-to-day retail establishments
C6-3A	6.5–8.5 residential uses* 6.00 commercial uses[3]	Medium density in areas outside central business cores
Residential Districts		
R6A	3.0 residential uses 3.0 community facility uses	Contextual residential district, medium-density housing, low-rise buildings with greater lot coverage
R6B	2.0 residential uses 2.0 community facility uses	Contextual residential district, medium-density housing, low-rise buildings with greater lot coverage
R7A	3.45–4.6* residential uses 4.0 community facility uses	Contextual residential district, medium-density housing, low-rise buildings with greater lot coverage
R9	0.99–7.52 residential uses 10.0 community facility uses	Residential district, high-density housing, heights governed by either sky exposure plane or *Quality Housing* bulk regulations
Manufacturing Districts		
M1-1	1.0 manufacturing uses 1.0 commercial uses 2.4 community facility uses[8]	Manufacturing uses for light industrial uses, as well as offices, hotels, and most retail.

Notes:
[1] FAR is a measure of density establishing the amount of development allowed in proportion to the base lot area. For example, a lot of 10,000 sf with a FAR of 1 has an allowable building area of 10,000 sf. The same lot with an FAR of 10 has an allowable building area of 100,000 sf
[2] Within R6-R10 (1.0 commercial within R1-R5)
[3] Up to 20 percent increase for a public plaza bonus
[8] Use Group 4 only
* Within Inclusionary Housing Designated Areas (IHDAs)
Source: *New York City Zoning Resolution*

PUBLIC POLICY

NEW YORK CITY LANDMARKS

As described in more detail in Attachment E, "Historic and Cultural Resources," the study area contains historic resources that have been designated as NYCLs or New York City Historic Districts (NYCHDs) under the New York City Landmarks Law. These include the Church of St. Luke & St. Matthew within the study area, which was NYCL designated in 1981. In addition, a portion of the Prospect Heights Historic District is located with the study area to the southwest of the Project Area. Under the New York City Landmarks Law, all development projects within the boundaries of a historic district are subject to the review and approval of LPC for consistency with the architectural and historic character of the district.

HOUSING NEW YORK: A FIVE-BOROUGH, TEN-YEAR PLAN

In May 2014, the de Blasio administration released *Housing New York: A Five-Borough, Ten-Year Housing Plan* ("*Housing New York*"), a plan to build or preserve 200,000 affordable DUs. To achieve this goal, the plan aims to double the New York City Department of Housing Preservation and Development's (HPD)'s capital budget, target vacant and underused land, protect tenants in rent-regulated apartments, streamline rules and processes to unlock new development opportunities, contain costs, and accelerate affordable construction. The plan details the key policies and programs for implementation, including developing affordable housing on underused public and private sites. In an update released in October 2017 (*Housing New York 2.0*), the City announced a new goal of preserving and/or creating 300,000 affordable DUs by 2026.

ONENYC

In 2011, the Mayor's Office of Long Term Planning and Sustainability released an update to *PlaNYC: A Greener, Greater New York*. It includes policies to address three key challenges the City faces over the next 20 years, including population growth, aging infrastructure, and global climate change. Elements of the plan are organized into six categories—land, water, transportation, energy, air quality, and climate change—with corresponding goals and objectives for each. In 2015, the Mayor's Office of Sustainability and the Mayor's Office of Recovery and Resiliency *released One New York: The Plan for a Strong and Just City* (OneNYC). OneNYC builds upon the sustainability goals established by PlaNYC and focuses on growth, equity, sustainability, and resiliency.

FRESH PROGRAM

The portion of the study area to the south of Atlantic Avenue and east of Vanderbilt Avenue is located within the Food Retail Expansion to Support Health (FRESH) zoning incentive area. This special zoning designation provides zoning incentives to promote the establishment and retention of neighborhood grocery stores in underserved communities throughout the five boroughs. The FRESH program is open to grocery store operators renovating existing retail space or developers seeking to construct or renovate retail space that will be leased by a full-line grocery store operator. Zoning incentives are discretionary and assessed on a per-case basis.

D. FUTURE WITHOUT THE PROPOSED ACTIONS

LAND USE

PROJECT AREA

Absent the Proposed Actions in the future without the Proposed Actions (the "No Action" condition), the Development Site and remainder of the Project Area are assumed to remain in its existing condition and no new development is expected.

STUDY AREA

There are seven developments within the 400-foot study area that are currently under construction or are expected to be completed by the Proposed Project's 2025 analysis year. Additionally, 50 more developments are expected to be completed within approximately ½-mile of the Project Area (see **Appendix B**). Overall, the projects expected to be completed by 2025 are predominantly residential in nature, with an ongoing trend of redeveloping underutilized sites or renovating existing buildings to improve the housing stock. In particular, this trend is expected to introduce more multifamily residential space to the area. Additionally, more residential and commercial development is expected to be built as a result of the Pacific Park project to the west of the Project Area, however, not all remaining buildings of that project are expected to be complete by the 2025 analysis year and therefore only those that are have been included. The projects located in the Land Use study area are summarized in **Table B-2**.

Table B-2
No Action Condition Projects

Reference Number[1]	Project Name/Address	Development Program
400-foot Study Area		
1	809 Atlantic Avenue	Mixed-Use: 333 DU (67 affordable DU), 25,000 gsf local retail, 19,500 gsf office
2	540 Waverly Avenue	Mixed-Use: 135 DU (40 affordable DU), 3,675 gsf local retail, 52 parking spaces
3	834 Pacific Street	Mixed-Use: 113 DU, 2,299 gsf community facility, 66 parking spaces
4	532 Clinton Avenue	Mixed-Use: 14 DU, 5,530 gsf local retail
5	751 Dean Street	Residential: 4 DU
6	860 Pacific Street	Community Facility: 37,096 gsf community facility, 20 parking spaces
7	840 Atlantic Avenue	Mixed-Use: 316 DU (63 affordable DU), 55,175 gsf local retail, 7,800 gsf community facility, 90 parking spaces

Notes:
* For the purposes of analysis, all projects currently planned or under construction listed above are assumed to be complete by the Proposed Project's 2025 analysis year.
** Part of the Pacific Park project
[1] See Figure 1 in **Appendix B**
Sources:
DOB; AKRF field visit, August 2020.

ZONING

No changes to zoning regulations applicable to the Project Area are anticipated by 2025. One zoning change in the study area is anticipated. The proposed rezoning of the western portion of the Project Area block (Block 1122, Lots 1, 9, 68, 69, 70, 71, and a small p/o Lot 10) from the existing M1-1 district to C6-3X and the mapping of the area as an MIHA is anticipated by 2025. The proposed rezoning would occur directly adjacent to the Project Area (to its west) and would facilitate the development of No Action Condition Project #7, 840 Atlantic Avenue.

PUBLIC POLICY

No other changes affecting public policies applicable to the Project Area and Study Area are anticipated by 2025.

E. FUTURE WITH THE PROPOSED ACTIONS

LAND USE

PROJECT AREA

Development Site

In the future with the Proposed Actions (the "With Action" condition), the existing buildings on the Development Site would be demolished and the approximately 211,560-gsf Proposed Project would be constructed in their place. It would contain approximately 228 DUs (of which 69 would be permanently affordable under the MIH program) in 181,200 gsf of residential space, 14,600 gsf of local retail use, 5,500 gsf of community facility (medical office) use, and 40 accessory parking spaces. The building would have 17 stories and would be 175 feet tall. Though the Proposed Project has a base height of 95 feet, the With Action condition will assume a base height of 125 feet in order to conservatively analyze the maximum building enveloped allowed under the Proposed Actions.

Remainder of the Project Area

Under the With Action condition, Projected Development Sites 2 and 3 are also anticipated to be redeveloped with up to 80,475 gsf, including 84 DUs, of which 25 would be permanently affordable under MIH, in 71,775 gsf of residential, and 8,700 gsf of local retail uses on the ground floors. The buildings are also assumed to be up to 175 feet tall. No changes are anticipated on Lot 12 or p/o Lot 10.

STUDY AREA

The Proposed Actions would not result in any land use changes within the study area. The study area would continue to have a mix of manufacturing, residential, mixed residential and commercial, commercial, and public facility and institutional uses. The Proposed Project's residential and community facility uses and anticipated residential and local retail uses on Projected Development Sites 2 and 3 would be consistent with existing uses in the study area, and both the proposed and projected buildings would be shorter than other nearby developments such as 550 Vanderbilt and the under-construction 809 Atlantic Avenue, as well as the proposed development at 840 Atlantic Avenue. In the Applicant's opinion, the Proposed Project would continue the existing study area trends towards increased density and mixed-use development, in

particular along Atlantic Avenue. Overall, the Proposed Project and other development facilitated by the Proposed Actions would be compatible with and supportive of land uses in the surrounding area and would not result in significant adverse land use impacts.

ZONING

The Proposed Actions include a zoning map amendment that would change the existing M1-1 zoning district within the Project Area to a C6-3A commercial district (R9A equivalent), see **Figure B-3**. The Proposed Actions would also include a zoning text amendment to Appendix F of the Zoning Resolution (ZR) to designate the Project Area as an MIHA (mapped for both MIH Option 2 and Option 4[1]). The proposed C6-3A district and designation as an MIHA would permit residential and additional community facility uses compared to existing zoning, as well as allow for higher densities than currently permitted. Under the proposed zoning, the maximum FAR would increase to 8.5 FAR compared to the currently allowed 1.0 FAR, and taller buildings would be possible. As the Project Area would be subject to Mandatory Inclusionary Housing requirements, a portion of the residential floor area generated by the proposed rezoning would be set aside for permanently affordable DUs. The increase in allowable floor area across the Project Area from the proposed zoning is anticipated to result in the development of Projected Development Sites 2 and 3 in addition to the Development Site, as described above.

Additional Proposed Actions including a zoning text amendment to modify ZR 35-66 to provide flexibility in the streetwall requirements to allow a 20-foot sidewalk along Atlantic Avenue within the Project Area and a special permit pursuant to ZR Section 74-533 to reduce the number of accessory parking spaces required under the proposed zoning.

The proposed rezoning from M1-1 to C6-3A, and resulting increase in permissible density and change in permitted uses, would be appropriate and consistent with several other zoning districts located near the Project Area. A similar C6-3A district and an R9 district (the residential equivalent of the proposed C6-3A district) with C2-5 commercial overlay are located to the northwest of the Project Area across Atlantic Avenue. These districts feature commercial and mixed-use developments of similar size to the Proposed Project. Furthermore, the Pacific Park to the west of the Project Area, being developed under a New York State General Project Plan and not requiring a rezoning, is also introducing mixed-use development of similar or greater density than what would be allowed by the proposed C6-3A zoning. The Proposed Project, which would be facilitated by the rezoning and other actions, as well as development resulting on Projected Development Sites 2 and 3, would be similar to other residential and mixed-use buildings in the study area. In the Applicants' opinion, it would be keeping with the ongoing trend of redeveloping the Prospect Heights area and Atlantic Avenue corridor as a mixed-use district with higher-density residential and commercial uses. Therefore, the Proposed Actions would be consistent with existing zoning in the study area and would not result in any significant adverse zoning impacts.

[1] Option 2 mandates that 30 percent of the residential floor area is affordable to income levels that average at least 80 percent AMI, and no income band may exceed 130 percent AMI. Option 4 (Workforce Option) mandates that: 30 percent of the residential floor area is affordable to incomes that average 115 percent AMI; no less than 5 percent of floor area is affordable at 70 percent AMI; no less than 5 percent of floor area is affordable at 90 percent AMI; and no income band may exceed 135 percent of AMI.

Proposed Zoning

PUBLIC POLICY

The Proposed Actions would be compatible and consistent with public policies that currently apply to the Project Area and surrounding study area. In particular, the Proposed Actions would contribute to the goals of *Housing New York* and *OneNYC's* Thriving Neighborhoods goal by providing approximately 94 affordable DUs (an increment of 94 DUs compared to the No Action condition). The Proposed Actions would also contribute to *OneNYC*'s Efficient Mobility goal by facilitating new development in a transit-rich area with easy access to regional employment centers and by reducing the parking requirement within the Project Area, which together would promote the use of more sustainable forms of mobility such as public transit, walking, or cycling. Overall, the Proposed Actions would not result in any significant adverse impacts to public policy. ✷

A. INTRODUCTION

This attachment describes the socioeconomic changes that could result from the Proposed Actions, and assesses whether such changes could result in significant adverse environmental impacts. As detailed in Attachment A, "Project Description and Screening Analyses," the Proposed Actions would facilitate the development of an approximately 211,560-gross square foot (gsf) mixed-use building on the Development Site/Projected Development Site 1 (the "Proposed Project"). The building is proposed to include the following: 181,200 gsf of residential uses (up to 228 dwelling units [DUs] of which approximately 30 percent would be permanently affordable); 14,660 gsf of local retail uses; 5,500 gsf of community facility uses; and 40 cellar-level parking spaces. The Proposed Actions would likely result in the development of two other sites in the Project Area in addition to the Development Site. Projected development on these sites (Projected Development Sites 2 and 3) as a result of the Proposed Actions is anticipated to be up to 80,475 gsf of new space, including 71,775 gsf of residential uses (84 DUs, of which approximately 30 percent would be permanently affordable), and 8,700 gsf of local retail uses.

As stated in the 2020 *City Environmental Quality Review (CEQR) Technical Manual*, the socioeconomic character of an area includes its population, housing, and economic activities. Socioeconomic impacts may occur when a project directly or indirectly affects any of these elements. In accordance with *CEQR Technical Manual* guidelines, this chapter considers whether development resulting from the Proposed Actions could result in significant adverse socioeconomic impacts due to (1) direct displacement of residential population; (2) direct displacement of existing businesses; (3) indirect displacement of residential population; (4) indirect displacement of businesses; and (5) adverse effects on a specific industry.

PRINCIPAL CONCLUSIONS

The analysis finds that the Proposed Actions would not result in significant adverse impacts due to changes in socioeconomic conditions. The following summarizes the findings with respect to each socioeconomic issue area of concern.

DIRECT RESIDENTIAL DISPLACEMENT

A screening-level assessment finds that the Proposed Actions would not result in significant adverse impacts due to direct residential displacement. By 2025, an estimated 14 residents living in six dwelling units (DUs) located within projected development sites in the Project Area would be directly displaced. This potentially displaced population represents less than one percent of the population in the Socioeconomic Study Area, and therefore, their displacement would not have the potential to alter the socioeconomic character of the neighborhood.

DIRECT BUSINESS DISPLACEMENT

Based on employment density ratios widely used in CEQR analyses, there are an estimated 21 workers associated with the seven potentially directly displaced businesses, which is below the 100-employee CEQR threshold warranting assessment. The potentially displaced businesses are not uniquely dependent on their location, do not serve a population uniquely dependent on its location, and are not the subject of other regulations or publicly adopted plans aimed at its preservation. Therefore, the Proposed Project would not result in significant socioeconomic changes as a result of direct business displacement.

INDIRECT RESIDENTIAL DISPLACEMENT

The preliminary assessment of indirect residential displacement finds that the Proposed Actions would not result in significant adverse impacts due to indirect residential displacement. The Proposed Project would not introduce a new population that could substantively alter real estate market conditions that could lead to increased rents in the area. While market-rate renters are expected to have incomes that exceed the study area's average household income, the Proposed Project also would introduce a substantial amount of permanently affordable dwelling units available to households with incomes below the study area average. In the aggregate, the Proposed Project's projected population is anticipated to have a weighted average income that is comparable to the study area's population average annual household income. As the average income of the new population would be similar to the study area's average income, there would be no potential to substantively alter socioeconomic conditions.

INDIRECT BUSINESS DISPLACEMENT

The Proposed Project's commercial development would not be of a scale that would have the potential to substantially influence commercial real estate market conditions. Therefore, the Proposed Project would not result in significant socioeconomic changes as a result of indirect business displacement.

ADVERSE EFFECTS ON SPECIFIC INDUSTRIES

The seven businesses that would be directly displaced do not represent any one industry, and the Proposed Actions do not have the potential to result in significant indirect business displacement. Therefore, the Proposed Actions would not result in adverse effects on a specific industry.

B. METHODOLOGY

Under CEQR, socioeconomic changes 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. In some cases, these changes may be substantial but not adverse. In other cases, these changes may be good for some groups but bad for others. The objective of the CEQR analysis is to disclose whether any changes created by the proposed project would have a significant impact compared with what would happen in the No Action condition.

An assessment of socioeconomic impacts distinguishes between impacts on the residents and businesses in a study area and separates these impacts into direct and indirect displacement for both of those segments. Direct displacement occurs when residents or businesses are involuntarily displaced from the actual site of a proposed project or sites directly affected by it. For example, direct displacement would occur if a currently occupied site were redeveloped for new uses or

structures or if a proposed easement or right-of-way encroached on a portion of a parcel and rendered it unfit for its current use. In these cases, the occupants of a particular structure to be displaced can usually be identified, and therefore the disclosure of direct displacement focuses on specific businesses and a known number of residents and workers.

Indirect or secondary displacement occurs when residents, business, or employees are involuntarily displaced due to a change in socioeconomic conditions in the area caused by a proposed project. Examples include the displacement of lower-income residents who are forced to move due to rising rents caused by higher-income housing introduced by a proposed project. Examples of indirect business displacement include higher-paying commercial tenants replacing industrial uses and when new uses introduced by a proposed project cause commercial rents to increase. Unlike direct displacement, the exact occupants to be indirectly displaced are not known. Therefore, an assessment of indirect displacement usually identifies the size and type of groups of residents, businesses, or employees potentially affected.

Some projects may affect the operation and viability of a specific industry not necessarily tied to a specific location. An example would be new regulations that prohibit or restrict the use of certain processes that are critical to certain industries. In these cases, the CEQR review process may involve an assessment of the economic impacts of the project on that specific industry.

DETERMINING WHETHER A SOCIOECONOMIC ASSESSMENT IS APPROPRIATE

According to the *CEQR Technical Manual*, a socioeconomic assessment should be conducted if a project may be reasonably expected to create socioeconomic changes in the area affected by the project that would not be expected to occur in the absence of the project. The following screening assessment considers threshold circumstances identified in the *CEQR Technical Manual* (italicized below) that can lead to socioeconomic changes warranting further assessment.

DIRECT RESIDENTIAL DISPLACEMENT

Would the Proposed Actions result in the direct displacement of a 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 result in the direct displacement of a total of six DUs located on Projected Development Sites 1 and 3.[1] The DUs located on Projected Development Site 1 (the Development Site) consist of six walk-up apartments, located on Block 1122, Lot 21. Based on the average household size for Brooklyn CD 8 (2.38 persons),[2] collectively the six DUs house an estimated 14 residents who would be directly displaced by the Proposed Actions. This displaced population represents less than 1 percent of the existing population within an approximately ¼-mile radius of the Rezoning Area (17,371 residents)[3] and therefore their displacement would not have the potential to alter the socioeconomic character of the neighborhood. In addition, the

[1] For the purposes of this socioeconomic analysis, it is assumed that the six residential DUs that could be directly displaced by the Proposed Project are not rent-protected. In general, rent stabilized DUs are in buildings built before 1974, contain six or more DUs, and are not co-ops or condos. Rent controlled DUs are those within a building built before 1947 and that have been occupied by the same family since 1971.

[2] Demographic Profile NYC Community Districts, 2010 NYCDCP.

[3] Existing study area population was estimated using the DCP Housing Database: https://www1.nyc.gov/site/planning/data-maps/open-data/dwn-housing-database.page.

displaced population is well below the *CEQR Technical Manual* threshold (500 residents) typically expected to alter the socioeconomic character of a neighborhood. Therefore, the Proposed Project would result in significant adverse impacts due to direct residential displacement, and further assessment of this concern is not warranted.

DIRECT BUSINESS DISPLACEMENT

Would the Proposed Actions result in the direct displacement of more than 100 employees? If so, assessments of direct business displacement and indirect business displacement are appropriate. Would the Proposed Actions result in the direct displacement of 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, an assessment of direct business displacement is warranted.

The Proposed Actions would directly displace five businesses located on the Development Site, and two businesses located on Projected Development Sites 2 and 3. The Development Site includes approximately 6,700 gsf of commercial development including ground floor retail uses and a used car dealership lot located in the western portion of the property (A Class Auto Sales Inc.), as well as an unimproved, approximately 2,000-sf lot currently used for parking. Ground-floor retail uses include Barataria Gallery, Volumes Hair Salon, Queen Virgin Remy (hair replacement), and Living Lighting. Projected Development Site 2 currently contains an approximately 2,000-sf one-story warehouse building and accessory parking lot (restaurant equipment). Projected Development Site 3 includes a one-story automotive repair and sales garage (Ultimate Auto Repair & Sales).

Based on employment density ratios widely used in CEQR analyses, there are an estimated 21 workers associated with the seven potentially directly displaced businesses, which is below the 100-employee CEQR threshold warranting assessment. The products and services produced by the potentially displaced businesses are not uniquely dependent on their location, nor do they serve a population uniquely dependent on their location within the Project Area. There are other businesses within the study area and within the businesses' trade areas that provide similar products and services. The study area contains a mix of manufacturing, residential, mixed residential and commercial, commercial, public facility and institutional, transportation and utility, and parking uses. Overall, the potential displacement of the seven businesses and the employment associated with those businesses does not have the potential to result in significant adverse impacts; further assessment of direct business displacement is not warranted.

INDIRECT RESIDENTIAL DISPLACEMENT

Would the Proposed Actions result in a substantial new development that is markedly different from existing uses, development, and activities within the neighborhood? Residential development of 200 units or less would typically not result in significant socioeconomic impacts. For development exceeding this threshold, assessment of indirect residential displacement is appropriate.

The Proposed Actions would result in 306 incremental residential DUs, which exceeds the 200-DU development threshold identified by the *CEQR Technical Manual* as warranting assessment for potential impacts. Therefore, a preliminary assessment of potential indirect residential displacement is warranted.

INDIRECT BUSINESS DISPLACEMENT DUE TO INCREASED RENTS

Would the Proposed Actions result in a substantial new development that is markedly different from existing uses, development, and activities within the neighborhood? Commercial development of 200,000 square feet or less would typically not result in significant socioeconomic impacts. For projects exceeding this threshold, assessment of indirect business displacement is appropriate.

The Proposed Actions would result in 16,660 gsf of incremental commercial (local retail) space. The anticipated retail uses would be similar to existing uses in the area and would not represent substantial new development; the Proposed Actions' increment is below the 200,000-square-foot CEQR threshold typically warranting assessment. As such, a preliminary assessment of indirect business displacement due to increased rents is not warranted.

INDIRECT BUSINESS DISPLACEMENT DUE TO MARKET SATURATION

Would the Proposed Actions result in a total of 200,000 square feet or more of retail on a single development site or 200,000 square feet or more of region-serving retail across multiple sites? This type of development may have the potential to draw a substantial amount of sales from existing businesses within the study area, resulting in indirect business displacement due to market saturation.

The Proposed Actions would not introduce more than 200,000 square feet of retail development. Therefore, an assessment of indirect business displacement due to market saturation is not warranted.

ADVERSE EFFECTS ON SPECIFIC INDUSTRIES

Are the Proposed Actions expected to affect conditions within a specific industry? This could affect socioeconomic conditions if a substantial number of workers or residents depend on the goods or services provided by the affected businesses, or if a project would result in the loss or substantial diminishment of a particularly important product or service within the City.

The Proposed Actions would not significantly affect business conditions in any industry or any category of business within or outside the study area. As described in screening assessment above, the seven business that would be directly displaced do not represent any one industry, and the Proposed Actions do not have the potential to result in significant indirect business displacement. Therefore, the Proposed Actions would not have an impact on the economic viability in any specific industry or category of business, and a preliminary assessment of this concern is not warranted.

SCREENING ASSESSMENT DETERMINATION

Based on *CEQR Technical Manual* threshold criteria for assessment, the Proposed Actions warrant further assessment of potential indirect residential displacement. This assessment is presented in Section C, "Preliminary Assessment."

ANALYSIS FORMAT

Based on *CEQR Technical Manual* guidelines, the analysis of indirect residential displacement begins with a preliminary assessment. The objective of the preliminary assessment is to learn enough about the potential 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 fully determine the extent of the impacts. In this case, a preliminary assessment was sufficient to

conclude that the Proposed Actions would not result in any significant adverse socioeconomic impacts resulting from indirect residential displacement.

STUDY AREA

Socioeconomic study area boundaries depend on a project's size and characteristics. The *CEQR Technical Manual* suggests that a ¼-mile socioeconomic study area is appropriate so long as the project produces a small (below 5 percent) increase to the population within the approximately ¼-mile area. Under the future with the Proposed Actions (the "With Action" condition), the Proposed Actions would increase the No Action ¼-mile area population by approximately 728 people (3.6 percent), warranting a ¼-mile study area.[4]

Because socioeconomic analysis depends on demographic data, it is appropriate to adjust the study area boundary to conform to the census tract delineation that most closely approximates the desired radius (in this case, a ¼-mile radius surrounding the Rezoning Area). The census tracts that constitute the "socioeconomic study area," or "study area," are shown in **Figure C-1** and include Census Tracts: 163, 199, 201, 203, and 205. The socioeconomic study area is located within Brooklyn Community District 8 and is roughly bounded by Greene Avenue to the north, Sterling/ Park Place to the south, Grand Avenue to the east, and Carlton/Clermont Avenue to the west.

DATA SOURCES

Information used in the analysis of indirect residential displacement was gathered from the U.S. Census Bureau's 2006–2010 and 2014–2018 American Community Survey (ACS) 5-Year Estimates. The New York City Department of City Planning (DCP) NYC Population FactFinder online mapping tool was used to provide comparative census data between geographies and to determine the margin of error (MOE) for single variable ACS estimates presented for the study area.[5] Census data were gathered on population, housing, and income. Data on residential market asking rents within the study area were collected from the real estate listings website StreetEasy.com. Estimates of study area existing and No Action condition residential population are based on data from the DCP Housing Database.

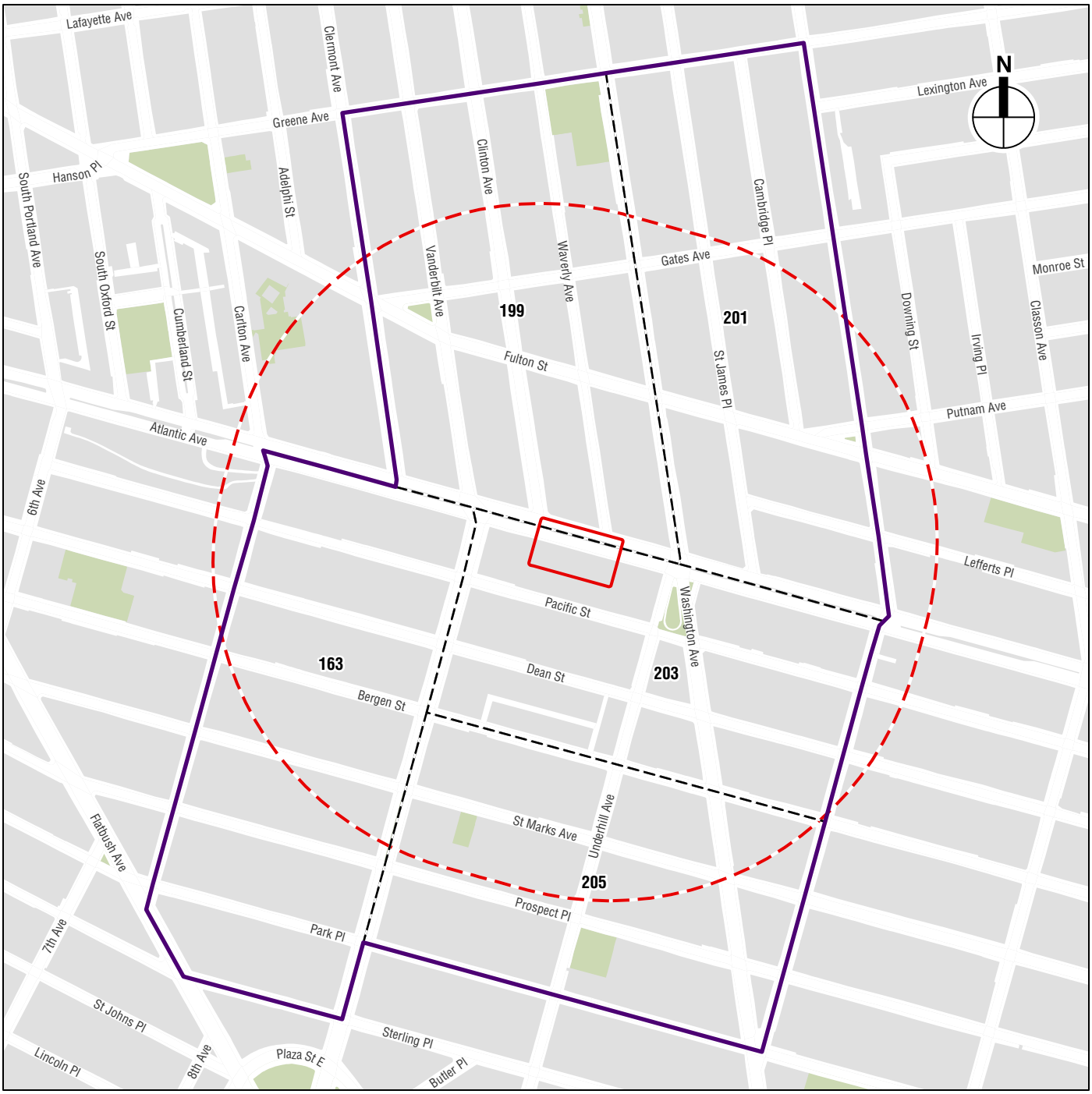
C. PRELIMINARY ASSESSMENT

INDIRECT RESIDENTIAL DISPLACEMENT

As described in the *CEQR Technical Manual*, indirect residential displacement usually occurs when a project results in a substantial new development that is markedly different from existing

[4] The estimated number of incremental residents in the With Action condition is based on the Brooklyn CD 8 average household size of 2.38 people per household, from NYCDCP's 2010 Demographic Profile NYC Community Districts. The estimated No Action ¼-mile population (20,388 residents) is based on existing and planned residential development identified within the study area from the DCP Housing Database.

[5] MOEs describe the precision of an estimate within a 90-percent confidence interval and provide an idea of how much variability (i.e., sampling error) is associated with the estimate. The larger the MOE relative to the size of the estimate, the greater potential for variability within the data. The MOE is partially dependent on the sample size, because larger sample sizes result in a greater amount of information that more closely approximates the population.



Socioeconomic Study Area

870-888 ATLANTIC AVENUE REZONING

Figure C-1

uses and activities within a neighborhood. This can contribute to increased property values and increased rents, which can make it difficult for some existing residents to remain in their homes.

Generally, an indirect residential displacement analysis is conducted only in cases in which the potential impact may be experienced by renters living in privately held DUs unprotected by rent control, rent stabilization, or other government regulations restricting rents, and whose incomes or poverty status indicates that they may not withstand substantial rent increases. Residents who are homeowners, or who are renters living in rent-protected DUs, are not considered potentially vulnerable populations under CEQR.

The assessment begins with a presentation of existing conditions and trends, followed by the *CEQR Technical Manual's* preliminary assessment criteria.

EXISTING CONDITIONS

Based on the 2014–2018 ACS 5-Year Estimates data, in 2018 the study area contained 15,249 residents and 6,804 households.[6] Over half (66.7 percent) of the study area's 7,468 DUs were located within multifamily buildings with fewer than 20 DUs; 23.6 percent of DUs are within buildings of 20 or more DUs, with the remaining approximately 9.7 percent of DUs in single-DU detached or attached buildings. Approximately 68.2 percent of units were renter-occupied, which is similar to the proportions for Brooklyn (70.0 percent) and New York City (67.3 percent).

This analysis uses average and median household incomes to describe the household income characteristics of the study area population. As reported in the 2014–2018 ACS and shown in **Table C-1**, in 2018 the average annual household income within the study area was $137,214 (in 2018 dollars) which was substantially higher than the average annual household income of Brooklyn ($85,910) and New York City ($97,647). Since 2010, the study area's average household income has increased; the study area's ACS data is not robust enough to predict with statistical confidence the percentage change in income since 2010. Over the same time period, the average household incomes increased in Brooklyn (by 18.8 percent) and in New York City (by 8.6 percent).

Table C-1
Average Annual Household Income (2006–2010, 2014–2018 ACS)

Area	2006–2010 ACS[1]	2014–2018 ACS[1]	Change or Direction of Change
Socioeconomic Study Area	$96,234	$137,214	Increase[2]
Brooklyn	$72,316	$85,910	18.8%
New York City	$89,907	$97,647	8.6%

Notes:
1 All dollar figures have been adjusted to 2018 dollars based on the U.S. Department of Labor Consumer Price Index (via Social Explorer and DCP's FactFinder).
2 The margin of error (MOE) of the difference is greater than one third of the difference, so the percentage change cannot be estimated with confidence and only the direction of the change can be reported (i.e., Increase/Decrease).
Sources: U.S. Census Bureau, 2006–2010 and 2014–2018 ACS 5-Year Estimates; DCP's NYC Population Factfinder; Social Explorer.

As average income can be heavily influenced by outliers (both high and low) within the data, the median household income is also presented. As shown in **Table C-2**, in 2018 the median annual

[6] Based on recent housing development identified through the DCP Housing Database, the study area currently has an estimated 17,371 residents and approximately 9,600 households.

household income within the socioeconomic study area was $101,766. This was $45,751 more than the median income for Brooklyn ($56,015), and $41,004 more than the median income for New York City ($60,762). As with average household income data, ACS data is not robust enough to predict within statistical confidence the study area's percentage increase in median household income since 2010.

Table C-2
Median Annual Household Income (2006–2010, 2014–2018 ACS)

Area	2006–2010 ACS[1]	2014–2018 ACS[1]	Change or Direction of Change
Socioeconomic Study Area	$79,508	$101,766	Increase[2]
Brooklyn	$50,284	$56,015	11.4%
New York City	$58,038	$60,762	4.7%

Notes:
1 All dollar figures have been adjusted to 2020 dollars based on the U.S. Department of Labor Consumer Price Index (via Social Explorer and DCP's FactFinder).
2 The margin of error (MOE) of the difference is greater than one third of the difference, so the percentage change cannot be estimated with confidence and only the direction of the change can be reported (i.e. Increase/Decrease).
Sources: U.S. Census Bureau, 2006–2010 and 2014–2018 ACS 5-Year Estimates; DCP's NYC Population Factfinder; Social Explorer.

As shown in **Table C-3**, within the socioeconomic study area, median gross rent in 2018 was approximately $2,014 per month, which was over $600 greater than the median gross rent in Brooklyn ($1,374) and New York City as a whole ($1,396). Median gross rents have increased in the study area since 2010.[7] Over the same time period median gross rents also increased in Brooklyn (by approximately 16.6 percent) and in New York City (by 12.9 percent). For the study area, Brooklyn, and New York City, average rent mirrors the trends in median rent.

Table C-3
Average and Median Gross Rent

Area	2006–2010 ACS		2014–2018 ACS		Change or Percent Change	
	Average[1]	Median[1]	Average[1]	Median[1]	Average	Median
Socioeconomic Study Area	$1,591	$1,605	$2,000	$2,014	--[2]	Increase[3]
Brooklyn	$1,191	$1,178	$1,414	$1,374	18.7%	16.6%
New York City	$1,321	$1,236	$1,470	$1,396	11.3%	12.9%

Notes:
1 All dollar figures have been adjusted to 2018 dollars based on the U.S. Department of Labor Consumer Price Index (via Social Explorer and DCP's FactFinder).
2 As MOE for average gross rent is not reported, the percent change cannot be reported with statistical confidence.
3 The MOE of the difference between 2006–2010 ACS and 2014–2018 ACS data for the study area is greater than one third of the estimated difference. Therefore, a change cannot be estimated with statistical confidence and only the direction of the change can be reported.
Sources: U.S. Census Bureau, 2006–2010 and 2014–2018 ACS 5-Year Estimates; DCP's NYC Population Factfinder; Social Explorer.

U.S. Census data paints a general picture about whether housing costs are changing in a neighborhood, but the data does not provide specific rent information according to regulation status or unit size. Market comparables were therefore used to provide a fuller understanding of

[7] Due to the margin of error of the estimates for the socioeconomic study area, the percent increase in median gross rent from 2006–2010 to 2014–2018 cannot be reported with statistical confidence.

where the study area market is today. **Table C-4** summarizes online listings for apartments in the study area from StreetEasy.com. The median monthly asking rents in the study area ranged from $2,050 for studio units to $3,875 for three-or-more bedroom units. Based on historic asking rent data from StreetEasy.com, median asking rents in Prospect Heights[8] have increased by approximately 25 percent since 2010.

Table C-4
Monthly Rental Asking Rates within the Socioeconomic Study Area

Unit Type	Number of Listings	Median Monthly Asking Rent
Studio	37	$2,050
One Bedroom	58	$2,743
Two Bedroom	53	$3,200
Three+ Bedroom	46	$3,875
Source: StreetEasy.com, accessed September 14, 2020		

FUTURE WITHOUT THE PROPOSED ACTIONS

Development Site

The No Action condition describes a future baseline condition to which changes that are expected to result from the Proposed Actions are compared. As detailed in Attachment A, "Project Description and Screening Analyses," absent the Proposed Actions in the future without the Proposed Actions (the "No Action" condition), the Development Site and Non-Applicant Owned Projected Development Sites within the Project Area are assumed to remain in their existing condition. The existing M1-1 zoning, with its maximum permitted FAR of 1.0, parking requirement of 1 space per 300 sf, and prohibition of residential uses, would remain in place and would likely preclude viable new development consistent with the prevailing trend towards mixed-uses in the surrounding area.

Study Area

As detailed in Attachment B, "Land Use, Zoning, and Public Policy," and Appendix B, "No Action Condition Projects," known development projects that are expected to be built within the ¼-mile study area by 2025 will introduce mostly new residential uses, along with some retail, office, and community facility uses, increasing the density and mixed-use character of the study area. In total and separate from the Development Site, 1,911 new residential units are planned or projected to be built in the study area by 2025, including 409 affordable units.

CEQR PRELIMINARY ASSESSMENT CRITERIA

The following assessment of the future with the Proposed Actions utilizes the *CEQR Technical Manual's* three-step preliminary assessment criteria (in bold italics).

[8] Median asking rent trends available from StreetEasy.com are for a Prospect Heights market area, which is roughly bounded by Atlantic Avenue to the north, Flatbush Avenue to the west, Prospect Park to the south, and Washington Avenue to the east. The study area also falls within the Clinton Hill and Fort Greene market areas as defined by StreetEasy. Clinton Hill's median asking rents has also increased by approximately 25 percent since 2010, while Fort Greene's median asking rents have increased by approximately 16 percent since 2010. The percent increases cited are adjusted for inflation.

Step 1: Determine if the Proposed Actions 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 Proposed Actions.

The Proposed Actions would introduce a combination of market rate and permanently affordable residential units. It is therefore necessary to estimate incomes for the residents of both housing types.

Incomes of Market-Rate Unit Households

As a new housing product, the market-rate DUs would be expected to rent on the higher end of the range of market-rate asking rents in the study area. For purposes of analysis, the median asking rent for the upper half of listings was utilized to estimate market-rate renters' incomes, and it was assumed that households would pay 30 percent of their income toward rent.[9] The resulting projected household incomes, shown in **Table C-5**, range from nearly $100,000 for households residing in studio units to nearly $200,000 for households in three-bedroom units.

The overall average income for market-rate households would depend on the unit mixes on the Projected Development Sites, which is not currently known. For purposes of analysis a weighted average was calculated based on the proportional unit mix found within StreetEasy.com listings, resulting in an average household income of $148,300 for households in market rate units, which is higher than the study area's average household income in 2018 ($137,214).

Table C-5
Annual Household Income Projections for the Proposed Actions' Market-Rate DUs

Unit Type	Projected Monthly Rent	Projected Annual Household Income
Studio	$2,395	$95,780
One Bedroom	$3,000	$120,000
Two Bedroom	$4,326	$173,040
Three bedroom	$4,943	$197,720
Weighted Average Total[1]	**$3,707**	**$148,300**

Note: [1] Total average monthly rent is a weighted total based on the proportional unit mix of 194 study area listings.
Source: AKRF, Inc. based calculations on rental data collected from StreetEasy.com, accessed September 14, 2020.

Incomes for Permanently Affordable Unit Households

The Proposed Actions include the application of the City's Mandatory Inclusionary Housing (MIH) Area zoning to the Rezoning Area. The MIH program sets forth two primary options that are characterized by different affordability levels, which promote a range of affordable development.

- **Option 1**: 25 percent of the residential floor area would be set aside for households making up to 60 percent Area Median Income (AMI) on average, with 10 percent of that amount set aside for households making up to 40 percent AMI.
- **Option 2**: 30 percent of the residential floor area would be set aside for households making up to 80 percent AMI.

[9] Based on U.S. Housing and Urban Development (HUD) affordability guidance where rent is estimated to be approximately 30 percent of total income.

For the Proposed Actions, the following MIH option is also being considered:

- **Option 4**: 30 percent of the residential floor area would be set aside for households making 115 percent AMI on average, with five percent of floor area required at 30 percent AMI, and five percent of floor area required at 90 percent AMI.

New York City AMIs and affordable monthly rents by AMI are shown in **Tables C-6 and C-7**. AMIs are calculated yearly by the U.S Department of Housing and Urban Development (HUD).

Table C-6
2020 New York City Area Median Income (AMI)

Family Size	30% of AMI	40% of AMI	50% of AMI	60% of AMI	80% of AMI	100% of AMI	120% of AMI	130% of AMI	165% of AMI
1	$23,880	$31,840	$39,800	$47,760	$63,680	$79,600	$95,520	$103,480	$131,340
2	$27,300	$36,400	$45,500	$54,600	$72,800	$91,000	$109,200	$118,300	$150,150
3	$30,720	$40,960	$51,200	$61,440	$81,920	$102,400	$122,880	$133,120	$168,960
4	$34,110	$45,480	$56,850	$68,220	$90,960	$113,700	$136,440	$147,810	$187,605
5	$36,840	$49,120	$61,400	$73,680	$98,240	$122,800	$147,360	$159,640	$202,620

Source: U.S. Department of Housing and Urban Development (HUD)

Table C-7
2020 New York City Affordable Monthly Rents by Area Median Income (AMI)

Unit Size	30% of AMI	40% of AMI	50% of AMI	60% of AMI	80% of AMI	100% of AMI	120% of AMI	130% of AMI	165% of AMI
Studio	$397	$567	$738	$909	$1,250	$1,643	$1,985	$2,155	$2,753
1 BR	$503	$717	$930	$1,143	$1,570	$2,060	$2,487	$2,700	$3,446
2 BR	$598	$854	$1,110	$1,366	$1,878	$2,467	$2,979	$3,235	$4,131
3 BR	$683	$978	$1,274	$1,570	$2,161	$2,841	$3,432	$3,728	$4,762

Notes: Assumes tenant pays electricity. Rents are approximate and have been calculated at 30 percent of annual gross income of the target AMI. For low-income bands, rents are based on 30 percent of 27 percent, 37 percent, 47 percent, 57 percent, and 77 percent of AMI.
Source: HUD

Because the level of affordability that would be applied under MIH is not known at this time, for purposes of a conservative analysis, the RWCDS assumes Option 4, which would introduce an estimated 94 permanently affordable units that would be available to households with incomes averaging 115 percent of AMI.[10] Given that the study area's household size averages 2.38 persons per unit, one could expect the incomes of households in the affordable units to average between approximately $100,000 and $113,000, which is below the study area's average household income in 2018 ($137,214).

Average Household Income for the Proposed Project

Table C-8 shows the projected average household income for the residents introduced as a result of the Proposed Actions, when considering both the affordable and market-rate units. To derive this estimate, the average income of market-rate units was multiplied by the total number of incremental market rate units, and the average income of affordable units was multiplied by the total number of affordable units. These two numbers were then added together to determine the

[10] MIH Option 4 was selected for analysis purposes because it results in a greater average income for the overall project population as compared with MIH Options 1 and 2.

aggregate income for all the units, and the result was divided by the total number of units to determine an estimated average income for all units of $134,957.

Table C-8
Weighted Average Income of Incremental With Action Population

	Income	Units	Aggregate Income (Income x Units)
Market rate	$148,300	212	$31,439,600
Affordable[1]	$105,000	94	$9,857,329
Total		**306**	$41,296,929
Weighted Average Income of the With Action Population (Aggregate Income ÷ Total Units)			**$134,957**

Note:
1. Affordable income is based on a weighted average of 80 percent AMI for two- and three-person families, using the study area's average household size of 2.38 persons per unit.

Based on the above-described analysis, the Proposed Actions would be expected to introduce permanently affordable units occupied by households who have an average income that is lower than the average for the existing study area population, while the project's market-rate units would introduce residents who have a higher average household income than the existing study area population. In the aggregate, the Proposed Project's projected average household income of $134,957 would not exceed the average for the existing study area ($137,214). Based on *CEQR Technical Manual* guidelines, if the expected average incomes of the new population would not exceed the average incomes of the study area populations, Steps 2 and 3 of the preliminary assessment are not needed.

The Proposed Actions would introduce permanently affordable DUs available to households with incomes well below the study area average, and would therefore serve to maintain a more diverse mix of incomes within the study area. In addition, the Proposed Project would add permanently affordable housing in an area with an established trend toward increased rents. Overall, the Proposed Actions would not result in significant adverse impacts due to indirect residential displacement, and no further analysis is warranted. ✷

Attachment D: Open Space

A. INTRODUCTION

This attachment assesses the potential impacts of the Proposed Actions on open space resources. Open space is defined in the 2020 *City Environmental Quality Review (CEQR) Technical Manual* as publicly accessible, publicly or privately owned land that is available for leisure, play, or sport or serves to protect or enhance the natural environment. An open space assessment should be conducted if a project would have a direct effect on open space, such as eliminating or altering a public open space, or an indirect effect, such as when a substantial new population could place added demand on an area's open spaces.

The Proposed Actions would facilitate the development of approximately 211,560 gross square feet (gsf) on the Development Site (also known as Projected Development Site 1) at 870-888 Atlantic Avenue, Brooklyn (Block 1122, Lots 21 and 26), including approximately 181,200 gsf of residential space (approximately 228 dwelling units [DUs]), 14,600 gsf of local retail uses, and 5,500 gsf of medical office uses. The Proposed Actions are also anticipated to result in approximately 80,475 gsf of development on Projected Development Sites 2 and 3 (Block 1122, Lots 14, 15, and 16 and Lot 9 respectively), including approximately 71,775 gsf of residential space (approximately 84 DUs) and 8,700 gsf of local retail uses. As discussed in Attachment A, "Project Description and Supplemental Analyses," under the Reasonable Worst Case Development Scenario (RWCDS), the Proposed Actions would result in a net increment of approximately 306 DUs, 16,660 gsf of local retail space, and 5,500 of community facility space.

As discussed in more detail below, the Proposed Actions would result in the introduction of residential uses that would increase the residential population in the Project Area. Therefore, in accordance with *CEQR Technical Manual* guidelines, an open space assessment was conducted to determine whether the Proposed Actions would result in significant adverse open space impacts. This assessment finds that the Proposed Actions would not result in significant adverse open space impacts.

B. METHODOLOGY

As defined by the *CEQR Technical Manual*, open space is accessible to the public on a constant and regular basis, including for designated daily periods. Public open space may be under government or private jurisdiction and typically includes City, state, and federal parkland, esplanades, and plazas designated through regulatory approvals such as zoning. Private open space is not publicly accessible or is available only to limited users. It is not available to the public on a regular or constant basis. Examples of private open space are natural areas with no public access, front and rear yards, rooftop recreational facilities, and stoops or landscaped grounds used by community facilities, such as public and private educational institutions, where the open space is accessible only to the institution-related population.

Open spaces can be characterized as either active or passive depending on the activities the space allows. In many cases, open space may be used for both active and passive recreation. Open space that is used for sports, exercise, or active play is classified as "active open space," and consists primarily of recreational facilities. Passive open spaces are used for relaxation, such as sitting or strolling.

DIRECT EFFECTS

According to the *CEQR Technical Manual*, a proposed action would directly affect open space conditions if any of the following occurs: it causes the loss of public open space; it changes the use of an open space so that it no longer serves the same user population; it limits public access to an open space; or it results in increased noise or air pollutant emissions, odor, or shadows that would temporarily or permanently affect the usefulness of a public open space. This attachment will determine whether the Proposed Actions would directly impact any open spaces within, or in close proximity to, the Project Area.

INDIRECT EFFECTS

As described in the *CEQR Technical Manual*, open space can be indirectly affected by a proposed action if a project would add enough population, either residential or non-residential, to noticeably diminish the capacity of open space in the area to serve the future population. Typically, an assessment of indirect effects is conducted when a project would introduce more than 200 residents or 500 workers to an area; however, the thresholds for assessment are different for areas of the City that have been identified as either underserved or well-served by open space. The Project Area is located within an area that has been identified as well-served, and therefore an assessment of indirect is effects is conducted when a project would introduce more than 350 residents or 750 workers to an area. As described below, since the preliminary assessment of indirect effects to open space identified a low open space ratio in the study area and a project-generated decrease in the study area open space ratio of greater than 1 percent, a detailed assessment of indirect effects on public open space resources was also performed.

In accordance with *CEQR Technical Manual* guidelines, the open space analysis and impact assessment is based on the anticipated development on the development site. As discussed in Attachment A, "Project Description and Supplemental Analyses," the Proposed Actions would introduce up to 306 incremental DUs, which would introduce an estimated 729 residents to the Project Area as compared with the future without the Proposed Actions (the "No Action" condition). However, the Proposed Actions would only introduce approximately 43 new workers to the Project Area as compared to the No Action condition. Therefore, only an open space assessment for the residential population generated by the Proposed Actions is warranted.

STUDY AREA

The *CEQR Technical Manual* recommends establishing a study area as the first step in an open space assessment. The study area is based on the distance that the respective users—workers and residents—are likely to walk to an open space. According to the *CEQR Technical Manual*, workers are assumed to walk approximately 10 minutes, or ¼-mile from their place of work to an open space, while residents are assumed to walk approximately 20 minutes, or ½-mile to an open space.

Because the Proposed Actions would only introduce new residential population above the 350-resident population threshold and not a substantial enough population to exceed the 750-worker

threshold, the adequacy of open space resources was assessed for the ½-mile (residential) study area. This study area was adjusted to include all census tracts with at least 50 percent of their area within the ½-mile boundary. In this way, the study area allows for analysis of both the open spaces in the area as well as population data. As shown on **Figure D-1**, the ½-mile residential study area includes the area within Census Tracts 129.02, 161, 163, 179, 197, 199, 201, 203, 205, 207, 231, and 305. The residential study area is generally bounded by DeKalb Avenue to the north, Bedford Avenue and Franklin Avenue to the east, Park Place and Sterling Place to the south, and 5th Avenue to the west.

ANALYSIS FRAMEWORK

Publicly accessible open spaces and recreational facilities were inventoried to determine their size, character, utilization, amenities, and condition. Open spaces that are not accessible to the general public or that do not offer usable recreational areas, such as spaces where seating is unavailable, were generally excluded from the survey. In accordance with the *CEQR Technical Manual*, publicly accessible open space is defined as facilities open to the public at designated hours on a regular basis and is assessed for impacts using both a quantitative and qualitative analysis, whereas private open space is not accessible to the general public on a regular basis and is considered qualitatively. Field surveys conducted in August 2020 and secondary sources, such as the New York City Department of Parks and Recreation (NYC Parks) and New York City Department of Informational Technology and Telecommunications (DoITT) Geographic information system (GIS) data, were used to determine the number, size, availability, and condition of publicly accessible open space resources in the residential study area. Due to abnormal conditions related to COVID-19, open space utilization information was obtained from the *809 Atlantic Avenue Rezoning EAS* (CEQR#: 18DCP179K), a recently approved environmental review in the study area.

Each open space was determined to be active or passive by the uses that the design of the space allows. Active open space is part of a facility used for active play such as sports or exercise and may include playground equipment, playing fields and courts, swimming pools, skating rinks, golf courses, lawns, and paved areas for active recreation. Passive open space is used for sitting, strolling, and relaxation, and typically contains benches, walkways, and picnicking areas. However, some passive spaces can be used for both passive and active recreation; a green lawn or a riverfront walkway, for example, can also be used for ball playing, jogging, or rollerblading.

With an inventory of available open space resources and potential users, the adequacy of open space in the study area can be assessed both quantitatively and qualitatively. The quantitative approach calculates the ratio of open space acreage to the population in the study area (i.e., acres of open space per 1,000 residents) and compares this ratio with certain guidelines. The qualitative assessment examines other factors that may affect conclusions about adequacy, including proximity to additional resources beyond the study area, the availability of private recreational facilities, and the demographic characteristics of the area's population. Specifically, the analysis in this attachment includes the following:

- Open space study area population and characteristics of the residents likely to utilize study area open spaces. The population of the open space study area was compiled from American Community Survey (ACS) data.
- An inventory of all publicly accessible passive and active recreational facilities in the residential open space study area.

5.17.21

Open Space Study Area

870-888 ATLANTIC AVENUE REZONING

Figure D-1

- An assessment of the quantitative ratio of open space in the study area is calculated by computing the ratio of open space acreage to the residential population in the study area and comparing this open space ratio with certain guidelines. In New York City, local open space ratios vary widely, and the median ratio at the Citywide Community District level is 1.5 acres of open space per 1,000 residents. Typically, for the assessment of both direct and indirect effects, citywide local norms have been calculated for comparison and analysis. As a planning goal, a ratio of 2.5 acres per 1,000 residents represents an area well-served by open spaces, and is consequently used as an optimal benchmark for residential populations in large-scale proposals. Ideally, this would comprise 2.0 acres of active open space and 0.5 acres of passive open space per 1,000 residents. For large-scale projects (and for planning purposes), the City also seeks to attain its planning goal of a balance of 80 percent active open space and 20 percent passive open space. 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.
- An evaluation of qualitative factors affecting open space use.
- A determination of the adequacy of open space in the residential open space study area in existing conditions, the No Action condition, and the With Action condition.
- An assessment of expected changes in future levels of open space supply and demand in the 2025 analysis year, based on other planned development projects within the open space study area. To estimate the population expected in the study area in the No Action condition, an average household size of 2.23 persons is applied to the number of new DUs expected in the study area. Any new open space or recreational facilities that are anticipated to be operational by the analysis year are also accounted for. Open space ratios are calculated for No Action and With Action conditions and compared to determine changes in future levels of adequacy.

DETAILED IMPACT ASSESSMENT

Impacts are based in part on how a project would change the open space ratios in the study area as well as other qualitative considerations. According to the *CEQR Technical Manual*, a decrease in an open space ratio of 5 percent or more compared to the No Action condition is generally considered to be a significant adverse impact. If a study area exhibits a low open space ratio, indicating a shortfall of open space, smaller decreases in that ratio as a result of the action may constitute significant adverse impacts. In addition to the quantitative factors cited above, the *CEQR Technical Manual* also recommends consideration of qualitative factors in assessing the potential for open space impacts. These include the availability of nearby destination resources, the beneficial effects of new open space resources provided by a project, and the comparison of projected open space ratios with established City guidelines. As noted above, it is recognized that the open space ratios of the City guidelines are not feasible for many areas of the City, and they are not considered impact thresholds on their own. Rather, these are benchmarks that indicate how well an area is served by open space.

