New York City Environmental Quality Review

Environmental Assessment Statement and Supplemental Report

202-208 Tillary Street Rezoning EAS

Prepared For:

YYY Brooklyn NY LLC

15 Berbena Avenue

Floral Park, NY 11001

Prepared By:

Sam Schwartz Engineering, D.P.C.

322 Eighth Avenue, 5th Floor

New York, NY 10001

Lead Agency:

New York City Department of City Planning

120 Broadway, 31st Floor

New York, NY 10271

CEQR Number: 77DCP374K

September 2017

Sam Schwartz

Transportation Consultants

202-208 Tillary Street Rezoning EAS

Environmental Assessment Statement and Supplemental Report

TABLE OF CONTENTS

Sam Schwartz

Transportation Consultants

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 202-208 Tillary Street Rezoning EAS

1. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
17DCP176K	
ULURP REFERENCE NUMBER (if applicable)	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)
N 170401ZRK and 170400ZMK	

2a. *Lead Agency Information*			**2b. *Applicant Information***		
NAME OF LEAD AGENCY New York City Department of City Planning			NAME OF APPLICANT YYY Brooklyn NY LLC		
NAME OF LEAD AGENCY CONTACT PERSON Robert Dobruskin			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON Jim Brown		
ADDRESS 120 Broadway, 31st Floor			ADDRESS Sam Schwartz Consulting; 322 Eighth Avenue, 5th Floor		
CITY New York	STATE NY	ZIP 10271	CITY New York	STATE NY	ZIP 10001
TELEPHONE (212) 720-3423	EMAIL rdobrus@planning.nyc.gov		TELEPHONE (212) 598-9010	EMAIL jbrown@samschwartz.com	

3. *Action Classification and Type*

SEQRA Classification

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

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

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

4. *Project Description*

The Applicant, YYY Brooklyn NY LLC., proposes a zoning map amendment from an R6 district to an C6-4 district, and a zoning text amendment to Zoning Resolution (ZR) Section 23-933 (Inclusionary Housing) Appendix F to establish a Mandatory Inclusionary Housing (MIH) area affecting a portion of a block (Block 1, p/o Lot 1, Lot 100, and 104, the "Rezoning Area") in the Downtown Brooklyn neighborhood of Brooklyn Community District 2. In addition, the Applicant is seeking a zoning text amendment to ZR Appendix E (Special Downtown Brookyln District) to extend the Special Downtown Brooklyn District over the Rezoning Area. The Rezoning Area is located at the corner of Tillary Street and Prince Street. The proposed zoning and text amendments (collectively the "Proposed Actions") would facilitate a proposal by the Applicant to construct two attached predominantly residential buildings at 202-208 Tillary Street and 67-73 Prince Street (Lot 100, the "Project Site") comprising a combined total of 266,542 gross square feet (gsf) of Use Group (UG) 2 residential use, including approximately 262 dwelling units, of which 79 would be affordable, 13,723 gsf of UG 6 local retail space, and 44 vehicular accessory parking spaces and 132 bicycle parking spaces in a cellar-level garage (the "Proposed Development").

In connection with the Proposed Development, the Applicant proposes traffic signal timing adjustments at the intersections of 1) Tillary Street and Flatbush Avenue; 2) Tillary Street and Prince Street; 3) Tillary and Gold Street; and 4) Tillary Street / Park Avenue and Navy Street. The Applicant also proposes roadway striping changes at the intersection of Tillary Street / Park Avenue and Navy Street. The provision of these traffic improvement measures would be incorporated into a restrictive declaration that would be recorded against the Project Site (the "Restrictive Declaration").

For more information, see Attachment A, "Project Description."