When assessing the effects of a change in the open space ratio, the assessment should consider the balance of passive and active open space resources appropriate to support the affected population and the condition of existing open spaces within the study area. Determinations as to what constitutes a significant adverse open space impact are not based solely on the results of the quantitative assessment. Qualitative considerations, such as the distribution of open space, whether an area is considered “well-served” or “underserved” by open space, the distance to

regional parks, the connectivity of open space, and any additional open space provided by the proposed project, should be considered in a determination of significance.

C. EXISTING CONDITIONS

STUDY AREA POPULATION

As shown on **Figure D-1** and summarized in **Table D-1**, the study area for the Proposed Actions include 13 census tracts with a total population of 46,939 residents.

Table D-1
Study Area Residential Population

Census Tract[1]	Residential Population
129.02	2,390
161	3,235
163	3,194
179	4,318
197	3,615
199	3,504
201	3,808
203	1,825
205	2,918
207	4,521
227	3,654
231	3,607
305	6,350
Residential Study Area Total	**46,939**

Note:
[1] See **Figure D-1** for a map of census tracks included in the study area.
Source:
U.S. Census Bureau, American Community Survey (ACS) 2014–2018 5-Year Estimates

AGE DISTRIBUTION

Table D-2 summarizes the age distribution of the residential population in the study area and compares this distribution to the age distributions of Brooklyn and New York City as a whole. As shown in **Table D-2**, the study area age distribution is generally similar to Brooklyn and New York City, with some notable variances. Its working adult population (residents 20 to 64 years old) comprises a greater proportion of its population (70.7 percent) when compared with that of Brooklyn and New York City (62.8 percent). Younger residents in the 5 to 9, 10 to 14, and 15 to 19 years old age groups and older residents in the 65 years and over age group also make up smaller proportions of the study area population (3.8, 3.7, 2.80 and 10.9 percent respectively) when compared to that of Brooklyn and New York City (5.6, 5.5, 5.4, and 14.1 percent respectively).

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 five years old or younger use traditional playgrounds that have play equipment for toddlers and preschool children. Children ages five through nine typically use traditional playgrounds as well as grassy and hard-surfaced open spaces, which are important for activities such as ball playing, running, or skipping rope, for example. Children ages 10 through 14 typically use playground equipment, court spaces, and ball

fields. Teenagers and young adults (ages 15 to 19) tend toward court game facilities, such as basketball and field sports. Adults (ages 20 to 64) use court game facilities and sports fields, along with more individualized recreation such as rollerblading, biking, and jogging that require bike paths and vehicle-free roadways. Adults also gather with families for picnicking, active informal sports such as Frisbee, and recreational activities in which all ages can participate. Senior citizens (65 years and older) engage in active recreation such as handball, tennis, gardening, fishing, walking, and swimming, as well as recreational activities that require passive facilities. The range of age groups present in the study area indicates a need for active recreation facilities, passive recreation facilities, and flexible open space areas that can be used for both active and passive recreation, like paths or promenades for running, open areas for informal sports, and benches for seating.

Table D-2
Study Area Population Age Distribution

Age Category	Study Area		Brooklyn		New York City	
	Persons	Percent	Persons	Percent	Persons	Percent
Under 5 Years	2,833	6.0%	193,743	6.5%	551,869	6.5%
5 to 9 Years	1,762	3.8%	162,283	5.6%	476,567	5.6%
10 to 14 Years	1,737	3.7%	154,327	5.5%	464,704	5.5%
15 to 19 Years	1,306	2.8%	141,394	5.4%	455,674	5.4%
20 to 64 Years	34,165	72.7%	1,605,452	62.8%	5,305,538	62.8%
65 Years and over	5,136	11.0%	343,548	14.1%	1,189,361	14.1%
Totals	46,939	100%	2,600,747	100%	8,443,713	100%

Sources: U.S. Census Bureau, American Community Survey (ACS) 2014–2018 5-Year Estimates

STUDY AREA OPEN SPACE RESOURCES – RESIDENTIAL (1/2-MILE) STUDY AREA

Within the residential ½-mile study area, there are 12 publicly accessible open space resources, as shown on **Figure D-1** and summarized in **Table D-3**. These resources contain approximately 10.32 acres of open space. Of this total, approximately 8.23 acres (80 percent) are active open space and 2.09 acres (20 percent) are passive open space. Most resources are operated by NYC Parks.

In addition to the resources included in the quantitative assessment, and consistent with *CEQR Technical Manual* guidance, there are several open space resources that have not been included. These resources, discussed further below, are expected to provide additional open space amenities to study area residents.

Table D-3
Existing Publicly Accessible Open Space Inventory

Map ID[1]	Name/ Location	Owner or Agency	Features	Total Acres of Open Space	Acres of Active Open Space	Acres of Passive Open Space	Condition/ Utilization
1	Greene Playground	NYCParks	Swings, benches, playground equipment, water play features, basketball courts, chess tables, bathrooms, handball courts, asphalt play area	1.26	1.13	0.13	Poor/Moderate[2]
2	Underhill Playground	NYCParks	Playground equipment, benches, swings, water fountains, water play features, bathrooms, asphalt play area	0.59	0.44	0.15	Good/Very High[2]
3	South Oxford Park	NYCParks	Turf athletic area, benches, tennis courts, pathways, playground equipment, art installation, water fountain	1.19	1.07	0.12	Good/High[2]
4	Underwood Park	NYCParks	Swings, fountains, playground equipment, garden area, bathrooms, water play feature, chess tables, eateries (closed)	1.19	0.89	0.30	Adequate/Very High[2]
5	Dean Playground	NYCParks	Playground equipment, swings, benches, water play feature, turf baseball field, basketball courts, picnic tables, water fountains, bathrooms, handball courts	1.30	1.04	0.26	Good/Moderate[2]
6	Cuyler Gore Park	NYCParks	Playground equipment, water play features, grass areas, benches, water fountain, pathways	1.16	0.93	0.23	Adequate/ Moderate[2]
7	Lowry Triangle	NYCParks	Plaza, benches, statue	0.11	0.0	0.11	Poor/Low[2]
8	Crispus Attucks Playground	NYCParks	Playground equipment, benches, water play feature, handball court, basketball court, picnic table, swings, bathroom	0.93	0.70	0.23	Adequate/ Moderate
9	John Hancock Playground	NYCParks	Playground equipment, colonnades, benches, water play feature, basketball courts, handball courts, water fountains, chess tables, asphalt play areas, bathrooms	1.55	1.16	0.39	Adequate/Low
10	Gateway Triangle	NYCParks	Triangle with landscaped areas and one pathway	0.07	0.0	0.07	Adequate/Low[2]
11	Putnam Triangle	NYCParks	Benches, plaza area, water fountain	0.01	0.0	0.01	Adequate/Low[2]
12	P.S. 9 Playground	NYCParks/ DOE	Handball courts, mini track, athletic turd area, basketball courts, benches, bike racks, playground equipment, asphalt athletic areas, chess tables	0.96	0.86	0.10	Good/Low[2]
Totals				**10.32**	**8.23**	**2.09**	

Notes:
[1] See **Figure D-1** for location of open spaces in study area.
[2] Due to the effects of COVID-19, utilizations listed above are based on data collected pre-COVID where possible, drawing from the *809 Atlantic Avenue Rezoning EAS's* assessment of open space resources.
Sources:
NYC Parks open space data base; AKRF, Inc. field survey, August 2020; *809 Atlantic Avenue Rezoning EAS* (CEQR#: 18DCP179K)

ASSESSMENT OF OPEN SPACE ADEQUACY

RESIDENTIAL (1/2-MILE) STUDY AREA

The following analysis of the adequacy of open space resources within the residential study area presents the ratios of active, passive, and total open space resources per 1,000 residents.

Quantitative Assessment

The study area has an overall open space ratio of 0.220 acres per 1,000 residents (see **Table D-4**). This is lower than the City's planning guideline of 2.5 acres per 1,000 residents. Approximately 80 percent of the open space in the study area is dedicated to active recreation and approximately 20 percent is dedicated to passive recreation.. Overall, the study area's active and passive open space ratios are 0.175 and 0.045 acres per 1,000 residents, respectively, which is below the *CEQR Technical Manual*, guideline of 2.0 acres of active open space and 0.5 acres of passive open space per 1,000 residents.

Table D-4
Adequacy of Study Area Open Space Resources: Existing Conditions

Existing Residential Population	Open Space Acreage			Open Space Ratios Acres per 1,000 Persons			City Open Space Guidelines		
	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
46,939	10.32	8.23	2.09	0.220	0.175	0.045	2.5	2.0	0.5

Qualitative Assessment

As shown in **Table D-3**, the study area open spaces include a wide variety of actively programmed spaces appropriate for all age groups, including children, teenagers, adults, and seniors. As noted in **Table D-2**, the study area includes a higher percentage of working-age adults (ages 20 to 64), as compared with Brooklyn and New York City as a whole. As indicated in the *CEQR Technical Manual*, adults tend to utilize active recreational amenities (such as handball and basketball courts) as well as open lawns and other passive recreational amenities, and open spaces within the study area include such facilities (see **Table D-3**). Of the 12 open space resources in the study area, two are in poor condition, six are in adequate condition, and four are in good condition. Five of the resources were noted as experiencing low utilization, four experience moderate utilization, one experiences high utilization, and two experience very high utilization.

Approximately 16.30 percent of the study area population is younger residents (ages 19 and younger). As stated in the *CEQR Technical Manual*, children in this age group require a variety of active recreational playgrounds with sports facilities, such as basketball and handball courts, similar to the adult population. These amenities are available at many of the open space resources listed in **Table D-3**.

In addition to the open spaces resources listed above, the study area contains open space resources that have not been included in the quantitative assessment. This includes several community gardens located in the study area, listed in **Table D-5**, totaling 0.89 acres. New York City Housing Authority (NYCHA) controlled open space resources including open space and playground areas at the Atlantic Terminal housing complex (483-487 Carlton Avenue) serve residents of that development. Similarly, there are various private co-op developments within the study area with similar on-site amenities for their respective residents. While these resources serve some of the residents within the study area, they are not included in the quantitative assessment.

Table D-5
Community Gardens in the Stud Area

Map ID[1]	Name	Acres
A	Lefferts Place Block Association Garden	0.07
B	Brooklyn Bears Carlton Avenue Garden	0.14
C	Brooklyn's Finest Garden	0.05
D	Hollenback Community Garden	0.15
E	Prospect Heights Community Farm	0.21
F	Clifton Place Block Association Garden	0.08
G	Classon/Fulgate Block Association Garden	0.12
H	St. Marks Avenue/Prospect Heights Community Garden	0.07
	Total	0.89

Note: [1] See **Figure D-1** for location of open spaces in study area.
Sources: NYC Parks open space data base; AKRF, Inc. field survey, August 2020; *840 Atlantic Avenue Rezoning EAS* (20DCP162K)

There are also several additional open space resources immediately outside the study area that would be readily accessible by residents of the study area. These open spaces include Prospect Park (a large regional park), Fort Greene Park, Stroud Playground, as well as other smaller parks.

Both Prospect Park and Fort Greene Park are large open spaces, at 526 acres and 30 acres respectively, with extensive active and passive amenities including basketball courts, playground equipment, baseball fields, tennis courts, pathways, grassy fields, and benches. These parks in large part provide for the open space needs of the residents in this area of Brooklyn, and are within a reasonable range of the Project Area. Prospect Park is within ½-mile of a large part of the southern portion of the study area, helping to serve local open space needs, and Fort Greene Park within ½-mile of a large part of the northern portion of the study area, helping to serve its needs. It is an approximately 15-minute walk to each park from the Project Area at the center of the study area, and is a shorter walk from areas in the study area that are between the Project Area and these respective parks.

Stroud Playground is a 1.19-acre playground with a variety of active and passive amenities including playground equipment, basketball courts, benches, and a turf area, located just over ½-mile to the southeast of the Project Area and serves as a further resource for residents located in this portion of the study area. It is an approximately 12-minute walk from the Project Area.

D. FUTURE WITHOUT THE PROPOSED ACTIONS

In the No Action condition, the Development Site and Project Area are expected to remain the same as in existing conditions, and no new development would occur.

STUDY AREA POPULATION

As described in **Appendix B**, there are 4,715 DUs expected to be constructed by other projects within the study area by 2025. These DUs would introduce a new population of 10,514. This new development would raise the total population of the study area to 57,453 by 2025 absent the Proposed Actions.

STUDY AREA OPEN SPACE RESOURCES

In the No Action condition, it is expected that each of the study area's existing open space resources would continue to be open for public use. New public open space resources associated with the ongoing development of the Pacific Park project approximately ¼-mile to the west of the Project Area, in particular the development of Pacific Park buildings B12 and B13, may be completed by the 2025 analysis year, but have not been included in the quantitative analysis below due to a lack of public detail on anticipated completion dates.

ASSESSMENT OF OPEN SPACE ADEQUACY

RESIDENTIAL (1/2-MILE) STUDY AREA

Quantitative Assessment

As shown in **Table D-6**, in the No Action condition, the total open space ratio is projected to decrease from 0.220 acres per 1,000 residents to 0.180 acres per 1,000 residents. The active open space ratio would fall from 0.175 to 0.143 acres per 1,000 residents, and the passive open space ratio would fall from 0.045 to 0.036 acres per 1,000 residents. Similar to existing conditions, the total, active, and passive open space ratios would be below City guidelines.

Table D-6
Adequacy of Study Area Open Space Resources: No Action Condition

No Action Residential Population	Open Space Acreage			Open Space Ratios Acres per 1,000 Persons			City Open Space Guidelines		
	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
57,453	10.32	8.23	2.09	0.180	0.143	0.036	2.5	2.0	0.5

Qualitative Assessment

Although the study area contains a mix of recreational facilities, as stated above, the quantitative open space ratios will continue to fall well below the guideline goal of 2.5 acres per 1,000 residents and the citywide Community District median of 1.5 acres per 1,000 residents under the No Action condition. In addition, both the active and passive open space ratios will continue to fall below recommended ratios per 1,000 residents. As in the existing condition, study area open spaces include a wide variety of actively programmed spaces appropriate for all age groups within the study area, including children, teenagers, adults, and seniors.

E. FUTURE WITH THE PROPOSED ACTIONS

STUDY AREA POPULATION

The Proposed Actions would result in an incremental development of 306 DUs compared to the No Action condition, which would introduce 729 residents to the study area, bringing the total population to 58,182 with the Proposed Actions.

STUDY AREA OPEN SPACE RESOURCES

Study area open space resources are expected to remain the same as in existing conditions and the No Action condition.

ASSESSMENT OF OPEN SPACE ADEEQUACY

RESIDENTIAL (1/2-MILE) STUDY AREA

Quantitative Assessment

As shown in **Table D-7**, the total open space ratio is projected to fall from 0.180 acres per 1,000 residents in the No Action condition to 0.177 acres per 1,000 residents in the With Action condition. The active open space ratio would decrease from 0.143 to 0.142 acres per 1,000 residents, and the passive open space ratio would remain the same at 0.036 acres per 1,000 residents. As in the No Action condition, all of these open space ratios would be below the City guidelines of 2.5 acres of total open space per 1,000 residents, 0.5 acres of passive open space per 1,000 residents, and 2.0 acres of active open space per 1,000 residents. Compared to the No Action condition, the total, active, and passive open space ratio would all decrease by 1.10 to 1.26 percent (see **Table D-8**).

Table D-7
Adequacy of Study Area Open Space Resources: With Action Condition

With Action Residential Population	Open Space Acreage			Open Space Ratios Acres per 1,000 Persons			City Open Space Guidelines		
	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
58,182	10.32	8.23	2.09	0.177	0.142	0.036	2.5	2.0	0.5

Table D-8
Study Area Open Space Ratio Summary

Ratio	City Open Space Guideline	Open Space Ratios Acres per 1,000 Residents		Percent Change (Future No Action to Future With Action)
		No Action	With Action	
Total—Residential	2.5	0.180	0.177	-1.22%
Active—Residential	2.0	0.143	0.142	-1.26%
Passive—Residential	0.5	0.036	0.036	-1.10%
Note: The passive open space ratio would decrease by -1.10 percent but would continue to round to 0.036 acres per 1,000 residents.				

Per CEQR guidance, a significant adverse open space impact may occur if a proposed action would reduce the open space ratio by more than 5 percent in areas that are currently below the City's median community district open space ratio of 1.5 acres per 1,000 residents. Additionally, in areas that are extremely lacking in open space, a reduction as small as 1 percent may be considered significant. These reductions may result in overburdening existing facilities or further exacerbating a deficiency in open space. As the open space ratio in the With Action condition is less than 0.5 acres per 1,000 residents and the percent change between With Action and No Action is slightly above 1 percent, further qualitative considerations are warranted to determine if the change in open space ratio would result in a significant adverse impact and are discussed below.

Qualitative Assessment

The profile of the population under the Proposed Actions is expected to be similar to the existing population and is not expected to have any special or unique characteristics that would place added demands on open spaces that cater to a specific user group. As in the existing and No Action conditions, under the With Action condition study area open spaces would include a wide variety

of open space amenities appropriate for all ages. The majority of the open space resources in the study area are in good to adequate condition and experience only low to moderate utilization, allowing them to further absorb projected population increases.

As noted above, several additional open space resources, in particular Prospect Park, and Fort Greene Park, and Stroud Playground, were not analyzed in the quantitative assessment as they are located adjacent to, but not within, the study area boundaries. These parks are utilized by the study area's residents and provide extensive active and passive recreational amenities to support the area's needs.

Prospect Park is one of the City's preeminent regional parks that serves as a valuable resource for the residents within the study area and the entire borough. The main features of the park are its extensive natural areas and rolling hills with walking and biking paths, as well as a 60-acre lake available for recreational boating and ice skating during the winter, and the Prospect Park Zoo. The park also features several picnic areas and playgrounds, sports fields, and basketball and tennis courts. The main feature of Fort Greene Park is the Prison Ship Martyrs Monument, whose elevated locations also provides extensive views of the surrounding area and the Manhattan skyline. Other amenities in Fort Greene Park include extensive walking paths and lawn areas, tennis courts, basketball courts, and playgrounds. Stroud Playground is a well-equipped playground in excellent condition featuring playground equipment, basketball courts, benches, and a turf area. Although Prospect Park, Fort Greene Park, and Stroud Playground are not located within the study area boundaries, they are within a reasonable walking distance of large portions of the Project Area and support the recreational needs of study area residents.

Furthermore, as detailed in **Table D-5**, several community gardens are also located in the study area which would provide additional open space to support the needs of area residents. Additional open spaces to be completed as part of the Pacific Park project would provide additional open space to the area in the future. The proposed building on the Development Site would also include rooftop terraces that could provide building residents with private recreational areas, further ameliorating the effects of the new residential population.

DETERMINING IMPACT SIGNIFICANCE

DIRECT EFFECTS

The Proposed Actions would not result in any significant adverse impacts to shadows, air quality, or noise that would affect an open space resource (see Attachment E, "Shadows," Attachment J, "Air Quality," and Attachment K, "Noise"). Therefore, the Proposed Actions would not directly impact any open space resources in close proximity to the Project Area.

INDIRECT EFFECTS

According to the *CEQR Technical Manual*, if the decrease in the open space ratio approaches or exceeds five percent, it is generally considered a substantial change. However, the change in the open space ratio should be balanced against how well-served an area is by open space; in areas that are extremely lacking in open space, a reduction as small as 1 percent may be considered significant. These reductions may result in overburdening existing facilities or further exacerbating a deficiency in open space.

Though all of the open space ratios in the study area would be below the City's guidelines, the Proposed Actions would reduce the open space ratios by roughly 1.10–1.26 percent (as shown in

Table D-8), well below the *CEQR Technical Manual* threshold of a five percent reduction in an open space ratio to constitute a significant adverse impact, but above a one percent reduction that could be considered significant in certain areas. The open space study area is projected to experience shortfalls in all categories of open space in the No Action condition, but the shortfall would not be substantially increased in the With Action condition.

The small reduction in open space ratio for active open space in the With Action condition caused by the project-generated population increase would most directly affect the study area's teenage and adult populations (10-64 years old), which comprise approximately 79 percent of the total study area population. Both groups use court facilities (e.g., basketball courts) and sports fields, such as football or soccer fields. They may also use facilities that provide more individualized recreation, such as cycle paths and other grade-separated jogging paths. However, the majority of the open space resources in the study area that feature active open space facilities are in good to adequate condition and experience low to moderate utilization, allowing them to further absorb projected population increases.

The With Action condition would also result in a small decrease in the passive open space ratio, which is expected to primarily affect seniors (who comprise approximately 11 percent of the total study area population). These spaces too are generally in adequate or better conditions and have low to moderate utilization rates, thus the project-generated population increases would have a negligible effect on senior populations' access to passive open space.

Overall, the study area is considered by the City to be well-served by open space and residents of the study area and new residents in the Project Area would have access to several additional open space resources, just beyond the study area boundaries. These include Stroud Playground and Prospect Park, both of which border the study area and are an approximately 12- to15-minute walk from the Project Area, Fort Greene Park, which is three blocks from the border of the study area and is also an approximately 15-minute walk from the Project Area, and community gardens near the study area that have not been included in the quantitative assessment but would be available for use. Thus, the projected reduction of open space ratios by more than one percent in this study area would not be considered a significant adverse impact. Therefore, the Proposed Actions would not result in significant adverse impacts on open space resources. ✷

Attachment E: Shadows

A. INTRODUCTION

As described in Attachment A, "Project Description and Screening Analyses," of the Environmental Assessment Statement (EAS), the proposed actions would facilitate the development of a 17-story mixed-use building on the Development Site at 870-888 Atlantic Avenue, Brooklyn. The Proposed Actions would likely result in the development of two other sites in the Project Area in addition to the Development Site (Block 1122, Lots 21 and 26). These are Projected Development Site 2 (consisting of Block 1122, Lots 14, 15, and 16) and Projected Development Site 3 (consisting of Block 1122, Lot 11).

The Proposed Project would be approximately 175 feet tall (to the top of the bulkhead and screen wall), more than 140 feet taller than the existing or No Action condition. Similarly, it is assumed that the two buildings that would be constructed on the other two Projected Development Sites would also be 175 feet tall. Therefore, following the guidelines of the 2020 *New York City Environmental Quality Review (CEQR) Technical Manual*, this attachment considers the potential for the Proposed and Projected Development Sites to cast new shadows on publicly accessible sunlight-sensitive resources, which include parks, plazas, and other open spaces accessible to the public; historic resources with sunlight-sensitive features, such as stained glass windows; and natural resources that depend on sunlight.

The assessment concluded that the proposed actions would not cast any new shadow on the Church of St. Luke & St. Matthew or Lowry Triangle.

B. DEFINITIONS AND METHODOLOGY

This analysis has been prepared in accordance with New York City CEQR procedures and follows the guidelines of the *CEQR Technical Manual*.

DEFINITIONS

Incremental shadow is the additional, or new, shadow that a structure resulting from a proposed project would cast on a sunlight-sensitive resource.

Sunlight-sensitive resources are those that depend on sunlight or for which direct sunlight is necessary to maintain the resource's usability or architectural integrity. Such resources generally include the following:

- *Public open space* such as parks, beaches, playgrounds, plazas, schoolyards (if open to the public during non-school hours), 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.
- *Features of architectural resources that depend on sunlight for their enjoyment by the public.* Only the sunlight-sensitive features need be considered, as opposed to the entire resource.

Such sunlight-sensitive features might include: design elements that depend on the contrast between light and dark (e.g., recessed balconies, arcades, deep window reveals); elaborate, highly carved ornamentation; stained glass windows; historic landscapes and scenic landmarks; and features for which the effect of direct sunlight is described as playing a significant role in the structure's importance as a historic landmark.

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

Non-sunlight-sensitive resources include the following, for the purposes of CEQR:

- *City streets and sidewalks* (except Greenstreets);
- *Private open space* (e.g., front and back yards, stoops, vacant lots, and any private, non-publicly accessible open space); and
- *Project-generated open space* cannot experience a significant adverse shadow impact from the project, according to CEQR, because without the project the open space would not exist. However, a discussion of how shadows would affect the new space may be warranted.

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, thereby significantly altering the public's use of the resource or threatening the viability of vegetation or other resources. Each case must be considered on its own merits based on the extent and duration of new shadow and an analysis of the resource's sensitivity to reduced sunlight.

METHODOLOGY

Following the guidelines of the *CEQR Technical Manual*, a preliminary screening assessment must first be conducted to ascertain whether a project's shadow could reach any sunlight-sensitive resources at any time of year. The preliminary screening assessment consists of three tiers of analysis. 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 this radius, the analysis proceeds to the second tier, which reduces the area that could be affected by project shadow by accounting for the fact that shadows can never be cast between a certain range of angles south of the project site due to the path of the sun through the sky at the latitude of New York City.

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 project shadow by looking at specific representative days in each season and determining the maximum extent of shadow over the course of each representative day.

If the third tier of analysis does not eliminate the possibility of new shadows on sunlight-sensitive resources, a detailed shadow analysis is required to determine the extent and duration of the incremental shadow resulting from the project. The detailed analysis provides the data needed to assess the shadow impacts. The effects of the new shadows on the sunlight-sensitive resources are described, and their degree of significance is considered. The results of the analysis and assessment are documented with graphics, a table of incremental shadow durations, and narrative text.

C. PRELIMINARY SCREENING ASSESSMENT

A base map was developed using Geographic Information Systems (GIS)[1] showing the location of the proposed project and the surrounding street layout (see **Figure E-1**). In coordination with the open space and historic and cultural resources assessments presented in other attachments of this EAS, potential sunlight-sensitive resources were identified and shown on the map.

TIER 1 SCREENING ASSESSMENT

For the Tier 1 assessment, the longest shadow that the proposed buildings could cast is calculated, and, using this length as the radius, a perimeter is drawn around the project site. Anything outside this perimeter representing the longest possible shadow could never be affected by project-generated shadow, while anything inside the perimeter needs additional assessment.

According to the *CEQR Technical Manual*, the longest shadow that a structure can cast at the latitude of New York City occurs on December 21, the winter solstice, at the start of the analysis day at 8:51 AM, and is equal to 4.3 times the height of the structure.

Therefore, at a maximum height of 175 feet above curb level, the proposed mixed-use building could cast a shadow up to 753 feet in length (175 x 4.3). Using this length as the radius, a perimeter was drawn around the project site (see **Figure E-1**).

The Tier 1 assessment showed that one publicly accessible open space and one historic resource with sun-sensitive features were located in the longest shadow study area. Therefore, the next tier of assessment was required.

TIER 2 SCREENING ASSESSMENT

Because of the path that the sun travels across the sky in the northern hemisphere, no shadow can be cast in a triangular area south of any given project site. In New York City this area lies between -108 and +108 degrees from true north. **Figure E-1** illustrates this triangular area south of the project site. The complementary area to the north within the longest shadow study area represents the remaining area that could potentially experience new project-generated shadow.

TIER 3 SCREENING ASSESSMENT

The direction and length of shadows vary throughout the course of the day and also differ depending on the season. In order to determine whether project-generated shadow could fall on a sunlight-sensitive resource, three-dimensional computer modeling software[2] is used in the Tier 3 assessment to calculate and display the proposed project's shadows on individual representative days of the year. A computer model was developed containing three-dimensional representations of the elements in the base map used in the preceding assessments, the topographic information of the study area, and a reasonable worst-case three-dimensional representation of the proposed project.

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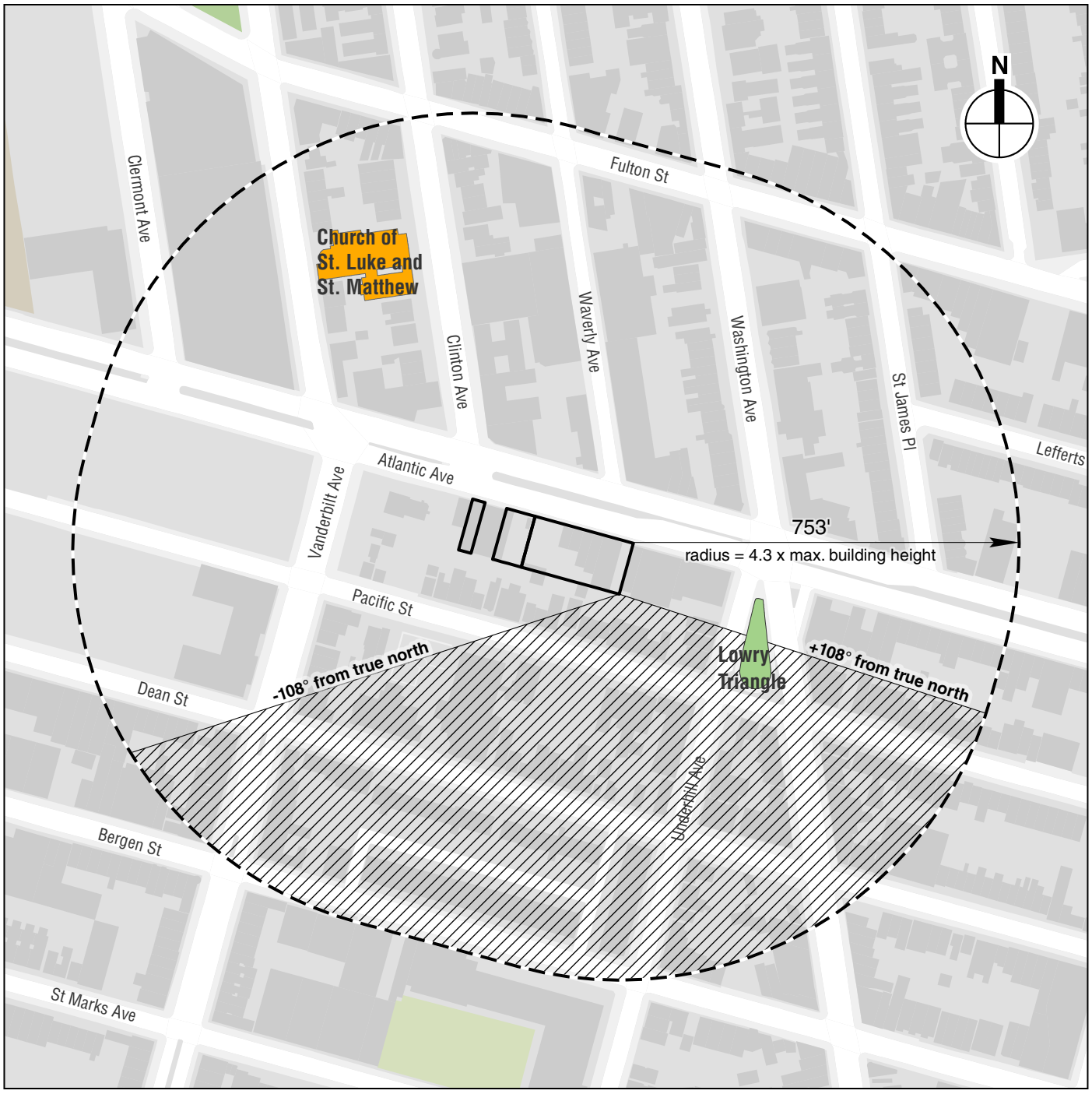
[1] Software: Esri ArcGIS Pro; Data: New York City Department of Information Technology and Telecommunications (DoITT) and other City agencies, and AKRF site visits.

[2] Bentley MicroStation



Project Site

Tier 1: Longest Shadow Study Area Perimeter

Tier 2: Area South of Site That Could Never Be Shaded by Proposed Facility

Publicly Accessible Open Space

Historic Resource with Sunlight-Sensitive Features

Tier 1 and Tier 2 Assessments

REPRESENTATIVE DAYS FOR ANALYSIS

Following the guidance of the *CEQR Technical Manual*, shadows on the summer solstice (June 21), winter solstice (December 21) and spring and fall equinoxes (March 21 and September 21, which are approximately the same in terms of shadow patterns) are modeled, to represent the range of shadows over the course of the year. An additional representative day during the growing season is also modeled, generally the day halfway between the summer solstice and the equinoxes, i.e., May 6 or August 6, which have approximately the same shadow patterns.

TIMEFRAME WINDOW OF ANALYSIS

The shadow assessment considers shadows occurring between one and a half hours after sunrise and one and a half hours before sunset. At times earlier or later than this timeframe window of analysis, the sun is down near the horizon and the sun's rays reach the Earth at very tangential angles, diminishing the amount of solar energy and producing shadows that are very long, move fast, and generally blend with shadows from existing structures. Consequently, shadows occurring outside the timeframe window of analysis are not considered significant under CEQR, and their assessment is not required.

TIER 3 SCREENING ASSESSMENT RESULTS

Figure E-2 illustrate the range of shadows that would occur, in the absence of intervening buildings, from the proposed actions on the four representative days for analysis. As they move east and clockwise over the landscape, the shadows are shown occurring approximately every 60 minutes from the start of the analysis day (90 minutes after sunrise) to the end of the analysis day (90 minutes before sunset). As summarized in **Table E-1**, the Church of St. Luke & St. Matthew could potentially receive project-generated shadow on the December 21 analysis day. Lowry Triangle could receive project-generated shadow on the June 21 analysis day.

The Tier 3 assessment concluded that a detailed analysis was warranted for both the Church of St. Luke & St. Matthew and Lowry Triangle.

Table E-1
Tier 3 Assessment

Map Reference	Name	Sensitive features/uses	Dec. 21	Mar. 21 / Sept. 21	May 6 / Aug. 6	June 21
1	Lowry Triangle	Trees and benches	No	No	No	Potential
A	Church of St. Luke & St. Matthew[1]	Stained glass windows on east and south façades	Potential	No	No	No

Notes:
See **Figure E-2** for corresponding resource locations and shadow sweeps.
In the columns representing the representative analysis dates, "No" means project-generated shadow could not reach the resource, even without accounting for intervening buildings. "Potential" means project-generated shadow could potentially reach the resource on this date and requires further assessment.
[1] Both NYCL and S/NR listed

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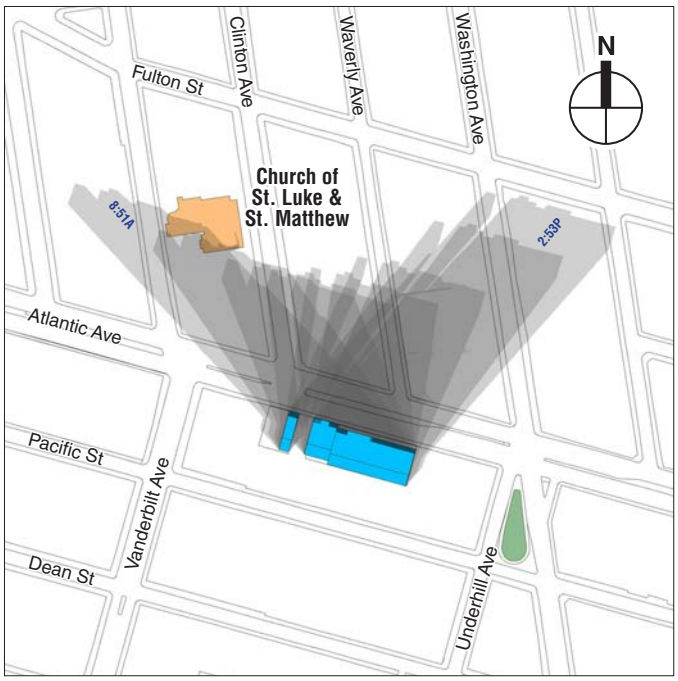
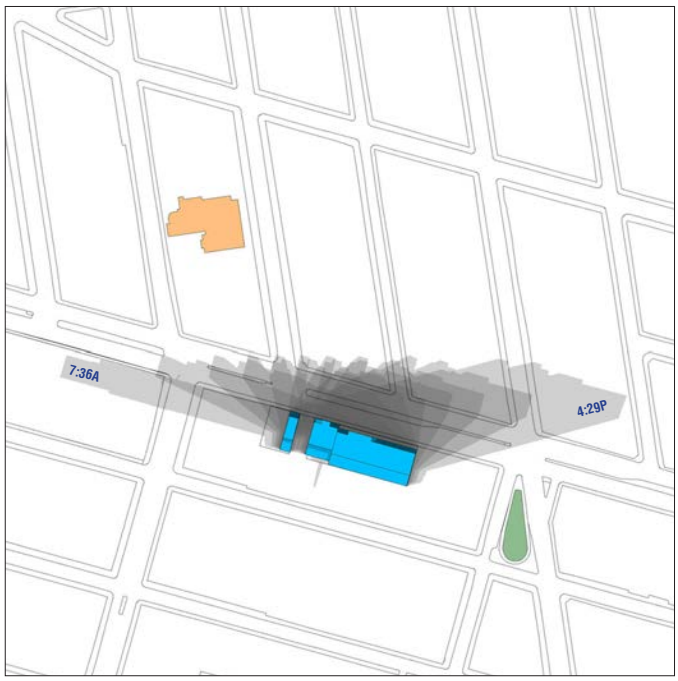
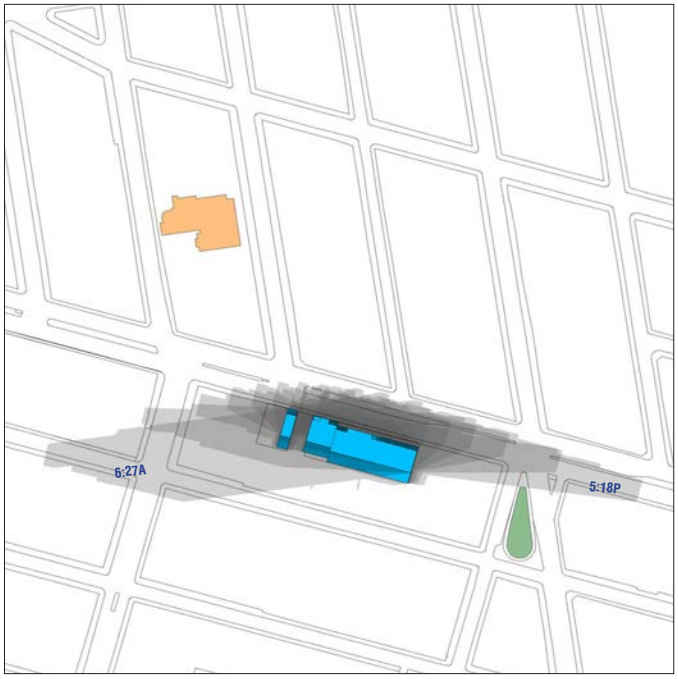


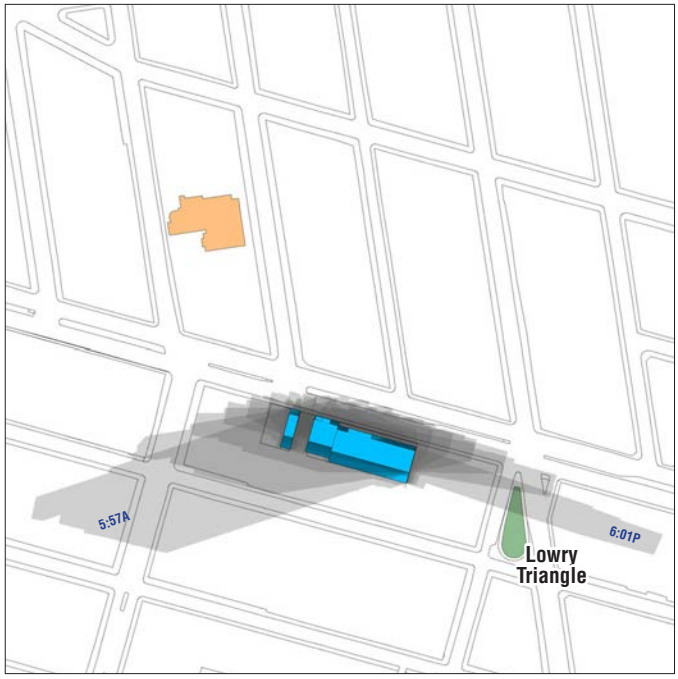
December 21



March 21 / September 21



May 6 / August 6



June 21

Projected Development Sites

Publicly Accessible Open Space

Publicly Accessible Historic Resources

This figure illustrates the range of shadows that would occur, absent intervening structures, from the proposed project on the four representative analysis days. The shadows are shown occurring approximately every 60 minutes from the start of the analysis day (one and a half hours after sunrise) to the end of the analysis day (one and a half hours before sunset). The Tier 3 assessment serves to illustrate the daily path or "sweep" of the proposed project's shadows across the landscape, indicating which resources could potentially be affected on that analysis day, absent intervening buildings, by project-generated shadow. Daylight Saving Time was not used, per *CEQR Technical Manual* guidelines.

D. DETAILED SHADOW ANALYSIS

The purpose of the detailed analysis is to determine the extent and duration of new incremental shadows that fall on sunlight-sensitive resources as a result of the project, and to assess their potential effects. The three-dimensional model used in the Tier 3 assessment was further developed to include the existing (and future No Action) buildings in the longest shadow study area, so that the baseline shadows can be modeled. The future with the Proposed Actions (the With Action condition) and its shadows can then be compared to the baseline shadows to determine the incremental shadows that would result with the proposed actions.

Following the analysis framework described in Attachment A, "Project Description and Screening Analyses," the shadows assessment was performed for the analysis year of 2025, comparing the proposed actions to the future No Action condition in which the site would remain as in the existing condition. Future planned developments in the study area were added to the No Action baseline using best-available information from publicly available filings with the Department of Buildings and other sources.

Shadows are in constant movement. The computer simulation software produces an animation showing the movement of shadows over the course of each analysis period. The analysis determines the time when incremental shadow would enter each resource, and the time it would exit. Shadow analyses were performed for each of the representative days and analysis periods indicated in the Tier 3 assessment.

SUMMARY OF ANALYSIS RESULTS

The two resources that were analyzed—the Church of St. Luke & St. Matthew and Lowry Triangle—would not receive any incremental shadows within the timeframe of 90 minutes after sunrise and 90 minutes before sunset. The analysis showed that intervening buildings would already be casting shadow on the resources at the time when project-generated shadow would otherwise fall there. Several buildings south of the Church of St. Luke & St. Matthew—including the future planned developments at 532 Clinton Avenue and 550 Clinton Avenue—would block project-generated shadow on the morning of the December 21 analysis day when it would otherwise reach the church at the beginning of the analysis day at 8:51AM to 9:10AM and then again from 9:55AM to 10:05AM. On the June 21 analysis day, the 55-foot tall building on the corner of Atlantic Avenue and Underhill Avenue would block project-generated shadow in the evening when it would otherwise reach Lowry Triangle, 66 minutes before sunset.

E. CONCLUSION

Project-generated shadows could potentially reach two sunlight-sensitive resources at very limited times over the course of the year, but would always be blocked by intervening buildings and therefore would not result in significant adverse impacts to the Church of St. Luke & St. Matthew or Lowry Triangle. ✷

Attachment F: Historic and Cultural Resources

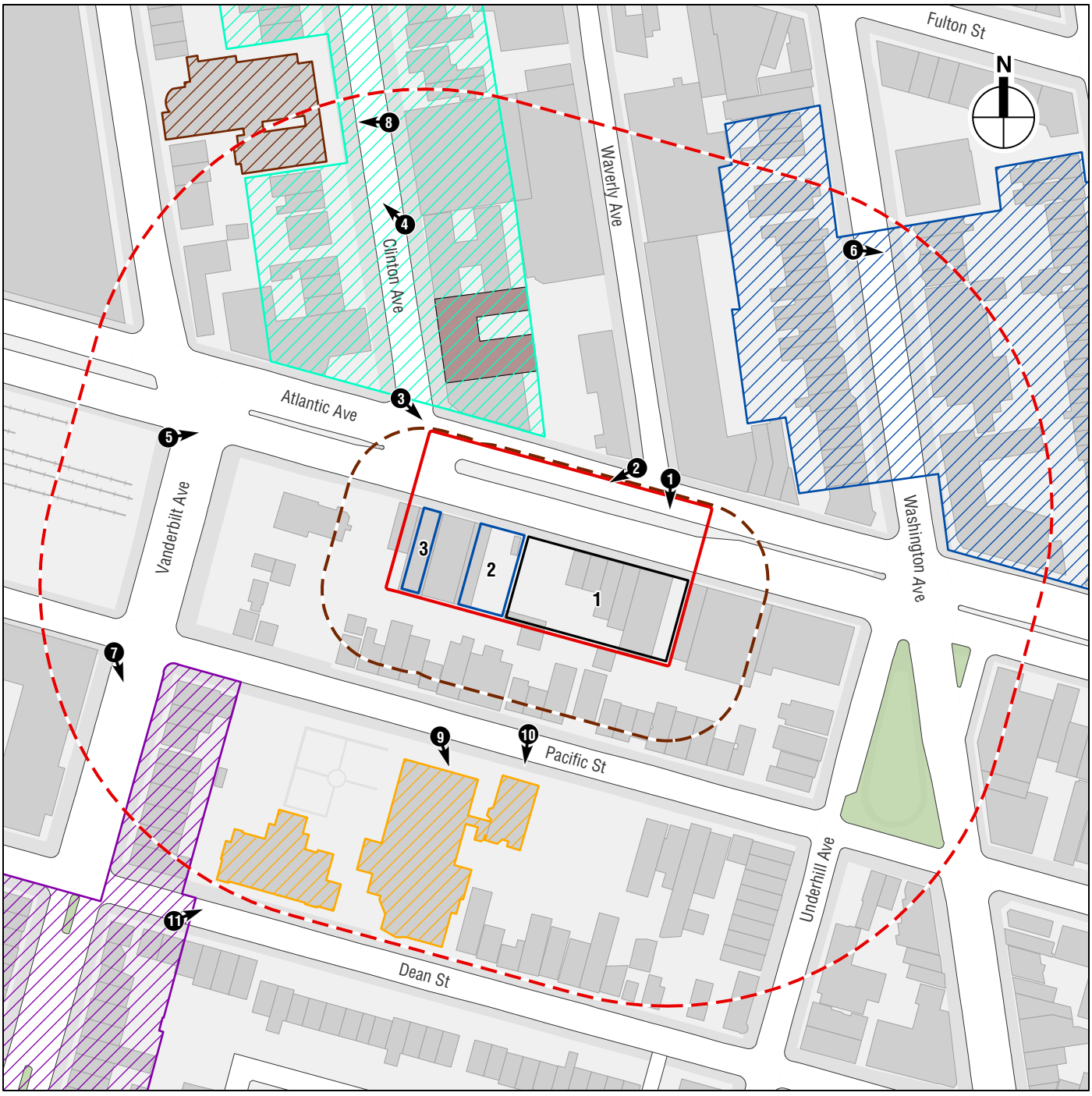
A. INTRODUCTION

This attachment assesses the potential for the proposed 870-888 Atlantic Avenue Rezoning project (the "Proposed Project") to affect historic and cultural resources, which includes both archaeological and architectural resources. As described in Attachment A, "Project Description and Screening Analyses," the Applicant is requesting several discretionary actions, including a zoning map amendment, a zoning text amendment, and special permits (the "Proposed Actions") to facilitate the Proposed Project, a 17-story (up to 175 feet tall), approximately 211,560-gross-square foot (gsf) building at 870-888 Atlantic Avenue (Block 1122, Lots 21 and 26; the "Development Site") in the Clinton Hill neighborhood of Brooklyn. The proposed building would contain approximately 181,200 gsf of residential uses (up to 228 dwelling units), approximately 14,600 gsf of local retail uses, approximately 5,500 gsf of community facility use, and approximately 10,200 gsf of below-grade parking. In addition to the Development Site, the proposed zoning map amendment would also rezone several adjacent properties to the west (Block 1122, Lots 11, 12, 14, 15, 16, and p/o Lot 10; the "Project Area"). The proposed actions would likely result in the development of two other sites in the project area in addition to the Development Site. These sites are referred to as Projected Development Site 2 (Block 1122, Lots 14, 15, and 16) and Projected Development Site 3 (Lot 11). It is anticipated that the Proposed Actions would not result in development of Lots 10 and 12 (see **Figure F-1**).

The 2020 *City Environmental Quality Review (CEQR) Technical Manual* recommends that an analysis of archaeological resources be undertaken for actions that would result in any in-ground disturbance. It also recommends that an architectural resources assessment be performed if a proposed action would result in any of the following (even if no known architectural resources are located nearby): new construction; physical alteration of any building; change in scale, visual context, or visual setting of any building, structure, object, or landscape feature; or screening or elimination of publicly accessible views. Since the Proposed Actions may result in some of these conditions, a full analysis for archaeological and architectural resources under CEQR was undertaken.

Absent the Proposed Actions, in the Future without the Proposed Project (the No Action condition), the Development Site and Project Area would not be expected to be redeveloped.

The historic and cultural resources analysis presented below compares the No Action condition and the Future with the Proposed Project (the "With Action" condition) on the Development Site, the Project Area, and the study area. This assessment concludes that the Proposed Actions would not result in any significant adverse impacts to historic and cultural resources.



Architectural Resources

870-888 ATLANTIC AVENUE REZONING

Figure F-1

B. METHODOLOGY

ARCHAEOLOGICAL RESOURCES

Pursuant to CEQR, consultation was initiated with New York City Landmarks Preservation Commission (LPC) in order to obtain a preliminary determination of the project area's potential archaeological sensitivity. In a comment letter dated September 18, 2020, LPC determined that the lots included within the Development Site and Projected Development Sites 2 and 3 (Block 1122, Lots 11, 14 to 16, 21, and 22) are not potentially archaeologically significant (see **Appendix C**). As such, no further archaeological analysis is warranted and the project will not result in significant adverse impacts on archaeological resources. The remainder of this chapter therefore focuses only on historic architectural resources.

ARCHITECTURAL RESOURCES

Consistent with the guidance of the *CEQR Technical Manual*, in order to determine whether proposed actions could potentially affect architectural resources, this attachment assesses whether the proposed actions would result in a physical change to any resource, a physical change to the setting of any resource (such as context or visual prominence), and, if so, whether the change is likely to alter or eliminate the significant characteristics of the resource that make it important.

Impacts on architectural resources can include both direct physical impacts and indirect impacts. Direct impacts include damage from vibration (i.e., from construction blasting or pile driving) and additional damage from adjacent construction that could occur from falling objects, subsidence, collapse, or damage from construction machinery. As defined in the New York City Department of Building's (DOB) *Technical Policy and Procedure Notice (TPPN) #10/88,* adjacent construction is defined as any construction activity that would occur within 90 feet of an architectural resource.[1]

Indirect impacts on architectural resources are contextual or visual impacts that could result from project construction or operation. As described in the *CEQR Technical Manual*, indirect impacts could result from blocking significant public views of a resource; isolating a resource from its setting or relationship to the streetscape; altering the setting of a resource; introducing incompatible visual, audible, or atmospheric elements to a resource's setting; or introducing shadows over a historic landscape or an architectural resource with sun-sensitive features that contribute to that resource's significance (e.g., a house of worship with stained-glass windows).

Study areas for architectural resources are determined based on the area of potential effect for construction period impacts, as well as the larger area in which there may be visual or contextual impacts. The *(CEQR Technical Manual* sets the guidelines for the study area as being typically within an approximately 400-foot radius of the Project Area (see **Figure F-1**). Within the study area, architectural resources that were analyzed include New York City Landmarks (NYCLs), Interior Landmarks, Scenic Landmarks, and New York City Historic Districts (NYCHDs); and properties pending such designation; State and National Registers of Historic Places (S/NR)-listed or S/NR-eligible properties or properties contained within a S/NR-listed or S/NR-eligible historic district, and properties recommended by the New York State Board for listing on the S/NR; and

[1] *TPPN #10/88* was issued by DOB on June 6, 1988, to supplement New York City Building Code regulations with regard to historic structures. *TPPN #10/88* outlines procedures for the avoidance of damage to historic structures resulting from adjacent construction, defined as construction within a lateral distance of 90 feet from the historic resource.

National Historic Landmarks (NHLs). Additionally, a survey of the study area was conducted to identify any previously undesignated properties that appear to meet NYCL or S/NR eligibility criteria ("potential architectural resources").

C. EXISTING CONDITIONS

DEVELOPMENT SITE

The Development Site, also known as Projected Development Site 1, occupies Block 1122, Lots 21 and 26. The Development Site has an approximately 200-foot-wide street frontage on the south side of Atlantic Avenue between Vanderbilt and Underhill Avenues in the Prospect Heights neighborhood of Brooklyn. The Development Site contains a grouping of six two-story brick-faced older commercial buildings, a car dealership with a temporary trailer, and a vacant lot used for parking (see Views 1 and 2 of **Figure F-2**). The six brick-faced buildings on the Development Site were built by 1888 and originally had three stories. The buildings were substantially altered between ca. 1940 and ca. 1983 with the removal of the upper portion of the third story of each building.[2] These six buildings have also been altered with non-original storefronts and brick infill at the partial third floor window openings. Due to these substantial alterations, these buildings do not appear to meet criteria for S/NR listing or NYCL designation. Therefore, there are no known or potential architectural resources located in the Development Site.

PROJECT AREA

The remainder of the Project Area is composed of Projected Development Site 2 (Lots 14, 15, and 16), Projected Development Site 3 (Lot 11), and Lot 12 and p/o Lot 10. No new development is anticipated on Lot 12 or on p/o of Lot 10 (see **Figure F-3**).

Projected Development Site 2 occupies the middle portion of the Project Area, immediately west of Development Site 1. It currently contains a long, narrow one-story warehouse building at 864 Atlantic Avenue and an accessory parking lot. The concrete block and brick building was constructed circa 1974 and has a roll-down metal door and awning on the primary façade.

Projected Development Site 3 occupies the western portion of the Project Area and contains a one-story automotive repair and sales garage. The masonry structure was built circa 1930, but has been substantially altered, with concrete block infill at the former storefront.[3]

Lot 12 is located between Projected Development Sites 2 and 3. It contains a four-story brick-faced building with ground floor retail. The building's ground floor has been altered with a modern storefront. Above the first floor, the window openings have continuous limestone sills and continuous flush limestone lintels. The building has a projecting bracketed cornice at the roofline and brick quoins at the building edges. Alterations include a fire escape on the primary façade, replacement windows, and globe lamps affixed to the second story façade.[4]

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[2] NYC Municipal Archives Digital Collections, "Block 1122 Lot 21." 1939–1941 and 1983–1988. http://nycma.lunaimaging.com/luna/servlet, accessed September 2020.

[3] NYC Municipal Archives Digital Collections, "Block 1122 Lot 11." 1939–1941 and 1983–1988. http://nycma.lunaimaging.com/luna/servlet, accessed September 2020.

[4] NYC Municipal Archives Digital Collections, Brooklyn 1940s Tax Photos, "Block 1122 Lot 12." 1939–1941 and 1983–1988.

View south from Waverly Place to the eastern portion of the Development Site **1**

View south from Waverly Place to the eastern portion of the Development Site **2**

Development Site Photographs

View southeast of the Project Area from Clinton Avenue. The Project Area includes the Development Site, Projected Development Site 2 (Block 1122, Lots 14, 15, and 16), Projected Development Site 3 (Block 1122, Lot 11), and part of Lot 10 and Lot 12. **3**

View northwest to residential buildings in the Clinton Avenue Historic District **4**

Project Area and Known Architectural Resources Photographs

The eastern 18 feet of Lot 10 is part of the Project Area because it would be rezoned under the Proposed Actions. Lot 10 contains a three-story ca. 1930 brick-clad building that has been significantly altered with a non-original ground floor storefront, altered fenestration on the upper floors, and the removal of molding and the roof cornice.[5]

As the buildings in the Project Area have been substantially altered, they do not appear to meet criteria for S/NR listing or NYCL designation. Therefore, there are no known or potential architectural resources located in the Project Area.

STUDY AREA

There are six known architectural resources and no potential architectural resources located in the study area (see **Figure F-1**).

KNOWN ARCHITECTURAL RESOURCES

Clinton Avenue Historic District (S/NR-eligible), 547-555 Clinton Avenue (individually S/NR-eligible)

The Clinton Avenue Historic District is located on Clinton Avenue between Atlantic Avenue and Fulton Street northwest of the Project Area (see **Figure F-1**). The historic district includes approximately 16 mid- to late-19th century residential buildings that reflect a variety of architectural styles, including Greek Revival, Gothic Revival, Neo-Grec, Second Empire, Renaissance Revival, and Moorish Revivals. These residential buildings are important for their association with the development of this area of Brooklyn.

Approximately seven properties in the historic district are located within study area, including three Neo Grec-style rowhouses, two brownstones, a brick-faced three-story house set back from the street by a small paved yard, and a six-story former telephone building (see View 4 of **Figure F-3**). The buildings are in rows of two or three, interrupted by new construction. The street is lined with trees, iron sidewalk fencing in front of older houses, and construction fencing. The residential building in the historic district closest to the Project Area is at 540 Clinton Avenue. It is approximately 100 feet northwest of the Project Area. The former telephone building at 547-555 Clinton Avenue is individually S/NR-eligible. The telephone building is located approximately 70 feet north of the Project Area, across Atlantic Avenue, however it is located more than 100 feet from the Development Site and the other Projected Development Sites. Built in 1905 in the Beaux Arts style, the building has a limestone base, brick-cladding, and an ornate copper cornice.

Clinton Hill South Historic District (S/NR-listed)[6]

The Clinton Hill South Historic District is bounded by Fulton Street to the north, Atlantic Avenue to the south, Washington Avenue to the west, and Bedford Place and Bedford Avenue to the east (see **Figure F-1** and View 6 of **Figure F-4**). The Clinton Hill South Historic District comprises mainly residential buildings built between 1850 and 1922. The earliest of the residential buildings are brick row houses constructed in the Italianate style. The historic district also includes Neo-

[5] NYC Municipal Archives Digital Collections, "Block 1122 Lot 10." 1939–1941 and 1983–1988. http://nycma.lunaimaging.com/luna/servlet, accessed September 2020.

[6] This description of the Clinton Hill South Historic District is from the *National Register of Historic Places Registration Form for the Clinton Hill South Historic District (Boundary Expansion)*, prepared by Merrill Hesch in May 1986 for the National Register of Historic Places, National Park Service.

View northeast on Atlantic Avenue to the former Telephone Building at 548-555 Clinton Avenue **5**

View southeast on Washington Avenue to residential buildings in the Clinton Hill South Historic District **6**

Known Architectural Resources Photographs

Grec, Second Empire, Romanesque Revival, Queen Anne, and Neo-Renaissance style row houses from the late 1800s. Additionally, the neighborhood has many Neo-Grec, Queen Anne, Beaux Arts, and Neo-Georgian style apartment buildings from the late 1800s and early 1900s. In addition, the historic district contains 19th century institutional buildings such as churches, schools, clubs, and health facilities. The National Register Nomination Form for the Clinton Hill South Historic District describes it as a "small, architecturally significant enclave that illustrates the high quality of residential design in Brooklyn during that city's peak years of development."

There are approximately 22 properties in the historic district within the study area, including the residences lining both sides of Washington Avenue, north of Atlantic Avenue. These buildings include notable four-story Italianate brownstones and four-story Second Empire-style brownstones, as well as several three-story and four-story Neo Grec-style houses. The buildings are set back from the sidewalk by small yard areas, some of which include grassy yards and hedges, are enclosed by iron fencing. The closest of the historic district buildings is at 584 Washington Avenue, approximately 100 feet from the northeast end of the Project Area.

Prospect Heights Historic District (S/NR-listed; NYCHD)[7]

The Prospect Heights Historic District is bounded by Pacific Street and St. Mark's Avenue to the north, Washington Avenue to the east, Sterling Place to the south, and Flatbush Avenue to the west (see **Figure F-4**). The historic district includes row houses, two-family houses, semi-attached houses, free-standing houses, apartment buildings, and institutional and commercial buildings from the mid-19th to mid-20th century of a multitude of designs, including Italianate, neo-Grec, French Second Empire, Romanesque, French Renaissance, Italian Renaissance, Colonial, Arts and Crafts, Art Deco, and Art Moderne. The National Register Nomination Form for the Prospect Heights Historic District describes it as a "cohesive district" of rowhouses and multiple dwellings dating to the 19th and early 20th centuries, which provides a "rare glimpse of what Brooklyn's residential neighborhoods were like in the late 19th century."

Approximately nine properties in the historic district are located within the study area. The closest historic district buildings are located 565 Vanderbilt Avenue on the east side of Vanderbilt Avenue, south of Pacific Street, approximately 150 feet from the south end of the Project Area. The historic district buildings are late-19th century brick structures constructed in the Italianate, Neo Grec, Colonial Revival and Queen Anne styles. The buildings typically include a commercial storefront on the ground floor. The buildings meet the sidewalk or are set back from the sidewalk by paved yards enclosed by decorative fencing.

Church of St. Luke and St. Matthew (S/NR-listed; NYCL)[8]

The Church of St. Luke and St. Matthew is located north of the Development Site at 520 Clinton Avenue on a through-block site with frontages on Clinton and Vanderbilt Avenues (see View 8 of **Figure F-5**). The church is located approximately 360 feet from the Project Area. The Romanesque Revival-style church complex, which includes an adjoining chapel and former Sunday school building, was designed by John Welch, a local Brooklyn architect, beginning in

[7] This description of the Prospect Heights Historic District is from the *National Register of Historic Places Registration Form for the Prospect Heights Historic District (Boundary Expansion),* prepared by Gregory Dietrich on August 30, 2015 for the National Register of Historic Places, National Park Service.

[8] This description of the Church of St. Luke and St. Matthew is from the *National Register of Historic Places Inventory-Nomination Form* prepared by Andrew Dolkart in June 1981 for the National Register of Historic Places, National Park Service.

View southeast on Vanderbilt Avenue to residential and commercial buildings in the Prospect Heights Historic District **7**

View west on Clinton Avenue to the Church of St. Luke and St. Matthew in the Clinton Avenue Historic District **8**

Known Architectural Resources Photographs

1888 and completed in 1891. Built on what was formerly one of Brooklyn's most elite streets, the church has northern Italian Romanesque-style detailing and features decorative sandstone, terra-cotta, and granite. The church entrance has a tripartite arched portal with granite columns and ornate terra-cotta blocks. Above the entrance is a wheel window with stained glass flanked by arched terra-cotta molding, pilasters, and two additional columns. The church and has decorative corbelling at the cornice.

The church is connected to a chapel and former Sunday school building by a two-story cloister. The second story has rectangular window openings. The two-story chapel has a bell tower that uses the same arched detailing seen across the church's main façade, as well as round-arched openings. The chapel's entrance is a triple-arched porch supported by granite columns; the capitals of the central columns are in the form of female heads (portrait busts of the donor's deceased daughter). The second floor has three round-arched window openings with stained glass.

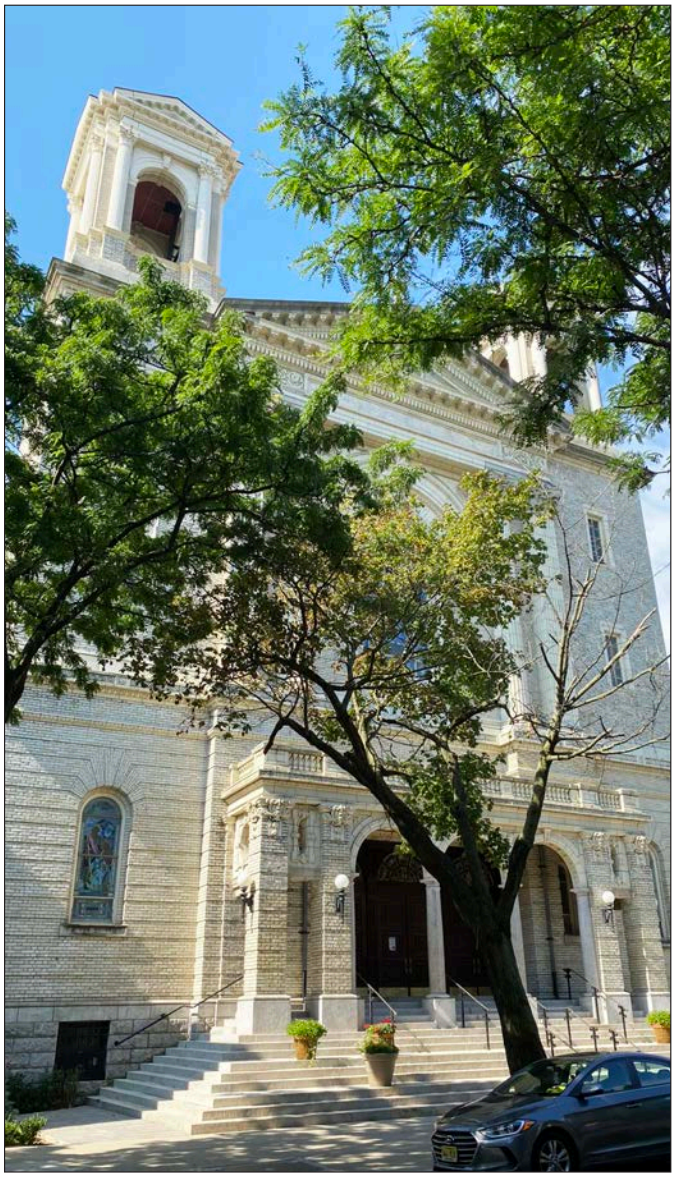
The church's rear frontage is on Vanderbilt Avenue. The rear of the church building (the chancel) has simple round-arched, stained glass window openings, each with a keystone detail. Some of the window openings on the rear of the church have been infilled. Also fronting on Vanderbilt Avenue is a three-story brick structure with minimal architectural detailing. Erected in 1889, this small building was previously known as the Ellen Woolsey Memorial Hall.

Co-Cathedral of St. Joseph/St. Teresa of Avila and former St. Joseph's School (S/NR-eligible)[9]

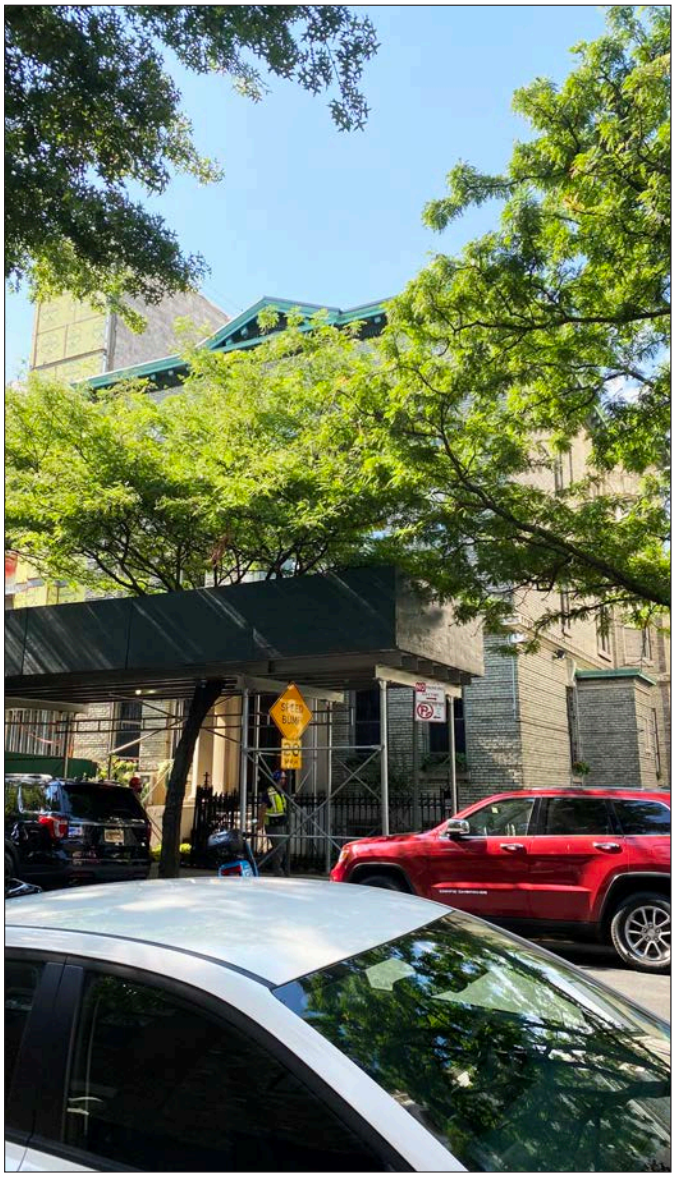
The Co-Cathedral of St. Joseph/St. Teresa of Avila is located south of the Development Site and includes the church at 856 Pacific Street and rectory at 856 Pacific Street. Also part of the S/NR-eligible complex is the former St. Joseph's School at 638 Dean Street, located on a through-block site with frontages on Dean Street and Pacific Street (see Views 9 to 11 of **Figures F-6 and F-7**). The 19th century rectory at 834 Pacific Street was approved for demolition in 2018 and has since been demolished. The complex is located approximately 170 feet from the Project Area.

St. Joseph/St. Teresa of Avila's parish was established in 1850; the complex is significant for its association with the ethnic history of Brooklyn. The Co-Cathedral of St. Joseph/St. Teresa of Avila was designed by Francis J. Berlenbach and built in 1912. The church in an imposing structure designed in the Italian Renaissance Revival style, with a primary façade that features a triple-arched portico at the entrance, surmounted by a round-arched stained glass window, and surrounded by a blind Corinthian portico. The church's stained glass windows and interior murals were designed by Alexander F. Locke. The upper portions of the church's bell towers on Pacific Street were removed in 1975 because of the prohibitive costs of their restoration. The church is linked to St. Joseph/St. Teresa of Avila's rectoryto the east. The rectory embodies a more understated expression of the Renaissance Revival style. Built of white brick, the three-story five-bay structure is surmounted by a copper dentilled cornice with a central pediment. The central entryway of the building is sheltered beneath an entry porch supported by Doric columns. The former St. Joseph's School, built on Dean Street in 1925, is built of white brick and has pronounced quoins, columned entry porches, a copper dentilled cornice and a roof parapet. The entire church complex appears to meet criteria for S/NR listing because of its design and association with the historical development of Brooklyn.

[9] This description of the Joseph's Roman Catholic Church Complex is from the *Resource Evaluations* document Kathy Howe in 2006 for the New York State Office of Parks, Recreation and Historic Preservation



Co-Cathedral of St. Joseph/St. Teresa of Avila, church at 856 Pacific Street **9**



Co-Cathedral of St. Joseph/St. Teresa of Avila, rectory at 856 Pacific Street **10**

Known Architectural Resources Photographs

The former St. Joseph's School, at 638 Dean Street **11**

Known Architectural Resources Photographs

D. FUTURE WITHOUT THE PROPOSED PROJECT

DEVELOPMENT SITE AND PROJECT AREA

In the No Action condition, the proposed rezoning would not occur, and the existing buildings on the Development Site and on the other projected development sites are assumed to remain in their current condition.

STUDY AREA

As discussed in Attachment B, "Land Use, Zoning, and Public Policy," there are seven development projects located within the study area that are anticipated to be completed by the 2025 analysis year (see Attachment B, "Land Use, Zoning, and Public Policy"). Overall, the No Build developments are predominantly residential buildings, consistent with an ongoing trend in the study area of redeveloping underutilized sites and renovating existing buildings as new, multi-family housing. A mixed-use building containing 333 dwelling units at 809 Atlantic Avenue is under construction on the north side of Atlantic Avenue between Vanderbilt and Clinton Avenues, across from the Development Site and Project Area. A mixed-use building containing 316 dwelling units is planned for 840 Atlantic Avenue.

Additional residential and commercial development is expected to be built as a result of the Pacific Park project outside the study area to the west of the Project Area. However, the remaining buildings that are part of the Pacific Park development are not expected to be completed by the 2025 analysis year.

In the No Action condition, the status of architectural resources could change. S/NR-eligible properties could be listed on the Registers and potential architectural resources could be determined S/NR-eligible or considered for NYCL designation. A new building at 840 Atlantic Avenue could alter the context of the paired towers and roofline of the Co-Cathedral of St. Joseph/St. Teresa of Avila by adding a new tall building to the study area.

Privately owned properties that are designated NYCLs, are located in New York City Historic Districts, or pending designation as Landmarks are protected under the New York City Landmarks Law, which requires review by LPC and approval before any alteration or demolition can occur, regardless of whether the project is publicly or privately funded. Publicly owned resources are also subject to review by LPC before the start of a project. Resources that are only eligible for Landmark designation, however, are not protected under the Landmarks Law.

Architectural resources that are listed on the State and National Registers of Historic Places or that have been found eligible for listing are given a measure of protection under Section 106 of the National Historic Preservation Act from the effects of projects sponsored, assisted, or approved by federal agencies. Although preservation is not mandated, federal agencies must attempt to avoid adverse effects on such resources through a notice, review, and consultation process. Properties listed on the Registers are similarly protected against effects resulting from projects sponsored, assisted, or approved by State agencies under the State Historic Preservation Act. However, private owners of properties eligible for, or even listed on, the Registers using private funds can alter or demolish their properties without such a review process.

The New York City Building Code, in Section BC 3309: Protection of Adjoining Property, provides some measures of protection for all properties against accidental damage from adjacent construction by requiring that all buildings, lots, and service facilities adjacent to foundation and

earthwork areas be protected and supported. While these regulations serve to protect all structures adjacent to construction areas, they do not afford special consideration for historic structures.

New York City Department of Building's (DOB) *Technical Policy and Procedure Notice (TPPN) #10/88* applies to NYCLs, properties within NYCHDs, and NR-listed properties. For these structures, *TPPN #10/88* supplements the standard building protections afforded by Building Code C26-112.4 by requiring a monitoring program to reduce the likelihood of construction damage to adjacent NYCLs and NR-listed properties (within 90 feet) and to detect at an early stage the beginnings of damage so that construction procedures can be changed.

E. FUTURE WITH THE PROPOSED PROJECT

DEVELOPMENT SITE

In With Action condition, the Development Site would be redeveloped with an approximately 17-story (up to 75-foot-tall) 211,560-gsf primarily residential building. The Proposed Project would replace the existing buildings, a car dealership, and vacant lot on the Development Site. The proposed building would contain approximately 181,200gsf of residential space, approximately 14,600 gsf of retail space, approximately 5,500 gsf of medical office space, and 40 accessory parking spaces. The proposed building is expected to have a base height of approximately 95 feet, however, for the purposes of this analysis, it is conservatively assumed that the building's base would have a maximum height of 125 feet. Above the base, the building would have multiple setbacks along its Atlantic Avenue frontage, at heights similar to the varied building heights in the study area. The building is expected to be clad in concrete, with recessed windows and façade plantings.

As there are no known or potential architectural resources on the Development Site, no such resources would be directly affected by the Proposed Project. There are no known architectural resources within 90 feet of the Development Site.

PROJECT AREA

In the With Action condition, Projected Development Sites 2 and 3 are anticipated to be redeveloped with new buildings, up to 175 feet tall and containing up to 80,475 gsf of residential and retail space.

As there are no known or potential architectural resources in the Project Area, no such resources would be directly affected by the Proposed Project. Further, there are no known architectural resources within 90 feet of the Development Site.

In the future With Action condition, no new development is anticipated on Lot 12 or p/o Lot 10.

STUDY AREA

DIRECT IMPACTS

The Proposed Actions' potential to result in direct impacts was evaluated. As there are no architectural resources within 90 feet of the Development Site or Project Area, no architectural resources in the study area would be directly affected by the Proposed Actions.

INDIRECT IMPACTS

The Proposed Actions' potential to result in indirect, or contextual, impacts was also evaluated. The stained glass windows on the façades of the Church of St. Luke and St. Matthew are considered a sunlight-sensitive historic architectural resource (see Attachment D, "Shadows"). In particular, there are stained glass arched windows on the south-facing façade of the church transept, stained glass arched windows and stained glass ox's eye windows on the church's south-facing clerestory, and stained glass arched windows on the south-facing façade of the church's rectory. As described in Attachment D, "Shadows," the proposed development on the Development Site and in the Project Area would not cast any new shadow on the Church of St. Luke and St. Matthew and would not result in any adverse shadows impacts on this historic resource.

The Proposed Actions would not result in any significant adverse visual or contextual impacts to the architectural resources in the study area. The Proposed Project would be taller and of a modern design compared to the architectural resources in the study area. However, the new development would not adversely impact the visibility or context of these architectural resources because the architectural resources are already located away from the Project Area and do not have meaningful visual or contextual relationships to the Project Area. The buildings in the Clinton Hill South and Prospect Heights Historic Districts are predominately smaller, low-scale buildings that are located at a distance from the Project Area, beyond intervening buildings. Therefore, the buildings in these historic districts do not having a meaningful visual relationship to the Development Site or Project Area. The older and smaller residential buildings in the Clinton Avenue Historic District and the Church of St. Luke and St. Matthew are already located within the context of existing newer and taller buildings, including the 13-story residential tower at 525 Clinton Avenue and the building under construction at 809 Atlantic Avenue on the west side of Clinton Avenue. South views on Clinton Avenue from within the historic district would include portions of the upper stories of the proposed development, though the view would be partially obscured by trees and the lower height buildings lining the street. Therefore, the proposed project would be consistent with the mixed character of the study area near the historic district and would not adversely alter the setting of the Clinton Avenue Historic District or the Church of St. Luke and St. Matthew. The other historic resources in the study area similarly do not have a meaningful visual or contextual relationship with the Development Site and Project Area as they are located at greater distances, beyond intervening buildings.

Although the new buildings on the Development Site and in the Project Area would be considerably taller than nearby historic resources, the new development would not adversely impact the visual or contextual relationships of study area's architectural resources. With the Proposed Actions, the new buildings on the Development Site and in the Project Area would be taller with larger footprints than most historic buildings in the study area. However, the new building on the Development Site would be designed with a series of setbacks along Atlantic Avenue that would be compatible with the lower heights of existing shorter historic buildings. While the proposed buildings would be taller and larger than study area historic buildings, the new buildings would be consistent with the heights of the new and proposed residential towers located throughout the study area, which are located among the study area's historic resources.

The Proposed Project would not obstruct public views of any known architectural resources in the study area. The architectural resources are generally located away from the Development Site and Project Area beyond intervening streets buildings. While some views of architectural resources in the study area may include the upper stories of the proposed development, study area architectural

resources are already located within the context of older and newer buildings including many tall buildings.

Overall, the Proposed Actions would not introduce incompatible visual, audible, or atmospheric elements to a resource's setting, nor would it isolate a resource from its relationship with the streetscape. Therefore, the Proposed Actions would not result in any significant adverse impacts on historic and cultural resources. ✷

A. INTRODUCTION

This attachment assesses the potential for the Proposed Actions to affect urban design and visual resources of the study area. As defined in the 2020 *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 can include views of the waterfront, public parks, landmark structures or districts, otherwise distinct buildings, and natural resources.

As described in Attachment A, "Project Description and Screening Analyses," the Proposed Actions include a zoning map amendment, a zoning text amendment, and a special permit (the "Proposed Actions") to facilitate the development of an approximately 211,560-gross-square-foot (gsf), 17-story (up to 175-foot-tall) mixed-use building (the "Proposed Project") at 870-888 Atlantic Avenue (Block 1122, Lots 21 and 26; the "Development Site") in the Prospect Heights neighborhood of Brooklyn. The Proposed Actions would likely result in development on two other sites in the Project Area in addition to the Development Site – Projected Development Site 2 (Block 1122, Lots 14, 15, and 16) and Projected Development Site 3 (Lot 11). Development on these sites is anticipated to be up to 80,475 gsf of new space, including 71,775 gsf of residential space (84 dwelling units (DUs), and approximately 8,700 gsf of local retail space in buildings assumed to be up to 175 feet tall. The remaining two properties in the Project Area, Block 1122, Lot 12 and a portion of (p/o) Lot 10, are not expected to be developed as a result of the Proposed Actions.

As described below, this preliminary assessment concludes that the Proposed Actions would not result in any significant adverse impacts to urban design or visual resources in the study area. Development facilitated by the Proposed Actions would be compatible with the urban design of the study area, and would not adversely impact the pedestrian experience. While the Proposed Actions would result in changes to views of some visual resources, views of those visual resources would remain available from other vantage points within the study area. In addition, the Proposed Actions would not alter significant view corridors. Therefore, no further analysis of urban design and visual resources is warranted.

B. METHODOLOGY

In accordance with the *CEQR Technical Manual*, this analysis considers the effects of the Proposed Actions on the experience of a pedestrian in the study area. The assessment focuses on those project elements that have the potential to alter the built environment, or urban design, of the Development Site and other Projected Development Sites, which are collectively formed by the following components:

- *Streets*. 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, street lights, curb cuts, and street furniture also contribute to an area's streetscape.

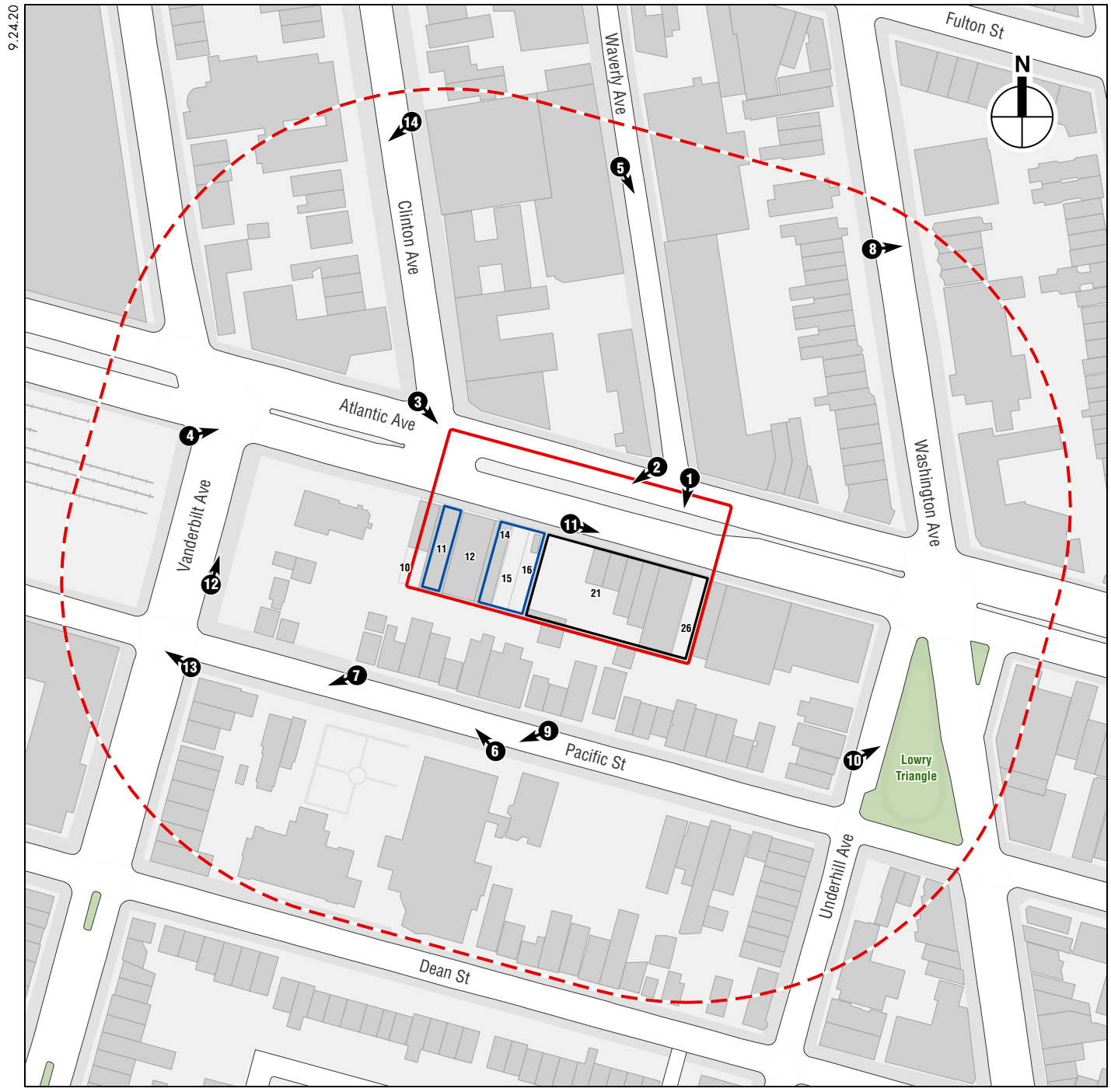
- *Buildings*. A building's size, shape, setbacks, pedestrian and vehicular entrances, lot coverage and orientation to the street are important urban design components that define the appearance of the built environment.
- *Open Space*. Open space includes public and private areas, including parks and other landscaped areas, cemeteries, and parking lots.
- *Natural Features*. Natural features include vegetation and geologic, topographic, 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 or groups of buildings.
- *Wind*. Channelized wind pressure from between tall buildings and downwashed wind pressure from parallel tall buildings may cause winds that affect pedestrian comfort and safety.

The following analysis addresses each of these characteristics for existing conditions and the future without and with the Proposed Actions for the 2025 analysis year. 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 No Action condition. The Proposed Actions would result in physical alterations, which are not allowed by existing zoning, to the Development Site and Project Area, and which would be observable by pedestrians. Therefore, development facilitated by the Proposed Actions meets the threshold for a preliminary assessment of potential impacts to urban design and visual resources.

According to the *CEQR Technical Manual*, the study area for urban design is the area where the project may influence land use patterns and the built environment, and is generally consistent with the study area used for the land use, zoning, and public policy analysis. For visual resources, the view corridors within the study area from which such resources are publicly viewable should be identified. Consistent with CEQR methodology, the study area for the urban design and visual resources analysis has been defined as the area within an approximately 400-foot radius of the Project Area, which is also consistent with the study area for land use, zoning, and public policy (see **Figures G-1 and G-2**). The study area is roughly bounded by Fulton Street to the north, Washington Avenue to the east, Dean Street to the south, and Vanderbilt Avenue to the west. The *CEQR Technical Manual* recommends an analysis of pedestrian wind conditions for projects that result in the construction of large buildings at locations that experience high wind conditions (such as along the waterfront, or other location where winds from the waterfront are not attenuated by buildings or natural features), which may result in an exacerbation of wind conditions due to "channelization" or "downwash" effects that may affect pedestrian safety. The Proposed Project would not result in the construction of a large building at a location that experiences high wind conditions, and thus a pedestrian wind analysis is not warranted.

The Development Site, Project Area, and study area are discussed in detail for existing conditions, future without the Proposed Project (the "No Action" condition), and the future with the Proposed Project (the "With Action" condition).

As described in detail in Attachment A, "Project Description and Screening Analyses," the Proposed Project would replace the six existing two-story older commercial buildings and underdeveloped and vacant lots on the Development Site (Projected Development Site 1) with a



Urban Design and Visual Resources
Project Location

870-888 ATLANTIC AVENUE REZONING

Figure G-1

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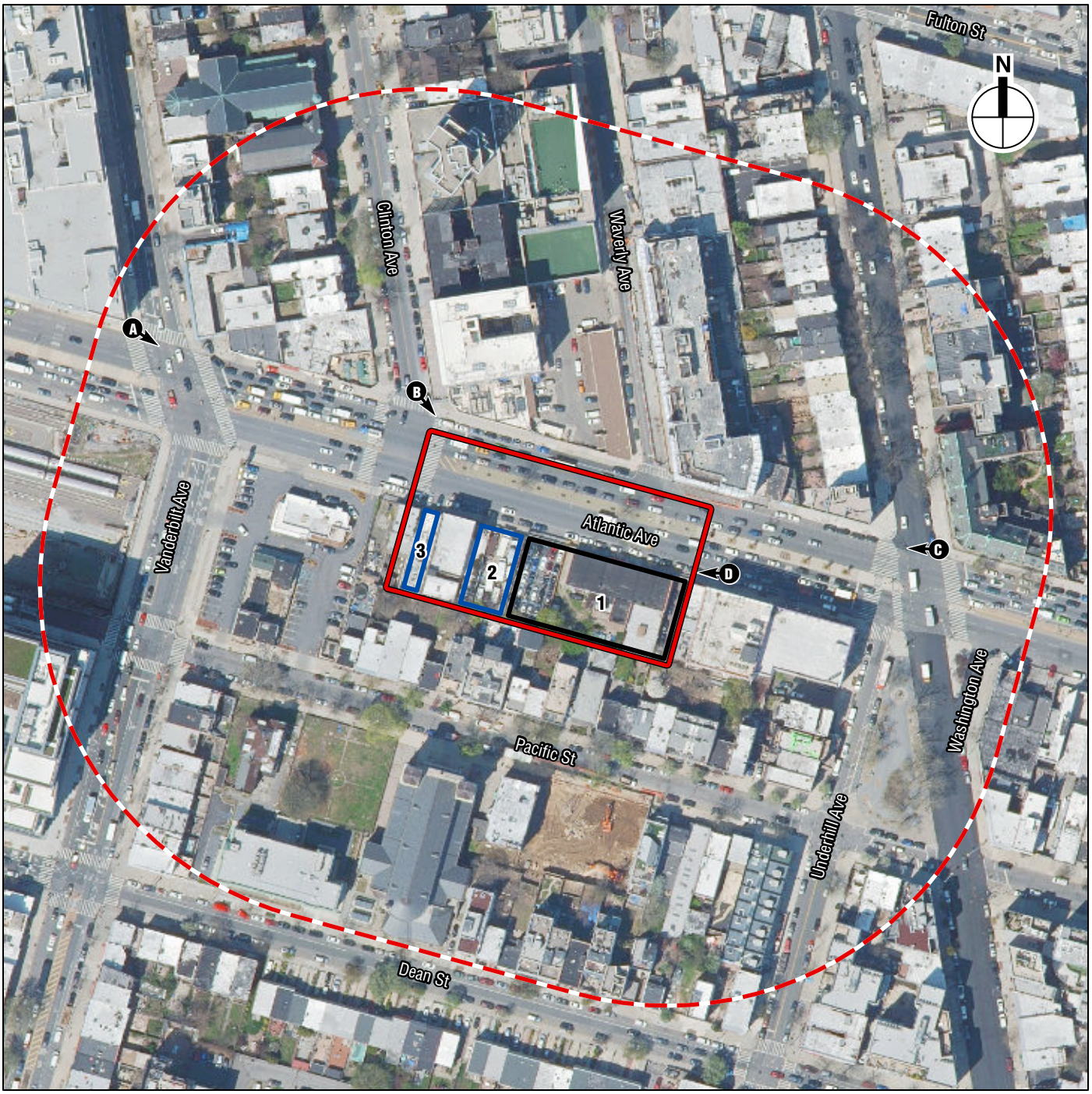

0 200 FEET

Project Area

Development Site (Projected Development Site 1)

Non-Applicant Owned Projected Development Sites

Study Area (400-foot perimeter)

A *Illustrative Renderings View Direction and Reference Number*

Urban Design and Visual Resources
Aerial

17-story mixed-use building with a maximum floor area of approximately 211,560 gross square feet (gsf), containing approximately 228 DUs in 181,200 gsf of residential space. In addition to the redevelopment of the Development Site, the Proposed Actions would also facilitate the redevelopment of Projected Development Sites 2 and 3, which would be developed with up to 80,475 gsf, including 84 DUs in approximately 71,775 gsf of residential space and 8,700 gsf of local retail uses on the ground floors . The buildings are also assumed to be up to 175 feet tall. The proposed C6-3A zoning would facilitate new DUs, and the proposed text amendment would allow for streetwall flexibility that would facilitate a proposed sidewalk widening of approximately eight feet along Atlantic Avenue (for a total of 20 feet wide) which would enhance the streetscape adjacent to the Project Area, and accommodate the increased pedestrian activity that would be created by the new development.

C. EXISTING CONDITIONS

URBAN DESIGN

DEVELOPMENT SITE

The Development Site (Projected Development Site 1) occupies Block 1122, Lots 21 and 26. The Development Site has an approximately 200-foot-wide street frontage on the south side of Atlantic Avenue between Vanderbilt and Underhill Avenues in the Prospect Heights neighborhood of Brooklyn. Lot 21 is occupied by six, two-story (approximately 22- to 24-foot-tall) older commercial buildings (comprising a total of approximately 13,400 gsf) with ground floor retail. The buildings are built to the lot line and cover approximately half of the lot. A car dealership occupies the western end of Lot 21. Lot 26 includes an unimproved 2,000-sf vacant paved lot (see Photos 1 and 2 of **Figure G-3**). The car dealership and vacant lot have roll down metal gates at the property line along the sidewalk and are accessed by curb cuts along Atlantic Avenue. The sidewalk adjacent to the Development Site is approximately 12 feet wide and has several curb cuts for vehicular access and pedestrian ramps to crosswalks, in addition to street furniture including lampposts and street crossing signs.

PROJECT AREA

For the purpose of this assessment, the Project Area includes the Development Site, as described above, Projected Development Sites 2 and 3 on Lots 11 and 14–16, as well as Lot 12 and p/o Lot 10 (see **Figure G-2 and Figure G-4**). Projected Development Site 2 includes the lots immediately adjacent to the Development Site—Lots 14–16. Projected Development Site 2 has an approximately 6,000-sf lot area that is controlled by a single owner; each of the three lots is approximately 2,000 sf. Projected Development Site 2 contains a one-story, approximately 14-foot-tall industrial building on Lot 14 and accessory parking lots on Lots 15 and 16 (see Photo 3 of **Figure G-4**). The building on Lot 14 is built to the lot line and occupies its entire lot. A temporary trailer and a small storage building are located on the Lots 15 and 16. A tall, corrugated metal fence establishes the lot lines of these two lots. A centrally located roll-down metal gate provides access to Lots 15 and 16. There is a curb cut along Atlantic Avenue for auto-related uses on Lots 15 and 16. The sidewalk adjacent to the remainder of the Project Area is also approximately 12 feet wide, has several curb cuts for vehicular access and pedestrian ramps to crosswalks, and has street furniture including lampposts and street crossing signs.

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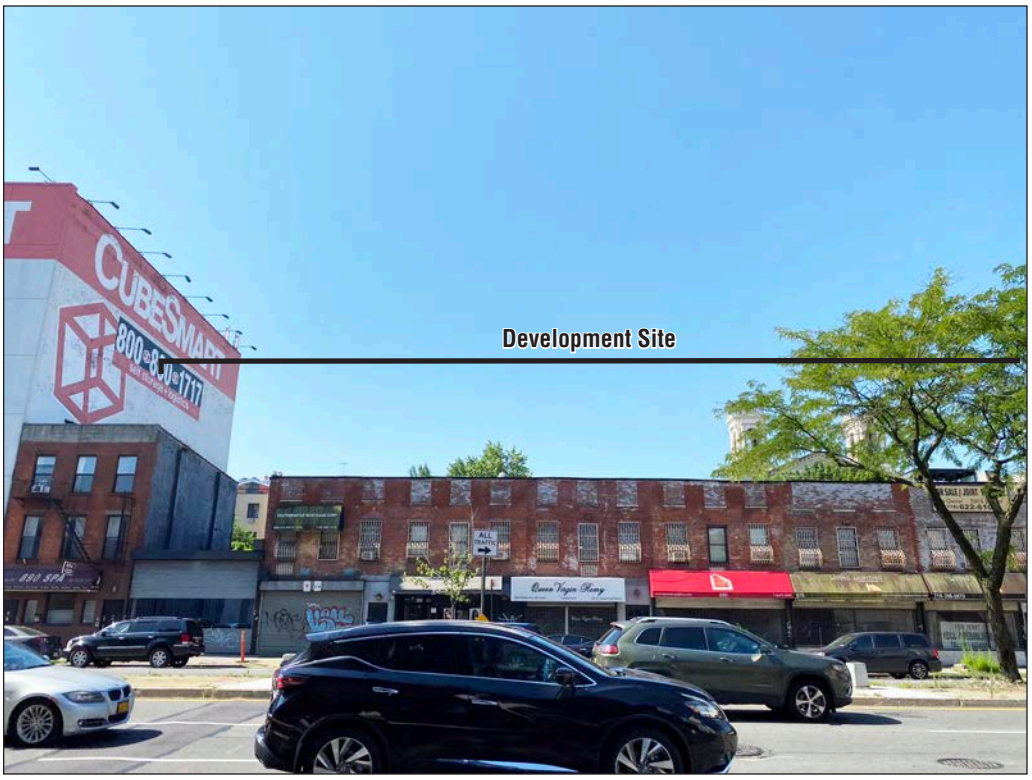


View south from Waverly Place of the eastern end of the Development Site (Block 1122, Lots 21 and 26) **1**

View southwest from Waverly Place to the western end of the Development Site **2**

Development Site Photographs

870-888 ATLANTIC AVENUE REZONING

Figure G-3

View southeast of the Project Area from Clinton Avenue. The Project Area includes the Development Site, Projected Development Site 2 (Block 1122, Lots 14, 15, and 16), Projected Development Site 3 (Block 1122, Lot 11), and Lots 10 and 12. **3**

View northeast along Atlantic Avenue from Vanderbilt Avenue showing two-way traffic separated by a raised concrete median **4**

Project Area and Study Area Photographs

Figure G-4

West of Projected Development Site 2 is Projected Development Site 3 (Lot 11), an approximately 2,700-sf lot that contains a one-story automotive repair and sales garage (see Photo 3 of **Figure G-4**). The garage is an approximately 2,700-sf, 14-foot-tall brick and cinderblock building that is built to the lot line and occupies the entire lot. Lot 11 has one curb cut for auto-related access. West of Lot 11 is Lot 10, an approximately 2,400-sf lot that contains an approximately 2,520-sf three-story (approximately 31-foot-tall), residential building with a ground floor restaurant and bar. The brick-faced building occupies approximately half of the lot and is built to the lot line. The remaining lot in the Project Area is Lot 12, an approximately 4,000-sf lot that contains a four-story (approximately 48-foot-tall) residential building with ground floor commercial (see Photo 3 of **Figure G-4**). The lot is located between Projected Development Sites 2 and 3 in the Project Area. The brick-faced building is built to the lot line, occupying the entire lot.

STUDY AREA

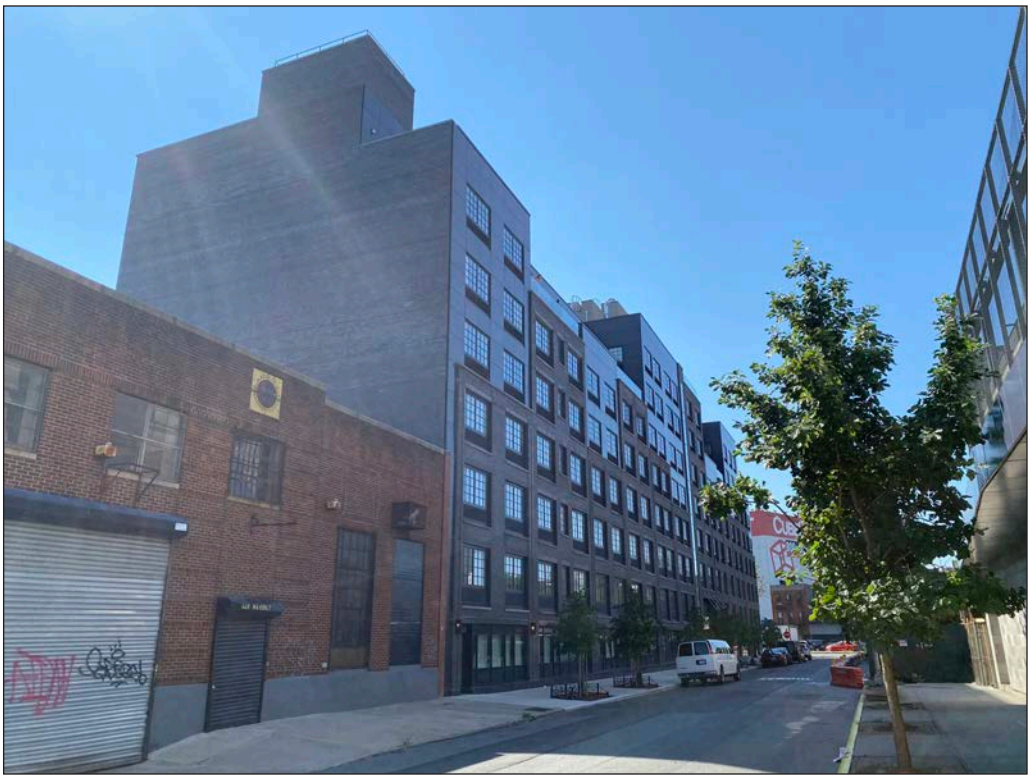
The discussion below focuses first on the study area's urban design—its basic layout and structures—and then describes its visual resources (see **Figures G-1 and G-2**).

URBAN DESIGN

Streets

The study area streets form an irregular grid pattern that shifts north and south of Atlantic Avenue (see **Figure G-2**). North of Atlantic Avenue, blocks are generally oriented north–south with their short ends along Atlantic Avenue; south of Atlantic Avenue, blocks are generally oriented east-west with their long edges parallel with Atlantic Avenue. Washington Avenue runs at an angle through the southern portion of the study area but is consistent with the street angles north of Atlantic Avenue. Washington Avenue creates irregularly shaped blocks, including a triangular-shaped open space—Lowry Triangle—bounded by Underhill, Atlantic, and Washington Avenues. There are two New York City Transit (NYCT) bus routes in the study area. The B45 bus runs east–west along Atlantic Avenue and north-south along Washington Avenue; the B69 bus runs north-south along Vanderbilt Avenue. There is one Citi Bike station adjacent to Lowry Triangle, on Underhill Avenue (see **Figure G-1**). Street furniture within the study area includes cobra-head street lamps, traffic lights, bus stop signs, fire hydrants, trash cans, a LinkNYC kiosk, and bicycle racks.

The primary east–west thoroughfare in the study area is 120-foot-wide Atlantic Avenue, which has curbside parking and two-way traffic separated by a raised concrete median (see Photo 4 of **Figure G-4**). Vanderbilt, Clinton, and Washington Avenues are 80 feet wide, with two-way traffic and curbside parking. Vanderbilt Avenue has dedicated bicycle lanes. Pacific Street and Underhill Avenue are 70-foot-wide, two-way streets with curbside parking; however, north of Pacific Street, Underhill Avenue becomes one-way carrying south–bound traffic. Waverly Avenue is the narrowest street in study area at approximately 55 feet wide. It carries one-way southbound traffic and has curbside parking (see Photo 5 of **Figure G-5**). Sidewalk widths and conditions vary throughout the study area. They are narrower on the residential streets and include street trees in tree pits and minimal curb cuts. Wider sidewalks are located on the primary thoroughfares of Vanderbilt and Atlantic Avenues and include a variety of street furniture, as described below. The sidewalks on Vanderbilt Avenue also include street trees, whereas, there are very few street trees on Atlantic Avenue. Sidewalks on Atlantic Avenue include newer sidewalks adjacent to newer buildings.



View southeast along Waverly Street, from north of Atlantic Avenue **5**

View northwest to residential buildings on Pacific Street between Underhill and Vanderbilt Avenues **6**

Residential buildings with ground-floor retail are generally located along Vanderbilt Avenue south of Atlantic Avenue. Buildings in the study area along Atlantic Avenue include smaller commercial businesses, several vehicular-related businesses, a large storage facility, and a McDonald's restaurant. With the exception of Atlantic and Vanderbilt Avenues, many study area streets have mature street trees, including some that form canopies over the streets. Vanderbilt Avenue has smaller street trees.

Buildings

The study area is primarily characterized by residential and institutional buildings, including residential buildings with ground floor retail oriented along Vanderbilt and Washington Avenues as noted above. The residential buildings include a mix of older and newer buildings. Most older, smaller buildings have low lot coverage and newer buildings are generally larger and taller, occupying all or most of their lots. The institutional buildings also typically have larger footprints and are located on larger lots. Transportation, industrial, and utility buildings are largely located along or near Atlantic Avenue. These buildings are generally smaller one- to four-story buildings with smaller footprints that have partial lot coverage.

The remainder of the block that contains the Development Site and Project Area is primarily occupied by three- to four-story residential buildings. These residential buildings have frontages along Pacific Street and Underhill Avenue (see Photo 6 of **Figure G-5**). A one-story McDonald's restaurant occupies the western end of the block, fronting on Vanderbilt and Atlantic Avenues. The fast-food restaurant's parking lot and drive-thru are accessible from Atlantic and Vanderbilt Avenues, with an additional driveway entrance on Pacific Street. On the eastern end of the block on the southwest corner of Underhill and Atlantic Avenues is a four- to seven-story CubeSmart storage building.

The small portion of the study area between Atlantic Avenue and Pacific Street west of Vanderbilt Avenue is occupied by the Atlantic Yards rail yard, a block-long below-grade open rail yard creates a long physical break in the urban fabric of the nearby area. An approximately 10-foot-high chain-link fence establishes the boundary of the rail yard in this portion of the study area. Redevelopment of the rail yards is ongoing as part of the unrelated Pacific Park project that is anticipated to include several tall, approximately 25- to 27-story primarily residential buildings, with ground floor retail and open space. Four Pacific Park buildings have already been completed, including one within the study area—the 18-story residential building at 550 Vanderbilt Avenue on the west side of Vanderbilt Avenue between Pacific and Dean Streets. The building is built to the lot line and has a large U-shaped footprint (see Photo 7 of **Figure G-6**). The other completed Pacific Park buildings are outside the study area to the west but, because of the scale and massing, are visible from the study area—a 32-story tower at 461 Dean Street, an 18-story building at 535 Carlton Avenue, and a 23-story tower at 38 Sixth Avenue. The remaining Pacific Park buildings are not expected to be completed by the Proposed Project's 2025 analysis year.

The built environment within the study area is varied with a mix of older, smaller buildings, including one-story industrial buildings, three-story residential buildings with ground floor retail, and two- to four-story row houses, and churches, and newer, substantially taller apartment buildings, many with ground floor retail. Many of the smaller and lower-scale buildings are located within historic districts, which include: the Prospect Heights Historic District located south of Pacific Street along Vanderbilt Avenue; and the Clinton Avenue and Clinton Hill South Historic Districts located north of Atlantic Avenue along Clinton and Washington Avenues see Photo 8 of **Figure G-6**, as described in Attachment F, "Historic and Cultural Resources" (, also see Figure F-1, and Figures F-3 through Figure F-5). North of the Project Area across Atlantic Avenue is a

View southwest to the Pacific Park building at 550 Vanderbilt from Pacific Street **7**

Low-scale residential buildings located along Washington Avenue in the Clinton Hill South Historic District **8**

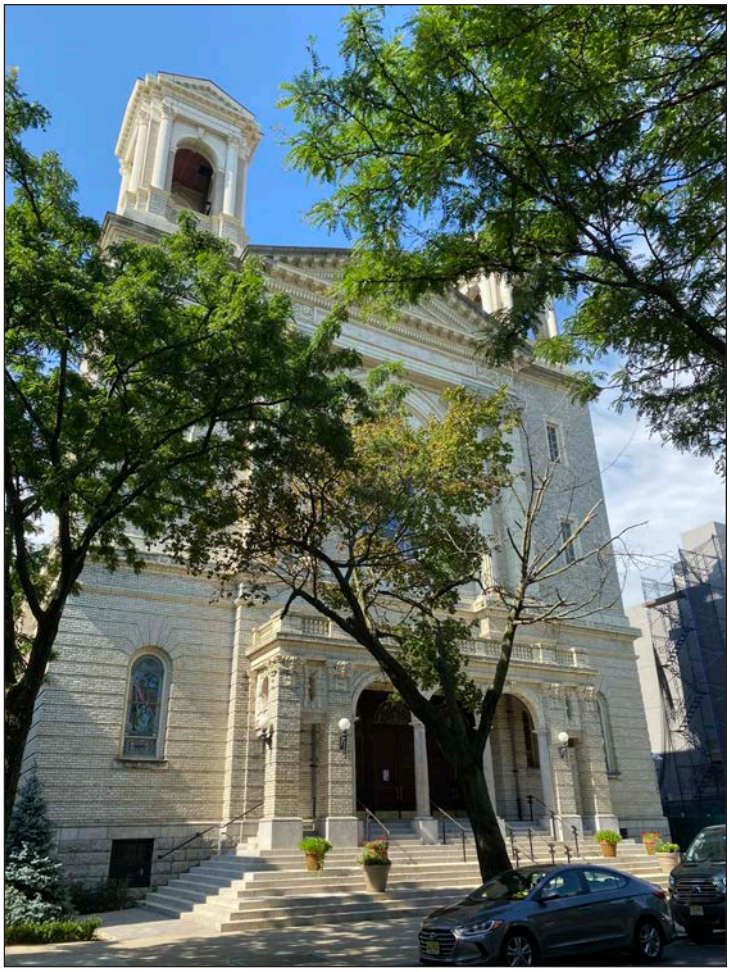
Study Area Photographs
Figure G-6

development site that is under construction at 809 Atlantic Avenue with a three- and 29-story primarily residential building. Buildings in the study area are predominantly older brick- and brownstone-faced buildings; however, there are also some older wood frame structures and newer glass- and metal-clad modern structures. The row houses in the study area are typically set back from the street, with high stoops and small front areas, which are paved, landscaped, and/or fence-enclosed. Many of the larger apartment buildings are also set back from the sidewalk by small fence-enclosed areas; however, some apartment buildings are built to the sidewalk line. The Achievements First Endeavor Middle School, located midblock on the west side of Waverly Avenue between Atlantic Avenue and Fulton Street, is an approximately 78-foot-tall, early-20th century school building with a large, generally rectangular footprint.

There are also two churches in the study area—the Co-Cathedral of St. Joseph/St. Teresa of Avila and Church of St. Luke and St. Matthew, both of which are visual resources and discussed in more detail in "Visual Resources and View Corridors." The Co-Cathedral of St. Joseph/St. Teresa of Avila, on Pacific Street between Vanderbilt and Underhill Avenues, occupies a large through-block site, with frontages on Pacific and Dean Streets. The Italian Renaissance Revival style church occupies an elevated site and is setback from the sidewalk by a wide, high stair (see Photo 9 of **Figure G-7**). The church has two paired bell towers along Pacific Street that extend above the height of nearby buildings and are visually prominent. A three-story brick-faced rectory is located to the east of the church, connected by an enclosed, one-story breezeway. Similar to the church, the understated Renaissance Revival-style rectory is set back some from the sidewalk by a set of stairs. The former St. Joseph's school is located on Dean Street and is set back from the sidewalk with wrought iron fencing at property line. The brick-faced school has two columned entry porches facing the sidewalk at either end of the south (main) façade. The church and former school have large footprints, while the rectory has a smaller footprint; however, each occupies the majority of their lots. Located west of the church along Pacific Street and north of the former school building, the former enclosed yard is currently being redeveloped with a new six-story residential and community facility building.