Project Location

BOROUGH Brooklyn	COMMUNITY DISTRICT(S) 2	STREET ADDRESS 202-208 Tillary Street
TAX BLOCK(S) AND LOT(S) Block 2050, Lot 100		ZIP CODE 11201

DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS Backwards "L" shaped tax lot that fronts Tillary Street to the north and Prince Street to the west

EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY R6 | ZONING SECTIONAL MAP NUMBER 12D

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

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

- ☐ CITY MAP AMENDMENT
- ☒ ZONING MAP AMENDMENT
- ☒ ZONING TEXT AMENDMENT
- ☐ SITE SELECTION—PUBLIC FACILITY
- ☐ HOUSING PLAN & PROJECT
- ☐ SPECIAL PERMIT (if appropriate, specify type: ☐ modification; ☐ renewal; ☐ other); EXPIRATION DATE:

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

- ☐ ZONING CERTIFICATION
- ☐ ZONING AUTHORIZATION
- ☐ ACQUISITION—REAL PROPERTY
- ☐ DISPOSITION—REAL PROPERTY
- ☐ OTHER, explain:

- ☐ CONCESSION
- ☐ UDAAP
- ☐ REVOCABLE CONSENT
- ☐ FRANCHISE

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

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

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.): 61,700 sf
Waterbody area (sq. ft.) and type: 0
Roads, buildings, and other paved surfaces (sq. ft.): 61,700 sf
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): 266,542 gsf
NUMBER OF BUILDINGS: 2
GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): 166,796 gsf; 99,746 gsf
HEIGHT OF EACH BUILDING (ft.): 235 ft; 215 ft
NUMBER OF STORIES OF EACH BUILDING: 23; 21

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: 19,523.9 sf
The total square feet not owned or controlled by the applicant: 42,176.1 sf

Does the proposed project involve in-ground excavation or subsurface disturbance, including, but not limited to foundation work, pilings, utility lines, or grading? ☒ YES ☐ NO
If "yes," indicate the estimated area and volume dimensions of subsurface disturbance (if known):
AREA OF TEMPORARY DISTURBANCE: 19,523.9 sq. ft. (width x length)
VOLUME OF DISTURBANCE: 214,763 cubic ft. (width x length x depth)
AREA OF PERMANENT DISTURBANCE: 19,523.9 sq. ft. (width x length)

8. *Analysis Year* CEQR Technical Manual Chapter 2

ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2020

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: Less than 24 months		
WOULD THE PROJECT BE IMPLEMENTED IN A SINGLE PHASE? ☒ YES ☐ NO		IF MULTIPLE PHASES, HOW MANY?
BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: See Attachment N, "Construction".		

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

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

DESCRIPTION OF EXISTING AND PROPOSED CONDITIONS

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

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
LAND USE				
Residential	☐ YES ☒ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Describe type of residential structures			Multi-Family Elevator Residential	Multi-Familyi Elevator Residential
No. of dwelling units	0	0	435	+435 units
No. of low- to moderate-income units	0	0	109	+109 units
Gross floor area (sq. ft.)	0	0	383,201 gsf	+383,201 gsf
Commercial	☐ YES ☒ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Describe type (retail, office, other)			Ground floor retail and second floor gym	Ground floor retail and second floor gym
Gross floor area (sq. ft.)			35,712 gsf	+35,712 gsf
Manufacturing/Industrial	☒ YES ☐ NO	☒ YES ☐ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Type of use	Self-storage facility	Self-storage facility		
Gross floor area (sq. ft.)	114,500 gsf	114,500 gsf	0	-114,500 gsf
Open storage area (sq. ft.)	0	0	0	
If any unenclosed activities, specify:				
Community Facility	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Type				
Gross floor area (sq. ft.)				
Vacant Land	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:				
Publicly Accessible Open Space	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify type (mapped City, State, or Federal parkland, wetland—mapped or otherwise known, other):				
Other Land Uses	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:				
PARKING				
Garages	☐ YES ☒ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If "yes," specify the following:				
No. of public spaces				
No. of accessory spaces			72	+72
Operating hours				
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				
Residents	☐ YES ☒ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If "yes," specify number:			1,192	+1,192 residents