The Church of St. Luke and St. Matthew is located at 520 Clinton Avenue north of the Development Site between Atlantic Avenue and Fulton Street. The church occupies a through-block site, with frontages on both Clinton and Vanderbilt Avenues, with the church's primary façade on Clinton Avenue. The Romanesque Revival-style church complex includes an adjoining chapel and former Sunday school building connected by a two-story cloister. The portions of the church complex facing Clinton Avenue are set back slightly from the street behind a narrow, brick-paved plaza with small landscaped areas. The church is faced in decorative stone. The two-story chapel, which fronts on Clinton Avenue, has a bell tower that rises above the rooflines of nearby buildings and is visually prominent. The church's rear frontage is on Vanderbilt Avenue. A three-story, modestly decorated brick-faced structure is also built along the sidewalk and fronts on Vanderbilt Avenue. The church complex generally occupies the entire lot.

The tallest buildings in the study area are the 18-story Pacific Park building at 550 Vanderbilt Avenue southwest of the Project Area; the 13-story residential tower at 525 Clinton Avenue northwest across Atlantic Avenue north of the Project Area; and a 10-story office building at 487 Clermont Avenue, at the northwest corner of Atlantic and Vanderbilt Avenues at the western edge of the study area. In addition, as described above, is the three- and 29-story building under construction at 809 Atlantic Avenue across from the Project Area.



View south of the
Co-Cathedral of St. Joseph/St. Teresa of Avila
located along Pacific Street,
east of Vanderbilt Avenue **9**

View east of Lowry Triangle from Underhill Avenue, just north of Pacific Street **10**

Study Area Photographs
Figure G-7

Natural Features and Open Space

The topography of the study area is generally flat, with a slight rise south of Atlantic Avenue and a slight rise from west to east. Lowry Triangle within the eastern portion of the study area south of Atlantic Avenue is the only open space in the study area (see Photo 10 of **Figure G-7**). Lowry Triangle contains small and mature trees, benches, and a bronze portrait bust honoring the Reverend Benjamin James Lowry, the long-time pastor of Zion Baptist Church, located at 523 Washington Avenue. No other natural features are located in the study area.

VISUAL RESOURCES AND VIEW CORRIDORS

The *CEQR Technical Manual* defines a visual resource as the connection from the public realm to significant natural or built features, including views of the waterfront, public parks, historic structures, otherwise distinct buildings or groups of buildings, and natural features (such as rivers).

DEVELOPMENT SITE AND PROJECT AREA

As described above, the Development Site and Project Area contain substantially altered older buildings and surface parking areas. The buildings are not architecturally significant or visually prominent. Therefore, there are no visual resources located on the Development Site or the Project Area.

Views to the Development Site and Project Area are available from vantage points on Atlantic Avenue and from the southern ends of the streets that terminate at Atlantic Avenue to the north. Views from the south are generally obstructed by intervening buildings, such as along Pacific Street and Vanderbilt Avenue south of Atlantic Avenue.

Views from the Atlantic Avenue sidewalk adjacent to the Development Site and Project Area include long uninterrupted east-west views on Atlantic Avenue and northward views on the streets extending north from Atlantic Avenue. The long views on Atlantic Avenue establish it as a view corridor. Views on Atlantic Avenue include visual resources located outside the study area to the west—the large, tall new Pacific Park building at 550 Vanderbilt Avenue within the study area, as discussed above, and the other Pacific Park buildings at 535 Carlton Avenue and 38 Sixth Avenue. Although these buildings are located outside the study area, they are visually prominent in views west. Other views west on the Atlantic Avenue also include long views to visual resources in the distance. These include the Barclays Center (located west of Sixth Avenue), the former Williamsburgh Savings Bank tower, and taller buildings in Downtown Brooklyn.

Eastward views from the Atlantic Avenue sidewalk adjacent to the Development Site and Project Area include low scale buildings built along Atlantic Avenue, and the bell towers of the Co-Cathedral of St. Joseph/St. Teresa of Avila and Church of St. Luke and St. Matthew located south and north of Atlantic Avenue, respectively. From the sidewalk adjacent to the Development Site and Project Area, views are limited to the paired bell towers of the Co-Cathedral of St. Joseph/St. Teresa of Avila, a visual resource on Pacific Street to the south due to the church's elevated height and the height of the towers. The paired bell towers serve as a visual resource. From the Development Site, the Church of St. Luke and St. Matthew, a visual resource along the west side of Clinton Avenue is not visible; however, the bell tower of the church is visible in views north across Atlantic Avenue near the western end of the Project Area. The majority of historic buildings along Clinton Avenue that are part of the Clinton Avenue Historic District, another visual resource, are not visible from the sidewalk adjacent to the Development Site and Project Area due to the presence of intervening buildings and mature street trees. The visual resources that are

visible are the south, east and west façades of the six-story former New York and New Jersey Telephone Company building (also known as 547-555 Clinton Avenue) at the northeast corner of Clinton and Atlantic Avenues, and the three three-story row houses at 536-540 Clinton Avenue. The buildings in the Clinton Hill South Historic District, a visual resource that begins at Washington Avenue and extends east, are generally not visible from the sidewalks adjacent to the Development Site and Project Area. The exception is a partial view of the three-and-a-half story multifamily building at 555 Washington Avenue at the northeast corner of Washington and Atlantic Avenues (see Photo 11 of **Figure G-8**).

STUDY AREA

Visual resources in the study area include six known architectural resources—the Clinton Hill South Historic District, the Prospect Heights Historic District, Clinton Avenue Historic District, the former New York and New Jersey Telephone Company building, the Church of St. Luke and St. Matthew, and the Co-Cathedral of St. Joseph/St. Teresa of Avila. The Clinton Hill South Historic District and Clinton Avenue Historic District buildings located in the study area are a cohesive collection of residential buildings designed in notable mid-19th to early-20th century architectural styles, and their context to the street—set back from the sidewalk by small yard areas enclosed by iron fencing—is noteworthy. The northern portion of Prospect Heights Historic District located in the study area, serves as a cohesive commercial and residential corridor along Vanderbilt Avenue, with buildings of similar massing built along the sidewalk. As one of the taller buildings in the study area, east of Vanderbilt Avenue, the former New York and New Jersey Telephone Company building at the northeast corner of Clinton and Atlantic Avenues is visually prominent along the Atlantic Avenue corridor. The Church of St. Luke and St. Matthew and the Co-Cathedral of St. Joseph/St. Teresa of Avila are visual resources that have visually prominent bell towers and architecturally significant designs that contribute to the visual character of the study area's built environment.

In addition to visually prominent architectural resources in the study area, other visual resources include the Pacific Park buildings both within and outside the study area, as well as the former Williamsburgh Savings Bank tower and taller Downtown Brooklyn buildings in the distance. These buildings are visually prominent from vantage points within the study area and serve as focal points to the west and northwest due to their scale.

Vanderbilt and Atlantic Avenues are view corridors in the study area. Views are most expansive along Atlantic Avenue, given the lack of development above the rail yards on the south side of the street as well as its width. The large, tall new Pacific Park buildings discussed above are prominent in these views west. Views west on the avenue also include the Barclays Center, the former Williamsburgh Savings Bank tower, as well as the taller Downtown Brooklyn buildings in the distance. Views east, as discussed above, include low scale residential and commercial buildings along the avenue, as well as the bell towers of the Church of St. Luke and St. Matthew, and the Co-Cathedral of St. Joseph/St. Teresa of Avila. Views north on Vanderbilt Avenue from south of Atlantic Avenue include the new 550 Vanderbilt Avenue tower, as well as the bell tower of the Church of St. Luke and St. Matthew and the former New York and New Jersey Telephone Company building along Clinton Avenue (see Photo 12 of **Figure G-8**). Views south along Vanderbilt Avenue include the low scale, three- to four-story mixed-use buildings of the Prospect Heights Historic District.

Views west on Pacific Street near Vanderbilt Avenue are extensive as well, and include 550 Vanderbilt and 535 Carlton Avenues, the Barclays Center, the former Williamsburgh Savings

View east along Atlantic Avenue, adjacent to the Development Site **11**

Views north along Vanderbilt Avenue including the bell tower of the Church of St. Luke and St. Matthew and the former New York and New Jersey Telephone Company building along Clinton Avenue **12**

Study Area Photographs
Figure G-8

Bank tower and buildings in Downtown Brooklyn (see Photo 13 of **Figure G-9**). Views east on Pacific Street include mature street trees, low scale residential buildings, and the Co-Cathedral of St. Joseph/St. Teresa of Avila from adjacent sidewalks. Views from sidewalks along Clinton Avenue include buildings of the Clinton Avenue Historic District and the Church of St. Luke and St. Matthew (see Photo 14 of **Figure G-9**). Views south include partial views of the paired towers and the roofline of the Co-Cathedral of St. Joseph/St. Teresa of Avila, and the low scale commercial buildings along Atlantic Avenue. Views north along Underhill Avenue and from sidewalks along Washington Avenue include buildings of the Clinton Hill South Historic District. Views along other streets in the study area generally extend for long distances partially obscured by mature street trees, but without any notable focus or visual resources within those views.

D. FUTURE WITHOUT THE PROPOSED ACTIONS

This section considers urban design and visual resources in the future No Action condition in 2025 for the Development Site, Project Area, and study area.

DEVELOPMENT SITE AND PROJECT AREA

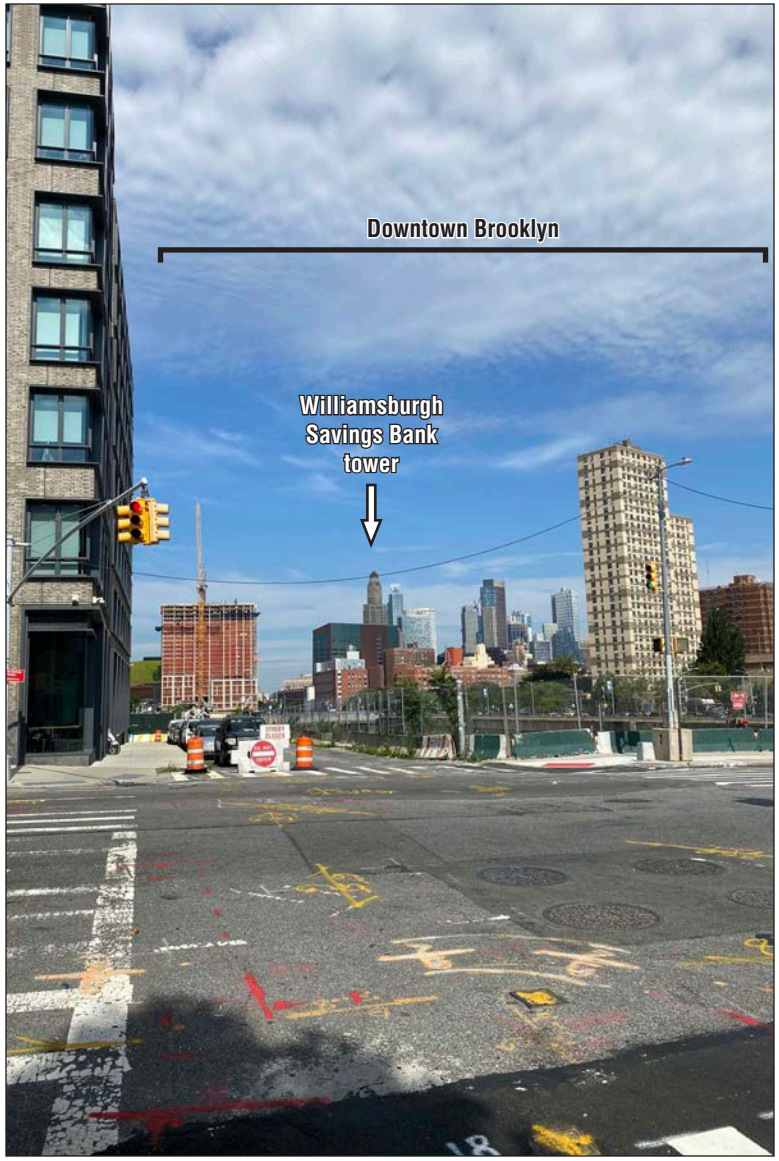
In the future without the Proposed Actions, the existing buildings on the Development Site and in the Project Area are assumed to remain in their current conditions (see **Figure G-2 and Figures G-10 through G-13**). The existing M1-1 zoning would remain in place and would likely preclude viable new development consistent with the prevailing trend toward mixed-uses in the surrounding area.

STUDY AREA

URBAN DESIGN

As discussed in Attachment B, "Land Use, Zoning, and Public Policy," there are seven development projects located within the study area that are anticipated to be completed by the Proposed Project's 2025 analysis year (see Attachment B, "Land Use, Zoning, and Public Policy"). The buildings to be developed range in height from four to 29 stories (see **Figure G-2 and Figures G-10 through G-13**). One of these developments, 840 Atlantic Avenue, is expected to be constructed adjacent to the Project Area on the site of the McDonald's restaurant at the southeast corner of Atlantic and Vanderbilt Avenues. The building is anticipated to be 18 stories, and will include approximately 316 DUs, approximately 55,175 gsf of local retail, and approximately 7,800 gsf of community facility space on the first and second stories. Overall, the No Build developments are predominantly residential buildings, consistent with an ongoing trend in the study area of redeveloping underutilized sites or renovating existing buildings as new, multi-family housing. Additional residential and commercial development is expected to be built as a result of the Pacific Park project outside the study area to the west; however, the remaining buildings that are part of the Pacific Park development are not expected to be completed by the 2025 analysis year.

The No Build projects in the study area will add new, modern buildings to the study area. The No Build developments will enhance the pedestrian experience of the study area closest to the Development Site and the Project Area by adding new buildings with active ground-floor uses and improving the streetscape by replacing underutilized sites with these new developments.



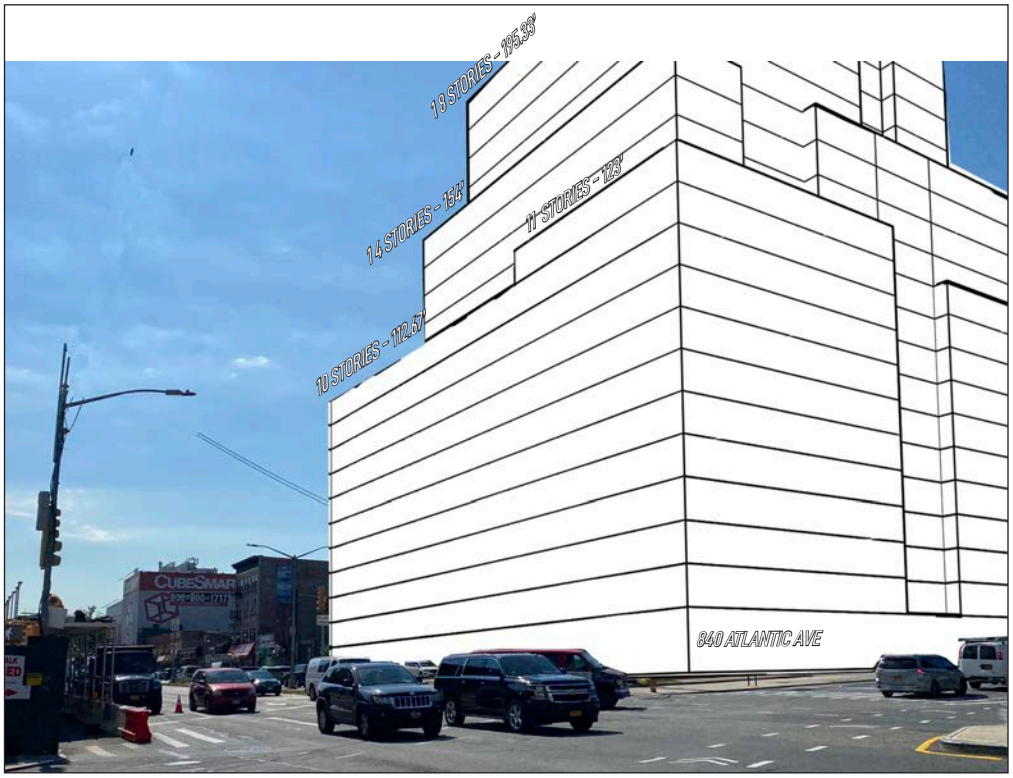
13 Views west from the southeast corner of Pacific Street and Vanderbilt Avenue including the Atlantic Yards rail yard, as well as distant views of buildings in Downtown Brooklyn, and the former Williamsburgh Savings Bank tower

14 View of buildings in the Clinton Avenue Historic District and the Church of St. Luke and St. Matthew along Clinton Avenue

Study Area Photographs
Figure G-9

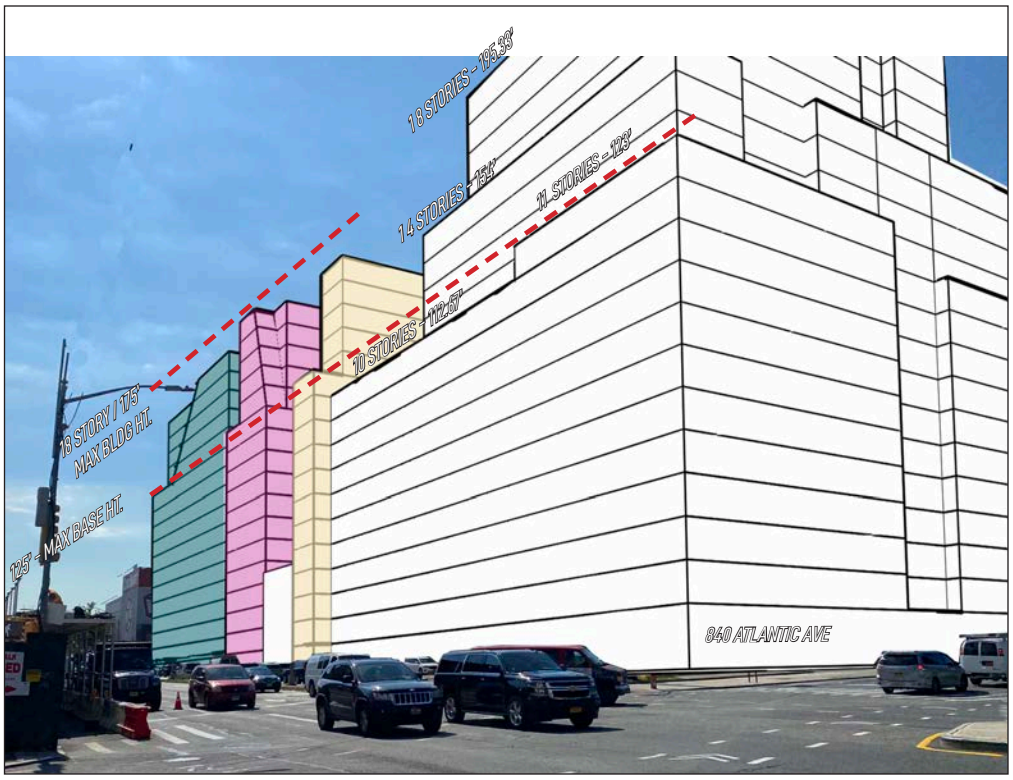
5.19.21

Source: ARCHIMAERA



View A: No Action Condition

Source: ARCHIMAERA



View A: With Action Condition

Background Development

Development Site

Projected Development Site 2

Projected Development Site 3

125' / 175' Maximum Base Height / Maximum Building Height

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

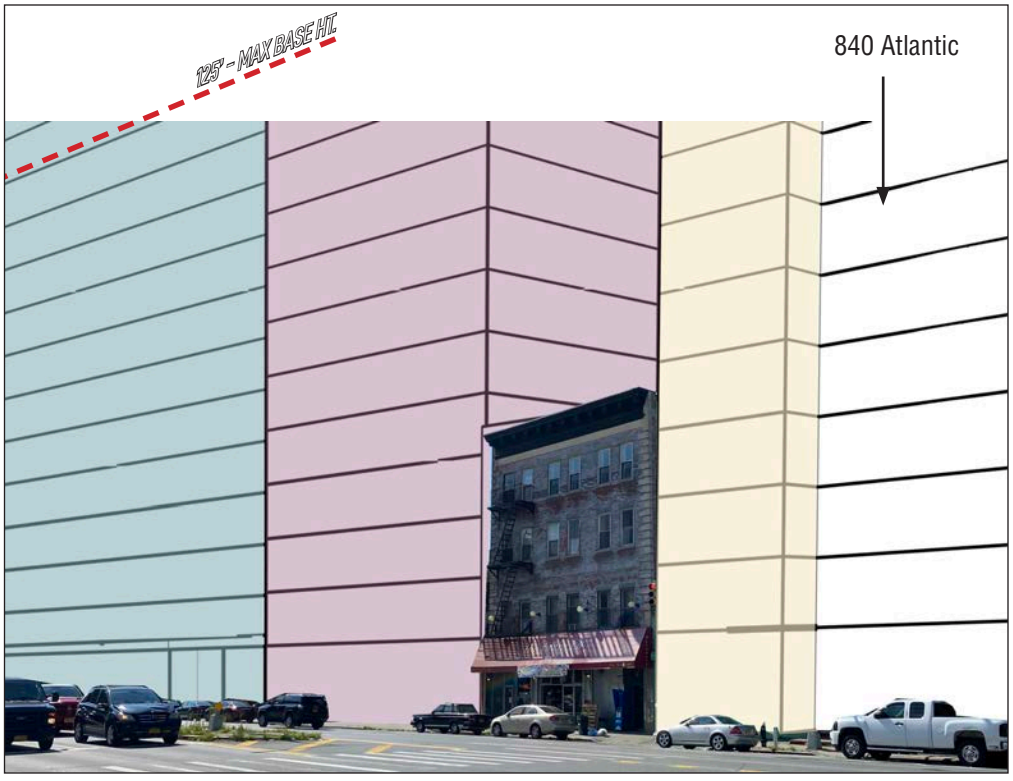
Illustrative Renderings of No Action and With Action Conditions:
View Southeast along Atlantic Avenue from Vanderbilt Avenue

5.19.21

Source: ARCHIMAERA

View B: No Action Condition

Source: ARCHIMAERA



View B: With Action Condition

- Background Development
- Development Site
- Projected Development Site 2
- Projected Development Site 3
- 125' / 175' Maximum Base Height / Maximum Building Height

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

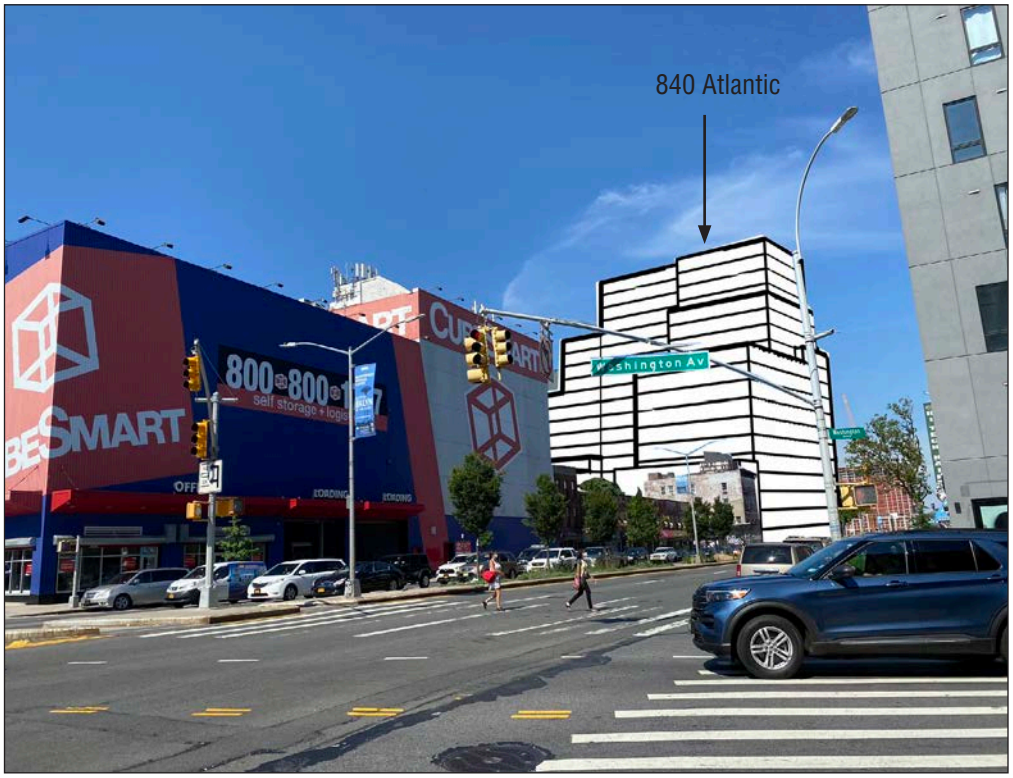
Illustrative Renderings of No Action and With Action Conditions:
View Southeast along Atlantic Avenue

870-888 ATLANTIC AVENUE REZONING

Figure G-11

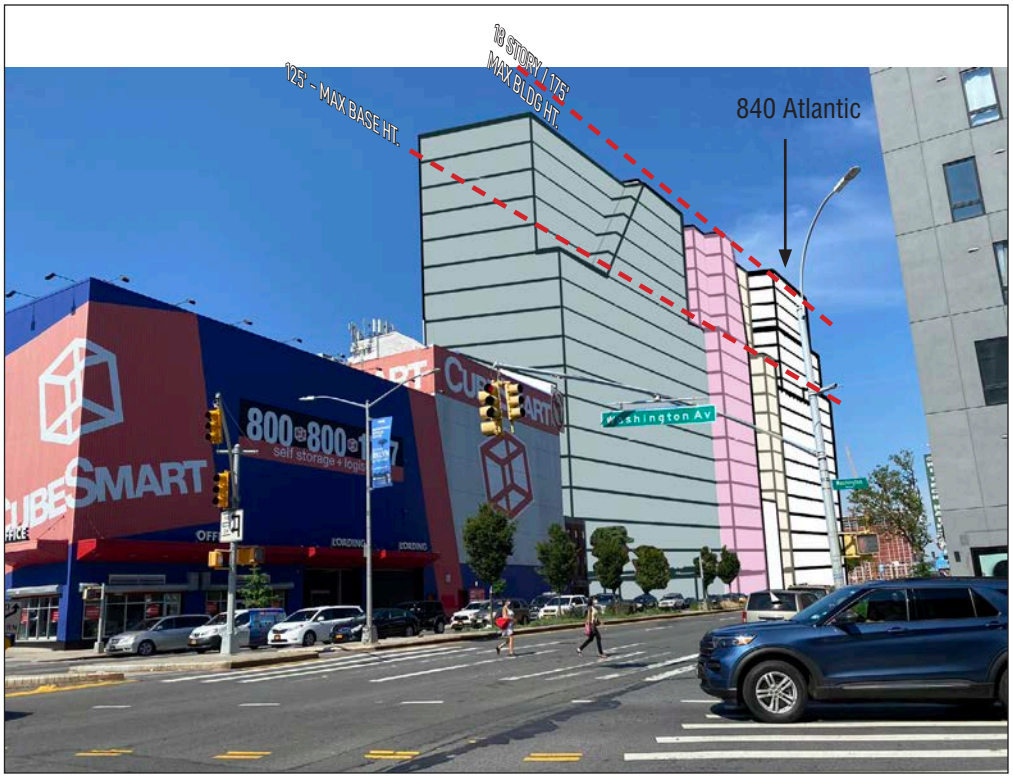
5.19.21

Source: ARCHIMAERA



View C: No Action Condition

Source: ARCHIMAERA



View C: With Action Condition

- Background Development
- Development Site
- Projected Development Site 2
- Projected Development Site 3
- 125' / 175' — Maximum Base Height / Maximum Building Height

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

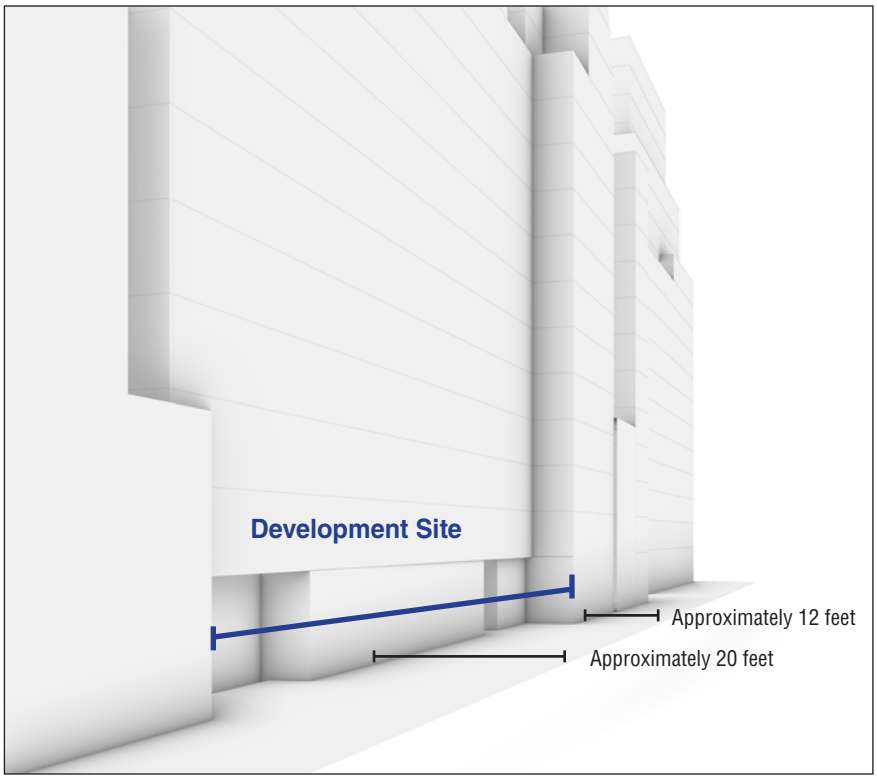
Illustrative Renderings of No Action and With Action Conditions: View Southwest along Atlantic Avenue from Washington Avenue

5.19.21

Source: ARCHIMAERA

View D: No Action Condition

Source: ARCHIMAERA



View D: With Action Condition

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Illustrative Renderings of No Action and With Action Conditions: View Southwest on Atlantic Avenue from Sidewalk adjacent to the Development Site

VISUAL RESOURCES AND VIEW CORRIDORS

In the No Action condition, views in the study area will remain similar to existing conditions along most streets, as the Development Site and the Project Area are not expected to be redeveloped. Views will continue to be expansive along Atlantic Avenue, given the lack of development above the rail yards. With the construction of the new No Build buildings at 809 and 840 Atlantic Avenue, the new Pacific Park buildings will be less prominent in views west, unless near Vanderbilt Avenue. However, views west on the avenue will continue to include the former Williamsburgh Savings Bank tower, and taller Downtown Brooklyn buildings in the distance. Views east will remain largely similar, except for at the intersection of Vanderbilt and Atlantic Avenues. The buildings under construction at 809 and 840 Atlantic Avenue could partially obscure certain views of the bell tower of the Church of St. Luke and St. Matthew from northward vantage points on Atlantic Avenue, and views from Vanderbilt Avenue south of Atlantic Avenue; however, views of the bell tower from along Clinton and Atlantic Avenues will remain available. Additionally, with the development of the new tall (18-story) building at 840 Atlantic Avenue, partial views of the paired towers and the roofline of the Co-Cathedral of St. Joseph/St. Teresa of Avila to the south could be largely obstructed from Clinton Avenue and Atlantic Avenue adjacent to the new development. However, other views of the church's paired bell towers and roofline will remain available from other vantage points, including from Pacific Street and Vanderbilt and Underhill Avenues. Views north on Vanderbilt Avenue from south of Atlantic Avenue of the former New York and New Jersey Telephone Company building along Clinton Avenue could also be obscured. However, similar to the bell towers, the building will be visible from other vantage points along Clinton, Atlantic, and Waverly Avenues. Views south along Vanderbilt Avenue will continue to include the low scale buildings of the Prospect Heights Historic District.

Views west on Pacific Street near Vanderbilt Avenue will remain extensive, with views of the Pacific Park buildings, the former Williamsburgh Savings Bank tower and buildings in Downtown Brooklyn. Views east on Pacific Street will remain the same, including mature street trees, low scale residential buildings, and the Co-Cathedral of St. Joseph/St. Teresa of Avila from adjacent sidewalks. Views from sidewalks along Clinton Avenue will continue to include buildings of the Clinton Avenue Historic District and the Church of St. Luke and St. Matthew. Views south along Clinton Avenue will no longer include partial views of the paired towers and the roofline of the Co-Cathedral of St. Joseph/St. Teresa of Avila. However, as discussed above, other vantage points will be available. Views north along Underhill Avenue and from sidewalks along Washington Avenue will continue to include buildings of the Clinton Hill South Historic District. Views along other streets in the study area are not expected to be altered in the No Action condition.

E. FUTURE WITH THE PROPOSED ACTIONS

This section considers urban design and visual resources in the future With Action condition in 2025 for the Development Site, Project Area, and study area (see **Figure G-2** and **Figures G-10 through G-17**).

URBAN DESIGN

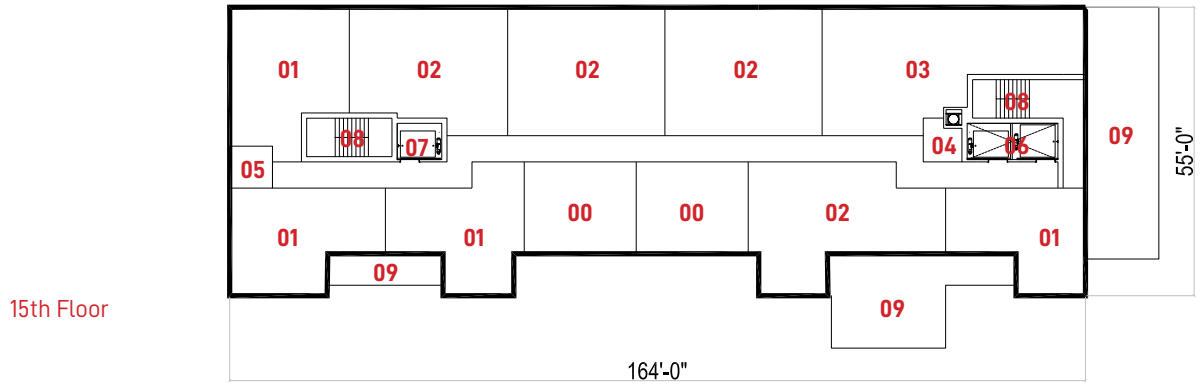
DEVELOPMENT SITE AND PROJECT AREA

In the future with the Proposed Actions, the Project Area would be rezoned from an M1-1 zoning district to a C6-3A commercial district (R9A equivalent). The Proposed Actions would also include a zoning text amendment to designate the Project Area as a Mandatory Inclusionary

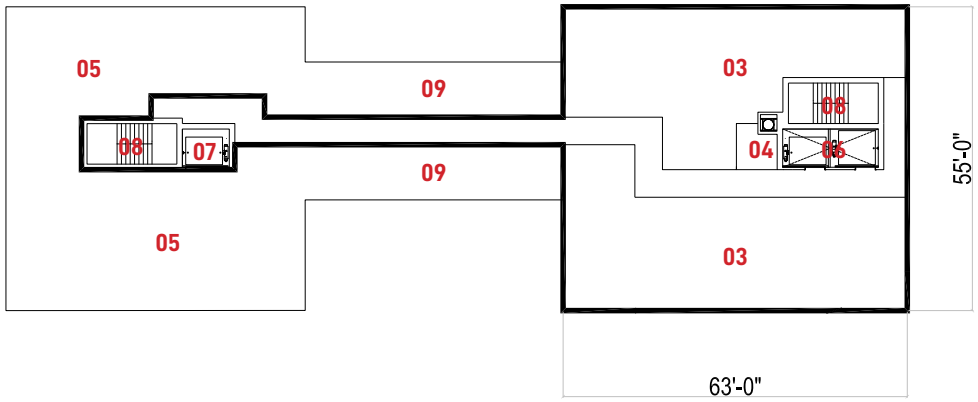
Source: ARCHIMAERA

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Proposed Ground Through 6th Floor Plans



15th Floor



17th Floor

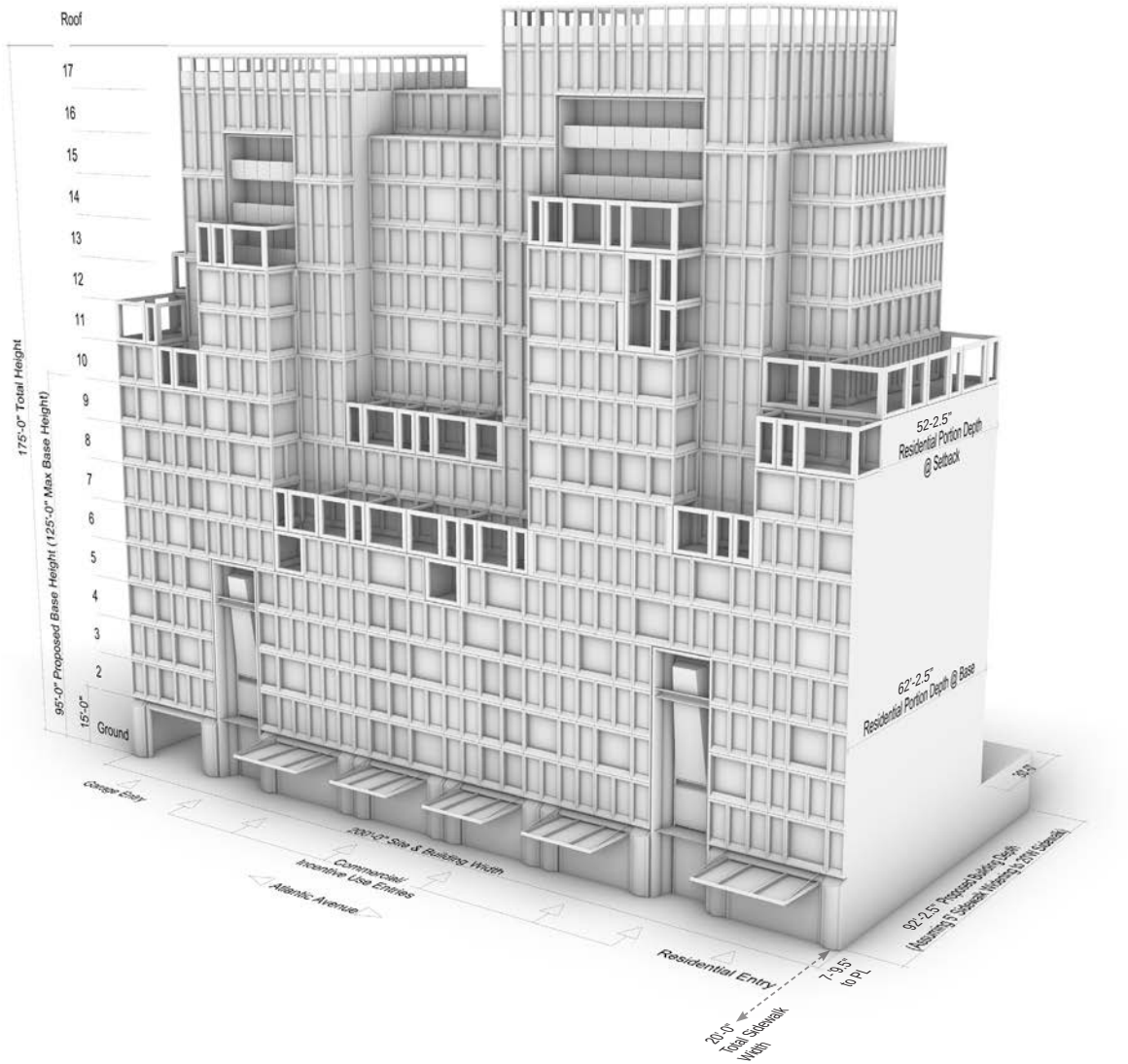
Source: ARCHIMAERA

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

870-888 ATLANTIC AVENUE REZONING

Proposed 15th and 17th Floor Plans

Figure G-15



Source: ARCHIMAERA

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Proposed Project Axonometric View

870-888 ATLANTIC AVENUE REZONING

Figure G-16

5.18.21

Source: ARCHIMAERA

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Illustrative Rendering of the Development Site from the Waverly Avenue and Atlantic Avenue Intersection

Housing (MIH) area. Under the proposed zoning, the maximum FAR would increase from 1.0 FAR to 8.5 FAR, and taller buildings would be allowed. As the Project Area would be subject to MIH requirements, a portion of the residential floor area generated by the proposed rezoning would be set aside for permanently affordable DUs (assumed to be 30 percent). The Proposed Actions would also include a zoning text amendment that would allow for streetwall flexibility to facilitate a proposed sidewalk widening of eight feet along Atlantic Avenue within the Project Area and a special permit to reduce the number of accessory parking spaces required under the proposed zoning.

In the With Action condition, a new approximately 211,560-gsf building would be constructed on the Development Site and would replace the six buildings, used car dealership, and vacant lot. The new building would contain approximately 181,200 gsf of residential space, approximately 14,600 gsf of local retail space, approximately 5,500 gsf of medical offices, and 40 accessory parking spaces. The residential space would include approximately 228 DUs. In the With Action condition, the proposed residential development would have ground floor retail that would add new active uses to the on the Development Site that would contribute to enlivened pedestrian activity along Atlantic Avenue and nearby streets. New development along this part of Atlantic Avenue would be consistent with the height and density of other newer developments in this area. Further, the streetwall flexibility and widened sidewalks that would be facilitated by the text amendment would further support the pedestrian experience of urban design on Atlantic Avenue within the Project Area.

The Proposed Project would be 17 stories (up to 175 feet tall) with a base height of 95 feet (see **Figures G-14 through G-16**). However, for the purposes of this analysis, it is assumed that the new building would have a base height of 125 feet in order to conservatively analyze the maximum building envelope allowed under the Proposed Actions (see Figure A-8 in Attachment A, "Project Description and Screening Analyses"). Above the base height, the building would have multiple setbacks along Atlantic Avenue, the lowest setback at approximately 80 feet and the highest setback at approximately 160 feet (see **Figure G-16**). The new building on the Development Site would be approximately 153 feet taller than the buildings that would remain on the Development Site in the No Action condition. However, the new building would create a new street wall along this portion of Atlantic Avenue, replacing the six two-story older commercial buildings and underdeveloped and vacant lots. The new building would have a base height similar to taller buildings in the nearby study area, such as the 10-story office building at 487 Clermont Avenue northwest of the Project Area. The streetwall at the Development Site and the Project Area, as described below, would have vertical delineations that would reduce the perceived building bulk. The building is also being designed to create visually interesting façade ornamentation that is anticipated to include paneled graphic and programmatic imagery. Additionally, the new building's anticipated gridded concrete cladding with recessed windows and façade plantings would provide further visual interest along Atlantic Avenue (see **Figure G-17**). As stated above, buildings in the study area are predominantly brick- and brownstone-clad; however, there are also some wood frame structures, and glass- and metal-clad tall modern buildings. Therefore, the new building's massing and cladding materials would be consistent with the variety of buildings in the study area.

In the With Action condition, Projected Development Sites 2 and 3 would also be redeveloped, replacing two one-story industrial buildings and two accessory parking lots. These sites would be built out to the maximum allowable 8.5 FAR, of which 7.5 FAR would be residential uses and 1.0 FAR would be for commercial uses (assumed to be local retail). A residential grossing factor of 10 percent and an average DU size of 850 gsf per DU are also assumed. Therefore, Projected

Development Sites 2 and 3 would redeveloped with new buildings up to approximately 80,475 gsf, including approximately 71,775 gsf of residential space (84 DUs), and approximately 8,700 gsf of local retail uses on the ground floors. Like the Proposed Project on the Development Site, the buildings on Projected Development Sites 2 and 3 would also be a maximum of 175 feet tall, substantially taller than the existing buildings they would replace. However, the two new buildings would be the same height as the Proposed Project. The zoning text amendment to provide flexibility in streetwall requirements allowing wider sidewalks along Atlantic Avenue in the Project Area would also apply to the sidewalk along Projected Development Sites 2 and 3, although no setback is assumed for projected development on these sites since it would not be required. However, the new buildings on these sites would contribute to a new streetwall, replacing underdeveloped sites with buildings that would contain new active ground floor uses that would enhance the pedestrian experience along this portion of Atlantic Avenue. The new buildings would also be similar in height to other developments in the study area, including the 18-story building at 550 Vanderbilt Avenue to the southwest. Although the design of the buildings to be developed on Projected Development Sites 2 and 3 is not yet known, it is assumed that building materials would be similar to those found throughout the study are and that residential and commercial entries to the buildings would be located on Atlantic Avenue to continue to activate this street corridor. Under the With Action condition, the Development Site and other projected development sites would contain a total of 312 DUs (94 of which would be permanently affordable), approximately 23,360 gsf of local retail space, and approximately 5,500 gsf of medical office space. Compared to the No Action condition, this represents an incremental increase of 306 DUs, approximately 16,660 gsf of local retail space and 5,500 gsf of medical office space. The With Action condition, compared to the No Action condition, would result in a reduction of 4,700 gsf of light manufacturing uses, 4,000 gsf of open storage area, and 2,000 gsf of vacant land. These changes in the With Action condition would enhance the pedestrian experience along Atlantic Avenue.

The building on Lot 12 would remain in both the No Action and With Action conditions. However, the allowable FAR would increase from 1.0 FAR to 8.5 FAR on this site in the With Action condition. The existing building on Lot 12 contains seven rent-stabilized DUs. According to the *CEQR Technical Manual*, sites containing rent-stabilized DUs are typically excluded from development scenarios, and as such, are difficult to legally demolish due to tenant re-location requirements. Therefore, no new development is anticipated on Lot 12 with the Proposed Actions.

STUDY AREA

The Proposed Project on the Development Site and the buildings on Projected Development Sites 2 and 3 would not result in any changes to buildings, natural features, open spaces, or streets in the study area. Compared to the No Action condition, the Proposed Actions would result in the development of a 17-story building on the Development Site, and two additional 17-story buildings on Projected Development Sites 2 and 3. The new buildings in the Project Area also would change the urban design context of the study area by replacing underdeveloped sites with three new structures. The Proposed Project and Projected Development Sites 2 and 3 would add visual interest to the Project Area and would improve the pedestrian experience along Atlantic Avenue. Compared to the No Action condition, the new developments in the Project Area would be much taller and would have greater lot coverage and larger footprints than most of the existing buildings in the study area. However, the new buildings that would be developed in the Project Area would be appropriate to the study area which includes wide Atlantic and Vanderbilt Avenues that are active commercial corridors with varied sidewalk widths and buildings with active ground

floor uses that are part of the pedestrian experience of urban design. In addition, the new buildings would be consistent with heights of other larger buildings in the study area, including the 18-story Pacific Park building at 550 Vanderbilt Avenue; the 13-story residential tower at 525 Clinton Avenue; and the 10-story office building at 487 Clermont Avenue, at the western edge of the study area; and the new 18-story building at 840 Atlantic Avenue. Additionally, as discussed above, the new building that would be built on the Development Site would be designed with a series of setbacks along Atlantic Avenue which is consistent with the varied heights and massings of existing buildings in the study area. The cladding materials of the Proposed Project would also be similar to is the variety of masonry, glass, and metal façades of buildings throughout the study area.

The Proposed Actions, compared to the No Action condition, would add a new primarily residential building with office and retail space that would be in keeping with existing buildings in the study area. Unlike the No Action condition, the Proposed Actions would redevelop and activate the Project Area's underutilized lots and provide visual interest to pedestrians at street level. The new residential and ground floor retail uses would contribute to increased pedestrian activity that would enliven surrounding streets. The proposed text amendment would improve the pedestrian experience by allowing for streetwall flexibility that would facilitate a proposed sidewalk widening of eight feet (for a total of 20 feet), . Additionally, the Proposed Actions would contribute to a new streetwall along this section of Atlantic Avenue that would replace the six two-story older commercial buildings and underdeveloped and vacant lots (see **Figures G-10 through G-13**). Therefore, the Proposed Actions would not be anticipated to adversely affect the urban design characteristics of the study area or adversely affect the pedestrian's experience of those characteristics.

VISUAL RESOURCES AND VIEW CORRIDORS

DEVELOPMENT SITE AND PROJECT AREA

As described above, there are no visual resources located on the Development Site or in the Project Area. Views to the Development Site and Project Area, as compared to the No Action condition, would remain available from vantage points on Atlantic Avenue and from the southern ends of the streets that terminate at Atlantic Avenue to the north. Views from the south would continue to be partially obstructed by intervening buildings along Vanderbilt Avenue and Pacific Street. As described above, the proposed text amendment would allow for streetwall flexibility that would facilitate a proposed sidewalk widening of eight feet (to a width of 20 feet) along Atlantic Avenue adjacent to the Development Site. The widened sidewalk would accommodate increased pedestrian activity that would be created by the new development. Views from the Atlantic Avenue sidewalk adjacent to the Development Site and Project Area would include the new buildings, widened sidewalks, and active ground floor uses. The new buildings would be located along the Atlantic Avenue view corridor which would continue to include long uninterrupted east-west views on Atlantic Avenue, with the partial obstruction of Pacific Park buildings near the intersection of Atlantic and Vanderbilt Avenues. Other views west on the avenue would continue to include the Barclays Center, as well as the former Williamsburgh Savings Bank tower and taller buildings in Downtown Brooklyn in the distance. To the east, views would continue to include low scale buildings built along the avenue. Unlike the No Action condition, the bell towers of the Co-Cathedral of St. Joseph/St. Teresa of Avila and Church of St. Luke and St. Matthew located to the north and south of the avenue would no longer be available from certain vantage points along the avenue, in addition from the sidewalk adjacent to the Development Site and Project Area.

However, views of the bell towers would be able from other vantage points in the study area that are discussed in more detail below. Northward views on the streets extending north from Atlantic Avenue would continue to be uninterrupted.

Similar to the No Action condition, views from the Development Site to the Church of St. Luke and St. Matthew would remain obscured. However, views of the bell tower of the church would remain visible in views north across Atlantic Avenue near the western end of the Project Area, even with the presence of the new development at 809 Atlantic Avenue. The majority of the historic buildings of the Clinton Avenue Historic District would remain obscured from the sidewalk adjacent to the Development Site and Project Area due to the presence of intervening buildings and mature street trees. In the With Action condition, as compared to the No Action condition, views of the former New York and New Jersey Telephone Company building at the corner of Clinton and Atlantic Avenues would continue to be available. The Clinton Hill South Historic District would continue to not be generally visible from the sidewalks adjacent to the Development Site and Project Area. The exception would continue to be a partial view of the multifamily building at 555 Washington Avenue at the northeast corner of Washington and Atlantic Avenues.

In comparison with the No Action condition, the Proposed Project would alter the visual character of the surrounding area, but this character is already changing through the buildings currently under construction. The Proposed Project also would enhance the visual character of the Development Site and Project Area as compared to No Action conditions, and thus would enhance the pedestrian experience of the neighborhood.

STUDY AREA

In the With Action condition, the proposed buildings would be prominent in views along surrounding streets, particularly along Atlantic, Vanderbilt, Clinton, and Waverly Avenues (see **Figures G-10 through G-13**). In such views, the Development Site and Proposed Development Sites 2 and 3 would be more consistent with the planned 18-story building at 840 Atlantic Avenue at the southeast corner of Vanderbilt and Atlantic Avenues, and 18-story Pacific Park residential building at 550 Vanderbilt Avenue south of Atlantic Avenue than the surrounding lower-scale development.

Views would continue to be expansive along Atlantic Avenue, west of Vanderbilt Avenue. With the new background developments expected to be constructed at 809 and 840 Atlantic Avenue, as well those projected to be developed in the Project Area, the new Pacific Park buildings would fully or partially obscured unless near Vanderbilt Avenue. Views west along Atlantic Avenue, similar to the No Action condition, would continue to include the former Williamsburgh Savings Bank tower and taller Downtown Brooklyn buildings in the distance. Views east of the Project Area would remain similar along Atlantic Avenue; however, like the No Action condition, views at and near the intersection of Vanderbilt and Atlantic Avenues would be altered by the presence of new development. Unlike the No Action condition, the With Action condition would see development of the Development Site, Projected Development Sites 2 and 3, in addition to the developments at 809 and 840 Atlantic Avenue. The development of these new buildings would continue obscure certain views of the bell tower of the Church of St. Luke and St. Matthew from northward vantage points on Atlantic Avenue, and views from Vanderbilt Avenue south of Atlantic Avenue. Though views of the bell tower would no longer be available from Atlantic Avenue, views from along Clinton Avenue would continue to remain available. With the redevelopment of the Development Site and the other projected development sites, as well as the

new building at 840 Atlantic Avenue, partial views of the paired towers and the roofline of the Co-Cathedral of St. Joseph/St. Teresa of Avila to the south would be obstructed from Clinton Avenue and Atlantic Avenue adjacent to the new developments. However, similar to the No Action condition, other views of the church's paired bell towers and roofline would remain available from Pacific Street, and Vanderbilt and Underhill Avenues. Additionally, views north on Vanderbilt Avenue from south of Atlantic Avenue of the former New York and New Jersey Telephone Company building along Clinton Avenue would also be obscured. However, similar to the No Action condition, the building would be visible from other vantage points along Clinton, Atlantic, and Waverly Avenues. Views south along Vanderbilt Avenue would continue to include the low scale, buildings of the Prospect Heights Historic District.

Compared to the No Action condition, views west on Pacific Street near Vanderbilt Avenue would remain expansive, with views of the Pacific Park buildings, the former Williamsburgh Savings Bank tower, and buildings in Downtown Brooklyn still prominent. Views east on Pacific Street would remain the same as well, including views of the Co-Cathedral of St. Joseph/St. Teresa of Avila from adjacent sidewalks. Views from sidewalks along Clinton Avenue, similar to the No Action condition, would continue to include buildings of the Clinton Avenue Historic District and the Church of St. Luke and St. Matthew, with continued blocked views of the paired towers and the roofline of the Co-Cathedral of St. Joseph/St. Teresa of Avila to the south. However, as discussed above in the No Action condition, in the With Action condition views to these visual resources would remain available from other vantage points. Views north along Underhill Avenue and from sidewalks along Washington Avenue would continue to include buildings in the Clinton Hill South Historic District. Views in the With Action condition along other study area streets, similar to the No Action condition, would not be expected to change, due to their distance from the Project Area as well as the surrounding mature street trees.

In conclusion, the Proposed Actions would not result in the elimination of any existing view corridors. Views to visual resources would be obstructed from some viewpoints, but views would remain available from existing nearby vantage points. Therefore, the Proposed Actions would not result in any significant adverse impacts on visual resources.

F. CONCLUSION

Overall, although the Proposed Actions would result in physical alterations beyond those allowed by existing zoning, the Proposed Actions would not adversely affect urban design features in the study area so that the context of a natural or significant built resource is adversely altered. The Proposed Actions would have no significant adverse impacts on urban design or visual resources, or the pedestrian's experience of these characteristics of the built and natural environment. The Proposed Actions would not adversely impact the vitality, the walkability, or visual character of the area. Therefore, no further analysis of urban design and visual resources is warranted. ✶

A. INTRODUCTION

This attachment addresses the potential for the presence of hazardous materials resulting from previous and existing uses both at the project site and in the surrounding area, and potential risks related to the proposed development with respect to any such hazardous materials. The Proposed Actions would result in the demolition of existing buildings at the Development Site (Projected Development Site 1), followed by the construction of a new mixed-use (residential, commercial, and community facility) building with one cellar level, which would require soil disturbance and excavation. In addition, the Proposed Actions would likely result in development at two other sites in the Project Area not owned by the Applicant: Projected Development Site 2 (Block 1122, Lots 14, 15, and 16) and Projected Development Site 3 (Block 1122, Lot 11).

This assessment is based on a *Phase I Environmental Site Assessment* (ESA) prepared by AKRF, Inc. in April 2020 for the Development Site. The ESA included the findings of a reconnaissance of the Development Site and an evaluation of readily available historical information, selected environmental databases, and electronic records (for the Development Site and in the vicinity) in accordance with American Society for Testing and Materials (ASTM) Standard E1527-13. A Hazardous Materials Screening was conducted for the non-applicant controlled development sites (Projected Development Sites 2 and 3), which consisted of a reconnaissance of these sites from public rights-of-way, and an evaluation of readily available historical information, selected environmental databases, and electronic records (for the sites and in the vicinity).

B. EXISTING CONDITIONS

SUBSURFACE CONDITIONS

The projected development sites are approximately 80 feet above mean sea level. Based on USGS mapping, groundwater is expected to be encountered at approximately 70 feet below grade, and bedrock is expected to be encountered at approximately 280 feet below grade. Groundwater is expected to flow in a northwesterly direction towards the East River, approximately 2 miles away. However, actual groundwater depth and flow direction may be affected by Long Island Railroad (LIRR) tunnels beneath north-adjacent Atlantic Avenue, and other factors. Groundwater in this portion of Brooklyn is not used as a source of potable water.

THE DEVELOPMENT SITE (PROJECTED DEVELOPMENT SITE 1) – PHASE I ESA

The Development Site is located in a mixed-use area, and was developed with residential structures by 1888. The buildings on the western portion (870-874 Atlantic Avenue) remained residential until their demolition in 1977; this portion of the site was subsequently vacant, a parking lot, and most recently, an auto sales business. The building on the eastern portion (888 Atlantic Avenue) contained apartments, a sign factory, and a brass ornament factory prior to its demolition in 1982; this plot then became vacant, and was later used as a parking area. The

buildings on the central portion (876-886 Atlantic Avenue) historically contained residential and commercial uses, a medical office, a brass ornament factory, a refrigeration business, an electrical business, a battery store, a garage and an undertaker, and an auto repair/auto glass business. At the time of the reconnaissance (March 11, 2020), these buildings were partially vacant, with only two of the six ground-floor commercial spaces and five of the six second-floor apartments in use. In summary, the ESA identified the following, including evidence of Recognized Environmental Conditions (RECs) (the first three bullets). Per the ASTM Standard, RECs indicate "*the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property.*"

- Historical site uses included auto sales, a brass ornament factory, a refrigeration business, an electrical business, a battery store, an undertaker, an auto repair/auto glass business, and a sign factory. These may have resulted in subsurface conditions being affected by releases of petroleum or other chemicals. Uses of this site at the time of the Phase I ESA reconnaissance included auto sales and minor auto maintenance.
- Historical land use maps from 1926 to 1979 showed a gasoline underground storage tank (UST) at the rear of on-site 884-886 Atlantic Avenue. This UST may have been removed, or may remain.
- Historical off-site uses with some potential to have affected the Development Site included: an east-adjacent printer; undertakers; auto repair, sales and painting; filling stations; other facilities with gasoline USTs; factories; a junkyard; and a dry cleaner. The regulatory databases identified petroleum bulk storage (PBS) listings, spill listings, hazardous waste generators, a Solid Waste Facility, and a Brownfield Cleanup Program site in close proximity. During the reconnaissance, a west-adjacent food cart repair business (at Projected Development Site 2) was observed, with a hardware store and an auto repair shop (at Projected Development Site 3) noted further west on the same block. An auto repair shop was observed on the east-adjacent block.
- The basement of on-site 884 Atlantic Avenue was observed to contain two approximately 275-gallon fuel oil aboveground storage tanks (ASTs), and an oil-fired boiler. Reportedly, these ASTs historically contained No. 2 fuel oil, but had not been used since the 1980s. A fuel oil fill port and vent pipe were observed in front of the building. No odors or staining were observed near the ASTs or the boiler.
- Chemical storage on the Development Site included the following: small quantities of paint and automotive oil in containers up to one gallon; cleaning and maintenance chemicals in containers up to five gallons; a one-gallon container of kerosene; four unlabeled steel and plastic drums (30 to 55 gallons), which were reportedly empty; and hair sprays, nail polish, and one-gallon bottles of acetone (nail polish remover). The chemicals were observed to be neatly stored and labeled. However, a strong solvent- or chemical-like odor was noted in a hair salon at on-site 884 Atlantic Avenue, likely due to use of hair and nail care chemicals without adequate ventilation. Online NYC Buildings Department (DOB) records indicated a 2019 complaint of a strong chemical odor for this nail salon.
- Based on the on-site buildings' age (constructed prior to 1888, with reported gut renovation in 1985), the ESA noted that there was a potential for asbestos-containing materials (ACM), lead-based paint, and/or polychlorinated biphenyl (PCB)-containing equipment and lighting fixtures. It was also noted that fluorescent light bulbs may contain mercury. Observed interior building materials were reported to be in good condition.

PROJECTED DEVELOPMENT SITE 2 – HAZARDOUS MATERIALS SCREENING

Projected Development Site 2 is located in a mixed-use area, and was developed with three-story residential structures by 1888. The buildings on the eastern portion (866 and 868 Atlantic Avenue) were residential through 1969, became vacant by 1978, and were demolished between 1982 and 1985. The westernmost building (854 Atlantic Avenue) was shown as a store on maps from 1951 to 1969. By 1978, it had been replaced by a one-story addition to an auto repair shop (the existing structure). The historical auto repair shop extended off-site to the west. During the March 11, 2020 reconnaissance (conducted from public rights-of-way on), Projected Development Site 2 currently contains a food cart conversion business with an outdoor work area and a one-story building. This business appears to include auto/food cart repair. The hazardous materials screening identified the following conditions, including evidence of Recognized Environmental Conditions (RECs) described in the first four bullets:

- The historical use of the site as an auto repair shop, and the current use for food cart repair, may have resulted in subsurface conditions being affected by releases of petroleum or other chemicals. The site was identified in the regulatory database as a Solid Waste Facility (Parts Express II Inc., 860-864 Atlantic Avenue, listed as an inactive former vehicle dismantling shop). This listing appeared to be associated with the auto repair shop which formerly occupied the western portion of the site, as well as the west-adjacent lot.
- Historical off-site uses with some potential to have affected Projected Development Site 2 included the following: a printer; undertakers; auto repair, sales and painting; filling stations and other facilities with gasoline USTs; factories; a junkyard; a dry cleaner; a refrigeration business; an electrical business; and a battery store. The regulatory database identified PBS listings, spill listings, hazardous waste generators, and a Brownfield Cleanup Program site in close proximity to this site. During the reconnaissance, an auto sales facility (part of the Development Site) was observed east-adjacent, and a hardware store and an auto repair shop (Project Development Site 3) were noted further west on the same block. An auto repair shop was observed on the east-adjacent block.
- Online DOB records identified a 1960 oil burner application for 868 Atlantic Avenue, the address of a historical on-site building, indicating the potential presence of a fuel oil tank. The records did not indicate whether this tank was a UST or an AST. This tank may have been removed, or may remain.
- Chemical storage on-site visible from public rights-of-way included auto repair chemicals and gasoline, stored on shelves in the outdoor work area in containers up to one gallon.

In addition to these RECs, the following conditions were identified for this site:

- A hazardous materials spill (Spill No. 1200600) was reported to NYSDEC for Projected Development Site 2 (Master Chef Wholesale, 864 Atlantic Avenue) in April 2012. The spill listing indicated that cleaning materials were dumped onto soil in the outdoor work area. However, a NYSDEC inspection reportedly determined that the dumped materials were non-petroleum based and biodegradable, and the spill listing was closed.
- Based on the on-site building's age (constructed between 1969 and 1978), there was a potential for ACM, lead-based paint, and/or PCB-containing equipment and lighting fixtures. Additionally, fluorescent light bulbs may contain mercury.

PROJECTED DEVELOPMENT SITE 3 – HAZARDOUS MATERIALS SCREENING

Projected Development Site 3 is located in a mixed-use area, and was developed with a dwelling and two sheds by 1888. Between 1906 and 1926, these structures were replaced with a one-story welding shop with a gasoline UST (the current building). Between 1965 and 1978, this building was converted into an auto repair shop; but the gasoline UST was no longer shown on historical land use maps. During the March 11, 2020 reconnaissance (conducted from public rights-of-way on), an auto repair shop occupied the on-site building. The hazardous materials screening identified the following, including evidence of RECs (see the first three bullets):

- The historical on-site use as a welder with a gasoline UST, as well as past and present use of this site as an auto repair shop, may have resulted in subsurface conditions being affected by releases of petroleum or other chemicals. The former on-site UST may have been removed, or may remain.
- Historical off-site uses with some potential to have affected Project Development Site 3 included: a printer; undertakers; auto repair, sales and painting; filling stations and other facilities with gasoline USTs; factories; a junkyard; a dry cleaner; a refrigeration business; an electrical business; and a battery store. The regulatory database identified PBS listings, spill listings, hazardous waste generators, a Solid Waste Facility, and a Brownfield Cleanup Program site in close proximity to this site. During the reconnaissance, an auto sales facility (part of Project Development Site 1) and a food cart repair business (Project Development Site 2) were observed to the east on the same block. An auto repair shop was observed on the east-adjacent block.
- Online DOB records identified a 1985 oil burner application for on-site 858 Atlantic Avenue, indicating the potential presence of a fuel oil tank. The records did not indicate whether this tank was a UST or an AST. This tank may have been removed, or may remain.

In addition to these RECs, the following condition was identified for this site:

- Based on the on-site building's age (constructed between 1906 and 1926), there was a potential for ACM, lead-based paint, and/or PCB-containing equipment and lighting fixtures. Additionally, fluorescent light bulbs may contain mercury.

C. FUTURE WITHOUT THE PROPOSED ACTIONS

In the future without the Proposed Actions (the "No Action" condition), it is assumed that the Development Site would remain in its current state. Projected Development Sites 2 and 3 would also remain in their current conditions, and no changes to land use would be expected to occur. Legal requirements, such as those relating to petroleum storage tank maintenance and handling and disposal of automotive fluids, surplus chemicals, ACM, LBP, and PCBs, would continue to be applicable.

D. FUTURE WITH THE PROPOSED ACTIONS

In the future with the Proposed Actions, the existing buildings on the Development Site would be demolished and replaced with a new mixed-use building with one cellar level, which would require excavation. It is anticipated that the existing structures on Projected Development Sites 2 and 3 would also be demolished and replaced with new structures, requiring excavation. Although these activities could temporarily increase pathways for human exposure to any contaminated materials

present in the existing structures or the subsurface, impacts would be avoided by incorporating the following into the proposed redevelopments:

- Demolition would be conducted in compliance with applicable regulatory requirements, for disposal of surplus petroleum and chemical products, asbestos-containing materials, lead-based paint, etc.
- To reduce the potential for adverse impacts associated with the subsurface disturbance resulting from the Proposed Actions, further environmental investigations will be required at all three Projected Development Sites. Hazardous materials (E) Designations would be assigned to each of these sites to ensure that these investigations are undertaken. These (E) Designations require the owners of the properties to undertake the following, prior to obtaining NYC Buildings Department (DOB) permits for new development entailing soil disturbance:
  - Conduct a Phase I ESA in accordance with the American Society of Testing Materials (ASTM) E1527-13, where one was not previously conducted or where required by the Mayor's Office of Environmental Remediation (OER) based on the date of the previous assessment;
  - Prepare and implement a soil, groundwater, and soil vapor testing protocol approved by OER. Since the applicant does not own Projected Development Site 1 (but is anticipated to do so in the future) or Projected Development Sites 2 and 3, and there are currently no development plans for Projected Development Sites 2 and 3, the subsurface testing and other requirements of the (E) Designations will be conducted after the completion of City Environmental Quality Review (CEQR);
  - Where appropriate, conduct remediation in accordance with an OER-approved Remedial Action Plan (RAP) and Construction Health and Safety Plan (CHASP) to the satisfaction of the OER. The RAP and CHASP would address requirements for items such as the following: soil stockpiling, disposal, and transportation; dust control; quality assurance; removal of petroleum storage tanks, if present; and contingency measures should additional petroleum storage tanks or contamination be unexpectedly encountered. The CHASP would include measures for worker and community protection, including personal protective equipment and dust control; and
  - Prepare a post-construction Remedial Closure Report (RCR) documenting compliance with the RAP/CHASP, to obtain a Notice of Satisfaction and Certificates of Occupancy for newly constructed structures.
- The fuel oil AST present on the Development Site (Projected Development Site 1), and any additional tanks encountered during redevelopment at this or the other sites, would be closed and removed, along with any contaminated soil, in accordance with the applicable regulations, including NYSDEC registration and (if applicable) spill reporting requirements.
- Applicable regulatory requirements would be followed during implementation of the Proposed Actions, e.g., for properly disposing of any excess chemicals and soil, and for following NYCDEP sewer discharge requirements if dewatering is required.

As noted, due to Projected Development Sites 2 and 3 not being owned by the applicant, and no development plans currently underway for these sites, the (E) Designation requirements outlined above for these sites would be implemented after the completion of CEQR. The implementation of these requirements would be ensured by the (E) Designations on all three Projected Development Sites, which prevent the New York City Buildings Department (DOB) from issuing

approvals for new development without OER approval. The text of the (E) Designation **(E-642)** for hazardous materials is as follows:

TASK 1 - SAMPLING PROTOCOL

The applicant submits to the OER, for review and approval, a Phase I ESA of the site along with a soil and groundwater 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 the protocol is received from OER. The number and location of borings 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 condition of the remainder of the site. 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 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 whether the results indicate that remediation is necessary. If OER determines that no remediation is necessary, written notice shall be given by OER. If the need for remediation is indicated by the test results, a site-specific RAP 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. An OER-approved 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.

With these measures included as part of the Proposed Actions, no significant adverse impacts related to hazardous materials would occur either during or following construction at any of the three Projected Development Sites. ✷

Attachment I: Transportation

A. INTRODUCTION

This attachment examines the potential effects of the Proposed Actions on transportation systems. The applicant proposes a zoning map amendment, zoning text amendment, and special permit (the "Proposed Actions") to facilitate a mixed-use development at 870-888 Atlantic Avenue, Brooklyn (Block 1122, Lots 21 and 26; the "Development Site") located in the Prospect Heights neighborhood of Brooklyn. The Project Area is generally bounded by Underhill Avenue to the east, Atlantic Avenue to the north, Vanderbilt Avenue to the west, and Pacific Street to the south. It includes the Development Site, which is controlled by the Applicant, as well adjacent properties to the west (Block 1122, Lots 11, 12, 14, 15, 16, and p/o Lot 10) that would also be rezoned under the Proposed Actions, some of which are anticipated to see development as a result. In addition to the Development Site, there are two non-applicant owned Projected Development Sites (Projected Development Site 2 [Lots 14, 15, and 16] and Projected Development Site 3 [Lot 11]) that would be developed as a result of the Proposed Actions.

In the Future without the Proposed Actions (the No Action condition), existing land uses on the Development Site and Projected Development Sites would remain unchanged. The Development Site currently consists of Brooklyn Block 1122, Lots 21 and 26. Lot 21 (870-878 Atlantic Avenue), and contains six attached two-story buildings with ground floor retail (approximately 6,700 gross square feet [gsf]) with six dwelling units (DUs) above. Lot 26 (888 Atlantic Avenue) is an unimproved 2,000 gsf vacant lot. Projected Development Site 2 is located immediately west of the Development Site along Atlantic Avenue, and includes a 6,000 gsf warehouse building and an accessory parking lot. Projected Development Site 3, to the east of Projected Development Site 2 contains 4,700 gsf of light industrial uses. In total, the existing land uses that would continue under the No Action condition include six DUs, 6,700 gsf of local retail, 6,000 gsf of warehouse, and 4,700 gsf of light industrial use.

The Proposed Actions would facilitate an approximately 211,560 gsf building (the "Proposed Project") on the Development Site containing up to 228 DUs, 14,600 gsf of local retail uses, 5,500 gsf of community facility uses (assumed medical office), and 10,200 gsf of cellar-level parking uses (40 accessory parking spaces). Up to 80,475 gsf of development would also be facilitated on Projected Development Sites 2 and 3 by the Proposed Actions, which would include up to 84 DUs and 8,700 gsf of local retail uses. For the purposes of this assessment, the Development Site and the additional lots to be rezoned collectively constitute the “Project Area”. In total, the With Action development in the Project Area would include 312 DUs, 23,360 gsf of local retail uses, 5,500 gsf of medical office use, and 40 accessory parking spaces. For analysis purposes, it is assumed the With Action development would be completed by 2025.

Table I-1 provides a comparison of the development programs between the No Action and With Action conditions.

Table I-1
Comparison of No Action and With Action Conditions

Components	Existing/No Action	With Action	Increment
Warehouse (GSF)	6,000	0	-6,000
Light Industrial (GSF)	4,700	0	-4,700
Local Retail (GSF)	6,700	23,360	16,660
Community Facility – Medical Office (GSF)	0	5,500	5,500
Residential (DU)	6	312	306
Accessory Parking Spaces	0	40	40

The analysis considers the 2025 analysis year to identify potential impacts. The travel demand projections, trip assignments, and capacity analysis contained in this chapter have been conducted pursuant to the methodologies outlined in the 2020 *City Environmental Quality Review (CEQR) Technical Manual.* If impacts are identified, feasible improvement measures would be explored to address those impacts.

B. TRANSPORTATION SCREENING ASSESSMENTS

The *CEQR Technical Manual* recommends a two-tier screening procedure for the preparation of a "preliminary analysis" to determine if quantified analyses of transportation conditions are warranted. As discussed below, the preliminary analysis begins with a trip generation analysis (Level 1) to estimate the volume of person and vehicle trips attributable to the proposed project. If the proposed project is expected to result in fewer than 50 peak hour vehicle trips and fewer than 200 peak hour transit or pedestrian trips, further quantified analyses are not warranted. When these thresholds are exceeded, detailed trip assignments (Level 2) are performed to estimate the incremental trips at specific transportation elements and to identify potential locations for further analyses. If the trip assignments show that the proposed project would result in 50 or more peak hour vehicle trips at an intersection, 200 or more peak hour subway trips at a station or at any given line, 50 or more peak hour bus trips in one direction along a bus route, or 200 or more peak hour pedestrian trips traversing a pedestrian element, then further quantified analyses may be warranted to assess the potential for significant adverse impacts on traffic, transit, pedestrians, parking, and vehicular and pedestrian safety.

LEVEL 1 SCREENING ASSESSMENT

Trip generation factors for the Proposed Actions are based on information from the *CEQR Technical Manual*, the New York City Department of Transportation (DOT)'s travel demand surveys, the 2014 *Atlantic Yards Arena and Redevelopment Project FSEIS*, the 2016 *East New York Rezoning Proposal FEIS*, the 2016 *25 Kent Avenue EAS*, the *ITE Trip Generation Manual*, and U.S. Census Data, as summarized in **Table I-2**.

RESIDENTIAL

The daily person trip rate and temporal distribution for the No Action and With Action Residential components are from the *CEQR Technical Manual*. The directional distribution and taxi vehicle occupancy are from the 2014 *Atlantic Yards Arena and Redevelopment Project FSEIS*. The modal splits and auto vehicle occupancy are from the U.S. Census American Community Survey (ACS) 2014-2018 Journey-to-Work (JTW) estimates for census tracts 163, 199, 201, 203, 205, 227, and 305. The daily delivery trip rate and temporal and directional distributions are from the *CEQR Technical Manual*.

Table I-2
Travel Demand Assumptions

Use	Residential			Local Retail			Light Industrial			Community Facility – Medical Office			Warehouse		
Total Daily Person Trip	(1) Weekday 8.075 Trips / DU			(1) Weekday 205.00 Trips / KSF			(5) Weekday 10.44 Trips / KSF			(4) Weekday 76.00 Trips / KSF			(9)(10) Weekday 2.36 Trips / KSF		
Trip Linkage	0%			25%			0%			0%			0%		
Temporal	**AM**	**MD**	**PM**	**AM**	**MD**	**PM**	**AM**	**MD**	**PM**	**AM**	**MD**	**PM**	**AM**	**MD**	**PM**
	(1)			(1)			(5,6)			(4)			(9)		
	10.0%	5.0%	11.0%	3.0%	19.0%	10.0%	18.5%	11.0%	16.7%	11.0%	13.0%	9.0%	10.0%	9.0%	11.0%
Direction	(2)			(2)			(5,6)			(4)			(9)		
In	20%	51%	65%	50%	50%	50%	87%	50%	18%	62%	47%	35%	77%	53%	27%
Out	80%	49%	35%	50%	50%	50%	13%	50%	82%	38%	53%	65%	23%	47%	73%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Modal Split	(3)			(4)			(6,7)			(4)			(7)		
	AM	**MD**	**PM**	**AM**	**MD**	**PM**	**AM**	**MD**	**PM**	**AM**	**MD**	**PM**	**AM**	**MD**	**PM**
Auto	9.0%	9.0%	9.0%	11.0%	11.0%	11.0%	30.0%	2.0%	30.0%	24.0%	24.0%	24.0%	30.0%	30.0%	30.0%
Taxi	2.0%	2.0%	2.0%	0.0%	0.0%	0.0%	1.0%	3.0%	1.0%	6.0%	6.0%	6.0%	1.0%	1.0%	1.0%
Subway	73.0%	73.0%	73.0%	3.0%	3.0%	3.0%	37.0%	6.0%	37.0%	60.0%	60.0%	60.0%	37.0%	37.0%	37.0%
Railroad	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.0%	0.0%	3.0%	0.0%	0.0%	0.0%	3.0%	3.0%	3.0%
Bus	4.0%	4.0%	4.0%	2.0%	2.0%	2.0%	11.0%	6.0%	11.0%	9.0%	9.0%	9.0%	11.0%	11.0%	11.0%
Walk	12.0%	12.0%	12.0%	84.0%	84.0%	84.0%	18.0%	83.0%	18.0%	1.0%	1.0%	1.0%	18.0%	18.0%	18.0%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Vehicle Occupancy	(2)(3) Weekday			(4) Weekday			(6,7) Weekday			(4) Weekday			(6,7) Weekday		
Auto	1.09			1.20			1.09			1.50			1.09		
Taxi	1.40			1.20			1.20			1.50			1.20		
Daily Delivery Trip Generation Rate	(1) Weekday 0.06 Delivery Trips / DU			(1) Weekday 0.35 Delivery Trips / KSF			(6) Weekday 0.67 Delivery Trips / KSF			(8) Weekday 0.29 Delivery Trips / KSF			(9)(10) Weekday 0.91 Delivery Trips / KSF		
	AM	**MD**	**PM**	**AM**	**MD**	**PM**	**AM**	**MD**	**PM**	**AM**	**MD**	**PM**	**AM**	**MD**	**PM**
Delivery Temporal	(1)			(1)			(6)			(8)			(9)		
	12%	9%	2%	8%	11%	2%	14%	9%	1%	3.0%	11.0%	1.0%	9.9%	8.0%	7.0%
Delivery Direction	(1)			(1)			(6)			(8)			(9)		
In	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	67%	57%	60%
Out	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	33%	43%	40%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Sources:
(1) *2020 CEQR Technical Manual*
(2) *Atlantic Yards Arena and Redevelopment Project FSEIS (2014)*
(3) U.S. Census American Community Survey 2014-2018 Journey-to-Work Estimates for census tracts 163, 199, 201, 203, 205, 227, and 305.
(4) Based on NYCDOT's Mode Choice Surveys
(5) *ITE Trip Generation Manual*, 10th Edition: General Light Industrial (110) land use
(6) *East New York Rezoning Proposal FEIS (2016)*
(7) U.S. Census American Community Survey 2012-2016 Reverse Journey-to-Work Estimates for census tracts 163, 199, 201, 203, 205, 227, and 305.
(8) 25 Kent Avenue EAS (2016)
(9) *ITE Trip Generation Manual*, 10th Edition: Warehouse (150) land use.
(10) Trip generation rate includes a 1.51 adjustment factor per NYCDOT Trip Generation Survey.

LOCAL RETAIL

The daily person trip rate and temporal distribution for the No Action and With Action local neighborhood retail components are from the *CEQR Technical Manual*. In line with accepted City practice, a 25-percent linked trip credit has been applied to the local retail trip generation estimates. The directional distribution is from the 2014 *Atlantic Yards Arena and Redevelopment Project FSEIS*. The modal splits and vehicle occupancies are based on travel demand surveys conducted by DOT. The daily delivery trip rate and temporal and directional distributions are from the *CEQR Technical Manual*.

MEDICAL OFFICE

The daily person trip rate, temporal and directional distributions, modal splits, and vehicle occupancies for the With Action medical office component are based on travel demand surveys

conducted by DOT. The daily delivery trip rate and temporal and directional distributions are from the 2016 *25 Kent Avenue EAS*.

LIGHT INDUSTRIAL

The daily person trip rate and temporal and directional distributions for the No Action light industrial component are based on the *ITE Trip Generation Manual* and the 2016 *East New York Rezoning Proposal FEIS*. The modal splits and vehicle occupancies are from the 2016 *East New York Rezoning Proposal FEIS* and the 2012–2016 U.S. Census ACS Reverse Journey-to-Work (RJTW) estimates for census tracts 163, 199, 201, 203, 205, 227, and 305. The daily delivery trip rate and temporal and directional distributions are from the 2016 *East New York Rezoning Proposal FEIS*.

WAREHOUSE

The daily person trip rate, and temporal and directional distributions for the No Action warehouse use are based on the *ITE Trip Generation Manual*. The daily person trip rate is further adjusted based on DOT's trip generation survey. The modal splits are from the 2012-2016 U.S. Census ACS RJTW estimates for census tracts 163, 199, 201, 203, 205, 227, and 305. The vehicle occupancies are from the 2012–2016 U.S. Census ACS RJTW estimates for autos and from the 2016 *East New York Rezoning Proposal FEIS* for taxis. The daily delivery trip rate is based on the *ITE Trip Generation Manual* and further adjusted based on DOT's trip generation survey. The delivery temporal and directional distributions are based on the *ITE Trip Generation Manual*.

TRAVEL DEMAND PROJECTION SUMMARY

As summarized in **Table I-3**, under the No Action condition, the existing uses on the Development Site and Projected Development Sites would generate a total of 41, 202, and 115 person trips during the weekday AM, midday, and PM peak hours, respectively. Approximately 6, 18, and 12 vehicle trips would be generated during the same respective peak hours.

As summarized in **Table I-4**, under the With Action condition, development in the Project Area would generate a total of 406, 864, and 676 person trips during the weekday AM, midday, and PM peak hours, respectively. Approximately 54, 95, and 75 vehicle trips would be generated during the same time periods.

The net incremental trips generated by the No Action and With Action conditions are shown in **Table I-5**.

Table I-3
Trip Generation: No Action Condition

Program	Peak Hour	In/Out	Person Trip							Vehicle Trip			
			Auto	Taxi	Subway	Railroad	Bus	Walk	Total	Auto	Taxi	Delivery	Total
Light Industrial 4,700 GSF	AM	In	2	0	3	0	1	1	7	2	0	0	2
		Out	0	0	0	0	0	0	0	0	0	0	0
		Total	2	0	3	0	1	1	7	2	0	0	2
	Midday	In	0	0	0	0	0	2	2	0	0	0	0
		Out	0	0	0	0	0	2	2	0	0	0	0
		Total	0	0	0	0	0	4	4	0	0	0	0
	PM	In	0	0	1	0	0	0	1	0	0	0	0
		Out	2	0	2	0	1	1	6	2	0	0	2
		Total	2	0	3	0	1	1	7	2	0	0	2
Residential 6 DU	AM	In	0	0	1	0	0	0	1	0	0	0	0
		Out	0	0	3	0	0	0	3	0	0	0	0
		Total	0	0	4	0	0	0	4	0	0	0	0
	Midday	In	0	0	1	0	0	0	1	0	0	0	0
		Out	0	0	1	0	0	0	1	0	0	0	0
		Total	0	0	2	0	0	0	2	0	0	0	0
	PM	In	0	0	2	0	0	0	2	0	0	0	0
		Out	0	0	1	0	0	0	1	0	0	0	0
		Total	0	0	3	0	0	0	3	0	0	0	0
Local Retail 6,700 GSF	AM	In	2	0	0	0	0	13	15	2	0	0	2
		Out	2	0	0	0	0	13	15	2	0	0	2
		Total	4	0	0	0	0	26	30	4	0	0	4
	Midday	In	11	0	3	0	2	82	98	9	0	0	9
		Out	11	0	3	0	2	82	98	9	0	0	9
		Total	22	0	6	0	4	164	196	18	0	0	18
	PM	In	6	0	2	0	1	43	52	5	0	0	5
		Out	6	0	2	0	1	43	52	5	0	0	5
		Total	12	0	4	0	2	86	104	10	0	0	10
Warehouse 6,000 GSF	AM	In	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0
	Midday	In	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0
	PM	In	0	0	0	0	0	0	0	0	0	0	0
		Out	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	0	0	0	0	0	0	0	0	0
No Action Total	AM	In	4	0	4	0	1	14	23	4	0	0	4
		Out	2	0	3	0	0	13	18	2	0	0	2
		Total	6	0	7	0	1	27	41	6	0	0	6
	Midday	In	11	0	4	0	2	84	101	9	0	0	9
		Out	11	0	4	0	2	84	101	9	0	0	9
		Total	22	0	8	0	4	168	202	18	0	0	18
	PM	In	6	0	6	0	1	43	56	5	0	0	5
		Out	8	0	5	0	2	44	59	7	0	0	7
		Total	14	0	11	0	3	87	115	12	0	0	12

Table I-4
Trip Generation: With Action Condition

Program	Peak Hour	In/Out	Person Trip							Vehicle Trip			
			Auto	Taxi	Subway	Railroad	Bus	Walk	Total	Auto	Taxi	Delivery	Total
Residential	AM	In	5	1	37	0	2	6	51	5	4	1	10
		Out	18	4	147	0	8	24	201	17	4	1	22
		Total	23	5	184	0	10	30	252	22	8	2	32
	Midday	In	6	1	47	0	3	8	65	6	2	1	9
		Out	6	1	45	0	2	7	61	6	2	1	9
		Total	12	2	92	0	5	15	126	12	4	2	18
312 DU	PM	In	16	4	132	0	7	22	181	15	4	0	19
		Out	9	2	71	0	4	12	98	8	4	0	12
		Total	25	6	203	0	11	34	279	23	8	0	31
Local Retail	AM	In	6	0	2	0	1	45	54	5	0	0	5
		Out	6	0	2	0	1	45	54	5	0	0	5
		Total	12	0	4	0	2	90	108	10	0	0	10
	Midday	In	38	0	10	0	7	287	342	32	0	0	32
		Out	38	0	10	0	7	287	342	32	0	0	32
		Total	76	0	20	0	14	574	684	64	0	0	64
23,360 GSF	PM	In	20	0	5	0	4	151	180	17	0	0	17
		Out	20	0	5	0	4	151	180	17	0	0	17
		Total	40	0	10	0	8	302	360	34	0	0	34
Medical Office	AM	In	7	2	17	0	3	0	29	5	2	0	7
		Out	4	1	10	0	2	0	17	3	2	0	5
		Total	11	3	27	0	5	0	46	8	4	0	12
	Midday	In	6	2	15	0	2	0	25	4	2	0	6
		Out	7	2	17	0	3	0	29	5	2	0	7
		Total	13	4	32	0	5	0	54	9	4	0	13
5,500 GSF	PM	In	3	1	8	0	1	0	13	2	2	0	4
		Out	6	1	15	0	2	0	24	4	2	0	6
		Total	9	2	23	0	3	0	37	6	4	0	10
With Action Total	AM	In	18	3	56	0	6	51	134	15	6	1	22
		Out	28	5	159	0	11	69	272	25	6	1	32
		Total	46	8	215	0	17	120	406	40	12	2	54
	Midday	In	50	3	72	0	12	295	432	42	4	1	47
		Out	51	3	72	0	12	294	432	43	4	1	48
		Total	101	6	144	0	24	589	864	85	8	2	95
	PM	In	39	5	145	0	12	173	374	34	6	0	40
		Out	35	3	91	0	10	163	302	29	6	0	35
		Total	74	8	236	0	22	336	676	63	12	0	75

Table I-5
Trip Generation Summary: Net Incremental Trips

Peak Hour	In/Out	Person Trip							Vehicle Trip			
		Auto	Taxi	Subway	Railroad	Bus	Walk	Total	Auto	Taxi	Delivery	Total
AM	In	14	3	52	0	5	37	111	11	6	1	18
	Out	26	5	156	0	11	56	254	23	6	1	30
	Total	40	8	208	0	16	93	365	34	12	2	48
Midday	In	39	3	68	0	10	211	331	33	4	1	38
	Out	40	3	68	0	10	210	331	34	4	1	39
	Total	79	6	136	0	20	421	662	67	8	2	77
PM	In	33	5	139	0	11	130	318	29	6	0	35
	Out	27	3	86	0	8	119	243	22	6	0	28
	Total	60	8	225	0	19	249	561	51	12	0	63

TRAFFIC

As shown in **Table I-5**, the incremental trips generated by the Proposed Actions would be 48, 77, and 63 vehicle trips during the weekday AM, midday, and PM peak hours, respectively. Since the incremental vehicle trips would be greater than 50 vehicles during the weekday midday and PM peak hours, a Level 2 screening assessment (presented in the section below) has been conducted for these peak hours to determine if a quantified traffic analysis is warranted.

TRANSIT

Public transit options to and from the study area are shown in **Figure I-1**. The Project Area is served by the New York City Transit (NYCT) Clinton/Washington Avenues (C train) and Atlantic Avenue–Barclays Center (B, D, N, Q, R, and No. 2, 3, 4, 5 routes) Subway Stations, as well as the B25, B26, B41, B45, B65, and B69 local bus routes.

As detailed in **Table I-5**, the incremental transit trips generated by the Proposed Actions would be 208, 136, and 225 person trips by subway, and 16, 20, and 19 person trips by bus during the weekday AM, midday, and PM peak hours, respectively. The subway trips would be dispersed onto the area's subway stations/lines such that trip-making for any single subway station/line would not exceed the *CEQR Technical Manual* analysis threshold of 200 or more peak hour subway trips. Therefore, a detailed analysis of subway facilities is not warranted and the Proposed Actions are not expected to result in any significant adverse subway impacts. The incremental bus trips generated by the Proposed Actions would not exceed the *CEQR Technical Manual* analysis threshold of 50 or more peak-hour bus riders in a single direction. Therefore, a detailed bus line-haul analysis is also not warranted and the Proposed Actions are not expected to result in any significant adverse bus line-haul impacts.

PEDESTRIANS

All incremental person trips generated by the Proposed Actions would traverse the pedestrian elements (i.e., sidewalks, corners, and crosswalks) surrounding the Project Area. As shown in **Table I-5**, the net incremental pedestrian trips would be greater than 200 during the weekday AM, midday, and PM peak hours. A Level 2 screening assessment (presented in the section below) has been conducted to determine if there is a need for additional quantified pedestrian analyses.

LEVEL 2 SCREENING ASSESSMENT

As part of the Level 2 screening assessment, project generated trips are assigned to specific intersections and pedestrian elements near the Project Area. As previously stated, further quantified analyses to assess the potential impacts of the Proposed Actions on the transportation system would be warranted if the trip assignments were to identify key intersections incurring 50 or more peak hour vehicle trips or pedestrian elements incurring 200 or more peak hour pedestrian trips.

SITE ACCESS AND EGRESS

Entrances to all the uses are assumed to be along the south side of Atlantic Avenue between Underhill and Vanderbilt Avenues. A 40-space accessory cellar-level parking garage would be made available for the residents in the With Action condition, accessible via a curb cut at the Development Site. Project generated vehicle trips for the non-residential uses were assigned to nearby off-street parking facilities. Due to the current COVID-19 pandemic, City agencies were

Project Area

Subway Line/ Subway Station

B65 *Bus Route*

Transit Study Area

870-888 ATLANTIC AVENUE REZONING

Figure I-1

not allowing data collection efforts to be undertaken when the initial draft of this screening analysis was prepared during the summer of 2020. In order to determine the available off-street parking resources in an approximately ¼-mile radius of the Project Area, the off-street parking supply and utilization information are based on the previously completed 2019 *809 Atlantic Avenue Rezoning EAS* (CEQR# 18DCP179K). Subsequently, in October 2020, DOT issued guidance allowing data collection efforts to resume in New York City. However, developing a data set that is representative of normal conditions from current surveys would require adjustments based upon professional judgment to appropriately account for established parking utilization levels. Furthermore, the *809 Atlantic Avenue Rezoning* off-street parking information are less than three years old when the initial screening analysis were prepared and are generally appropriate for analysis purposes per the *CEQR Technical Manual*. Therefore, the *809 Atlantic Avenue Rezoning* off-street parking information are expected to be adequately representative of the existing off-street parking resources in an approximately ¼-mile radius of the Project Area.

The ¼-mile off-street parking information is summarized in **Table I-6** and shown in **Figure I-2**, where available capacity was identified and motorists would walk to/from the Project Area.

Table I-6
Existing Off-Street Parking—Approximately ¼-Mile
Weekday Utilization

Map #	Name/Address	License Number	Licensed Capacity	Utilization Rate				Utilized Spaces				Available Spaces			
				AM	MD	PM	ON	AM	MD	PM	ON	AM	MD	PM	ON
1	A&P Parking Corp. / 525 Clinton Avenue	2049780	55	33%	66%	66%	33%	18	36	36	18	37	19	19	37
2	WOC Waverly Garage / 502 Waverly Avenue	2050957	34	80%	80%	60%	60%	27	27	20	20	7	7	14	14
3	Enterprise Washington Garage / 545 Washington Avenue	1460723	67	60%	60%	60%	60%	40	40	40	40	27	27	27	27
4	786 Parking Corporation / 313 St. Marks Avenue	2060564	38	75%	85%	66%	50%	29	32	25	19	9	6	13	19
5	Quik Park Underhill LLC / 105 Underhill Avenue	2005668	160	60%	70%	60%	50%	96	112	96	80	64	48	64	80
Approximate ¼-Mile Area Totals			**354**	**59%**	**70%**	**61%**	**50%**	**210**	**247**	**217**	**177**	**144**	**107**	**137**	**177**

Notes:
MD = Midday; ON = Overnight; N/A = Not Available
Source: 2019 *809 Atlantic Avenue Rezoning EAS* (CEQR# 18DCP179K).

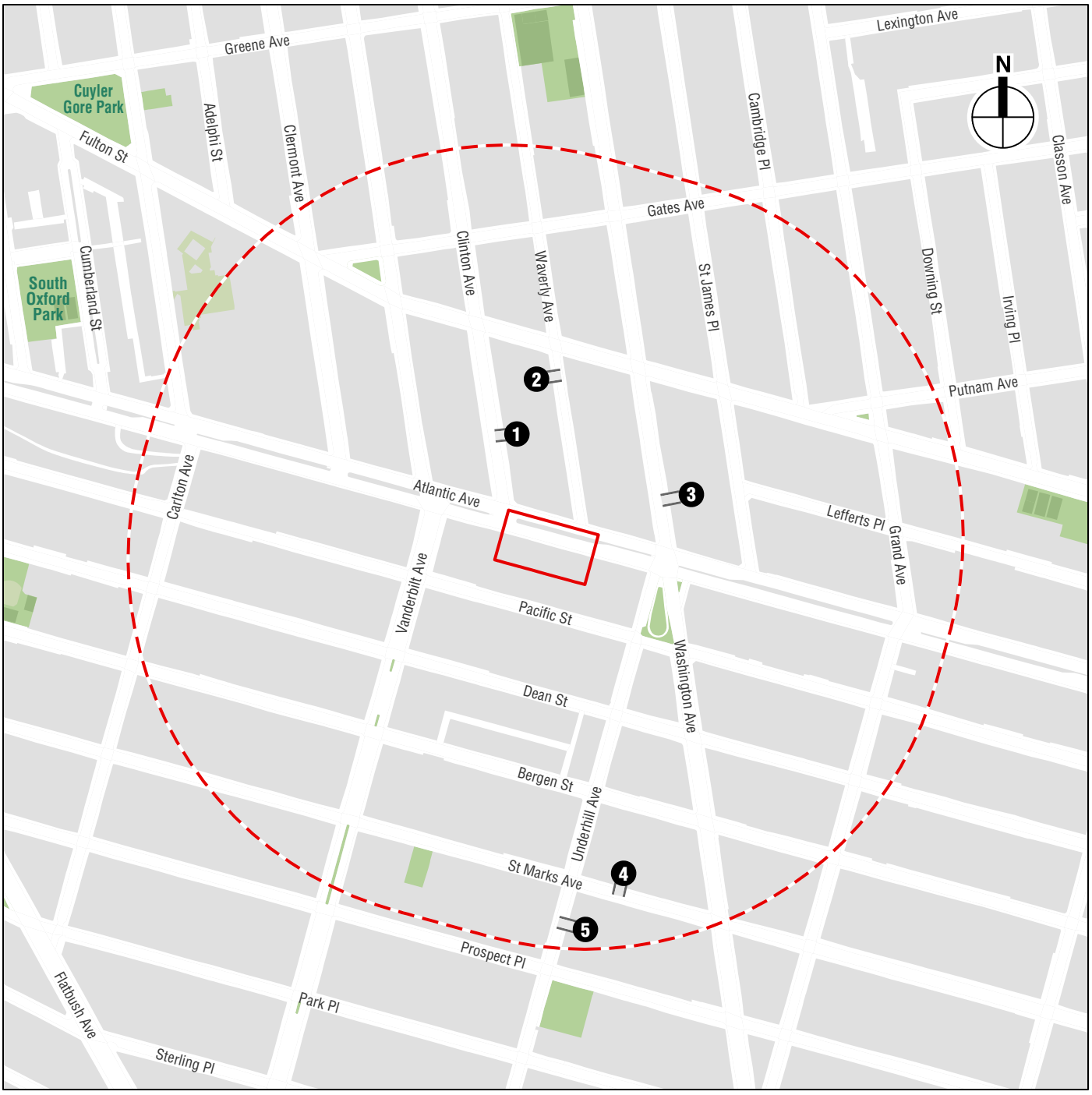
TRAFFIC

Vehicle trips were assigned to area intersections based on the most likely travel routes to and from the Project Area, prevailing travel patterns, commuter origin-destination (O-D) summaries from the most recent census data, the configuration of the roadway network, the anticipated locations of site access and egress, locations nearby off-street parking resources, and nearby land use and population characteristics. Auto trips were assigned to the on-site parking garage and off-street parking facilities identified in the approximately ¼-mile radius of the Project Area. Taxi trips are distributed to the Project Area's various frontages. Delivery trips were assigned to the Project Area via DOT-designated truck routes. Traffic assignments for autos, taxis, and deliveries for the various development uses are discussed below.

Residential Use

Auto trips generated by the residential (With Action) use were assigned to the surrounding roadway network based on the 2012–2016 U.S. Census ACS JTW origin-destination (O-D) estimates. The residential trips would be distributed to: North Brooklyn (27 percent), South Brooklyn (43 percent), Queens (10 percent), Manhattan (10 percent), Long Island (8 percent), and New Jersey (2 percent). Auto vehicle trips for the residential use were assigned to the accessory parking garage on site. Overall, vehicle trips generated by the residential use are distributed to the

2.1.21



Project Area

Study Area (1/4-mile perimeter)

1 *Off-Street Parking*

Facility Entry

0 800 FEET

Off-Street Parking Facilities

870-888 ATLANTIC AVENUE REZONING

Figure I-2

study area roadway network in the following manner: approximately 27 percent of inbound trips were assigned to Atlantic Avenue westbound, 10 percent to Atlantic Avenue eastbound, 25 percent to Vanderbilt Avenue northbound, 18 percent to Clinton Avenue southbound, 10 percent to St. Marks Avenue eastbound and 10 percent to various northbound and southbound avenues. With Action auto trips were assigned to the on-site parking garage. Taxi trips generated by the light residential use were assigned to the Atlantic Avenue frontage.

Local Retail and Medical Office Uses

The With Action local retail and medical office auto trips are generally assigned from local origins within the neighborhood and adjacent residential areas. Approximately 35 percent of vehicle trips would originate from north of the Project Area, 45 percent from south of the Project Area, and 10 percent each from east and west of the Project Area. The auto trips were assigned to the available off-street parking facilities identified in the approximately ¼-mile radius of the Project Area. Taxi trips generated by the local retail and medical office uses were assigned to the Atlantic Avenue frontage.

Light Industrial and Warehouse Uses

Auto trips generated by the light industrial and warehouse (Existing/No Action) uses were assigned to the surrounding roadway network based on the 2012–2016 U.S. Census ACS RJTW O-D estimates. The light industrial and warehouse trips would originate from: North Brooklyn (32 percent), South Brooklyn (30 percent) Queens (18 percent), Manhattan (1 percent), Staten Island (3 percent), Long Island (10 percent), Upstate New York (3 percent), New Jersey (2 percent), and Pennsylvania (1 percent). Auto vehicle trips for the office/light manufacturing and warehouse uses were assigned to off-street parking facilities identified in the approximately ¼-mile radius of the Project Area. Overall, vehicle trips generated by the light industrial and warehouse uses are distributed to the study area roadway network in the following manner: approximately 32 percent of inbound trips were assigned to Atlantic Avenue westbound, 25 percent to Vanderbilt Avenue northbound, 18 percent to Clinton Avenue southbound, 10 percent to St. Marks Avenue eastbound and 15 percent to various northbound and southbound avenues. Taxi trips generated by the light industrial and warehouse uses were assigned to the Atlantic Avenue frontage.

Deliveries

Truck delivery trips for all land uses were assigned to DOT-designated truck routes and are assumed to stay on them as long as possible until reaching the area surrounding the Project Area. These are then generally distributed to Atlantic Avenue (50 percent) and Flatbush Avenue (50 percent) until they reach the various curbsides along the Project Area.

Summary

Figures I-3 through I-8 show the No Action project-generated vehicle trips, the With Action project-generated vehicle trips, and the With Action incremental vehicle trips, respectively, for the weekday midday and PM peak hours. As summarized in **Table I-7**, the weekday midday and PM peak hour incremental vehicle trips would be less than 50 at study area intersections. Therefore, a detailed traffic analysis is not warranted and the Proposed Actions are not expected to result in any significant adverse traffic impacts.

2.4.21

Project Area

Development Site (Projected Development Site 1)

Non-Applicant Owned Projected Development Sites

0 400 FEET

No Action Project Generated Vehicle Trips
Weekday Midday Peak Hour

870-888 ATLANTIC AVENUE REZONING

Figure I-3

Project Area

Development Site (Projected Development Site 1)

Non-Applicant Owned Projected Development Sites

0 400 FEET

No Action Project Generated Vehicle Trips
Weekday PM Peak Hour

870-888 ATLANTIC AVENUE REZONING

Figure I-4

2.5.21

Project Area

Development Site (Projected Development Site 1)

Non-Applicant Owned Projected Development Sites

0 400 FEET

With Action Project Generated Vehicle Trips
Weekday Midday Peak Hour

870-888 ATLANTIC AVENUE REZONING

Figure I-5

2.4.21

Project Area

Development Site (Projected Development Site 1)

Non-Applicant Owned Projected Development Sites

0 400 FEET

With Action Project Generated Vehicle Trips
Weekday PM Peak Hour

870-888 ATLANTIC AVENUE REZONING

Figure I-6

2.4.21

Project Area

Development Site (Projected Development Site 1)

Non-Applicant Owned Projected Development Sites

0 400 FEET

With Action Incremental Vehicle Trips
Weekday Midday Peak Hour

870-888 ATLANTIC AVENUE REZONING

Figure I-7

Project Area

Development Site (Projected Development Site 1)

Non-Applicant Owned Projected Development Sites

0 400 FEET

With Action Incremental Vehicle Trips
Weekday PM Peak Hour

870-888 ATLANTIC AVENUE REZONING

Figure I-8

Table I-7
Traffic Level 2 Screening Analysis Results

Intersection	Incremental Vehicle Trips	
	Weekday Midday Peak Hour	Weekday PM Peak Hour
Atlantic Avenue and 6th Avenue	11	9
Atlantic Avenue and Carlton Avenue	10	10
Atlantic Avenue and Vanderbilt Avenue	38	28
Atlantic Avenue and Underhill Avenue/Washington Avenue	19	14
Pacific Street and Vanderbilt Avenue	16	15
Dean Street and 6th Avenue	10	5
Dean Street and Vanderbilt Avenue	15	15
Bergen Street and Vanderbilt Avenue	15	15
St. Marks Avenue and Vanderbilt Avenue	15	15
Prospect Place and Vanderbilt Avenue	15	15
Park Place and Carlton Avenue	15	15
Atlantic Avenue and St Oxford Street	9	10
Atlantic Avenue and Cumberland Street	9	10
Atlantic Avenue and Clermont Street	22	13
Atlantic Avenue and Clinton Avenue	38	26
Atlantic Avenue and Waverly Avenue	15	14
Fulton Street and Clinton Avenue	18	17

PEDESTRIANS

Level 2 pedestrian trip assignments have been individually developed for the No Action project generated, With Action project generated, and With Action incremental pedestrian trips. These trip assignments are shown in **Figures I-9 through I-17** and discussed below.

- *Auto Trips:* Auto vehicle trips for the With Action residential use were assigned to the accessory parking garage on site. For all other uses in the No Action and With Action conditions, auto trips were assigned to the available off-street parking facilities identified in the approximately ¼-mile radius of the Project Area; motorists would subsequently access the Project Area via local connecting sidewalks, corners, and crosswalks.
- *Taxi Trips:* Taxi patrons would get dropped off and picked up along the Project Area block faces.
- *City Bus Trips*: City bus riders would use buses stopping on Atlantic Avenue, Vanderbilt Avenue, Fulton Street, and Dean Street, and would board and alight at bus stops nearest to the Project Area.
- *Subway Trips*: Subway riders were assigned to the Clinton/Washington Avenues (C train), and Atlantic Avenue–Barclays Center (D, N, R, B, Q, and No. 2, 3, 4, 5 routes) Subway Stations.
- *Walk-Only Trips:* Pedestrian walk-only trips have been developed by distributing project generated person trips to surrounding pedestrian facilities (i.e., sidewalks, corner reservoirs, and crosswalks) based on population density data, U.S. Census JTW O-D and RJTW O-D data, as well as the land use characteristics of the surrounding neighborhood.

Based on the detailed assignment of incremental pedestrian trips illustrated in **Figures I-15 through I-17**, three sidewalk segments, two corners, and one crosswalk were selected for detailed pedestrian analysis, as summarized in **Table I-8** and **Figure I-18**.