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
Briefly explain how the number of residents was calculated:	Residents: 435 units x 2.74 (average persons per households, US Census, Brooklyn 2010-2014)			
Businesses	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
No. and type	1: Self-storage facility	1: Self-storage facility	2: Ground floor retail and second floor gym	2: Ground floor retail and second floor gym
No. and type of workers by business	3 employees at self-storage facility	3 employees at self-storage facility	107 employees total	+104 employees total
No. and type of non-residents who are not workers	0	0	0	0
Briefly explain how the number of businesses was calculated:	Provided by Applicant. Estimate of workers based on three employees per 1,000 sf of retail/health and physicla culture facility (East new York Rezoning Proposal FEIS)			
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	R6	R6	C6-4	C6-4
Maximum amount of floor area that can be developed	0.78-2.43	0.78-2.43	12	
Predominant land use and zoning classifications within land use study area(s) or a 400 ft. radius of proposed project	R6, C6-2, C6-4	R6, C6-2, C6-4	R6, C6-2, C6-4	R6, C6-2, C6-4
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.		
(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.		
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.		
7. *URBAN DESIGN AND VISUAL RESOURCES*: CEQR Technical Manual Chapter 10		
(a) Would the proposed project introduce a new building, a new building height, or result in any substantial physical alteration to the streetscape or public space in the vicinity of the proposed project that is not currently allowed by existing zoning?	☒	☐
(b) Would the proposed project result in obstruction of publicly accessible views to visual resources not currently allowed by existing zoning?	☐	☒
(c) If "yes" to either of the above, please provide the information requested in Chapter 10.		
8. *NATURAL RESOURCES*: CEQR Technical Manual Chapter 11		
(a) Does the proposed project site or a site adjacent to the project contain natural resources as defined in Section 100 of Chapter 11?	☐	☒
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:	☐	☒
(i) Based on the Phase I Assessment, is a Phase II Investigation needed?	☐	☒
10. *WATER AND SEWER INFRASTRUCTURE*: CEQR Technical Manual Chapter 13		
(a) Would the project result in water demand of more than one million gallons per day?	☐	☒
(b) If the proposed project located in a combined sewer area, would it result in at least 1,000 residential units or 250,000 square feet or more of commercial space in Manhattan, or at least 400 residential units or 150,000 square feet or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens?	☒	☐

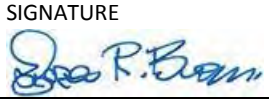
	YES	NO
(c) If the proposed project located in a separately sewered area, would it result in the same or greater development than that listed in Table 13-1 in Chapter 13?	☐	☒
(d) Would the project involve development on a site that is 5 acres or larger where the amount of impervious surface would increase?	☐	☒
(e) If the project is located within the Jamaica Bay Watershed or in certain specific drainage areas, including Bronx River, Coney Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, or Westchester Creek, would it involve development on a site that is 1 acre or larger where the amount of impervious surface would increase?	☐	☒
(f) Would the proposed project be located in an area that is partially sewered or currently unsewered?	☐	☒
(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or contribute contaminated stormwater to a separate storm sewer system?	☐	☒
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	☐	☒
(i) If "yes" to any of the above, conduct the appropriate preliminary analyses and attach supporting documentation.		
11. *SOLID WASTE AND SANITATION SERVICES*: CEQR Technical Manual Chapter 14		
(a) Using Table 14-1 in Chapter 14, the project's projected operational solid waste generation is estimated to be (pounds per week): 20,656		
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): 56,276,072		
(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.		
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.		
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. As the project would not result in any significant adverse impacts in Land Use, Zoning and Public Policy, Socioeconomic Conditions, Open Space, Historic and Cultural Resources, Urban Design and Visual Resources, Shadows, Transportation, and Noise, an assessment of neighborhood character is not warranted.		
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 N, "Construction"		

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
Jim Brown		09/15/2017

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).