2.4.21

Project Area

Development Site (Projected Development Site 1)

Non-Applicant Owned Projected Development Sites

870-888 ATLANTIC AVENUE REZONING

No Action Project Generated Pedestrian Trips
Weekday AM Peak Hour

Figure I-9

2.4.21

Project Area

Development Site (Projected Development Site 1)

Non-Applicant Owned Projected Development Sites

870-888 ATLANTIC AVENUE REZONING

No Action Project Generated Pedestrian Trips
Weekday Midday Peak Hour

Figure I-10

No Action Project Generated Pedestrian Trips
Weekday PM Peak Hour

870-888 ATLANTIC AVENUE REZONING

Figure I-11

2.4.21

Project Area

Development Site (Projected Development Site 1)

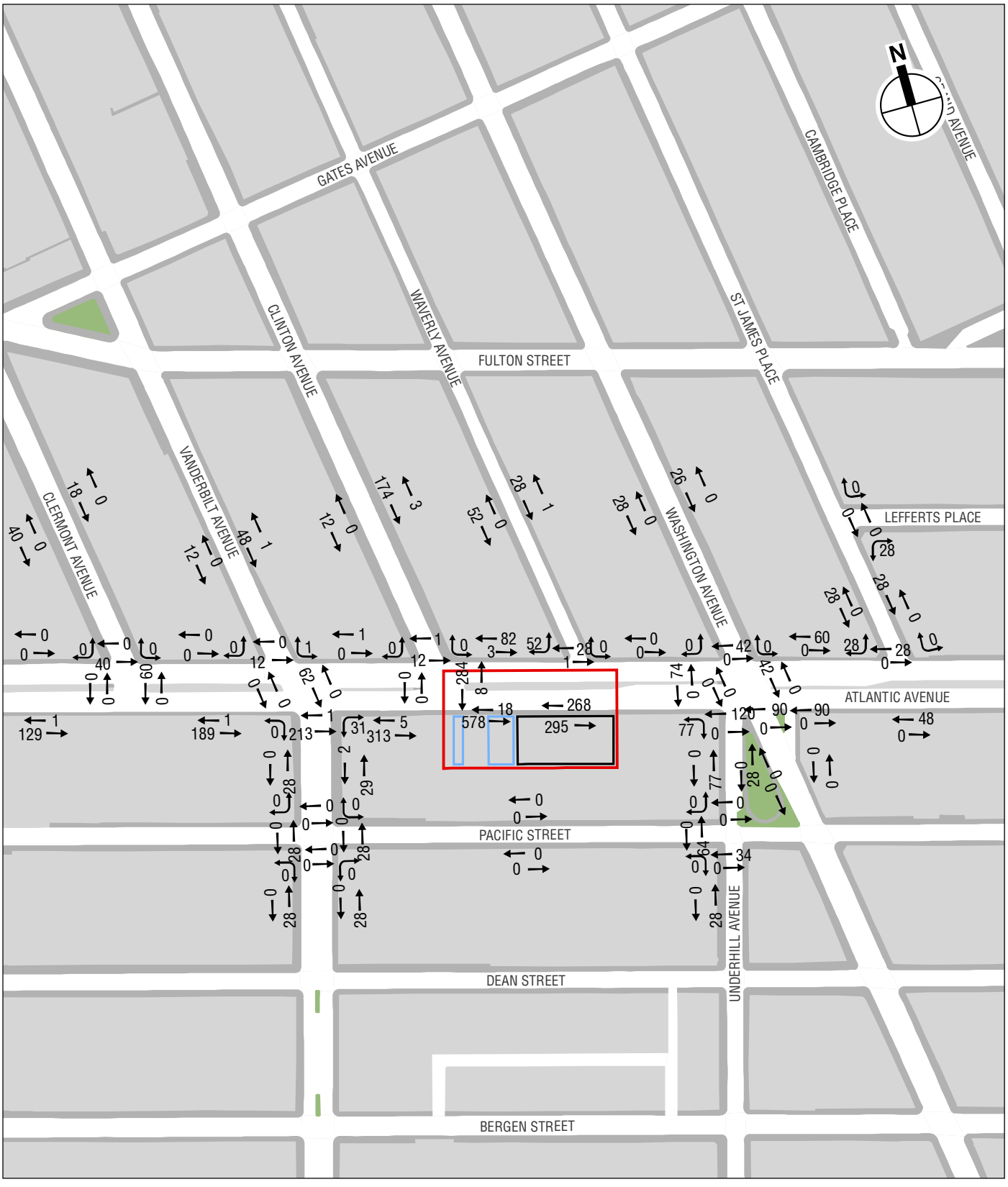
Non-Applicant Owned Projected Development Sites

With Action Project Generated Pedestrian Trips
Weekday AM Peak Hour

870-888 ATLANTIC AVENUE REZONING

Figure I-12

2.4.21



Project Area

Development Site (Projected Development Site 1)

Non-Applicant Owned Projected Development Sites

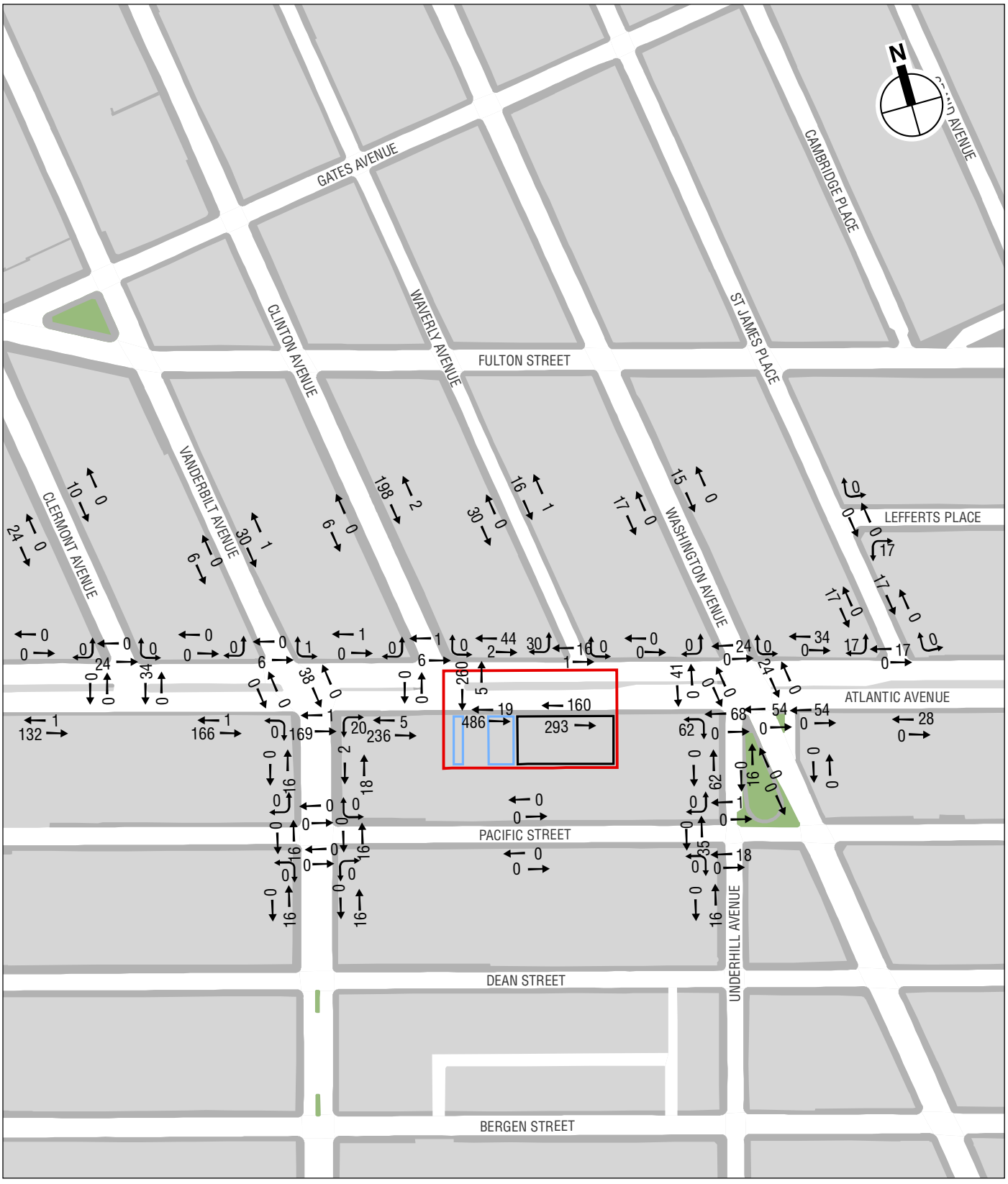
0 400 FEET

With Action Project Generated Pedestrian Trips
Weekday Midday Peak Hour

870-888 ATLANTIC AVENUE REZONING

Figure I-13

2.4.21



Project Area

Development Site (Projected Development Site 1)

Non-Applicant Owned Projected Development Sites

With Action Project Generated Pedestrian Trips
Weekday PM Peak Hour

870-888 ATLANTIC AVENUE REZONING

Figure I-14

2.4.21

Project Area

Development Site (Projected Development Site 1)

Non-Applicant Owned Projected Development Sites

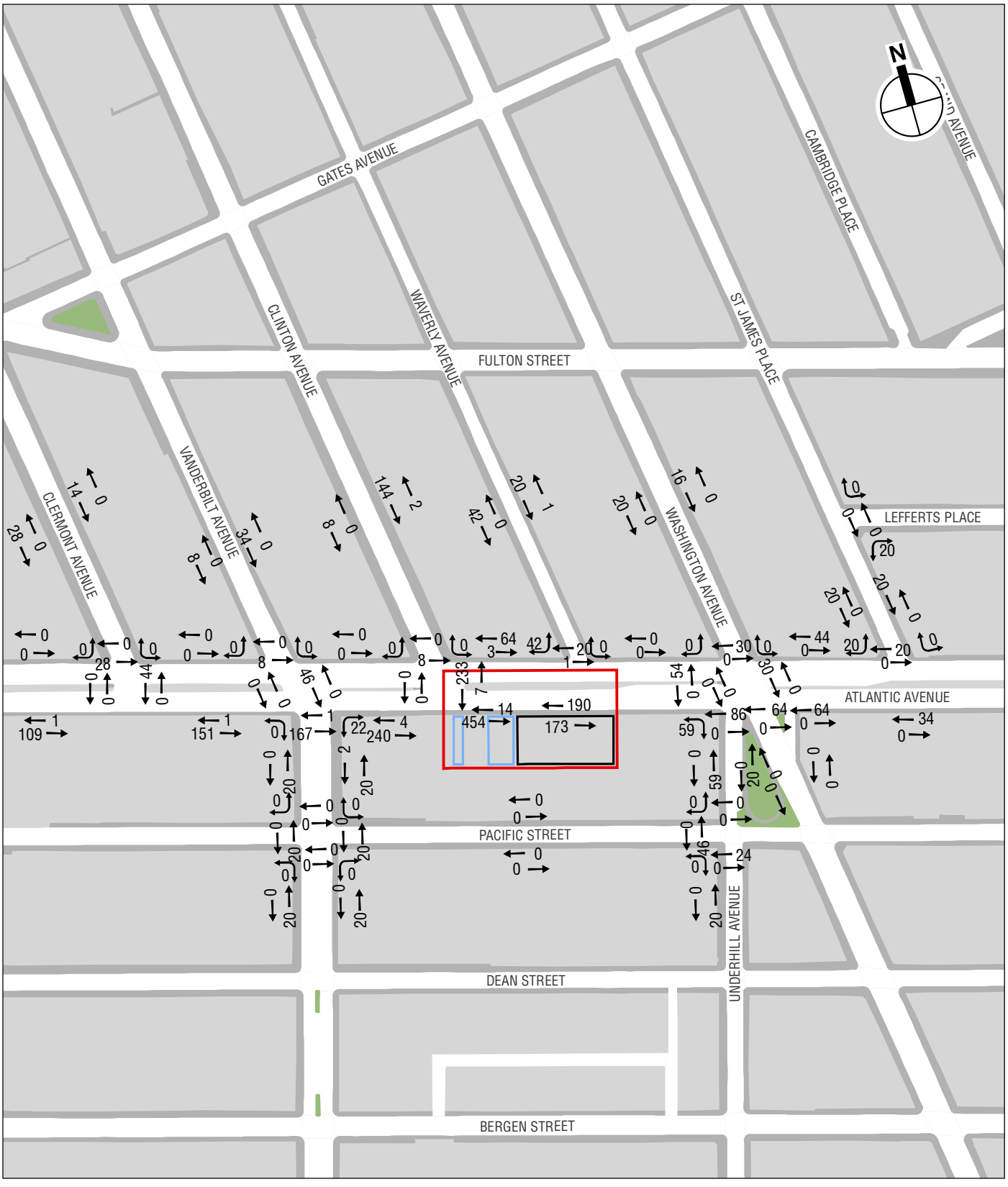
0 400 FEET

With Action Incremental Pedestrian Trips
Weekday AM Peak Hour

870-888 ATLANTIC AVENUE REZONING

Figure I-15

2.4.21



Project Area

Development Site (Projected Development Site 1)

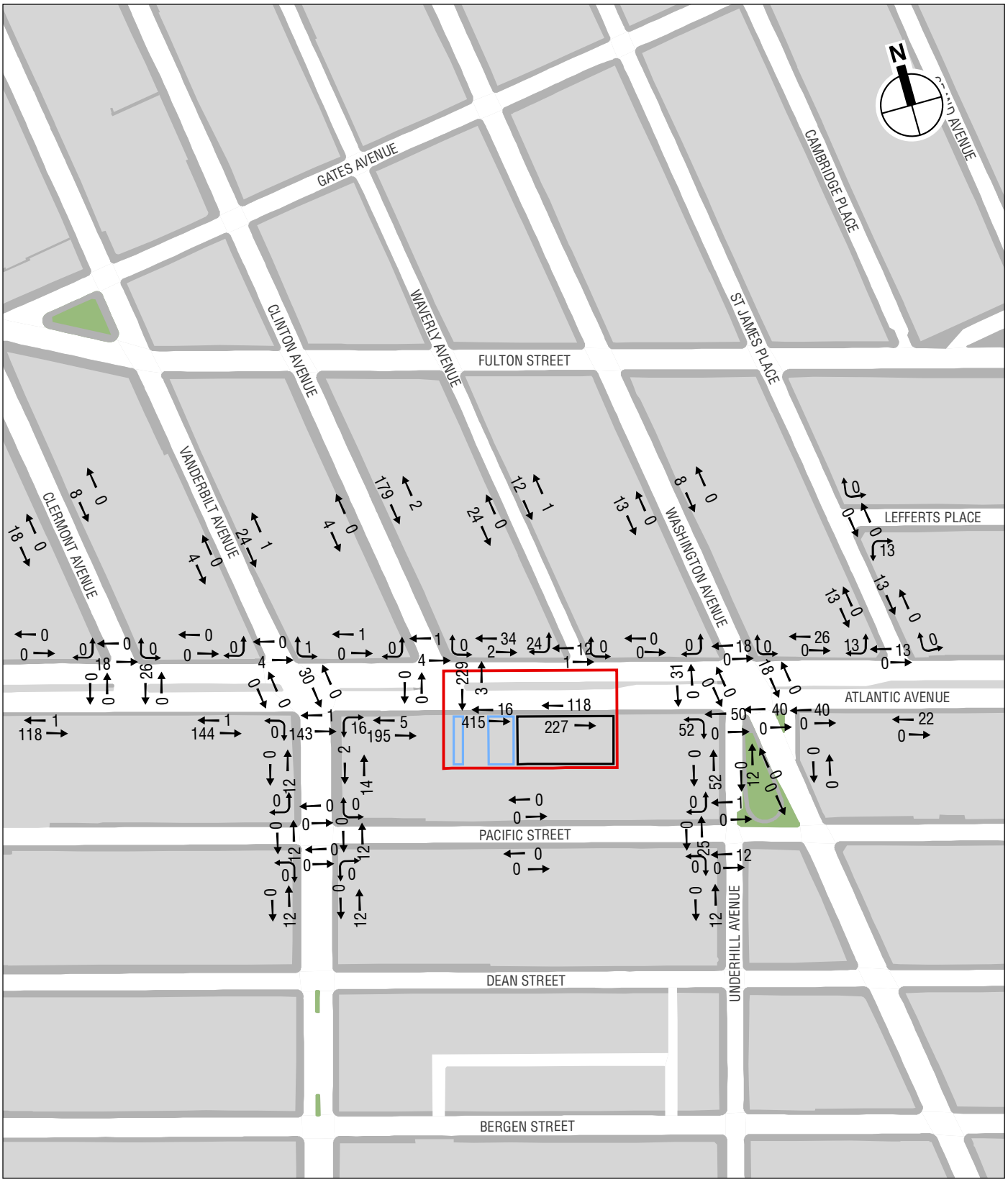
Non-Applicant Owned Projected Development Sites

With Action Incremental Pedestrian Trips
Weekday Midday Peak Hour

870-888 ATLANTIC AVENUE REZONING

Figure I-16

2.4.21



Project Area

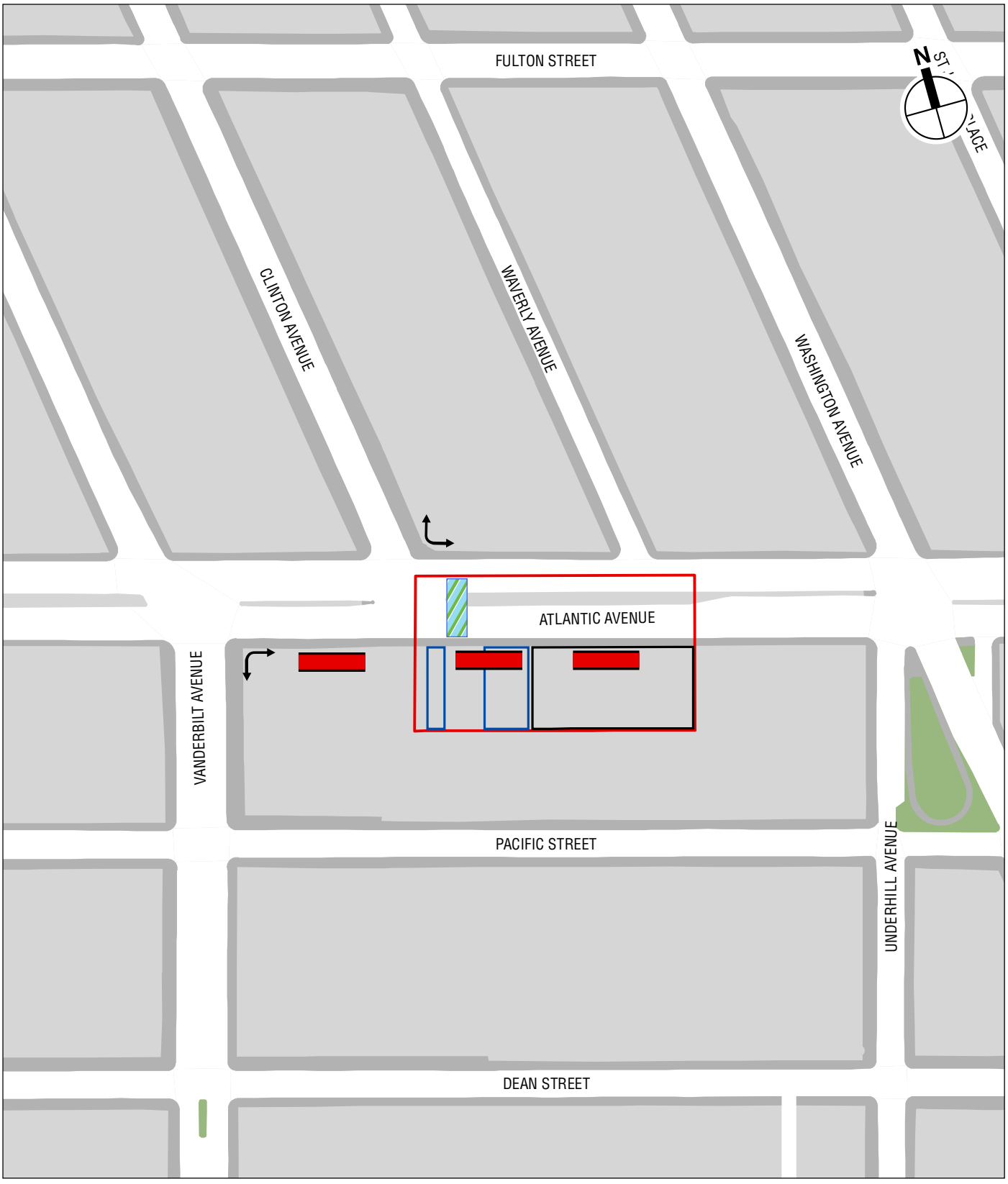
Development Site (Projected Development Site 1)

Non-Applicant Owned Projected Development Sites

870-888 ATLANTIC AVENUE REZONING

With Action Incremental Pedestrian Trips
Weekday PM Peak Hour

Figure I-17



Project

Development Site (Projected Development Site 1)

Non-Applicant Owned Projected Development Sites

Corner

Crosswalk

Sidewalk

0 400 FEET

Pedestrian Analysis Locations

Figure I-18

870-888 ATLANTIC AVENUE REZONING

Table I-8
Pedestrian Level 2 Screening Analysis Results

Pedestrian Elements	Incremental Pedestrian Trips			Analysis Location
	AM	Midday	PM	
Clinton Avenue and Fulton Street				
Southeast corner	140	116	166	
South sidewalk along Fulton Street between Clinton Avenue and Waverly Avenue	132	83	145	
East sidewalk along Clinton Avenue between Fulton Avenue and Atlantic Avenue	149	146	181	
Washington Avenue / Underhill Avenue and Atlantic Avenue				
South crosswalk	22	86	50	
Southeast corner	25	94	58	
Southwest corner	70	199	133	
Clinton Avenue and Atlantic Avenue				
East crosswalk	181	240	232	✓
Northeast corner	183	248	237	✓
South sidewalk along Atlantic Avenue between Vanderbilt Avenue and Clinton Avenue	130	244	200	✓
South sidewalk along Atlantic Avenue: west of Projected Development Site main entrance	302	468	431	✓
South sidewalk along Atlantic Avenue: east of Proposed Development Site main entrance	257	363	345	✓
Vanderbilt Avenue and Atlantic Avenue				
South crosswalk	99	168	144	
Southeast corner	117	236	190	✓
Southwest corner	99	168	144	
South sidewalk along Atlantic Avenue between Vanderbilt Avenue and Clermont Avenue	102	152	145	
Clermont Avenue and Atlantic Avenue				
South sidewalk along Atlantic Avenue between Clermont Avenue and Carlton Avenue	95	110	119	
Notes: ✓ denotes pedestrian elements selected for detailed analysis.				

C. TRANSPORTATION ANALYSIS METHODOLOGIES

PEDESTRIAN OPERATIONS

The adequacy of the study area's sidewalk, crosswalk, and corner reservoir capacities in relation to the demand imposed on them is evaluated based on the methodologies presented in the 2010 *HCM*, pursuant to procedures detailed in the *CEQR Technical Manual*.

The primary performance measure for sidewalks and walkways is pedestrian space, expressed as square feet per pedestrian (SFP), which is an indicator of the quality of pedestrian movement and comfort. The calculation of the sidewalk SFP is based on the pedestrian volumes by direction, the effective sidewalk or walkway width, and average walking speed. The SFP forms the basis for a sidewalk LOS analysis. The determination of sidewalk LOS is also dependent on whether the pedestrian flow being analyzed is best described as "non-platoon" or "platoon." Non-platoon flow occurs when pedestrian volume within the peak 15-minute period is relatively uniform, whereas platoon flow occurs when pedestrian volumes vary significantly within the peak 15-minute period. Such variation typically occurs near bus stops, subway stations, and/or where adjacent crosswalks account for much of the walkway's pedestrian volume.

Street corners and crosswalks are not easily measured in terms of free pedestrian flow, as they are influenced by the effects of traffic signals. Street corners must be able to provide sufficient space for a mix of standing pedestrians (queued to cross a street) and circulating pedestrians (crossing the street or moving around the corner). The HCM methodologies apply a measure of time and space availability based on the area of the corner, the timing of the intersection signal, and the estimated space used by circulating pedestrians.

The total "time-space" available for these activities, expressed in square feet-second, is calculated by multiplying the net area of the corner (in square feet) by the signal's cycle length. The analysis then determines the total circulation time for all pedestrian movements at the corner per signal cycle (expressed as pedestrians per second). The ratio of net time-space divided by the total pedestrian circulation volume per signal cycle provides the LOS measurement of available SFP.

Crosswalk LOS is also a function of time and space. Similar to the street corner analysis, crosswalk conditions are first expressed as a measurement of the available area (the crosswalk width multiplied by the width of the street) and the permitted crossing time. This measure is expressed in square feet-second. The average time required for a pedestrian to cross the street is calculated based on the width of the street and an assumed walking speed. The ratio of time-space available in the crosswalk to the total crosswalk pedestrian occupancy time is the LOS measurement of available square feet per pedestrian. The LOS analysis also accounts for vehicular turning movements that traverse the crosswalk.

The LOS standards for sidewalks, corner reservoirs, and crosswalks are summarized in **Table I-9**. The *CEQR Technical Manual* specifies acceptable LOS in non-Central Business District (CBD) areas is LOS C or better, while acceptable LOS in CBD areas is mid-LOS D or better.

Table I-9
Level of Service Criteria for Pedestrian Elements

LOS	Sidewalks		Corner Reservoirs and Crosswalks
	Non-Platoon Flow	Platoon Flow	
A	> 60 SFP	> 530 SFP	> 60 SFP
B	> 40 and ≤ 60 SFP	> 90 and ≤ 530 SFP	> 40 and ≤ 60 SFP
C	> 24 and ≤ 40 SFP	> 40 and ≤ 90 SFP	> 24 and ≤ 40 SFP
D	> 15 and ≤ 24 SFP	> 23 and ≤ 40 SFP	> 15 and ≤ 24 SFP
E	> 8 and ≤ 15 SFP	> 11 and ≤ 23 SFP	> 8 and ≤ 15 SFP
F	≤ 8 SFP	≤ 11 SFP	≤ 8 SFP

Note:
SFP = square feet per pedestrian
Sources:
New York City Mayor's Office of Environmental Coordination, *CEQR Technical Manual*

SIGNIFICANT IMPACT CRITERIA

The determination of significant pedestrian impacts considers the level of predicted decrease in pedestrian space between the No Action and With Action conditions. For different pedestrian elements, flow conditions, and area types, the CEQR procedure for impact determination corresponds with various sliding-scale formulas, as further detailed below.

Sidewalks

There are two sliding-scale formulas for determining significant sidewalk impacts. For non-platoon flow, the determination of significant sidewalk impacts is based on the sliding scale using the following formula: $Y \geq X/9.0–0.31$, where Y is the decrease in pedestrian space in SFP and X is the No Action pedestrian space in SFP. For platoon flow, the sliding-scale formula is $Y \geq X/(9.5–0.321)$. Since a decrease in pedestrian space within acceptable levels would not constitute a significant impact, these formulas would apply only if the With Action pedestrian space falls short of LOS C in non-CBD areas or mid-LOS D in CBD areas. **Table I-10** summarizes the sliding scale guidance provided by the *CEQR Technical Manual* for determining potential significant sidewalk impacts.

Table I-10
Significant Impact Guidance for Sidewalks

Non-Platoon Flow				Platoon Flow			
Sliding Scale Formula: *Y ≥ X/(9.0–0.31)*				Sliding Scale Formula: *Y ≥ X/(9.5–0.321)*			
Non-CBD Areas		CBD Areas		Non-CBD Areas		CBD Areas	
No Action Ped. Space (X, SFP)	With Action Ped. Space Reduc. (Y, SFP)	No Action Ped. Space (X, SFP)	With Action Ped. Space Reduc. (Y, SFP)	No Action Ped. Space (X, SFP)	With Action Ped. Space Reduc. (Y, SFP)	No Action Ped. Space (X, SFP)	With Action Ped. Space Reduc. (Y, SFP)
–	–	–	–	43.5 to 44.3	≥ 4.3	–	–
–	–	–	–	42.5 to 43.4	≥ 4.2	–	–
–	–	–	–	41.6 to 42.4	≥ 4.1	–	–
–	–	–	–	40.6 to 41.5	≥ 4.0	–	–
–	–	–	–	39.7 to 40.5	≥ 3.9	–	–
–	–	–	–	38.7 to 39.6	≥ 3.8	38.7 to 39.2	≥ 3.8
–	–	–	–	37.8 to 38.6	≥ 3.7	37.8 to 38.6	≥ 3.7
–	–	–	–	36.8 to 37.7	≥ 3.6	36.8 to 37.7	≥ 3.6
–	–	–	–	35.9 to 36.7	≥ 3.5	35.9 to 36.7	≥ 3.5
–	–	–	–	34.9 to 35.8	≥ 3.4	34.9 to 35.8	≥ 3.4
–	–	–	–	34.0 to 34.8	≥ 3.3	34.0 to 34.8	≥ 3.3
–	–	–	–	33.0 to 33.9	≥ 3.2	33.0 to 33.9	≥ 3.2
–	–	–	–	32.1 to 32.9	≥ 3.1	32.1 to 32.9	≥ 3.1
–	–	–	–	31.1 to 32.0	≥ 3.0	31.1 to 32.0	≥ 3.0
–	–	–	–	30.2 to 31.0	≥ 2.9	30.2 to 31.0	≥ 2.9
–	–	–	–	29.2 to 30.1	≥ 2.8	29.2 to 30.1	≥ 2.8
25.8 to 26.6	≥ 2.6	–	–	28.3 to 29.1	≥ 2.7	28.3 to 29.1	≥ 2.7
24.9 to 25.7	≥ 2.5	–	–	27.3 to 28.2	≥ 2.6	27.3 to 28.2	≥ 2.6
24.0 to 24.8	≥ 2.4	–	–	26.4 to 27.2	≥ 2.5	26.4 to 27.2	≥ 2.5
23.1 to 23.9	≥ 2.3	–	–	25.4 to 26.3	≥ 2.4	25.4 to 26.3	≥ 2.4
22.2 to 23.0	≥ 2.2	–	–	24.5 to 25.3	≥ 2.3	24.5 to 25.3	≥ 2.3
21.3 to 22.1	≥ 2.1	21.3 to 21.5	≥ 2.1	23.5 to 24.4	≥ 2.2	23.5 to 24.4	≥ 2.2
20.4 to 21.2	≥ 2.0	20.4 to 21.2	≥ 2.0	22.6 to 23.4	≥ 2.1	22.6 to 23.4	≥ 2.1
19.5 to 20.3	≥ 1.9	19.5 to 20.3	≥ 1.9	21.6 to 22.5	≥ 2.0	21.6 to 22.5	≥ 2.0
18.6 to 19.4	≥ 1.8	18.6 to 19.4	≥ 1.8	20.7 to 21.5	≥ 1.9	20.7 to 21.5	≥ 1.9
17.7 to 18.5	≥ 1.7	17.7 to 18.5	≥ 1.7	19.7 to 20.6	≥ 1.8	19.7 to 20.6	≥ 1.8
16.8 to 17.6	≥ 1.6	16.8 to 17.6	≥ 1.6	18.8 to 19.6	≥ 1.7	18.8 to 19.6	≥ 1.7
15.9 to 16.7	≥ 1.5	15.9 to 16.7	≥ 1.5	17.8 to 18.7	≥ 1.6	17.8 to 18.7	≥ 1.6
15.0 to 15.8	≥ 1.4	15.0 to 15.8	≥ 1.4	16.9 to 17.7	≥ 1.5	16.9 to 17.7	≥ 1.5
14.1 to 14.9	≥ 1.3	14.1 to 14.9	≥ 1.3	15.9 to 16.8	≥ 1.4	15.9 to 16.8	≥ 1.4
13.2 to 14.0	≥ 1.2	13.2 to 14.0	≥ 1.2	15.0 to 15.8	≥ 1.3	15.0 to 15.8	≥ 1.3
12.3 to 13.1	≥ 1.1	12.3 to 13.1	≥ 1.1	14.0 to 14.9	≥ 1.2	14.0 to 14.9	≥ 1.2
11.4 to 12.2	≥ 1.0	11.4 to 12.2	≥ 1.0	13.1 to 13.9	≥ 1.1	13.1 to 13.9	≥ 1.1
10.5 to 11.3	≥ 0.9	10.5 to 11.3	≥ 0.9	12.1 to 13.0	≥ 1.0	12.1 to 13.0	≥ 1.0
9.6 to 10.4	≥ 0.8	9.6 to 10.4	≥ 0.8	11.2 to 12.0	≥ 0.9	11.2 to 12.0	≥ 0.9
8.7 to 9.5	≥ 0.7	8.7 to 9.5	≥ 0.7	10.2 to 11.1	≥ 0.8	10.2 to 11.1	≥ 0.8
7.8 to 8.6	≥ 0.6	7.8 to 8.6	≥ 0.6	9.3 to 10.1	≥ 0.7	9.3 to 10.1	≥ 0.7
6.9 to 7.7	≥ 0.5	6.9 to 7.7	≥ 0.5	8.3 to 9.2	≥ 0.6	8.3 to 9.2	≥ 0.6
6.0 to 6.8	≥ 0.4	6.0 to 6.8	≥ 0.4	7.4 to 8.2	≥ 0.5	7.4 to 8.2	≥ 0.5
5.1 to 5.9	≥ 0.3	5.1 to 5.9	≥ 0.3	6.4 to 7.3	≥ 0.4	6.4 to 7.3	≥ 0.4
< 5.1	≥ 0.2	< 5.1	≥ 0.2	< 6.4	≥ 0.3	< 6.4	≥ 0.3

Notes:
SFP = square feet per pedestrian; Y = decrease in pedestrian space in SFP; X = No Action pedestrian space in SFP
Sources:
New York City Mayor's Office of Environmental Coordination, *CEQR Technical Manual*

Corner Reservoirs and Crosswalks

The determination of significant corner and crosswalk impacts is also based on a sliding scale using the following formula: Y ≥ X/9.0–0.31, where Y is the decrease in pedestrian space in SFP

and X is the No Action pedestrian space in SFP. Since a decrease in pedestrian space within acceptable levels would not constitute a significant impact, this formula would apply only if the With Action pedestrian space falls short of LOS C in non-CBD areas or mid-LOS D in CBD areas. **Table I-11** summarizes the sliding scale guidance provided by the *CEQR Technical Manual* for determining potential significant corner reservoir and crosswalk impacts.

Table I-11
Significant Impact Guidance for Corners and Crosswalks

Sliding Scale Formula: $Y \geq X/9.0 - 0.31$			
Non-CBD Areas		**CBD Areas**	
No Action Pedestrian Space (X, SFP)	**With Action Pedestrian Space Reduction (Y, SFP)**	**No Action Pedestrian Space (X, SFP)**	**With Action Pedestrian Space Reduction (Y, SFP)**
25.8 to 26.6	≥ 2.6	–	–
24.9 to 25.7	≥ 2.5	–	–
24.0 to 24.8	≥ 2.4	–	–
23.1 to 23.9	≥ 2.3	–	–
22.2 to 23.0	≥ 2.2	–	–
21.3 to 22.1	≥ 2.1	21.3 to 21.5	≥ 2.1
20.4 to 21.2	≥ 2.0	20.4 to 21.2	≥ 2.0
19.5 to 20.3	≥ 1.9	19.5 to 20.3	≥ 1.9
18.6 to 19.4	≥ 1.8	18.6 to 19.4	≥ 1.8
17.7 to 18.5	≥ 1.7	17.7 to 18.5	≥ 1.7
16.8 to 17.6	≥ 1.6	16.8 to 17.6	≥ 1.6
15.9 to 16.7	≥ 1.5	15.9 to 16.7	≥ 1.5
15.0 to 15.8	≥ 1.4	15.0 to 15.8	≥ 1.4
14.1 to 14.9	≥ 1.3	14.1 to 14.9	≥ 1.3
13.2 to 14.0	≥ 1.2	13.2 to 14.0	≥ 1.2
12.3 to 13.1	≥ 1.1	12.3 to 13.1	≥ 1.1
11.4 to 12.2	≥ 1.0	11.4 to 12.2	≥ 1.0
10.5 to 11.3	≥ 0.9	10.5 to 11.3	≥ 0.9
9.6 to 10.4	≥ 0.8	9.6 to 10.4	≥ 0.8
8.7 to 9.5	≥ 0.7	8.7 to 9.5	≥ 0.7
7.8 to 8.6	≥ 0.6	7.8 to 8.6	≥ 0.6
6.9 to 7.7	≥ 0.5	6.9 to 7.7	≥ 0.5
6.0 to 6.8	≥ 0.4	6.0 to 6.8	≥ 0.4
5.1 to 5.9	≥ 0.3	5.1 to 5.9	≥ 0.3
< 5.1	≥ 0.2	< 5.1	≥ 0.2

Notes:
SFP = square feet per pedestrian; Y = decrease in pedestrian space in SFP; X = No Action pedestrian space in SFP
Sources:
New York City Mayor's Office of Environmental Coordination, *CEQR Technical Manual*

VEHICULAR AND PEDESTRIAN SAFETY EVALUATION

An evaluation of vehicular and pedestrian safety is necessary for locations within the traffic and pedestrian study areas that have been identified as high crash locations, where 48 or more total reportable and non-reportable crashes or five or more pedestrian/bicyclist injury crashes occurred in any consecutive 12 months of the most recent three-year period for which data are available. For these locations, crash trends are identified to determine whether projected vehicular and pedestrian traffic would further impact safety at these locations. The determination of potential significant safety impacts depends on the type of area where the project site is located, traffic volumes, crash types and severity, and other contributing factors. Where appropriate, measures to improve traffic and pedestrian safety are identified and coordinated with DOT.

D. DETAILED PEDESTRIAN ANALYSIS

As described above in Section B, "Transportation Screening Assessments," Level 1 and Level 2 screening analyses were prepared to identify the pedestrian elements that warranted a detailed analysis. Based on the assignment of pedestrian trips, three sidewalk segments, two corners, and one crosswalk have been selected for analysis for the weekday AM, midday, and PM peak hours.

EXISTING CONDITIONS

STREET-LEVEL PEDESTRIAN OPERATIONS

This study's early planning efforts commenced in the summer of 2020. Due to changes in travel patterns associated with the COVID-19 pandemic conditions, DOT determined that traffic and pedestrian counts should not be conducted at the time because field counts would not yield representative data. In lieu of collecting entirely new representative data, available count data from an adjacent project in the study area, specifically the *840 Atlantic Avenue Rezoning* project (CEQR No. 20DCP162K), were used to develop representative baseline weekday peak hour pedestrian volumes for this project. Subsequently (in October 2020), DOT issued guidance allowing data collection efforts to resume in New York City. Therefore, supplemental counts were performed for the pedestrian study area, and were calibrated against the *840 Atlantic Avenue Rezoning* project's existing volumes to arrive at the appropriate volumes for analysis. For the overlapping pedestrian analysis elements with the *840 Atlantic Avenue Rezoning* project, the same existing peak hour volumes and analysis were assumed for this project. For analysis locations or time periods that did not overlap with the *840 Atlantic Avenue Rezoning* project, existing peak hour volumes and analysis were developed based on the calibrated data using the same weekday analysis peak hours as the *840 Atlantic Avenue Rezoning* project. These weekday AM, midday, and PM existing analysis peak hours are 8:00 AM to 9:00 AM, 12:15 PM to 1:15 PM, and 4:30 PM to 5:30 PM. The existing peak hour pedestrian volumes are shown in **Figures I-19 through I-21**. Consistent with the *840 Atlantic Avenue Rezoning* project, the existing peak hour pedestrian volumes would represent 2019 existing conditions.

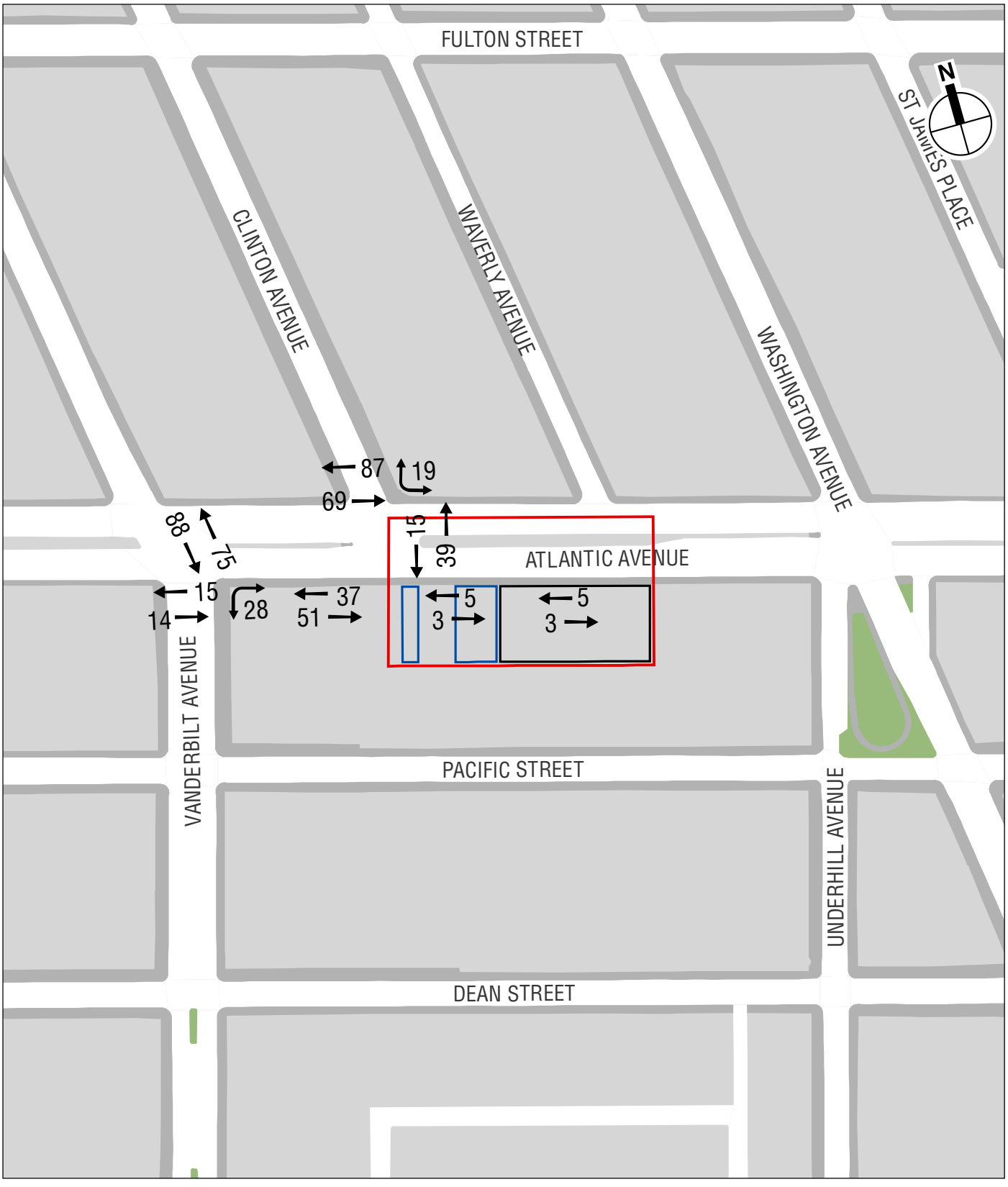
As shown in **Tables I-12 through I-14**, all sidewalk, corner reservoir, and crosswalk analysis locations currently operate at favorable LOS A.

Table I-12
2019 Existing Conditions: Sidewalk Analysis

Location	Sidewalk	Effective Width (ft)	Two-way Peak Hour Volume	PHF	SFP	Platoon LOS
Weekday AM Peak Hour						
South Sidewalk along Atlantic Avenue between Clinton Avenue and Waverly Avenue – East Segment	South	4.5	8	0.80	4,860.0	A
South Sidewalk along Atlantic Avenue between Clinton Avenue and Waverly Avenue – West Segment	South	7.5	8	0.80	8,100.0	A
South Sidewalk along Atlantic Avenue between Vanderbilt Avenue and Clinton Avenue	South	7.0	88	0.80	687.2	A
Weekday Midday Peak Hour						
South Sidewalk along Atlantic Avenue between Clinton Avenue and Waverly Avenue – East Segment	South	4.5	21	0.80	1,851.4	A
South Sidewalk along Atlantic Avenue between Clinton Avenue and Waverly Avenue – West Segment	South	7.5	21	0.80	3,085.7	A
South Sidewalk along Atlantic Avenue between Vanderbilt Avenue and Clinton Avenue	South	7.0	70	0.80	864.0	A
Weekday PM Peak Hour						
South Sidewalk along Atlantic Avenue between Clinton Avenue and Waverly Avenue – East Segment	South	4.5	23	0.80	1,690.4	A
South Sidewalk along Atlantic Avenue between Clinton Avenue and Waverly Avenue – West Segment	South	7.5	23	0.82	2,887.8	A
South Sidewalk along Atlantic Avenue between Vanderbilt Avenue and Clinton Avenue	South	7.0	81	0.80	746.6	A

Note: SFP = square feet per pedestrian

2.2.21



Project Area

Development Site (Projected Development Site 1)

Non-Applicant Owned Projected Development Sites

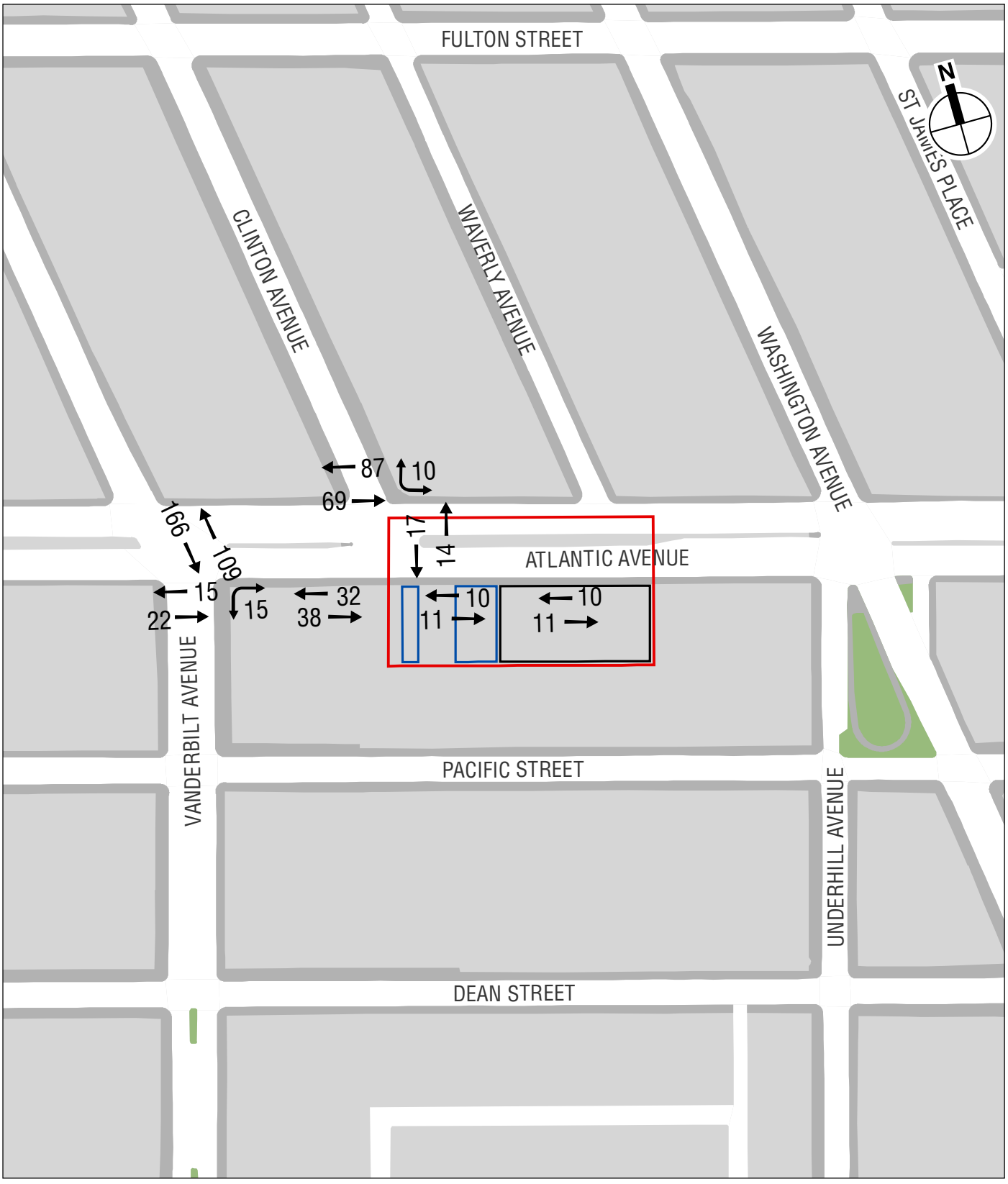
0 200 FEET

Existing Pedestrian Volumes
Weekday AM Peak Hour

Figure I-19

870-888 ATLANTIC AVENUE REZONING

2.2.21



Project Area

Development Site (Projected Development Site 1)

Non-Applicant Owned Projected Development Sites

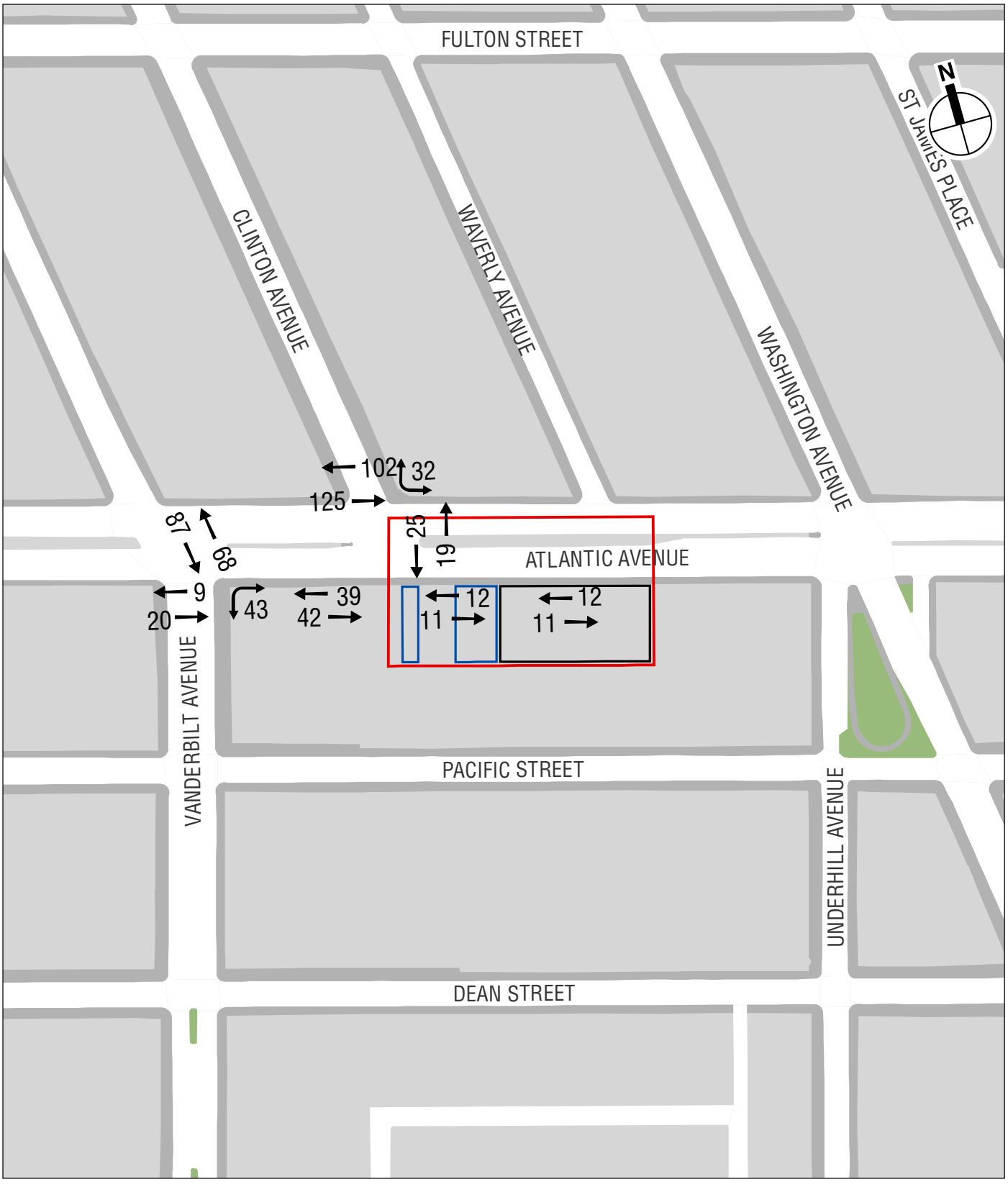
0 200 FEET

870-888 ATLANTIC AVENUE REZONING

Existing Pedestrian Volumes
Weekday Midday Peak Hour

Figure I-20

2.2.21



Project Area

Development Site (Projected Development Site 1)

Non-Applicant Owned Projected Development Sites

0 200 FEET

Existing Pedestrian Volumes
Weekday PM Peak Hour

870-888 ATLANTIC AVENUE REZONING

Figure I-21

Table I-13
2019 Existing Conditions: Corner Analysis

Location	Corner	Weekday AM Peak Hour		Weekday Midday Peak Hour		Weekday PM Peak Hour	
		SFP	LOS	SFP	LOS	SFP	LOS
Atlantic Avenue and Clinton Avenue	Northeast	418.9	A	487.4	A	314.4	A
Atlantic Avenue and Vanderbilt Avenue	Southeast	526.3	A	361.3	A	516.6	A
Note: SFP = square feet per pedestrian							

Table I-14
2019 Existing Conditions: Crosswalk Analysis

Location	Crosswalk	Crosswalk Length (ft)	Crosswalk Width (ft)	2-way Peak Hour Volume	SFP	LOS
Weekday AM Peak Hour						
Atlantic Avenue and Clinton Avenue	East	98.5	17.1	54	492.8	A
Weekday Midday Peak Hour						
Atlantic Avenue and Clinton Avenue	East	98.5	17.1	31	860.0	A
Weekday PM Peak Hour						
Atlantic Avenue and Clinton Avenue	East	98.5	17.1	44	605.5	A
Note: SFP = square feet per pedestrian						

FUTURE WITHOUT THE PROPOSED ACTIONS

The No Action condition is developed by increasing existing (2019) traffic levels by the expected growth in overall travel through and within the study area. As per *CEQR Technical Manual* guidelines, an annual background growth rate of 0.50 percent is applied to the first five years, then an additional 0.25 percent is applied to the sixth year, to grow pedestrian volumes to the Proposed Actions' anticipated build year of 2025. A total of 24 development projects expected to occur in the No Action condition ("No Build projects") have been identified for the 1/4-mile study area (see **Figure I-22**). However, some of these planned projects are modest in size and would be very modest trip generators. After reviewing the development programs for each of the planned projects, it was determined that background growth will address the increase in traffic and pedestrian levels for 14 of the small- to moderate-sized projects in the study area. For the other No Build projects, person trips are estimated and incorporated into the No Action analyses. **Table I-15** and **Figure I-22** summarize the projects that are accounted for in this future 2025 No Action condition, including those that are considered as part of the study area background growth. The total No Action peak hour pedestrian volumes for the weekday AM, midday, and PM peak periods are presented in **Figures I-23 through I-25**.

In addition, an 8-foot setback is planned for the south sidewalk along Atlantic Avenue between Vanderbilt Avenue and Clinton Avenue as part of the *840 Atlantic Avenue Rezoning* project. The additional sidewalk width afforded by this setback is incorporated into the No Action and With Action analysis for this sidewalk segment.

STREET-LEVEL PEDESTRIAN OPERATIONS

As shown in **Tables I-16 through I-18**, all sidewalk, corner reservoir, and crosswalk analysis locations will operate at LOS C or better service levels (40 SFP platoon flows for sidewalks; minimum of 24 SFP for corners and crosswalks) or will operate at the same LOS as in the existing conditions.

2.1.21

Project Area

Development Site (Projected Development Site 1)

Non-Applicant Owned Projected Development Sites

Study Area (1/4-mile perimeter)

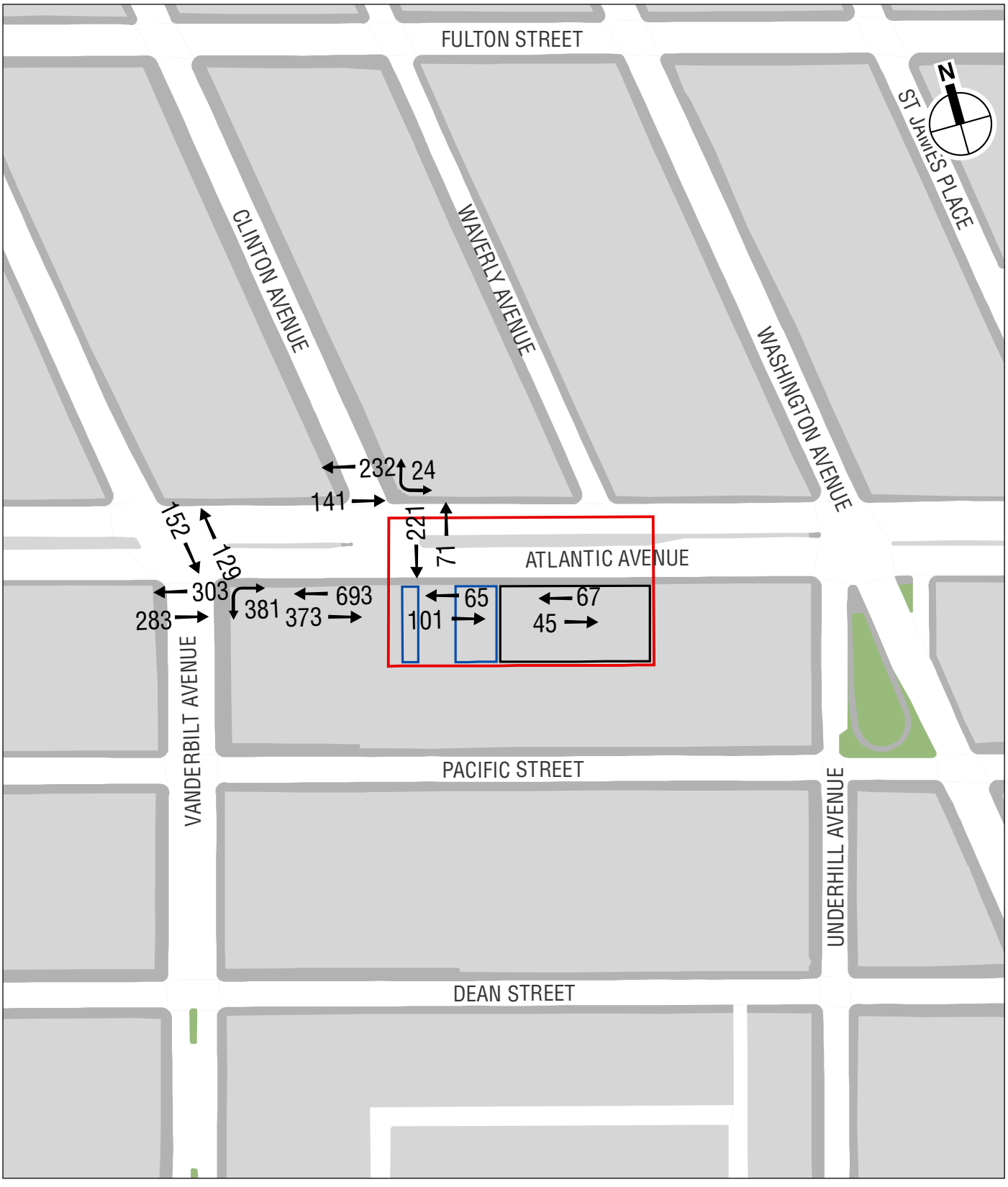
No Build Project

2025 No Build Projects

870-888 ATLANTIC AVENUE REZONING

Figure I-22

2.2.21



Project Area

Development Site (Projected Development Site 1)

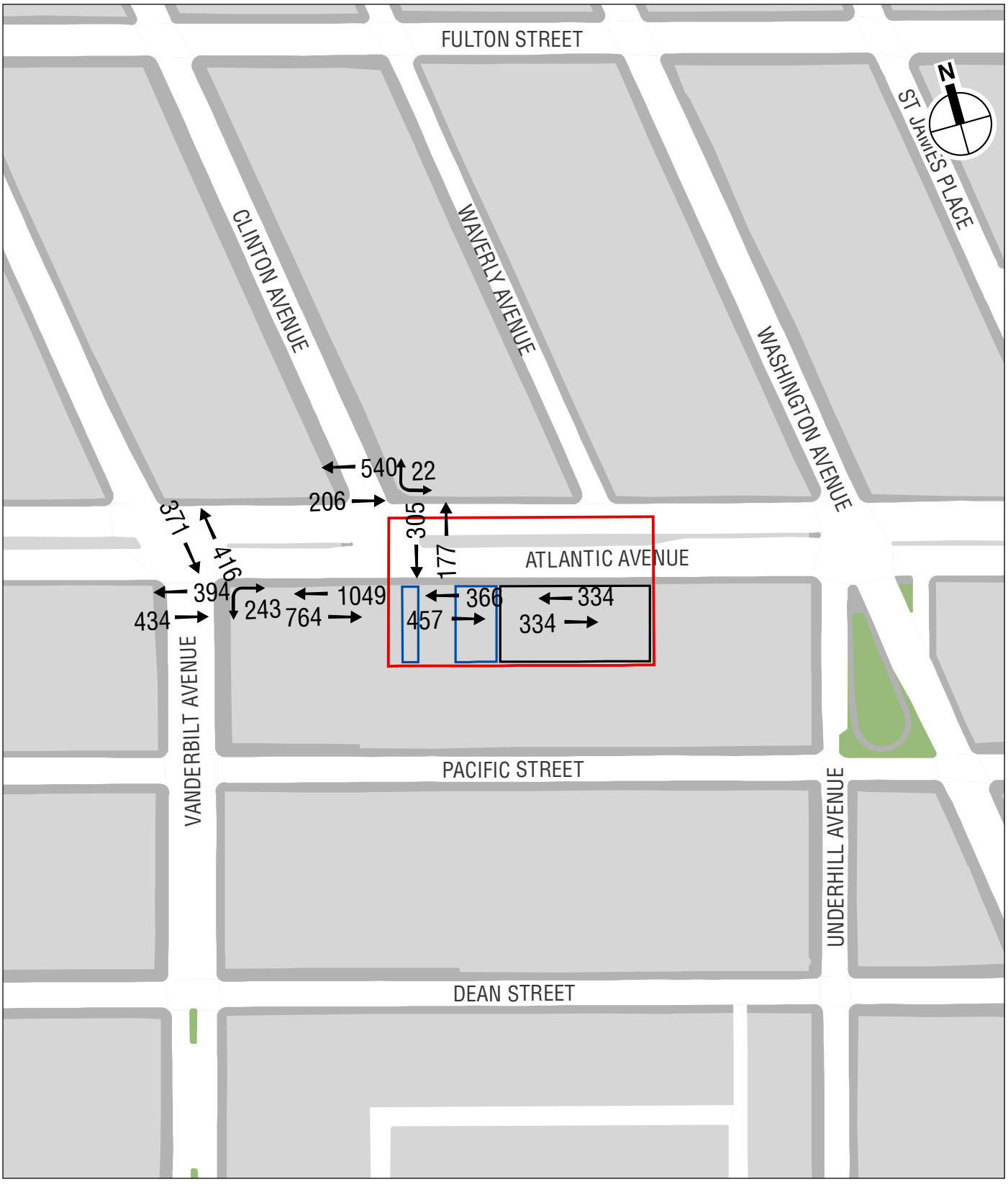
Non-Applicant Owned Projected Development Sites

0 200 FEET

2025 No Action Pedestrian Volumes
Weekday AM Peak Hour

870-888 ATLANTIC AVENUE REZONING

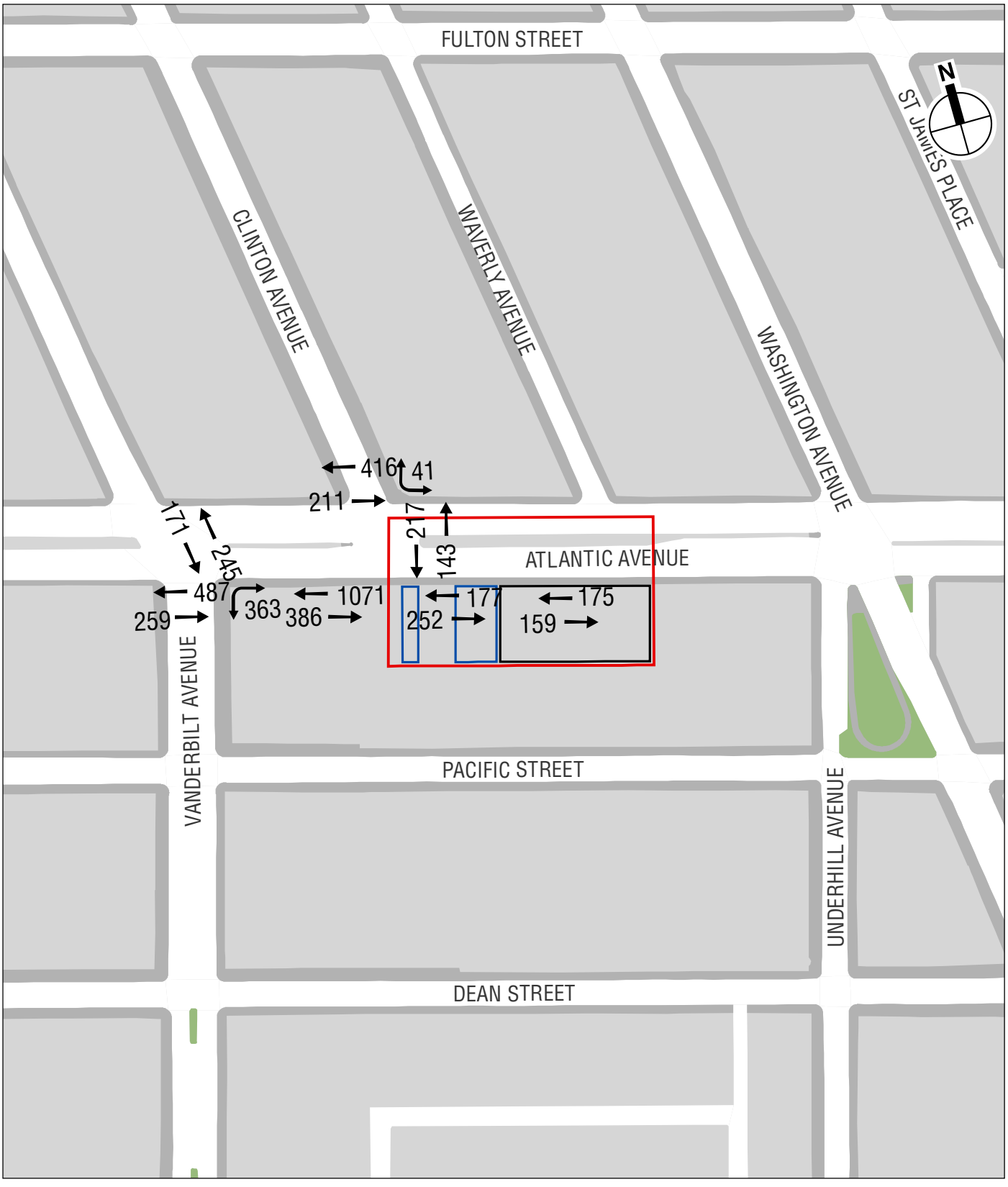
Figure I-23



2025 No Action Pedestrian Volumes
Weekday Midday Peak Hour

Figure I-24

870-888 ATLANTIC AVENUE REZONING



2025 No Action Pedestrian Volumes
Weekday PM Peak Hour

Figure I-25

870-888 ATLANTIC AVENUE REZONING

Table I-15
No Build Projects Expected to be Complete by 2025

Map Ref. No.[1]	Project Name / Address	Development Program	Transportation Assumptions	Status/ Build Year[2]
Development Projects within 1/4-Mile				
1	550 Clinton Avenue / 545 Vanderbilt Avenue	Mixed-Use: residential (333 DUs),commercial (25,000 sf), and office (19,500 sf)	Transportation assumptions from *CEQR Technical Manual*; *Atlantic Yards Arena and Redevelopment Project FSEIS (2014)*; U.S. Census ACS JTW and RJTW Data; and DOT Trip Generation and Mode Choice surveys.	2025
2	540 Waverly Ave	Mixed-Use: residential (135 DUs) and commercial (3,675 sf)	Transportation assumptions from *CEQR Technical Manual*; *Atlantic Yards Arena and Redevelopment Project FSEIS (2014)*; U.S. Census ACS JTW Data; and DOT Trip Generation and Mode Choice surveys.	2025
3	834 Pacific St	Mixed-Use: residential (113 DUs) and community facility (2,299 sf)	Transportation assumptions from *CEQR Technical Manual*; *Atlantic Yards Arena and Redevelopment Project FSEIS (2014)*; U.S. Census ACS JTW Data; DOT Trip Generation and Mode Choice surveys, and *25 Kent Avenue EAS* (2016).	2025
4	532 Clinton Ave	Mixed-Use: residential (14 DUs) and commercial (5,530 sf)	Included in background growth	2025
5	751 Dean St	Residential (4 DUs)	Included in background growth	2025
6	860 Pacific St	Community Facility (37,096 sf)	Transportation assumptions from *CEQR Technical Manual*; *Atlantic Yards Arena and Redevelopment Project FSEIS (2014)*; and DOT Trip Generation and Mode Choice surveys.	2025
7	840 Atlantic Avenue	Mixed-Use: residential (316 DUs), commercial (55,175 sf), and community facility (7,800 sf)	Transportation assumptions from *840 Atlantic Avenue EAS* (2020)	2025
8	434-446 Clinton Avenue / 445 Vanderbilt Avenue	Residential (50 DUs)	Included in background growth	2025
9	508 Waverly Ave	Residential (6 DUs)	Included in background growth	2025
10	505 Clinton Ave	Residential (11 DUs)	Included in background growth	2025
11	595 Dean St	Mixed-Use: residential (798 DUs) and office (204,597 sf)	See assumptions from Project #2	2025
12	929 Atlantic Ave	Residential (19 DUs)	Included in background growth	2025
13	731 Bergen St	Residential (7 DUs)	Included in background growth	2025
14	953 Pacific Street	Residential (3 DUs)	Included in background growth	2025
15	927 Atlantic Ave	Residential (21 DUs)	Included in background growth	2025
16	480 Grand Ave	Residential (10 DUs)	Included in background growth	2025
17	258 St James Pl	Residential (7 DUs)	Included in background growth	2025
18	733 Bergen St	Residential (7 DUs)	Included in background growth	2025
19	479 Washington Ave	Residential (6 DUs)	Included in background growth	2025
20	21 Lefferts Pl	Residential (6 DUs)	Included in background growth	2025
21	108 Downing St	Mixed-Use: residential (50 DUs) and commercial (10,575 sf)	Project generated pedestrian trips not expected to traverse through project study area	2025
22	445 Grand Ave	Mixed-Use: residential (112 DUs) and commercial (8,800 sf)	Project generated pedestrian trips not expected to traverse through project study area	2025
23	963 Atlantic Ave	Mixed-Use: residential (124 DUs) and commercial (5,808 sf)	See assumptions from Project #2	2025
24	958-962 Pacific Street / 979 Pacific Street	Mixed-Use: residential (133 DUs) and commercial (18,969 sf)	Transportation assumptions from *Grand Pacific Rezoning EAS* (2019)	2025

Note:
[1] See **Figure I-22**
[2] For the purposes of analysis, all projects are assumed to be completed by the Proposed Project's 2025 analysis year.
Sources:
DOB; AKRF, Inc., field survey

Table I-16
2025 No Action Condition: Sidewalk Analysis

Location	Sidewalk	Effective Width (ft)	Two-way Peak Hour Volume	PHF	SFP	Platoon LOS
Weekday AM Peak Hour						
South Sidewalk along Atlantic Avenue between Clinton Avenue and Waverly Avenue – East Segment	South	4.5	112	0.80	347.1	B
South Sidewalk along Atlantic Avenue between Clinton Avenue and Waverly Avenue – West Segment	South	7.5	166	0.80	390.3	B
South Sidewalk along Atlantic Avenue between Vanderbilt Avenue and Clinton Avenue	South	15.0	1,066	0.80	121.4	B
Weekday Midday Peak Hour						
South Sidewalk along Atlantic Avenue between Clinton Avenue and Waverly Avenue – East Segment	South	4.5	668	0.80	57.8	C
South Sidewalk along Atlantic Avenue between Clinton Avenue and Waverly Avenue – West Segment	South	7.5	823	0.80	78.4	C
South Sidewalk along Atlantic Avenue between Vanderbilt Avenue and Clinton Avenue	South	15.0	1,813	0.80	71.1	C
Weekday PM Peak Hour						
South Sidewalk along Atlantic Avenue between Clinton Avenue and Waverly Avenue – East Segment	South	4.5	334	0.80	116.2	B
South Sidewalk along Atlantic Avenue between Clinton Avenue and Waverly Avenue – West Segment	South	7.5	429	0.82	154.7	B
South Sidewalk along Atlantic Avenue between Vanderbilt Avenue and Clinton Avenue	South	15.0	1,457	0.80	88.7	C

Note:
SFP = square feet per pedestrian

Table I-17
2025 No Action Condition: Corner Analysis

Location	Corner	Weekday AM Peak Hour		Weekday Midday Peak Hour		Weekday PM Peak Hour	
		SFP	LOS	SFP	LOS	SFP	LOS
Atlantic Avenue and Clinton Avenue	Northeast	124.6	A	61.6	A	80.2	A
Atlantic Avenue and Vanderbilt Avenue	Southeast	81.1	A	48.9	B	58.7	B

Note: SFP = square feet per pedestrian

Table I-18
2025 No Action Condition: Crosswalk Analysis

Location	Crosswalk	Crosswalk Length (ft)	Crosswalk Width (ft)	2-way Peak Hour Volume	SFP	LOS
Weekday AM Peak Hour						
Atlantic Avenue and Clinton Avenue	East	98.5	17.1	292	89.7	A
Weekday Midday Peak Hour						
Atlantic Avenue and Clinton Avenue	East	98.5	17.1	482	53.9	B
Weekday PM Peak Hour						
Atlantic Avenue and Clinton Avenue	East	98.5	17.1	360	72.7	A

Note: SFP = square feet per pedestrian

FUTURE WITH THE PROPOSED ACTIONS

Project-generated pedestrian volumes were assigned to the pedestrian network considering current land uses in the area, population distribution, nearby parking locations, available transit services, and surrounding pedestrian facilities. The hourly incremental pedestrian volumes presented above

in **Figures I-15 through I-17**, are added to the projected 2025 No Action volumes to generate the 2025 With Action pedestrian volumes for analysis (see **Figures I-26 through I-28**).

In the With Action condition, the Proposed Actions would allow for a 20-foot-wide sidewalk along the south side of Atlantic Avenue in the Project Area, spanning between Clinton Avenue and Waverly Avenue. The additional sidewalk width provided by this proposed zoning provision has been assumed for the sidewalk segment in front of the Development Site (since it is part of the proposed project design) and is incorporated into the With Action analysis. However, the additional sidewalk width allowance provided by this proposed zoning provision was not assumed for the sidewalk segment in front of the non-applicant owned Projected Development Sites 2 and 3.

STREET-LEVEL PEDESTRIAN OPERATIONS AND SIGNIFICANT ADVERSE IMPACTS

Details of the 2025 With Action condition SFP and level-of-service are presented in **Tables I-19 through I-21**. Based on the *CEQR Technical Manual* sliding scale impact thresholds, no significant adverse pedestrian impacts are identified for any sidewalk, corner reservoir, or crosswalk analysis locations. Therefore, the Proposed Actions are not expected to result in any significant adverse pedestrian impacts.

Table I-19
2025 With Action Condition: Sidewalk Analysis

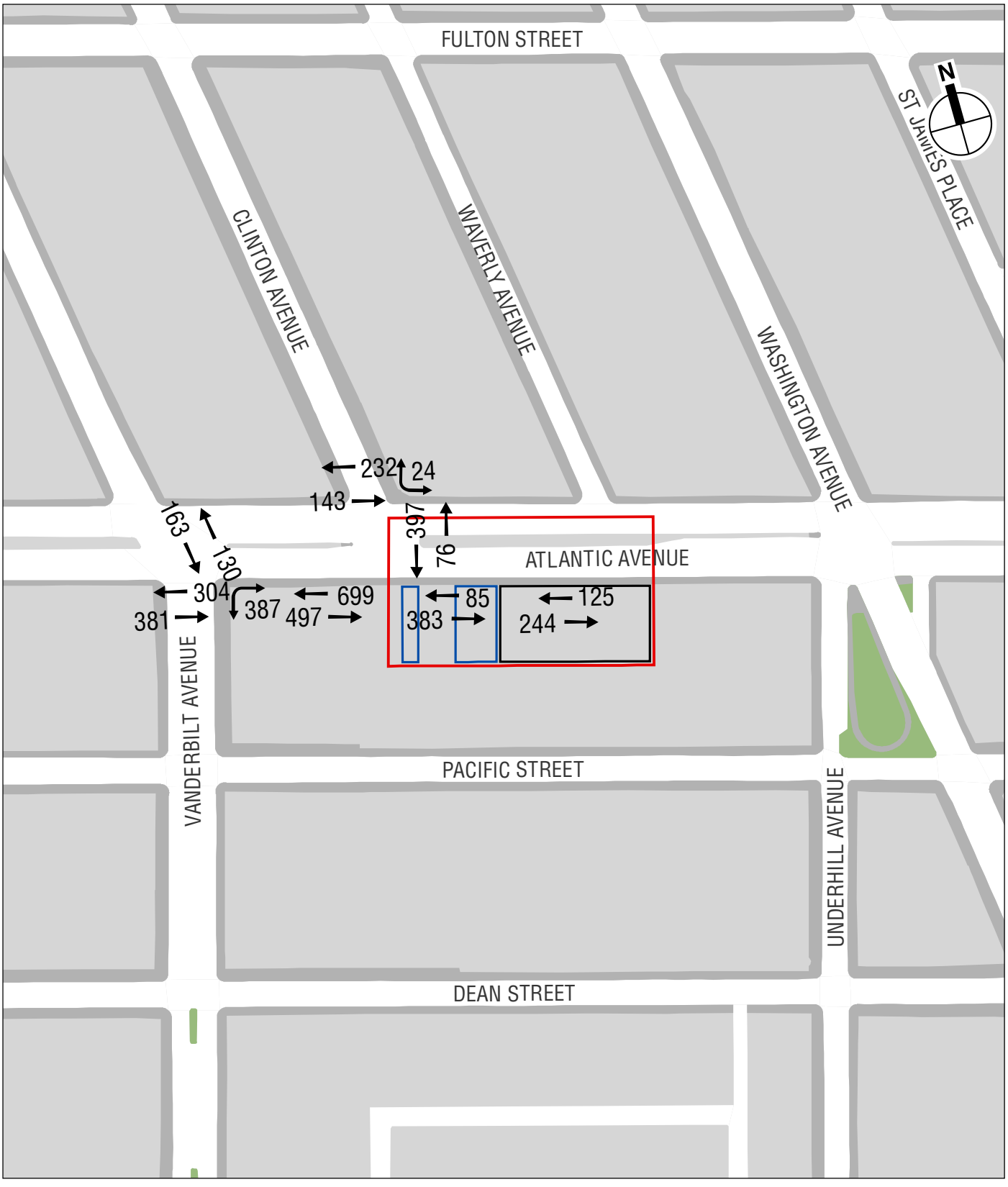
Location	Sidewalk	Effective Width (ft)	Two-way Peak Hour Volume	PHF	SFP	Platoon LOS
Weekday AM Peak Hour						
South Sidewalk along Atlantic Avenue between Clinton Avenue and Waverly Avenue – East Segment	South	12.5	369	0.80	292.6	B
South Sidewalk along Atlantic Avenue between Clinton Avenue and Waverly Avenue – West Segment	South	7.5	468	0.80	138.3	B
South Sidewalk along Atlantic Avenue between Vanderbilt Avenue and Clinton Avenue	South	15.0	1,196	0.80	108.1	B
Weekday Midday Peak Hour						
South Sidewalk along Atlantic Avenue between Clinton Avenue and Waverly Avenue – East Segment	South	12.5	1,031	0.80	104.5	B
South Sidewalk along Atlantic Avenue between Clinton Avenue and Waverly Avenue – West Segment	South	7.5	1,291	0.80	49.7	C
South Sidewalk along Atlantic Avenue between Vanderbilt Avenue and Clinton Avenue	South	15.0	2,057	0.80	62.6	C
Weekday PM Peak Hour						
South Sidewalk along Atlantic Avenue between Clinton Avenue and Waverly Avenue – East Segment	South	12.5	679	0.80	158.9	B
South Sidewalk along Atlantic Avenue between Clinton Avenue and Waverly Avenue – West Segment	South	7.5	860	0.82	76.9	C
South Sidewalk along Atlantic Avenue between Vanderbilt Avenue and Clinton Avenue	South	15.0	1,657	0.80	77.9	C

Note:
SFP = square feet per pedestrian

Table I-20
2025 With Action Condition: Corner Analysis

Location	Corner	Weekday AM Peak Hour		Weekday Midday Peak Hour		Weekday PM Peak Hour	
		SFP	LOS	SFP	LOS	SFP	LOS
Atlantic Avenue and Clinton Avenue	Northeast	91.1	A	45.9	B	58.9	B
Atlantic Avenue and Vanderbilt Avenue	Southeast	73.6	A	41.5	B	51.8	B

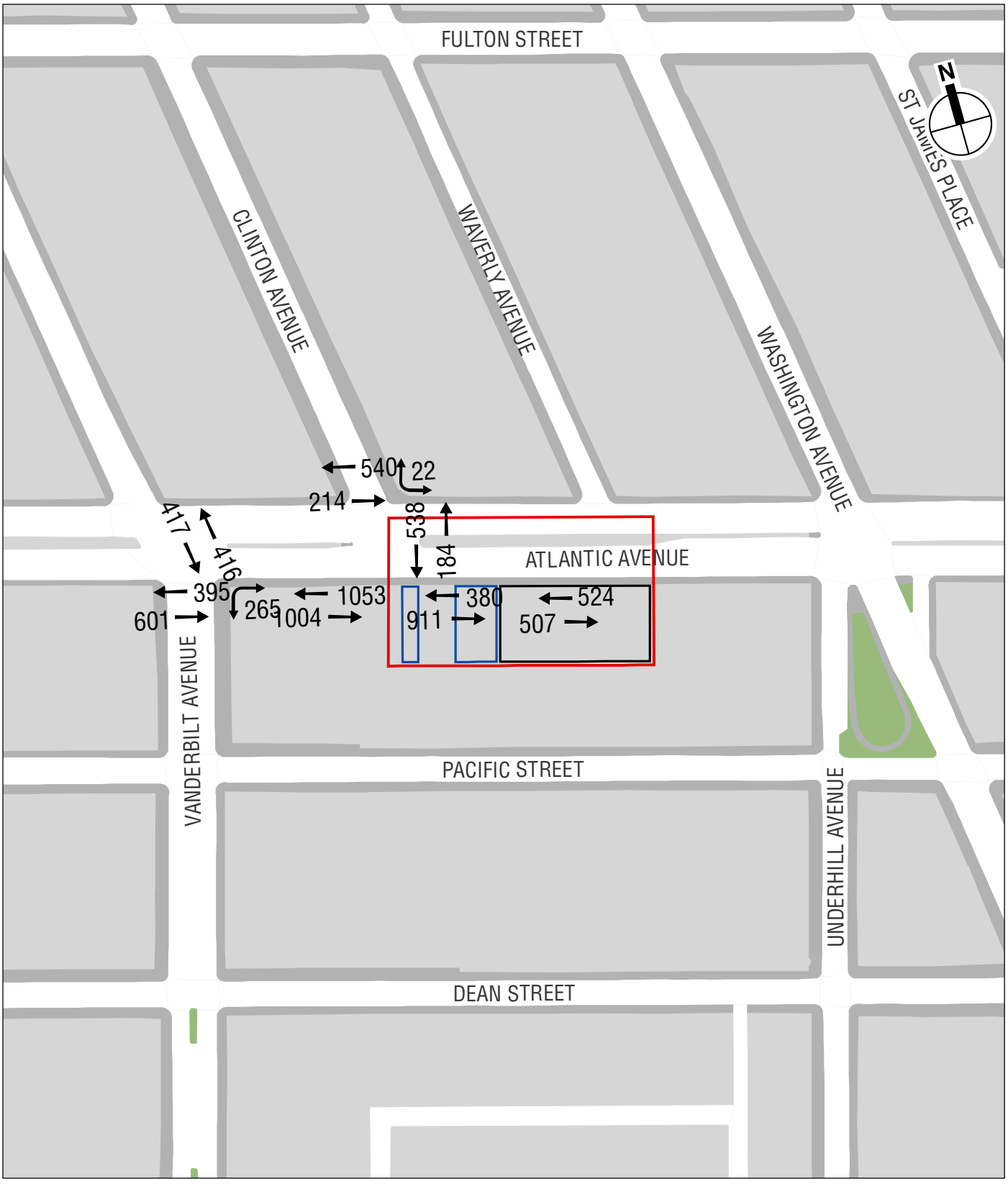
Note: SFP = square feet per pedestrian



2025 With Action Pedestrian Volumes
Weekday AM Peak Hour

870-888 ATLANTIC AVENUE REZONING

Figure I-26



Project Area

Development Site (Projected Development Site 1)

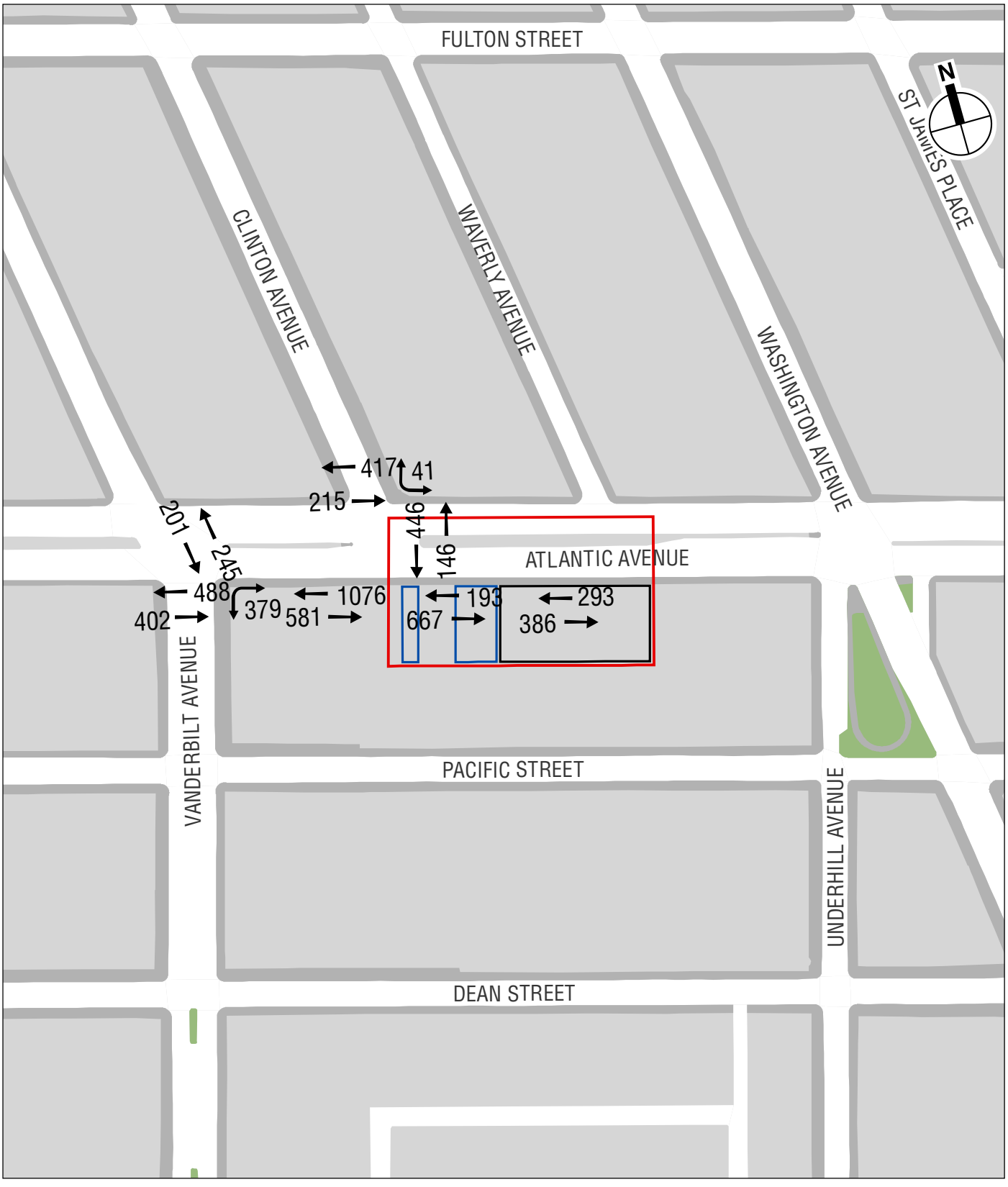
Non-Applicant Owned Projected Development Sites

0 200 FEET

2025 With Action Pedestrian Volumes
Weekday Midday Peak Hour

870-888 ATLANTIC AVENUE REZONING

Figure I-27



Project Area

Development Site (Projected Development Site 1)

Non-Applicant Owned Projected Development Sites

0 200 FEET

2025 With Action Pedestrian Volumes
Weekday PM Peak Hour

Figure I-28

Table I-21
2025 With Action Condition: Crosswalk Analysis

Location	Crosswalk	Crosswalk Length (ft)	Crosswalk Width (ft)	2-way Peak Hour Volume	SFP	LOS
Weekday AM Peak Hour						
Atlantic Avenue and Clinton Avenue	East	98.5	17.1	473	54.4	B
Weekday Midday Peak Hour						
Atlantic Avenue and Clinton Avenue	East	98.5	17.1	722	35.3	C
Weekday PM Peak Hour						
Atlantic Avenue and Clinton Avenue	East	98.5	17.1	592	43.5	B

Note: SFP = square feet per pedestrian

E. VEHICULAR AND PEDESTRIAN SAFETY EVALUATION

Crash data for the study area intersections were obtained from DOT for the time period between January 1, 2016 and December 31, 2018. The data obtained quantify the total number of reportable crashes (involving fatality, injury, or more than $1,000 in property damage), fatalities, and injuries during the study period, as well as a yearly breakdown of vehicular crashes with pedestrians and bicycles at each location.

During this 2016-2018 three-year period, a total of 81 reportable and non-reportable crashes, zero fatalities, 103 injuries, and 26 pedestrian/bicyclist-related crashes occurred at the study area intersections. A rolling total of crash data identifies one high crash location in the 2016-2018 period—Atlantic Avenue and Washington Avenue/Underhill Avenue. **Table I-22** depicts total crash characteristics by intersection during the study period, as well as a breakdown of pedestrian and bicycle crashes by year and location. **Table I-23** shows a detailed description of each pedestrian/bicycle-related crash at the high crash location during the three-year period.

Table I-22
Crash Summary

Intersection		Study Period						Crashes by Year						
		All Crashes by Year			All Crashes Highest 12-Month Rolling	Total Fatalities	Total Injuries	Pedestrian			Bicycle			Ped + Bike 12 consecutive month maximum
North-South Roadway	East-West Roadway	2016	2017	2018				2016	2017	2018	2016	2017	2018	
Vanderbilt Avenue	Atlantic Avenue	4	5	5	10	0	19	0	2	0	0	0	1	3
Clinton Avenue	Atlantic Avenue	8	6	9	10	0	28	1	0	1	3	0	0	4
Waverly Avenue	Atlantic Avenue	0	1	0	1	0	1	0	0	0	0	0	0	0
Washington Ave/ Underhill Ave	**Atlantic Avenue**	9	16	8	17	0	45	0	4	2	1	1	1	6
Vanderbilt Avenue	Pacific Avenue	4	3	1	4	0	8	0	0	1	4	2	1	4
Underhill Avenue	Pacific Avenue	2	0	0	2	0	2	1	0	0	0	0	0	1

Note: Bold intersections are high crash locations.
Source: DOT January 1, 2016 to December 31, 2018 crash data.

Table I-23
Vehicle and Pedestrian Accident Details

Intersection	Year	Date	Time	Accident Class		Action of Vehicle	Action of Pedestrian	Cause of Accident			
				Injured	Killed			Left / Right Turns	Pedestrian Error/ Confusion	Driver Inattention	Other
Washington Avenue/ Underhill Avenue and Atlantic Avenue	2016	3/29	5:50pm	X		Making left turn – East	Going straight – South	X			
	2017	3/31	1:40pm	X		Backing – South	Crossing with signal			X	Failure to yield R.o.W.
		4/4	1:40pm	X		Backing – South	Crossing with signal			X	Failure to yield R.o.W.
		9'3	12:30am	X		Unknown	Crossing with signal			X	
		10/7	11:00pm	X		Going straight – West	Unknown			X	
		11/19	2:57am	X		Unknown	Crossing				Other (Vehicle)
	2018	1/13	8:25pm	X		Making left turn – Southwest	Unknown	X	X		
		5/16	7:30am	X		Making left turn – Northwest	Crossing with signal	X		X	
		7/11	6:00pm	X		Making right turn – North	Crossing with signal	X			Failure to yield R.o.W.

ATLANTIC AVENUE AND WASHINGTON AVENUE/UNDERHILL AVENUE

Based on the review of the crash history at the intersection of Atlantic Avenue and Washington Avenue/Underhill Avenue, five out of the nine pedestrian-related crashes are due to driver inattention. This intersection is signalized and provides high visibility crosswalks; however, some of these crosswalks are faded. In addition, countdown timers are present on all crosswalks. In terms of project-generated activity, this intersection would experience incremental peak hour volume increases of approximately 20 or fewer vehicle trips and 90 or fewer pedestrian trips at any crosswalk during each of the three analysis peak hours. Restriping the faded crosswalks could be implemented to further improve pedestrian safety at this intersection. This intersection is also part of the Atlantic Avenue Vision Zero high priority corridor. Therefore, as part of its Vision Zero initiative, the City will continue to explore additional measures for potential implementation at this high crash location to enhance traffic and pedestrian safety.

F. PARKING ASSESSMENT

The *CEQR Technical Manual* states that if a quantified traffic analysis is not required, an assessment of parking supply and utilization is also typically not warranted. However, because the Proposed Actions would include a special permit to reduce the number of accessory parking spaces required under the proposing zoning to 40 spaces, a parking assessment was conducted to demonstrate that there would be sufficient parking supply to accommodate the Proposed Actions' parking demand.

Based on ¼-mile off-street information presented above and the projection of the Proposed Actions' parking demand, an assessment of future parking conditions surrounding the Project Area was conducted to determine if there would be a potential for a parking shortfall. The Project Area is located in CEQR Parking Zone 2 and as stated in the *CEQR Technical Manual*, a parking shortfall resulting from a project located in Parking Zones 1 and 2 does not constitute a significant adverse parking impact due to the magnitude of available alternative modes of transportation. As described below, based on this assessment, the Proposed Actions would not result in a parking shortfall or have a significant adverse parking impact.

OFF-STREET PARKING

There are five off-street public parking facilities within an approximately ¼-mile radius of the Project Area. The combined capacity of these facilities totals 354 parking spaces. Overall, they

were 59, 70, 61, and 50-percent utilized, with 144, 107, 137, and 177 parking spaces available during the weekday AM, midday, PM, and overnight time periods, respectively.

Applying the travel demand assumptions presented in **Table I-2**, the weekday parking profiles were developed to estimate the hourly parking demand from the Proposed Actions' residential, medical office, and local retail uses. Based on the U.S. Census 2014–2018 ACS auto ownership data, the overall auto ownership rate in the study area is approximately 39 percent. Applying the 39 percent overall auto ownership rate to the projected 312 DUs added in the With Action condition results in an overnight parking demand of approximately 122 parking spaces. **Table I-24** presents the projected weekday hourly parking demand for the proposed DUs, medical office, and local retail. As shown, the Proposed Actions would generate parking demands of 122, 108, 103, and 110 spaces during the weekday AM, midday, PM, and overnight time periods, respectively. Since there would be 40 on-site accessory parking spaces to accommodate some of the projected parking demand, the off-street public parking demand after accounting for the 40 accessory parking spaces would be 68, 63, 70, and 82 parking spaces during the weekday AM, midday, PM, and overnight time periods, respectively. The projected off-street public parking demands would be accommodated by the available parking supply during the respective time periods. Therefore, reducing the number of accessory parking spaces required under the Proposed Actions would not result in a parking shortfall or have the potential for a significant adverse parking impact.

Table I-24
Proposed Actions Parking Demand—Weekday

Hour	Residential	Medical Office	Local Retail	Total
12 AM - 01 AM	122	0	0	122
01 AM - 02 AM	122	0	0	122
02 AM - 03 AM	122	0	0	122
03 AM - 04 AM	122	0	0	122
04 AM - 05 AM	122	0	0	122
05 AM - 06 AM	122	0	0	122
06 AM - 07 AM	122	0	0	122
07 AM - 08 AM	116	0	2	118
08 AM - 09 AM	104	2	2	108
09 AM - 10 AM	96	5	3	104
10 AM - 11 AM	91	7	4	102
11 AM - 12 PM	90	10	4	104
12 PM - 01 PM	90	9	4	103
01 PM - 02 PM	90	8	4	102
02 PM - 03 PM	90	8	4	102
03 PM - 04 PM	91	8	4	103
04 PM - 05 PM	94	7	4	105
05 PM - 06 PM	101	5	4	110
06 PM - 07 PM	108	0	4	112
07 PM - 08 PM	114	0	3	117
08 PM - 09 PM	116	0	1	117
09 PM - 10 PM	118	0	0	118
10 PM - 11 PM	120	0	0	120
11 PM - 12 AM	122	0	0	122

G. CONCLUSION

There would be no potential for traffic, parking, transit or pedestrian impacts as a result of the Proposed Actions. Therefore, the Proposed Actions would not have any significant adverse impacts on transportation. ✷

A. INTRODUCTION

This attachment assesses the potential for air quality impacts associated with the Proposed Actions. The Proposed Actions would facilitate the development of a 17-story mixed-use building on the Development Site (also known as Projected Development Site 1) at 870-888 Atlantic Avenue, Brooklyn. The Proposed Actions would likely result in the development of two other sites in the Project Area in addition to Projected Development Site 1 (Block 1122, Lots 21 and 26). These are Projected Development Site 2 (consisting of Block 1122, Lots 14, 15, and 16) and Projected Development Site 3 (consisting of Block 1122, Lot 11).

The Proposed Actions would not exceed any thresholds defined in the 2020 *City Environmental Quality Review (CEQR) Technical Manual* for detailed traffic analysis (see Attachment I, "Transportation"). The maximum hourly increase in traffic volume with the Proposed Actions would be no more than 38 vehicles per hour at an intersection and would not exceed the carbon monoxide (CO) mobile source screening threshold of 170 vehicle trips for peak hour at any intersection, as defined in the *CEQR Technical Manual*. A screening analysis was also conducted to calculate the equivalent number of heavy-duty vehicles at each intersection based on the vehicle types of the incremental traffic as well as roadway type. The incremental vehicles would predominantly be passenger vehicles, and the equivalent number of heavy-duty vehicles at each intersection would be below its corresponding *CEQR Technical Manual* screening threshold for particulate matter (PM), which is based on an emission equivalent ranging from 12 to 23 heavy-duty vehicles, depending on roadway type. Therefore, no mobile source analysis is required.

The Proposed Actions would result in the development of three new buildings: a 17-story, 175-foot tall building at Projected Development Site 1; Projected Development Sites 2 and 3 are also assumed to each have a building up to 175 feet in height developed on their sites. Since the buildings would include fossil fuel-fired heat and hot water systems, a stationary source analysis was conducted to evaluate the potential impact from these sources on air quality.

The Project Area is located within 400 feet of manufacturing zoned area; therefore, air quality impacts from nearby industrial sources of air pollution (e.g., from manufacturing or processing facilities) were also evaluated. In addition, the potential for emissions from large or major sources to impact air quality within the Project Area was assessed.

As discussed in detail below, the Proposed Actions would not result in any significant adverse impacts on air quality.

B. METHODOLOGY FOR PREDICTING POLLUTANT CONCENTRATIONS

HEATING AND HOT WATER SYSTEMS

Stationary source analyses were conducted using the methodology described in the *CEQR Technical Manual* to assess air quality impacts associated with emissions from the heating and hot water systems associated with the Development Site and other projected development sites within the Project Area.

SCREENING ANALYSIS

An initial screening was performed using the methodology described in Chapter 17, Section 322.1 of the *CEQR Technical Manual*. This analysis determines the threshold of development size below which the Proposed Actions would not have potential for a significant adverse impact. The screening is based on the distance from the development to the nearest building of similar or greater height. The screening procedure uses information regarding the type of fuel to be burned (natural gas), the development type (residential) and maximum size (based on gross floor area), and the exhaust stack height (assumed to be a minimum three feet above the roof of each building) to evaluate whether or not a significant impact is possible. The screening analysis determined the potential for air quality impacts on the nearby buildings (including background projects anticipated to be completed by the 2025 analysis year), as well as project-on project impacts. Therefore, further analysis was performed using the refined American Meteorological Society (AMS)/United States Environmental Protection Agency (EPA) Regulatory Model (AERMOD) dispersion model.[1]

AERMOD ANALYSIS

AERMOD, EPA's preferred regulatory stationary source model, 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 and source types. AERMOD is a steady-state plume model that incorporates current concepts about flow and dispersion in complex terrain, including updated treatment of the boundary layer theory and understanding of turbulence and dispersion, and includes handling of the plume interaction with terrain.

AERMOD calculates pollutant concentrations from simulated sources (e.g., exhaust stacks) based on hourly meteorological data and surface characteristics, and has the capability to calculate pollutant concentrations at locations where the plume from the exhaust stack is affected by the aerodynamic wakes and eddies (downwash) produced by nearby structures. The analysis of potential impacts from exhaust stacks assumed stack tip downwash, urban dispersion and surface roughness length, and elimination of calms.

AERMOD incorporates the Plume Rise Model Enhancements (PRIME) downwash algorithm, which is designed to predict concentrations in the "cavity region" (i.e., the area around a structure which, under certain conditions, may affect an exhaust plume, causing a portion of the plume to become entrained in a recirculation region). AERMOD also uses the Building Profile Input

[1] EPA. *AERMOD Implementation Guide*. 454/B-19-035. August 2019.
EPA. *AERMOD Model Formulation and Evaluation.* 454/R-19-014. August 2019.
EPA. *User's Guide for the AMS/EPA Regulatory Model (AERMOD).* 454/B-19-027. August 2019.

Program for PRIME (BPIPPRM) to provide a detailed analysis of downwash influences on a direction-specific basis. BPIPPRM determines the projected building dimensions for modeling with the building downwash algorithm enabled. The modeling of plume downwash accounts for all obstructions within a radius equal to five obstruction heights of the stack.

The analysis was performed both with and without downwash in order to assess the worst-case impacts at elevated locations close to the height of the source, which would occur without downwash, as well as the worst-case impacts at lower elevations and ground level, which would occur with downwash, consistent with the *CEQR Technical Manual* guidance.

Potential 1-hour average NO_2 concentrations, added to representative background concentrations in the area, were compared with the National Ambient Air Quality Standard (NAAQS). Potential 24-hour and annual average incremental concentrations of $PM_{2.5}$ were compared with the $PM_{2.5}$ *de minimis* criteria defined in the *CEQR Technical Manual*. For the analysis of the 1-hour average NO_2 concentration from the building's heating and hot water systems, AERMOD's Plume Volume Molar Ratio Method (PVMRM) module was used to analyze chemical transformation within the model. PVMRM incorporates hourly background ozone concentrations to estimate NO_x transformation within the source plume. The model applied ozone concentrations measured in 2015–2019 at the nearest available New York State Department of Environmental Conservation (DEC) ozone monitoring station—the Queens College monitoring station in Queens. An initial NO_2 to NO_x ratio of 10 percent at the source exhaust stack was assumed for boilers, which is considered representative.

Five years of surface meteorological data collected at LaGuardia Airport (2015–2019) and concurrent upper air data collected at Brookhaven, New York were used in the analysis.

Emission Rates and Stack Parameters

Since building specific design information is not yet available, it was assumed that conventional equipment would be used to provide building heat and hot water. It was assumed that the heating and hot water equipment would be natural gas-fired for all three projected development sites. Based on the project's design for Projected Development Site 1, the heating and hot water system would exhaust through two separate stacks located above the roof.

Annual emission rates for heating and hot water systems were calculated based on fuel consumption estimates, using energy intensity estimates based on type of development and size of the building as recommended in the *CEQR Technical Manual*, and applying emission factors for natural gas-fired boilers.[2] $PM_{2.5}$ emissions include both the filterable and condensable components. The short-term emission rates (24-hour and shorter) were calculated by scaling the annual emissions to account for a 100-day heating season.

The exhaust from the heating and hot water system for Projected Development Site 1 was assumed to be vented through two stacks located above the roof of the building at heights of 190 feet (western part of the roof) and 180 feet (eastern part of the roof) above grade, respectively. The exhaust from the heating and hot water system for Projected Development Sites 2 and 3 were assumed to be vented through a single stack located three feet above the roof of the building at a height of approximately 178 feet above grade.

[2] EPA. *Compilation of Air Pollutant Emission Factors AP-42*. 5th Ed., V. I, Ch. 1.4. September, 1998.

To calculate exhaust velocity, the fuel consumption rates were multiplied by EPA's fuel factor for natural gas,[3] providing the exhaust flow rate at standard temperature; the flow rate was then corrected for the exhaust temperature, and exhaust velocity was calculated based on the stack diameter. Assumptions for stack diameter and exhaust temperature for the proposed systems were obtained from a survey of boiler exhaust data provided by New York City Department of Environmental Protection (DEP),[4] and were used to calculate the exhaust velocity.

The emission rates and exhaust stack parameters used in the modeling analyses are presented in **Table J-1**.

Table J-1
Exhaust Stack Parameters and Emission Rates

Stack Parameters	Projected Development Site 1(3)	Projected Development Site 2	Projected Development Site 3
Building Size (gsf)	213,860	55,500	24,975
Stack Height (feet)	190/180(4)	185	178
Stack Diameter (feet)(1)	2.0	2.0	2.0
Exhaust Velocity (feet/second)(2)	3.51	1.82	0.82
Exhaust Temperature (degrees Fahrenheit)(1)	307.8	307.8	307.8
Emission Rate (grams/second)			
NO_2 (1-hour average)	0.0332	0.0064(5)	0.0029(5)
NO_x (Annual Average)	0.0091	0.0017(5)	0.0008(5)
$PM_{2.5}$ (24-hour average)	0.0025	0.0013	0.0006
$PM_{2.5}$ (Annual average)	0.0007	0.0004	0.0002

Notes:
(1) Stack diameter and exhaust temperature for the proposed systems were obtained from a survey of boiler exhaust data prepared and provided by DEP.
(2) The stack exhaust flow rate and velocity estimated based on the type of fuel and heat input rate.
(3) The heating and hot water system assumed to be exhausting through two stacks. Emission rates are per stack.
(4) The first value is the height of the western stack and the second value is the height of the eastern stack.
(5) Emission rate based on 30 ppm low NO_x burners.

Background Concentrations

To estimate the maximum expected pollutant concentration at a given location (receptor), the predicted impacts must be added to a background value that accounts for existing pollutant concentrations from other sources that are not directly accounted for in the model. The annual NO_2 background is based on the maximum annual average value measured over the five years (2015–2019), 32.3 $\mu g/m^3$ monitored at the nearest New York State Department of Environmental Conservation (NYSDEC) background monitoring station—Queens College, Queens.

Total 1-hour NO_2 concentrations were refined following a more detailed approach (EPA "Tier 3"). The methodology used to determine the total 1-hour NO_2 concentrations from the project was based on adding the monitored background to modeled concentrations, as follows: hourly modeled concentrations from the boilers were first added to the seasonal hourly background monitored

[3] EPA. *Standards of Performance for New Stationary Sources.* 40 CFR Chapter I Subchapter C Part 60. Appendix A-7, Table 19-2. 2013.

[4] DEP. *Boiler Database.* August 11, 2017.

concentrations; then the highest combined daily 1-hour NO_2 concentration was determined at each location and the 98th percentile daily 1-hour maximum concentration for each modeled year was calculated within the AERMOD model; finally the 98th percentile concentrations were averaged over the latest five years.

$PM_{2.5}$ impacts are assessed on an incremental basis and compared with the $PM_{2.5}$ *de minimis* criteria. The $PM_{2.5}$ 24-hour average background concentration of 17.8 $\mu g/m^3$, based on the 98th percentile concentration, averaged over the years 2017–2019 was used to establish the *de minimis* value of 8.6 ug/m^3.

Receptor Placement

Receptors (locations at which concentrations are projected) generally include operable windows in residential or other buildings, air intakes, and publicly accessible open space locations, as applicable. Discrete receptors were modeled along existing, no-build, and proposed building façades to represent potentially sensitive locations such as operable windows and intake vents. Rows of receptors at spaced intervals on the modeled buildings were analyzed at multiple elevations.

EXISTING INDUSTRIAL FACILITIES

Nearby industrial facilities were examined to identify any potential for adverse impacts on future residents of the Development Site and other projected development sites within the Project Area from air toxics. All industrial and manufacturing uses within 400 feet of the development site ("industrial source study area") were considered for inclusion in the air quality impact analyses.

Land use maps and aerial photographs were reviewed to identify potential sources of emissions from manufacturing/industrial operations. A search of federal, state, and city compliance and permit data within the study area was conducted using DEP's Clean Air Tracking System (CATS) database[5] and EPA's Envirofacts database.[6] Next, a field survey of uses within 400 feet of the development site was conducted on July 24, 2020 to determine the operating status of permitted industries, and identify any potential industrial sites not included in the permit databases.

MAJOR OR LARGE STATIONARY EMISSION SOURCES

The *CEQR Technical Manual* requires an analysis of projects that may result in a significant adverse impact due to certain types of new uses located near a "large" or "major" emissions source. Major sources are defined as those located at facilities that have a Title V or Prevention of Significant Deterioration air permit, while large sources are defined as those located at facilities that require a State Facility Permit. To assess the potential effects of these existing sources on the Development Site and other projected development sites within the Project Area, a review of existing permitted facilities was conducted. Sources of information reviewed included the New York State Department of Environmental Conservation (NYSDEC) Title V and State Facility Permit websites.

[5] DEP. Clean Air Tracking System database. https://a826-web01.nyc.gov/DEP.BoilerInformationExt. Accessed March 21, 2018

[6] EPA. Envirofacts Data Warehouse. https://www3.epa.gov/enviro/. Accessed August, 2020.

C. PROBABLE IMPACTS OF THE PROPOSED PROJECT

HEATING AND HOT WATER SYSTEMS

SCREENING ANALYSIS

The results of the screening analysis for Projected Development Sites 1, 2, and 3 are presented in **Figures J-1, J-2, and, J-3**, respectively. As shown in the screening figures, the proposed buildings did not pass the initial screening analysis and thus were evaluated using the refined AMS/EPA AERMOD dispersion model.

REFINED ANALYSIS

Tables J-2 and J-3 present the maximum predicted concentrations from the heating and hot water systems from the Development Site and other projected development sites within the Project Area at off-site and project receptors, respectively. As shown in the tables, maximum predicted concentrations at both off-site and project receptors are below the NAAQS and $PM_{2.5}$ *de minimis* criteria. Therefore, the heating and hot water systems associated with the Development Site and other projected development sites within the Project Area would not result in any significant adverse air quality impacts.