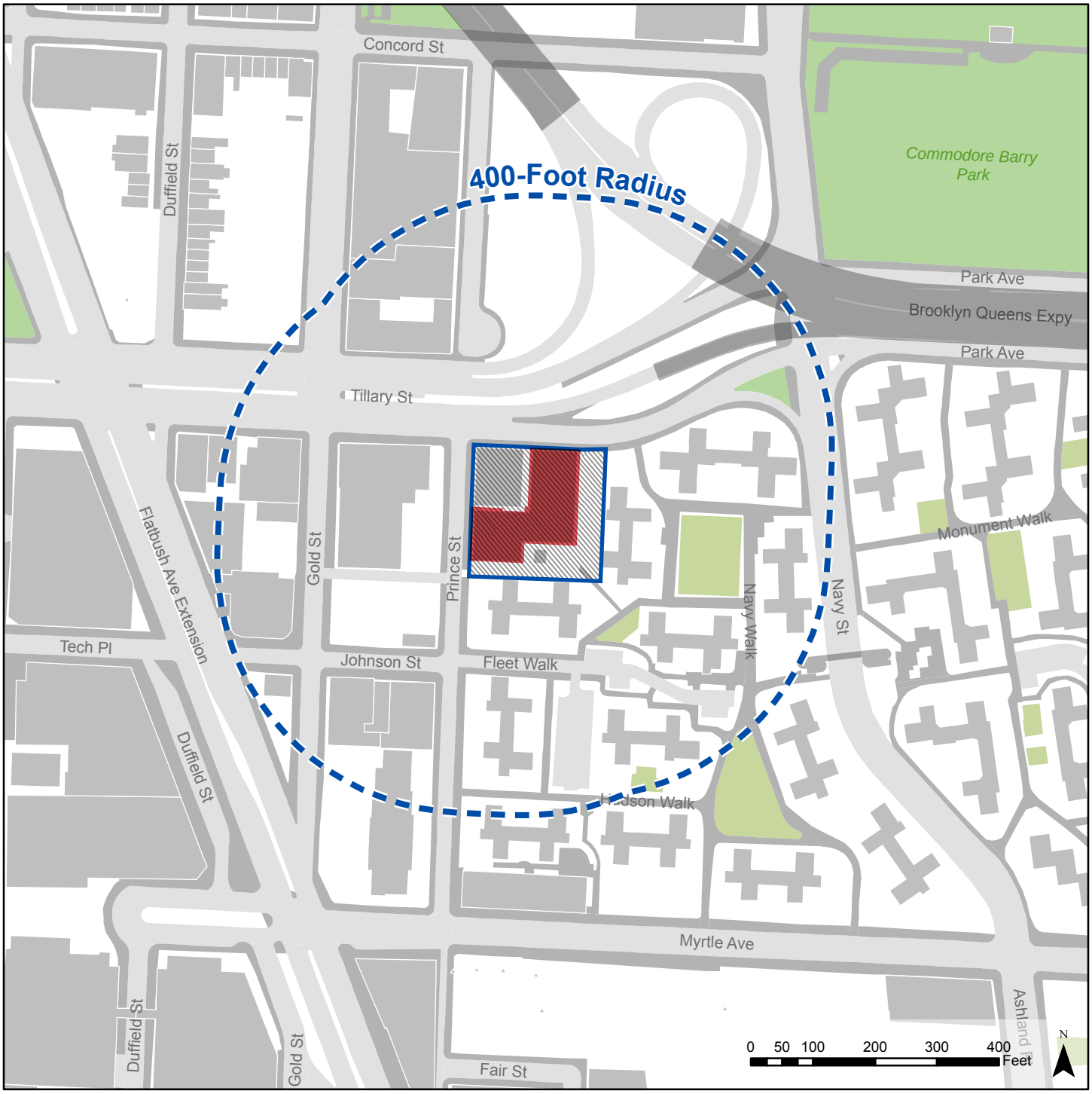
☒ **Conditional Negative Declaration:** A *Conditional Negative Declaration* (CND) may be appropriate if there is a private applicant for an Unlisted action AND when conditions imposed by the lead agency will modify the proposed project so that no significant adverse environmental impacts would result. 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, Envionmental Assessment & Review Division	New York City Department of City Planning
NAME	**DATE**
Olga Abinader	September 15, 2017