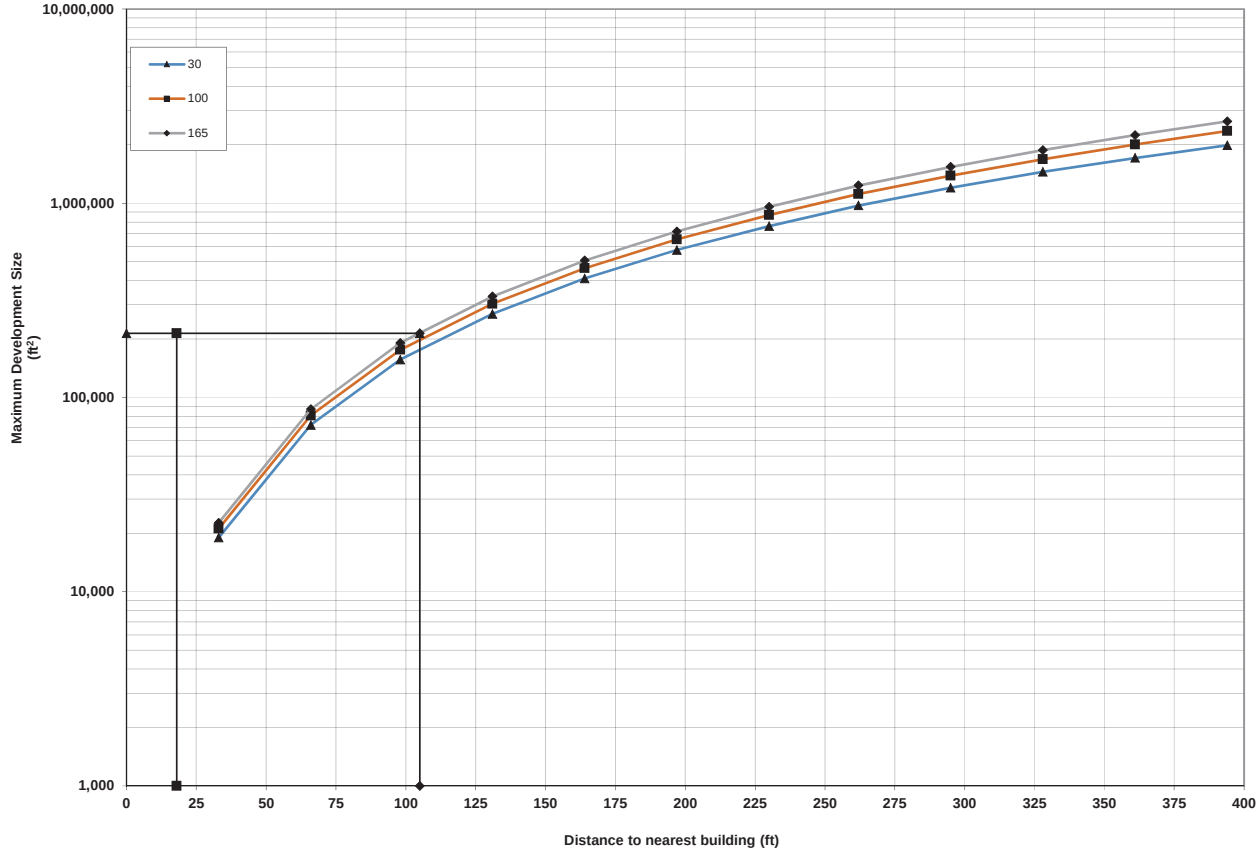
Table J-2
Maximum Modeled Pollutant Concentrations
from Heating and Hot Water Systems
Off-Site Receptors (µg/m^3)

Pollutant	Averaging Period	Maximum Modeled Impact	Background	Total Concentration	Criterion
NO_2	1-hour	(1)	(1)	145.2	188(2)
NO_2	Annual	0.3	32.3	32.6	100
$PM_{2.5}$	24-hour	1.3	N/A	1.3	8.6(3)
$PM_{2.5}$	Annual	0.04	N/A	0.04	0.3(4)

Notes:
N/A – Not Applicable
(1) The 1-hour NO_2 increment and background concentration is not presented in the table since AERMOD model determines the total 98th percentile 1-hour NO_2 concentration at each receptor.
(2) NAAQS
(3) $PM_{2.5}$ *de minimis* criteria — 24-hour average, not to exceed more than half the difference between the ambient monitored background and the 24-hour NAAQS standard of 35 µg/m^3.
(4) $PM_{2.5}$ *de minimis* criteria—annual (discrete receptor), 0.3 µg/m^3

HVAC Screening Analysis
Site: Projected Site 1
Date: 9/17/2020
Fail

FIG App 17-7
NO_2 BOILER SCREEN
RESIDENTIAL DEVELOPMENT - NATURAL GAS

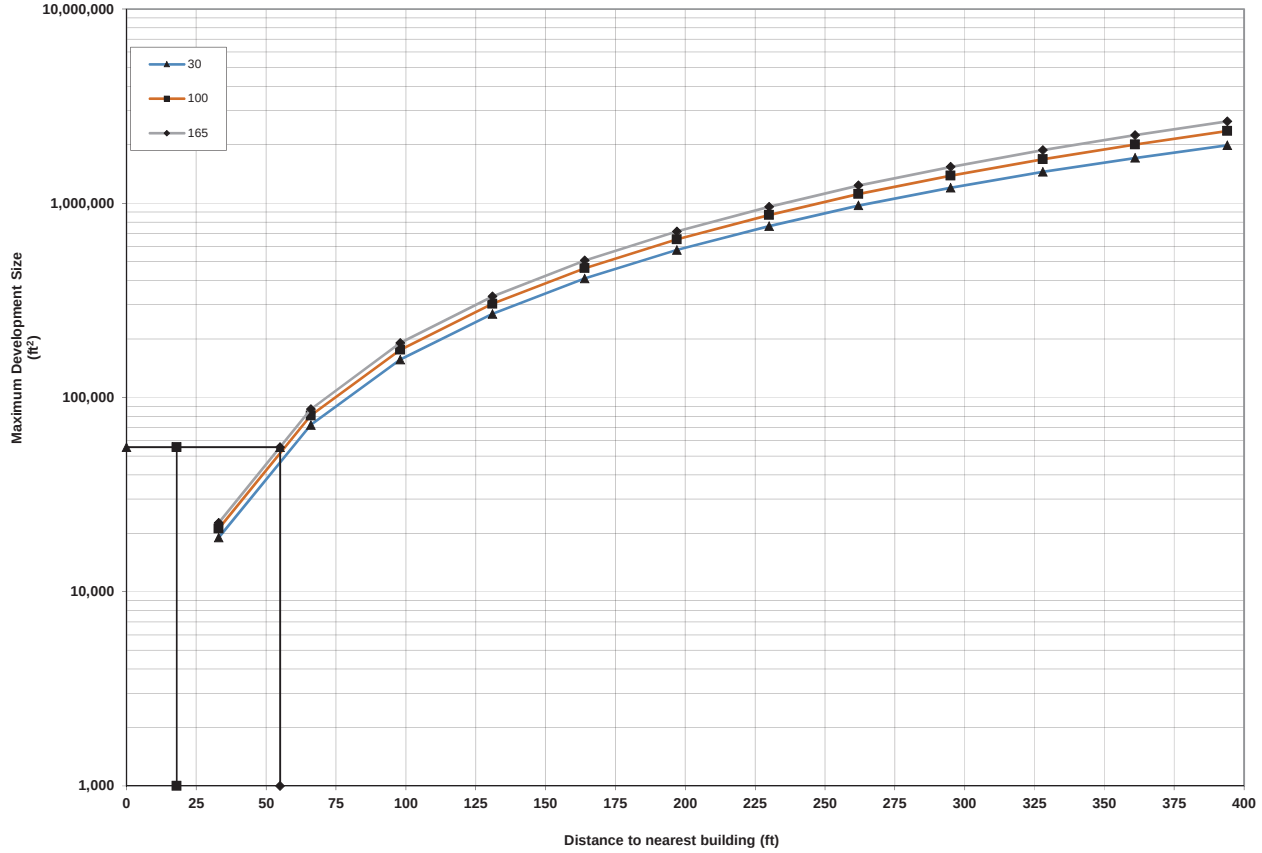


Stack Height: 178 ft
Distance to Nearest Building of Similar or Greater Height: Adj/Close
Proposed Maximum SQFA: 213,860 sq. ft
Minimum Allowable Distance to Nearest Building: 105 ft

Notes:

HVAC Screening Analysis
Site: Projected Site 2
Date: 9/17/2020
Fail

FIG App 17-7
NO $_2$ BOILER SCREEN
RESIDENTIAL DEVELOPMENT - NATURAL GAS

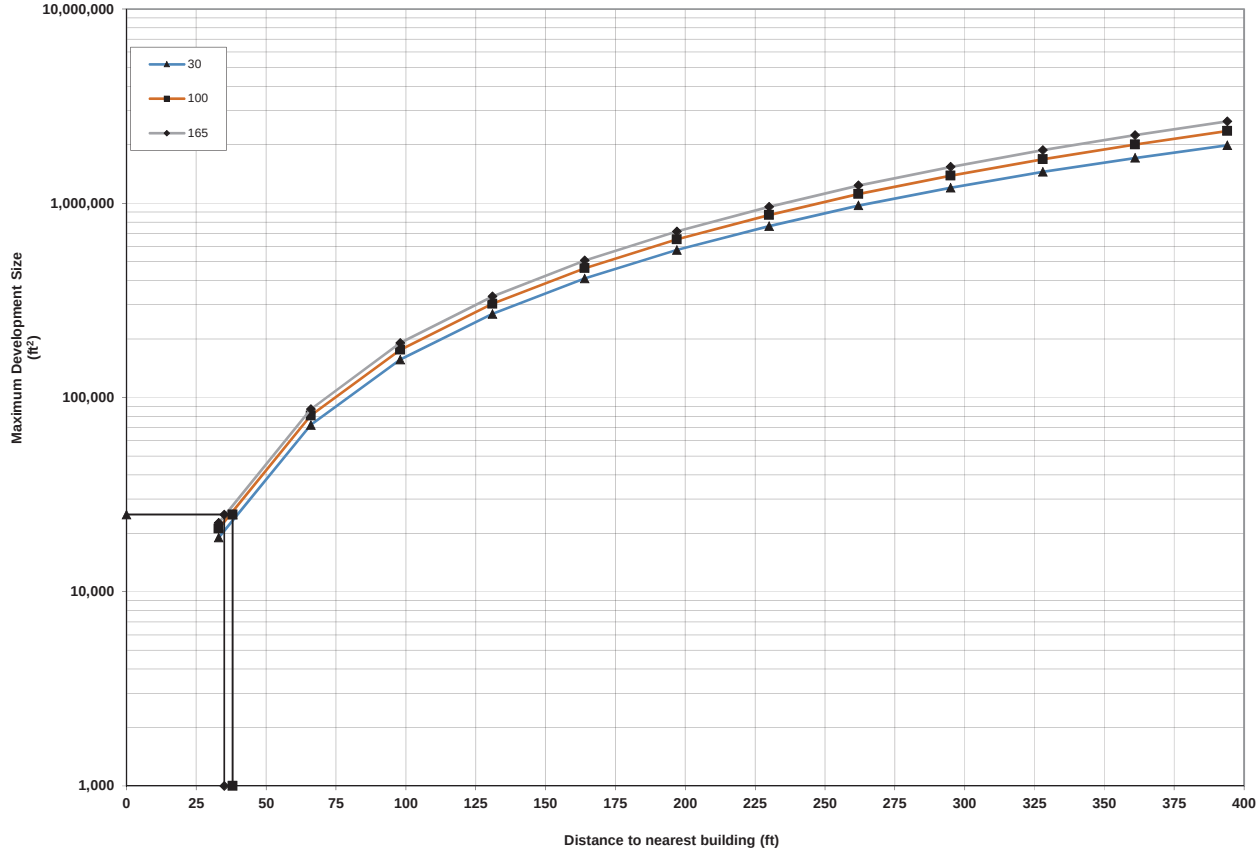


Stack Height: 178 ft
Distance to Nearest Building of Similar or Greater Height: Adj/Close
Proposed Maximum SQFA: 55,500 sq. ft
Minimum Allowable Distance to Nearest Building: 55 ft

Notes:

HVAC Screening Analysis
Site: Projected Site 3
Date: 9/17/2020
Pass

FIG App 17-7
NO_2 BOILER SCREEN
RESIDENTIAL DEVELOPMENT - NATURAL GAS



Stack Height: 178 ft
Distance to Nearest Building of Similar or Greater Height: 38 ft
Proposed Maximum SQFA: 24,975 sq. ft
Minimum Allowable Distance to Nearest Building: 35 ft

Notes:

Table J-3
Maximum Modeled Pollutant Concentrations
from Heating and Hot Water Systems
On the Development Site and other Projected Development Sites within the Project Area (µg/m^3)

Pollutant	Averaging Period	Maximum Modeled Impact	Background	Total Concentration	Criterion
NO_2	1-hour	(1)	(1)	176.6	188(2)
NO_2	Annual	1.5	32.3	33.8	100
$PM_{2.5}$	24-hour	5.8	N/A	5.8	8.6(3)
$PM_{2.5}$	Annual	0.23	N/A	0.23	0.3(4)

Notes:
N/A – Not Applicable
(1) The 1-hour NO_2 increment and background concentration is not presented in the table since AERMOD model determines the total 98th percentile 1-hour NO_2 concentration at each receptor.
(2) NAAQS
(3) $PM_{2.5}$ *de minimis* criteria — 24-hour average, not to exceed more than half the difference between the ambient monitored background and the 24-hour NAAQS standard of 35 µg/m^3.
(4) $PM_{2.5}$ *de minimis* criteria—annual (discrete receptor), 0.3 µg/m^3

To ensure that there are no potential significant adverse impacts of NO_x and $PM_{2.5}$ from the heating and hot water system emissions associated with the Development Site and other projected development sites within the Project Area, certain restrictions would be required as part of the Proposed Actions through an Air Quality (E) Designation **(E-642)** that would be placed on the development sites. The restrictions would be as follows:

Projected Development Site 1 (Block 1122, Lots 21 and 26)

Any new residential, community facility and/or commercial development must exclusively use natural gas as the type of fuel for the heating, ventilating, and air conditioning (HVAC) and hot water systems. If the HVAC and hot water systems exhaust through a single stack, the stack must be located at the highest tier and at least 190 feet above grade; If the HVAC and hot water systems exhaust through two separate stacks, the western-most exhaust stack must be located at the highest tier and at least 190 feet above grade, and at least 30 feet away from the lot line of Lot 21 facing Vanderbilt Avenue, and the eastern-most exhaust stack must be located at the highest tier and at least at least 180 feet above grade and at least 125 feet away from the lot line facing Vanderbilt Avenue to avoid any potential significant adverse air quality impacts.

Projected Development Site 2 (Block 1122, Lots 14, 15, and 16)

Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for the HVAC and hot water systems, be fitted with low NOx (30 ppm) burners and ensure the exhaust stack(s) is located at the highest tier and at least 185 feet above grade to avoid any potential significant adverse air quality impacts.

Projected Development Site 3 (Block 1122, Lot 11)

Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for the HVAC and hot water systems, be fitted with low NOx (30 ppm) burners, and ensure the exhaust stack(s) is located at the highest tier and at least 178 feet above grade to avoid any potential significant adverse air quality impacts.

With these restrictions, emissions from fossil fuel-fired heating and hot water systems would not result in any significant adverse air quality impacts.

To the extent permitted under Section 11-15 of the Zoning Resolution, the requirements of the (E) Designations may be modified, or determined to be unnecessary, based on new information or technology, additional facts, or updated standards that are relevant at the time each development site is ultimately developed.

EXISTING INDUSTRIAL FACILITIES

Based on the initial permit search, two facilities were identified with registrations for emergency generators located at 547 Clinton Avenue (Block 2011, Lot 1; Application # PB010811, and Application # PB047913), and 510 Waverly Avenue (Block 2011, Lot 39; Application # PB025110). However, emergency generators are not an industrial source of emissions, and their operation would be very limited. Therefore, an analysis of these sources was not required. No other potential sources of concern were identified. Therefore, no potential significant adverse air quality impacts from industrial sources would occur with the Proposed Actions, and no further analysis was warranted. ✷

A. INTRODUCTION

This attachment considers the potential for the proposed actions and associated development to result in significant adverse noise impacts. As discussed in Attachment A, "Project Description and Screening Analyses," the Proposed Actions would facilitate the development of a 17-story mixed-use building at the Development Site (Block 1122, Lots 21 and 26) containing residential, local retail, and community facility uses as well as accessory parking in the cellar. In addition to the Development Site (also known as Projected Development Site 1), the Proposed Actions would likely result in the development of two other sites in the Project Area. These are Projected Development Site 2 (consisting of Block 1122, Lots 14, 15, and 16) and Projected Development Site 3 (consisting of Block 1122, Lot 11), both of which are projected to be developed with mixed use residential and commercial buildings. The Project Area is located on the block bound by Atlantic Avenue, Pacific Street, Vanderbilt Avenue, and Underhill Avenue in Brooklyn, New York.

According to the guidelines established in the 2020 *City Environmental Quality Review (CEQR) Technical Manual*, an initial noise impact screening considers whether a proposed action would generate any mobile or stationary source noise, or be located in an area with high ambient noise levels. A noise analysis examines an action for its potential effects on sensitive noise receptors, and the effects on the interior noise levels of residential, commercial, and institutional uses.

In terms of mobile sources, the number of vehicle trips generated by the Proposed Actions would be lower than the threshold that would require any detailed analysis. Consequently, it is not expected that the development would generate sufficient traffic to have the potential to cause a significant noise impact (i.e., it would not result in a doubling of noise passenger car equivalents [Noise PCEs], which would be necessary to cause a 3 dBA increase in noise levels). Therefore, significant adverse mobile source noise impacts are unlikely, and further assessment is not warranted.

Consequently, the noise analysis is focused on the level of building attenuations necessary to ensure that interior noise levels within the proposed building would satisfy applicable interior noise criteria.

B. ACOUSTICS FUNDAMENTALS

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

therefore more intrusive than many of the lower frequencies (e.g., the lower notes on the French horn).

A-WEIGHTED SOUND LEVEL (DBA)

In order to establish a uniform noise measurement that simulates people's perception of loudness and annoyance, the decibel measurement is weighted to account for those frequencies most audible to the human ear. This is known as the A-weighted sound level, or "dBA," and it is the descriptor of noise levels most often used for community noise. As shown in **Table K-1**, the threshold of human hearing is defined as 0 dBA; very quiet conditions (e.g. a library) are approximately 40 dBA; levels between 50 dBA and 70 dBA define the range of noise levels generated by normal daily activity; levels above 70 dBA would be considered noisy, and then loud, intrusive, and deafening as the scale approaches 130 dBA.

Table K-1
Common Noise Levels

Sound Source	(dBA)
Military jet, air raid siren	130
Amplified rock music	110
Jet takeoff at 500 meters	100
Freight train at 30 meters	95
Train horn at 30 meters	90
Heavy truck at 15 meters	80–90
Busy city street, loud shout	80
Busy traffic intersection	70–80
Highway traffic at 15 meters, train	70
Predominantly industrial area	60
Light car traffic at 15 meters, city or commercial areas, or residential areas close to industry	50–60
Background noise in an office	50
Suburban areas with medium-density transportation	40–50
Public library	40
Soft whisper at 5 meters	30
Threshold of hearing	0

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

In considering these values, it is important to note that the dBA scale is logarithmic, meaning that each increase of 10 dBA describes a doubling of perceived loudness. Thus, the background noise in an office, at 50 dBA, is perceived as twice as loud as a library at 40 dBA. For most people to perceive an increase in noise, it must be at least 3 dBA. At 5 dBA, the change will be readily noticeable.

SOUND LEVEL DESCRIPTORS

Because the sound pressure level unit of dBA describes a noise level at just one moment and few noises are constant, other ways of describing noise that fluctuates over extended periods have been developed. One way is to describe the fluctuating sound heard over a specific time period as if it had been a steady, unchanging sound. For this condition, a descriptor called the "equivalent sound level," L_{eq}, can be computed. L_{eq} is the constant sound level that, in a given situation and time

period (e.g., 1 hour, denoted by $L_{eq(1)}$, or 24 hours, denoted by $L_{eq(24)}$), conveys the same sound energy as the actual time-varying sound. Statistical sound level descriptors such as L_1, L_{10}, L_{50}, L_{90}, and L_x, are used to indicate noise levels that are exceeded 1, 10, 50, 90, and x percent of the time, respectively.

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

For purposes of the RWCDS, the L_{10} descriptor has been selected as the noise descriptor to be used in this noise impact evaluation. The 1-hour L_{10} is the noise descriptor used in the *CEQR Technical Manual* noise exposure guidelines for City environmental impact review classification.

C. NOISE STANDARDS AND CRITERIA

NEW YORK CEQR NOISE CRITERIA

The *CEQR Technical Manual* sets external noise exposure standards; these standards are shown in **Table K-2**. Noise exposure is classified into four categories: acceptable, marginally acceptable, marginally unacceptable, and clearly unacceptable. The noise level specified for outdoor areas requiring serenity and quiet is 55 dBA $L_{10(1)}$.

The *CEQR Technical Manual* defines attenuation requirements for buildings based on exterior noise level (see **Table K-3**). Recommended noise attenuation values for buildings are designed to maintain interior noise levels of 45 dBA or lower for residential uses and interior noise levels of 50 dBA or lower for commercial office spaces and meeting rooms and are determined based on exterior $L_{10(1)}$ noise levels. Storage, corridor, stairwells, lobbies, and other spaces with non-noise-sensitive uses would not require any specific level of attenuation.

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

Receptor Type	Time Period	Acceptable General External Exposure	Airport[3] Exposure	Marginally Acceptable General External Exposure	Airport[3] Exposure	Marginally Unacceptable General External Exposure	Airport[3] Exposure	Clearly Unacceptable General External Exposure	Airport[3] Exposure
Outdoor area requiring serenity and quiet[2]		$L_{10} \leq 55$ dBA	---------- Ldn ≤ 60 dBA ----------	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Hospital, nursing home		$L_{10} \leq 55$ dBA		$55 < L_{10} \leq 65$ dBA	---------- 60 < Ldn ≤ 65 dBA ----------	$65 < L_{10} \leq 80$ dBA	(i) (ii) 65 < Ldn ≤ 70 dBA, (ii) 70 ≤ Ldn	$L_{10} > 80$ dBA	---------- Ldn ≤ 75 dBA ----------
Residence, residential hotel, or motel	7 AM to 10 PM	$L_{10} \leq 65$ dBA		$65 < L_{10} \leq 70$ dBA		$70 < L_{10} \leq 80$ dBA		$L_{10} > 80$ dBA	
	10 PM to 7 AM	$L_{10} \leq 55$ dBA		$55 < L_{10} \leq 70$ dBA		$70 < L_{10} \leq 80$ dBA		$L_{10} > 80$ dBA	
School, museum, library, court, house of worship, transient hotel or motel, public meeting room, auditorium, outpatient 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)	
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–10PM)	
Industrial, public areas only[4]	Note 4	Note 4		Note 4		Note 4		Note 4	

Notes:
(i) In addition, any new activity shall not increase the ambient noise level by 3 dBA or more.
(ii) *CEQR Technical Manual* noise criteria for train noise are similar to the above aircraft noise standards; the noise category for train noise is found by taking the L_{dn} value for such train noise to be an L_{dn} (L_{dn} contour) value.
[1] Measurements and projections of noise exposures are to be made at appropriate heights above site boundaries as given by American National Standards Institute (ANSI) Standards; all values are for the worst hour in the time period.
[2] Tracts of land where serenity and quiet are extraordinarily important and serve an important public need, and where the preservation of these qualities is essential for the area to serve its intended purpose. Such areas could include amphitheaters, particular parks, or portions of parks, or open spaces dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet.
[3] One may use Federal Aviation Administration (FAA)-approved L_{dn} contours supplied by the Port Authority of New York and New Jersey, or the noise contours may be computed from the federally approved Integrated Noise Model (INM) Computer Model using flight data supplied by the Port Authority of New York and New Jersey.
[4] External Noise Exposure standards for industrial areas of sounds produced by industrial operations other than operating motor vehicles or other transportation facilities are spelled out in the New York City Zoning Resolution, Sections 42-20 and 42-21. The referenced standards apply to M1, M2, and M3 manufacturing districts and to adjoining residence districts (performance standards are octave band standards).
Source:
New York City Department of Environmental Protection (DEP) (adopted policy 1983).

Table K-3
Required Attenuation Values to Achieve Acceptable Interior Noise Levels

	Marginally Unacceptable				Clearly Unacceptable
Noise Level with Proposed Action	$70 < L_{10} \leq 73$	$73 < L_{10} \leq 76$	$76 < L_{10} \leq 78$	$78 < L_{10} \leq 80$	$80 < L_{10}$
Attenuation[A]	(I) 28 dBA	(II) 31 dBA	(III) 33 dBA	(IV) 35 dBA	$36 + (L_{10} - 80)$[B] dBA

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

D. PROJECT NOISE LEVELS

In general, the levels of existing noise within the Project Area are primarily influenced by the amount of vehicular traffic on the immediately adjacent roadway or nearby roadways. Measurements of existing noise cannot be conducted at present because the New York City Department of Transportation (DOT) has suspended data collection due to atypical conditions for vehicular and pedestrian/cyclist traffic, goods movement, and transit use as a result of the COVID-19 pandemic. As an alternative, measurements of noise levels previously conducted near the Project Area for the *2020 840 Atlantic Avenue Rezoning Environmental Assessment Statement (EAS)* (CEQR #20DCP162K) are used to represent existing noise levels.

The noise receptor location on Atlantic Avenue east of the intersection with Vanderbilt Avenue[1] was selected based on its location along Atlantic Avenue adjacent to the Project Area. Atlantic Avenue, being the most heavily trafficked roadway in the area, is the dominant noise source at the Project Area. The selected location along Atlantic Avenue adjacent to the Project Area experiences noise exposure from vehicular traffic on Atlantic Avenue and consequently provides a conservative representation of existing ambient noise levels. The receptor location is shown in **Figure K-1,** and the *840 Atlantic Avenue Rezoning EAS* future 2023 With Action condition noise levels at this receptor are summarized below in **Table K-4**.

Table K-4
840 Atlantic Avenue Rezoning EAS 2023 With Action Noise Levels near Project Area (in dBA)

Site	Location	Time	L_{eq}	L_{10}
1	Atlantic Avenue	AM	71.1	73.7
		MD	68.3	71.4
		SC PM[1]	68.0	71.0
		PM	67.5	69.8

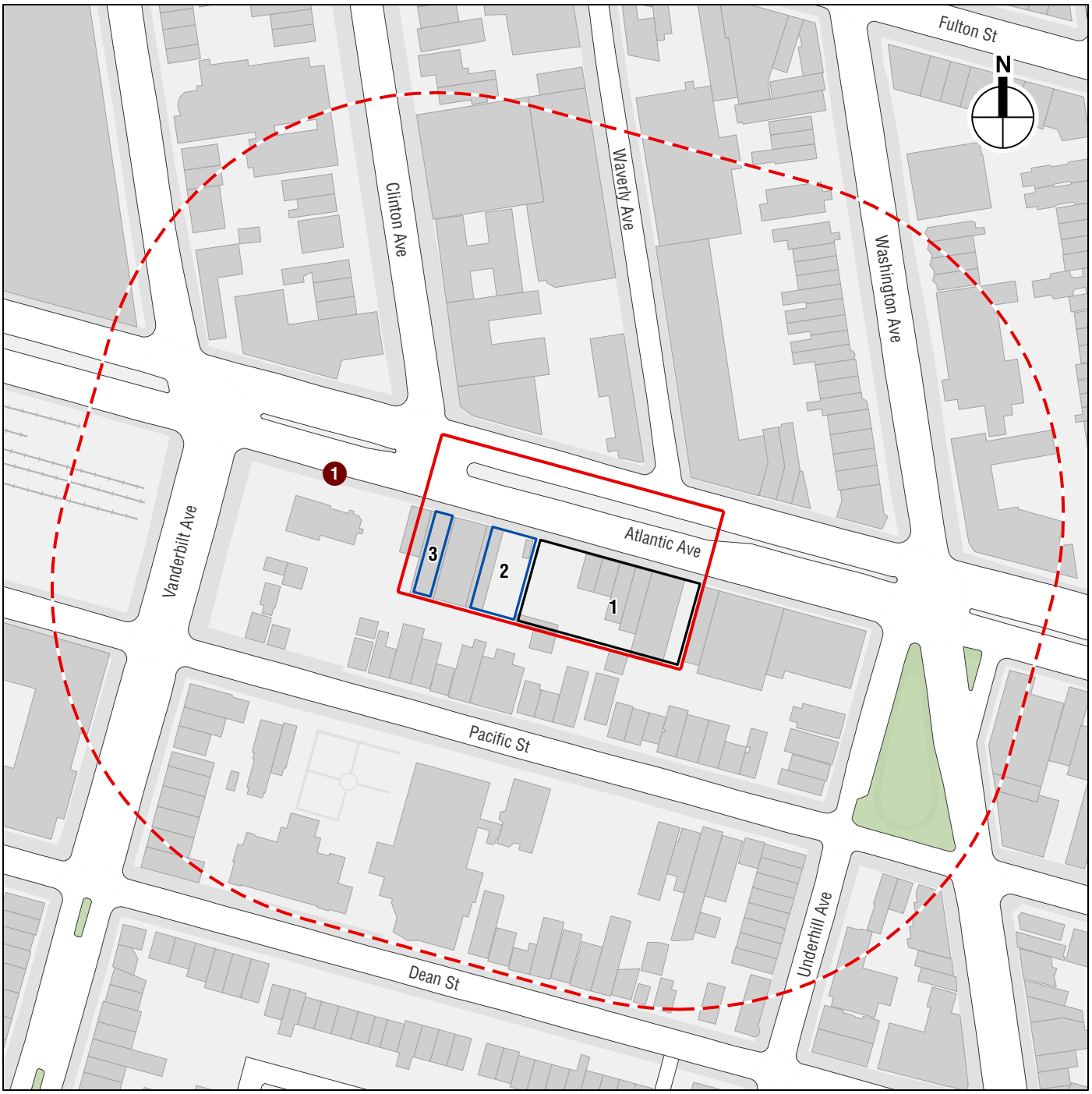
Notes:
1) SC PM = School PM/Dismissal Peak

At this location, 20-minute duration noise measurements were conducted during typical weekday AM (8:00 AM—9:00 AM), midday (12:00 PM—1:00 PM), late afternoon during school dismissal/bus departure (School PM) peak hour (2:30 PM-3:30PM), and PM (5:00 PM—6:00 PM) peak periods. Measurements were conducted between Tuesday and Thursday on weeks when New York City Public Schools were in session as recommended by the *CEQR Technical Manual*. Measurements were performed using Class 1 Sound Level Meter (SLM) instruments according to ANSI Standard S1.4-1983 (R2006). The SLMs had laboratory calibration dates within one year of the date of the measurements. All measurement procedures were based on the guidelines outlined in ANSI Standard S1.13-2005. Measurements were conducted on April 16, 2019. As noted in the *840 Atlantic Avenue Rezoning EAS*, at the receptor site, vehicular traffic on the adjacent roadways was the dominant noise source.

In terms of the CEQR criteria, the With Action noise levels at Site 1 are categorized as "marginally unacceptable."

[1] 840 Atlantic Avenue Rezoning EAS Noise Receptor Site 1

6.11.21



Project Area

Development Site (Projected Development Site 1)

Non-Applicant Owned Projected Development Sites

Study Area (400-foot perimeter)

1 *Noise Receptor*

Noise Receptor Location

870-888 ATLANTIC AVENUE REZONING

Figure K-1

E. NOISE ATTENUATION MEASURES

As shown in **Table K-3**, the New York City *CEQR Technical Manual* has set noise attenuation quantities for buildings based on exterior $L_{10(1)}$ noise levels to maintain acceptable interior noise levels. The acceptable interior noise level thresholds for the noise analysis are 45 dBA or lower for residential and community facility uses and 50 dBA for commercial office uses..

The minimum façade noise attenuation ratings have been established based on the 2023 With Action exterior $L_{10(1)}$ noise levels from the *840 Atlantic Avenue Rezoning EAS*. **Table K-5** outlines the required façade attenuation values for the Proposed Project and the other development sites.

Table K-5
Façade Attenuation Requirements (in dBA)

Development Site(s)	Façade(s)	Governing Noise Receptor	Maximum L_{10}	Required Attenuation
All	All	1	73.7	31

Note:
The above composite window-wall attenuation values are for residential and community facility uses. Commercial office spaces and meeting rooms require 5 dBA less attenuation..

To require attenuation at the development sites, an (E) Designation for noise would be applied, specifying the appropriate amount of window/wall attenuation. The text of the (E) Designation **(E-642)** would be as follows:

Projected Development Site 1 (Block 1122, Lots 21 and 26)

To ensure an acceptable interior noise environment, future residential/community facility uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on all facades in order to maintain an interior noise level not greater than 45 dBA for residential and community facility uses. To maintain a closed-window condition, an alternate means of ventilation must also be provided. An alternate means of ventilation includes, but is not limited to, air conditioning.

Projected Development Site 2 (Block 1122, Lots 14, 15, and 16)

To ensure an acceptable interior noise environment, future residential uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on all facades in order to maintain an interior noise level not greater than 45 dBA for residential uses. To maintain a closed-window condition, an alternate means of ventilation must also be provided. An alternate means of ventilation includes, but is not limited to, air conditioning.

Projected Development Site 3 (Block 1122, Lot 11)

To ensure an acceptable interior noise environment, future residential uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on all facades in order to maintain an interior noise level not greater than 45 dBA for residential uses. To maintain a closed-window condition, an alternate means of ventilation must also be provided. An alternate means of ventilation includes, but is not limited to, air conditioning**.**

The attenuation of a composite structure is a function of the attenuation provided by each of its component parts and how much of the area is made up of each part. Normally, a building façade is composed of the wall, glazing, and any vents or louvers for HVAC systems in various ratios of area. Buildings proposed to be located on the (E) Designated sites would be designed to provide

composite window/wall attenuation greater than or equal to the attenuation requirements listed in **Table K-5**.

By adhering to the (E) Designations described above, buildings to be developed as a result of the Proposed Actions would provide sufficient attenuation to achieve the *CEQR Technical Manual* interior noise level guidelines of 45 dBA L_{10} for residential or community facility uses and 50 dBA L_{10} for commercial office spaces and meeting rooms.

The Noise (E) Designations would require a review by the New York City Office of Environmental Remediation (NYCOER) in advance of the construction of the proposed and projected development sites to ensure that the building façade would provide sufficient attenuation to result in acceptable interior noise levels. As part of the NYCOER review, the applicant(s) can propose to conduct a new noise survey at the development site(s) to measure exterior noise levels at the project site in order to refine the façade attenuation requirements.

F. MECHANICAL SYSTEM

The building mechanical systems (i.e., heating, ventilation, and air conditioning systems) would be designed to meet all applicable noise regulations (i.e., Subchapter 5, §24-227 of the New York City Noise Control Code and the New York City Department of Buildings Code) and to avoid producing levels that would result in any significant increase in ambient noise levels. ✷

Appendix 1
Construction Schedule Letter

Albo Liberis

June 24, 2021

Y & T Development
c/o Joel Teitelbaum
519 E 5th St Ste 19
New York, NY 10009

RE: Construction Schedule for 870-888 Atlantic Avenue Project

Dear Mr. Teitelbaum:

The following is a preliminary schedule outline per drawings received from Archimaera on 4/22/2021, for a mixed use residential and commercial 18 story structure with a cellar, totaling approximately 210,000 gross square feet and 200+ dwelling units. All construction phases itemized below are sequential and do not include site connection, other utility related work, BPP related work and signoffs, and any condo related DOF filings.

Support of Excavation	4 weeks
Excavation	11 weeks
Foundation	7 weeks
Superstructure	20 weeks
Exterior Framing	20 weeks
Tower Fenestration	18 weeks – 4 week overlap with superstructure
Cladding and Envelope	22 weeks – 10 week overlap with fenestration
Roofing	8 weeks – coincident with fenestration
Ground floor	4 weeks
Plumbing	24 weeks – 4 week overlap with superstructure
Sprinkler	20 weeks
Electric and Low Voltage	22 weeks
Interior Framing	23 weeks – 9 week overlap with Cladding
Sheetrock	20 weeks – 12 week overlap with interior framing
Taping / Finish / Paint	20 weeks – 16 week overlap with sheetrock
Closeouts	36 weeks – coordinated with all trades for special inspections and signoffs for initial TCO
Total Projected	98 weeks / approximately 22.5 months to initial TCO

The 22.5 month construction schedule is possible because of minimal Support of excavation and the relatively shallow depth of excavation, favorable soil profiles, an absence of groundwater, a straightforward building superstructure and relatively low building height, and most importantly - the current building design incorporates construction staging that allows for increased maneuvering space on-site that will mitigate potential bottlenecks that would greatly impact construction timelines on such a busy avenue.

Please contact me at info@alboliberis.com with any questions or comments.

Sincerely yours,

Yohay Albo

JTA

	Task Name	Q2			Q3			Q4			Q1			Q2			Q3			Q4			Q1		
		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
1	SOE [1]																								
2	Excavation																								
3	Foundation																								
4	Superstructure																								
5	Exterior Framing																								
6	Upper Fenestration																								
7	Cladding and Envelope																								
8	Roofing																								
9	Ground Floor Enclosure																								
10	Interior Framing																								
11	Plumbing																								
12	Sprinkler																								
13	Electric																								
14	Sheetrock																								
15	Taping/Finish/Paint																								
16	Closeouts																								

Note:
1) SOE = Support of Excavation

Appendix 2
Proposed Text Amendment

870-888 Atlantic Avenue Rezoning

Proposed Zoning Text Amendment for Street Wall Location Flexibility

Project ID: 2020K0405

March 18, 2021

Matter in underline is new, to be added;
Matter in ~~strikeout~~ is to be deleted;
Matter with # # is defined in Section 12-10;
* * * indicates where unchanged text appears in the Zoning Resolution

35-66
Special Height and Setback Provisions for Certain Areas

* * *

35-662

Special Height and Setback Provisions in C6-3A Districts along Atlantic Avenue within Community District 8, Borough of Brooklyn

In C6-3A Districts in Community District 8, in the Borough of Brooklyn, for a #zoning lot# with frontage along Atlantic Avenue, the #street wall# provisions of paragraph (a) of Section 35-651 shall apply along the Atlantic Avenue #street# frontage.

870-888 Atlantic Avenue
Community District 8, Brooklyn

9/10/21
Zoning Map 16c

Matter underlined is new, to be added;
Matter ~~struck out~~ is to be deleted;
Matter within # # is defined in Section 12-10;
* * * indicates where unchanged text appears in the Zoning Resolution

* * *

APPENDIX F
Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing Areas

* * *

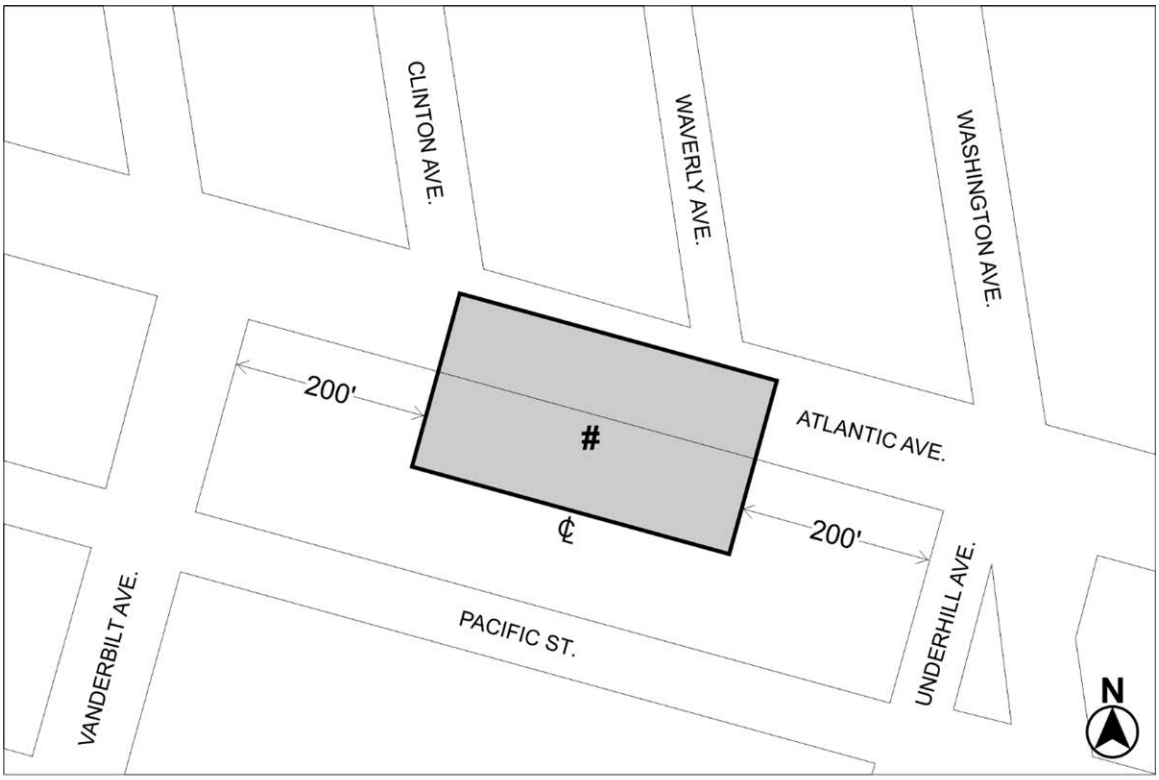
BROOKLYN

* * *

Brooklyn Community District 8

* * *

Map 4 – [Date of adoption]



Mandatory Inclusionary Housing Area *see Section 23-154(d)(3)*

Area # — [date of adoption] — MIH Program Option 2 and Option 4

Portion of Community District 8, Brooklyn

* * *

Appendix 3
No Action Condition Projects

Appendix 3 – Table 1
No Action Condition Projects

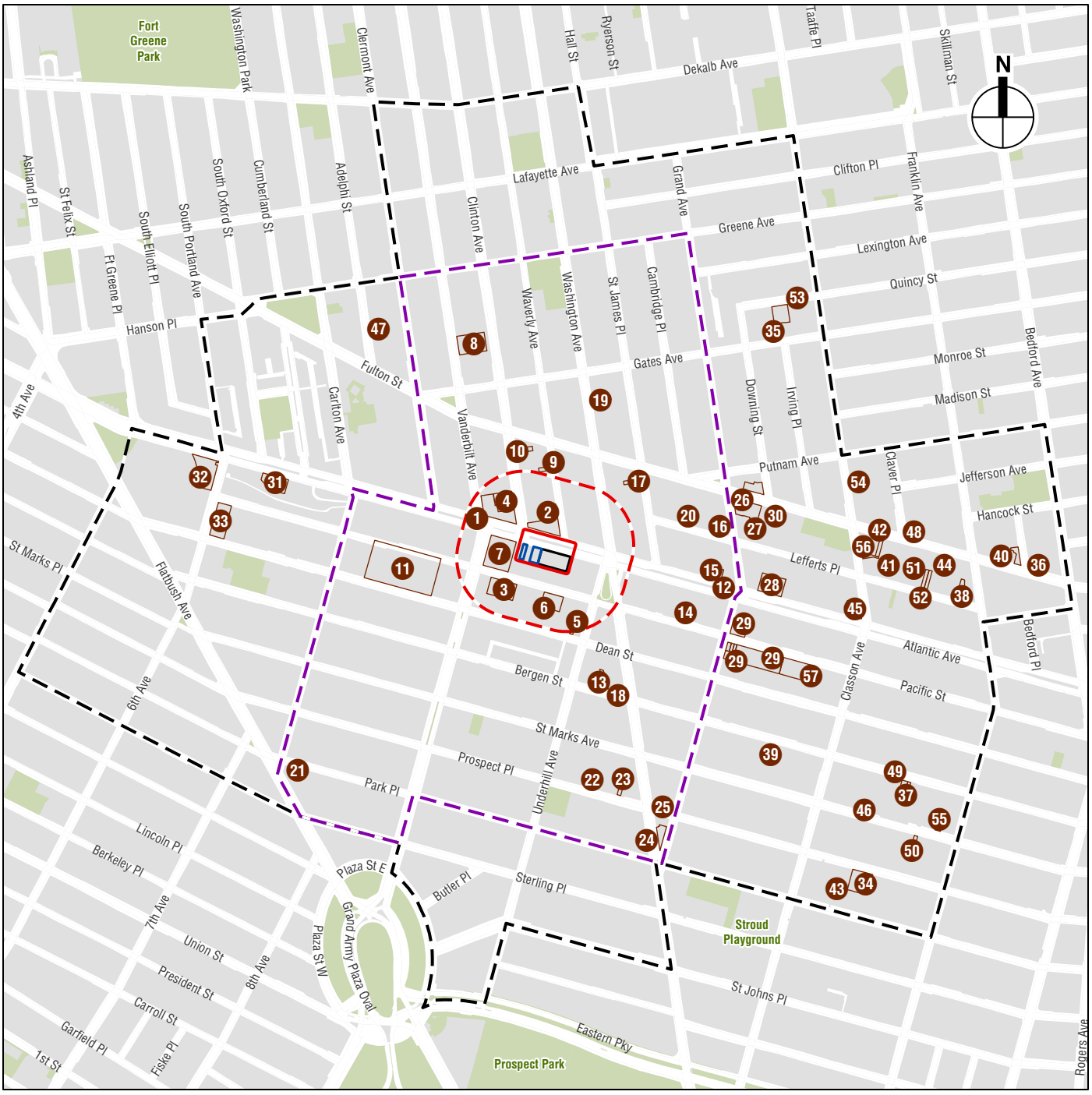
Reference Number[1]	Project Name/Address	Development Program
400-foot Study Area		
1	809 Atlantic Avenue	Mixed-Use: 333 DU (67 affordable DU), 25,000 gsf local retail, 19,500 gsf office
2	540 Waverly Avenue	Mixed-Use: 135 DU (40 affordable DU), 3,675 gsf local retail, 52 parking spaces
3	834 Pacific Street	Mixed-Use: 113 DU, 2,299 gsf community facility, 66 parking spaces
4	532 Clinton Avenue	Mixed-Use: 14 DU, 5,530 gsf local retail
5	751 Dean Street	Residential: 4 DU
6	860 Pacific Street	Community Facility: 37,096 gsf community facility, 20 parking spaces
7	840 Atlantic Avenue	Mixed-Use: 316 DU (63 affordable DU), 55,175 gsf local retail, 7,800 gsf community facility, 90 parking spaces
1/4-Mile Census Tract-based Socioeconomic Study Area		
8	434-442 Clinton Avenue & 445 Vanderbilt Avenue	Residential: 50 DU, 12 parking spaces
9	508 Waverly Avenue	Residential: 6 DU
10	505 Clinton Avenue	Residential: 11 DU
11	595 Dean Street**	Mixed-Use: 798 DU (239 affordable DU), 204,597 gsf office, 455 parking spaces
12	929 Atlantic Avenue	Residential: 19 DU
13	731 Bergen Street	Residential: 7 DU
14	953 Pacific Street	Residential: 3 DU
15	927 Atlantic Avenue	Residential: 21 DU
16	480 Grand Avenue	Residential: 10 DU
17	258 St. James Place	Residential: 7 DU
18	733 Bergen Street	Residential: 7 DU
19	479 Washington Avenue	Residential: 6 DU
20	21 Lefferts Place	Residential: 6 DU
21	178 Park Place	Residential: 6 DU
22	349 Prospect Place	Residential: 6 DU
23	373 Prospect Place	Residential: 6 DU
24	701 Washington Avenue	Mixed-Use: 22 DU, 1,692 gsf local retail, 11 parking spaces
25	399 Prospect Place	Residential: 5 DU
½-Mile Census Tract-based Open Space Study Area		
26	108 Downing Street	Mixed-Use: 50 DU, 10,575 gsf local retail
27	445 Grand Avenue	Mixed-Use: 112 DU, 8,800 gsf local retail, 5,016 gsf community facility, 86 parking spaces
28	963 Atlantic Avenue	Mixed-Use: 124 DU, 5,808 gsf local retail, 51 parking spaces
29	958-962 and 969 Pacific Street	133 DU (27 affordable DU), 18,969 gsf local retail
30	1010 Fulton Street	Mixed-Use: 8 DU, 1,915 gsf local retail
31	698 Atlantic Avenue**	Mixed-Use: 682 DU (205 affordable DU), 5,016 gsf local retail
32	18 6th Avenue**	Mixed-Use: 858 DU (258 affordable DU), 59,105 gsf local retail
33	37 6th Avenue**	Mixed-Use: 316 DU (95 affordable DU), 114,234 gsf community facility

Appendix 3 – Table 1 (cont'd)
No Action Condition Projects

Reference Number[1]	Project Name/Address	Development Program
½-Mile Census Tract-based Open Space Study Area (cont'd)		
34	552 Prospect Place	Residential: 22 DU
35	179 Gates Avenue	Residential: 4 DU
36	1187 Fulton Street	Residential: 3 DU
37	910 Bergen Street	Mixed-Use: 13 DU, 411 gsf community facility
38	199 Lefferts Place	Residential: 10 DU
39	820 Bergen Street	Mixed-Use: 18 DU, 194 gsf community facility
40	28 Spencer Place	Mixed-Use: 16 DU, 3,324 gsf local retail
41	573 Classon Avenue	Residential: 4 DU
42	1074 Fulton Street	Residential: 16 DU
43	550 Prospect Place	Residential: 41 DU, 68 parking spaces
44	1118 Fulton Street	Mixed-Use: 11 DU, 390 gsf local retail
45	1015 Atlantic Avenue	Mixed-Use: 38 DU, 4,465 gsf local retail, 589 gsf community facility, 1 parking space
46	481 St Marks Avenue	Residential: 6 DU
47	399 Adelphi Street	Residential: 4 DU
48	1111 Fulton Street	Mixed-Use: 18 DU, 1,475 gsf local retail
49	906 Bergen Street	Residential: 18 DU
50	530 St. Marks Avenue	Residential: 16 DU
51	171 Lefferts Place	Residential: 8 DU
52	173 Lefferts Place	Residential: 8 DU
53	26 Quincy Street	Residential: 43 DU, 22 parking spaces
54	531 Classon Avenue	Residential: 8 DU
55	525 St. Marks Avenue	Mixed-Use: 2,454 gsf community facility
56	571 Classon Avenue	Mixed-Use: 8 DU, 1,578 gsf local retail
57	1010 Pacific Street	Residential: 175 DU, 48 parking spaces

Notes:
* For the purposes of analysis, all projects currently planned or under construction listed above are assumed to be complete by the Proposed Project's 2025 analysis year.
** Part of the Pacific Park project
[1] See **Appendix 3, Figure 1**
Sources:
DOB; AKRF field visit, August 2020.

9.4.20



Project Area

Development Site (Projected Development Site 1)

Non-Applicant Owned Projected Development Sites

Study Area (400-foot perimeter)

Socioeconomic Study Area (1/4-mile Census Tract-based)

Open Space Study Area (1/2-mile Census Tract-based)

No Action Condition Project

0 1,000 FEET

No Action Condition Projects

870-888 ATLANTIC AVENUE REZONING

Appendix B – Figure 1

Appendix 4
Agency Correspondence

Vincent Sapienza, P.E.
Commissioner

Angela Licata
Deputy Commissioner of Sustainability

59-17 Junction Blvd.
Flushing, NY 11373

Tel. (718) 595-4398
Fax (718) 595-4422
alicata@dep.nyc.gov

May 3, 2021

Anthony Howard
Senior Project Manager
Environmental Assessment and Review Division
New York City Department of City Planning
120 Broadway, 31st Floor
New York, NY 10271

Re: 870-888 Atlantic Avenue Rezoning
Block 1122, Lots 11, 12, 14, 15, 16, 21, 26 and part of Lot 10
CEQR # 21DCP146K

Dear Mr. Howard:

The New York City Department of Environmental Protection, Bureau of Sustainability (DEP) has reviewed the February 2021 Environmental Assessment Statement (EAS) and the April 2020 Phase I Environmental Site Assessment (Phase I) prepared by AKRF, Inc. on behalf of Y & T Development LLC (applicant) for the above referenced project. It is our understanding that the applicant is seeking a zoning map amendment, a zoning text amendment, and a special permit (Proposed Actions) from the New York City Department of City Planning (DCP) to facilitate a mixed-use development at Block 1122, Lots 21 and 26 (Development Site). The Proposed Actions include: (1) a zoning map amendment to rezone the Development Site and Block 1122, Lots 11, 12, 14, 15, 16, and part of Lot 10 (Project Area) from the existing M1-1 zoning to C6-3A (R9A equivalent); (2) a zoning text amendment to Appendix F of the Zoning Resolution (ZR) to designate the Project Area as a Mandatory Inclusionary Housing (MIH) Area, and to modify ZR 35-66 to require a minimum 20-foot sidewalk along Atlantic Avenue within the Project Area; and (3), a special permit pursuant to ZR Section 74-533 to reduce the number of accessory parking spaces required. Several lots within the proposed rezoning area would likely be redeveloped as a result of the Proposed Actions in addition to the Development Site (also known as Projected Development Site 1). These additional sites include Projected Development Site 2, consisting of Lots 14, 15, and 16, and Projected Development Site 3, consisting of Lot 11. Lot 12 and the portion of Lot 10 within the Project Area are not anticipated to be redeveloped as a result of the Proposed Actions. The Proposed Actions would facilitate a 17-story, approximately 211,560 gross square feet (gsf) building on the Development Site containing 181,200 gsf of residential uses, with up to 228 dwelling units (DUs) of which 69 DUs would be affordable under MIH, 14,660 gsf of local retail uses, 5,500 gsf of community facility uses, and 12,500 gsf of cellar-level parking uses (40 spaces). Up to 80,475 gsf of development would also be facilitated on Projected Development Sites 2 and 3 by the Proposed Actions. Lot 21 currently contains six attached two-story mixed use buildings

with ground floor retail uses and six DUs above. A used car dealership lot is located in the western portion of the property. Lot 26, the other component property of the Development Site, is an unimproved lot currently used for parking. No development is anticipated on Block 1122, p/o Lot 10 or Lot 12 as a result of the Proposed Actions.

Block 1122, Lots 21 and 26

The April 2020 Phase I report revealed that historical on-site and surrounding area land uses consisted of a variety of residential, commercial, and industrial uses including residential structures, a parking lot, an auto sales business, a sign factory, a brass ornament factory, a parking area, a medical office, a refrigeration business, an electrical business, a battery store, a garage, an auto repair/auto glass business, a printer, undertakers, auto repair, sales and painting, filling stations, facilities with gasoline underground storage tanks, factories, a junkyard, a dry cleaner, a food cart conversion business, etc. Regulatory databases identified 19 petroleum bulk storage facilities within 1/8 mile; and 219 spills and 15 brownfield cleanup program sites within 1/2 mile of the subject property.

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

Projected Development Site 1: Block 1122, Lots 21 and 26 (Site under the control or ownership of the applicant)

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

Projected Development Site 2: Block 1122, Lots 14, 15, and 16 and Projected Development Site 3: Block 1122, Lot 11 (Sites not under the control or ownership of the applicant)

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

Future correspondence and submittals related to this project should include the following CEQR # **21DCP146K**. If you have any questions, you may contact Mohammad Khaja-Moinuddin at (718) 595-4445.

Sincerely,

Wei Yu
Deputy Director, Hazardous Materials

c: R. Weissbard
M. Khaja-Moinuddin
T. Estesen
R. Lucas
M. Wimbish
O. Abinader - DCP
M. Bertini - OER

Landmarks Preservation Commission

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

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

ENVIRONMENTAL REVIEW

Project number: DEPARTMENT OF CITY PLANNING / LA-CEQR-K
Project: 870 ATLANTIC AVENUE
Date Received: 9/17/2020

Properties with no Archaeological significance:

1) 858 ATLANTIC AVENUE, BBL: 3011220011
2) 864 ATLANTIC AVENUE, BBL: 3011220014
3) 866 ATLANTIC AVENUE, BBL: 3011220015
4) 868 ATLANTIC AVENUE, BBL: 3011220016
5) 870-878 ATLANTIC AVENUE, BBL: 3011220021
6) 888 ATLANTIC AVENUE, BBL: 3011220026

Gina Santucci 9/18/2020

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 35178_FSO_DNP_09182020.docx