SIGNATURE



Source: NYCDCP, 2015 Pluto

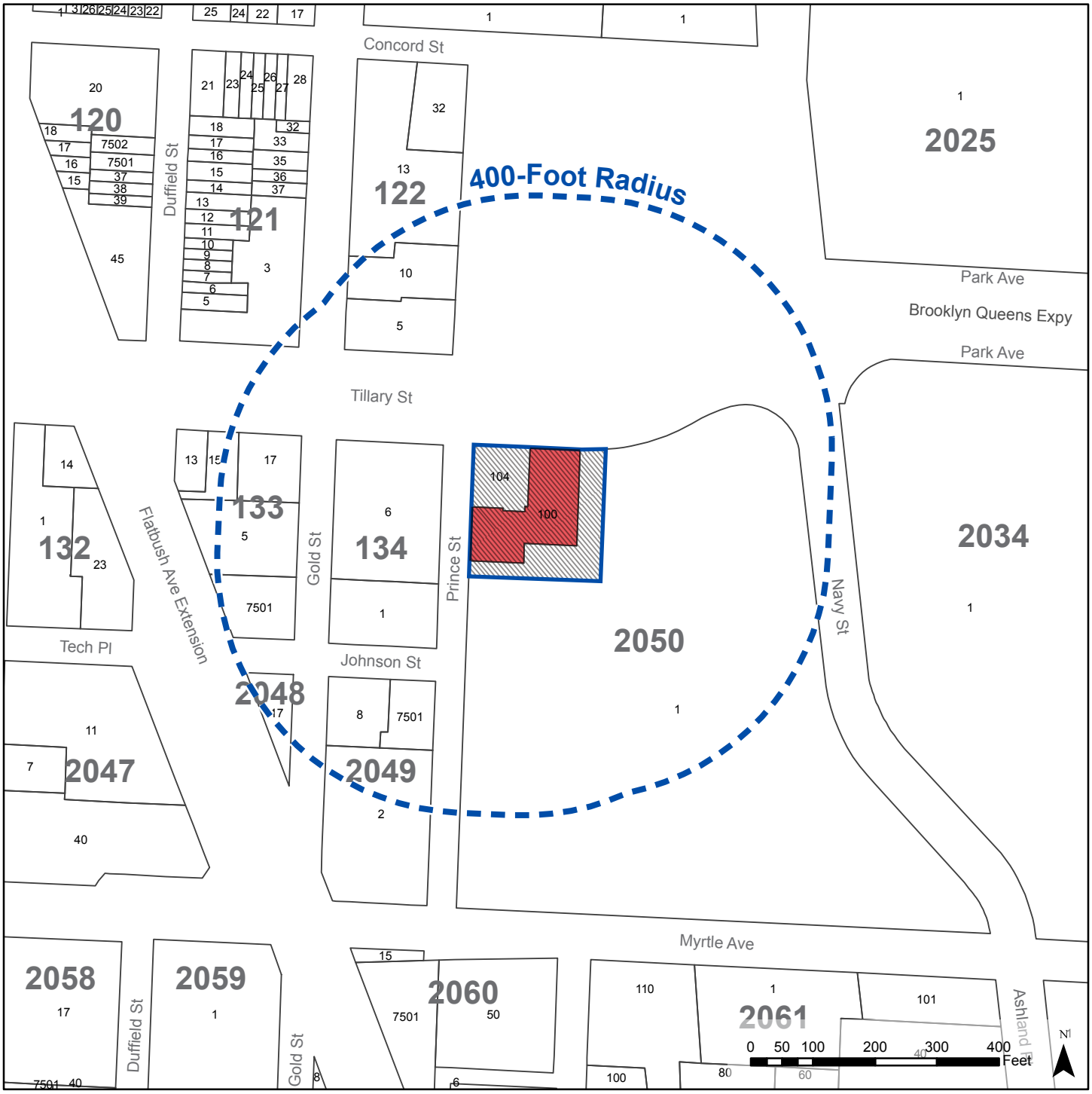
Development Site

Project Area

Study Area Boundary

SITE LOCATION MAP

Figure A-1



Source: NYCDCP, 2015 Pluto

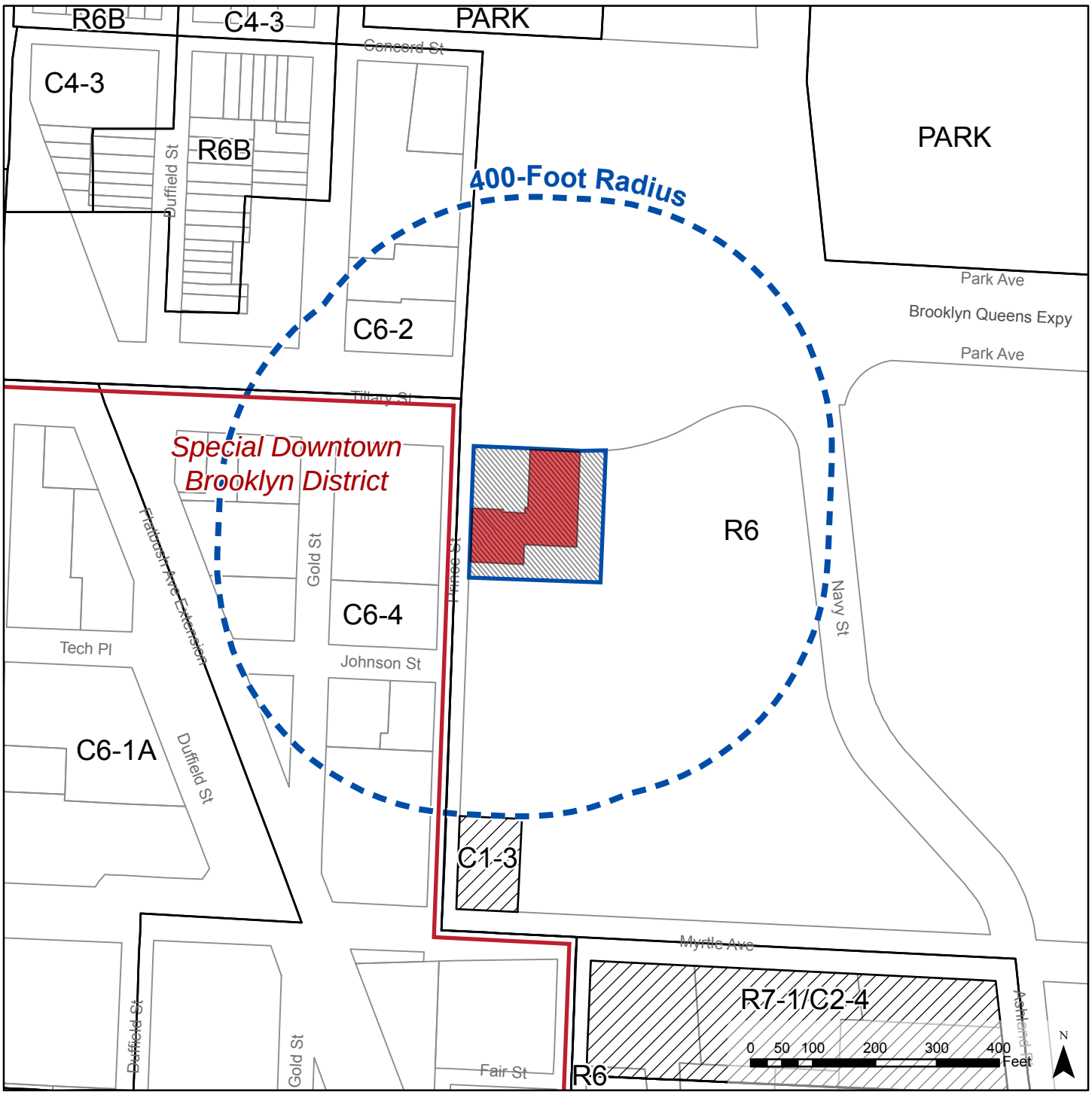
Development Site

Project Area

Study Area Boundary

TAX LOT MAP

Figure A-2



Source: NYCDCP, 2015 Pluto

Development Site

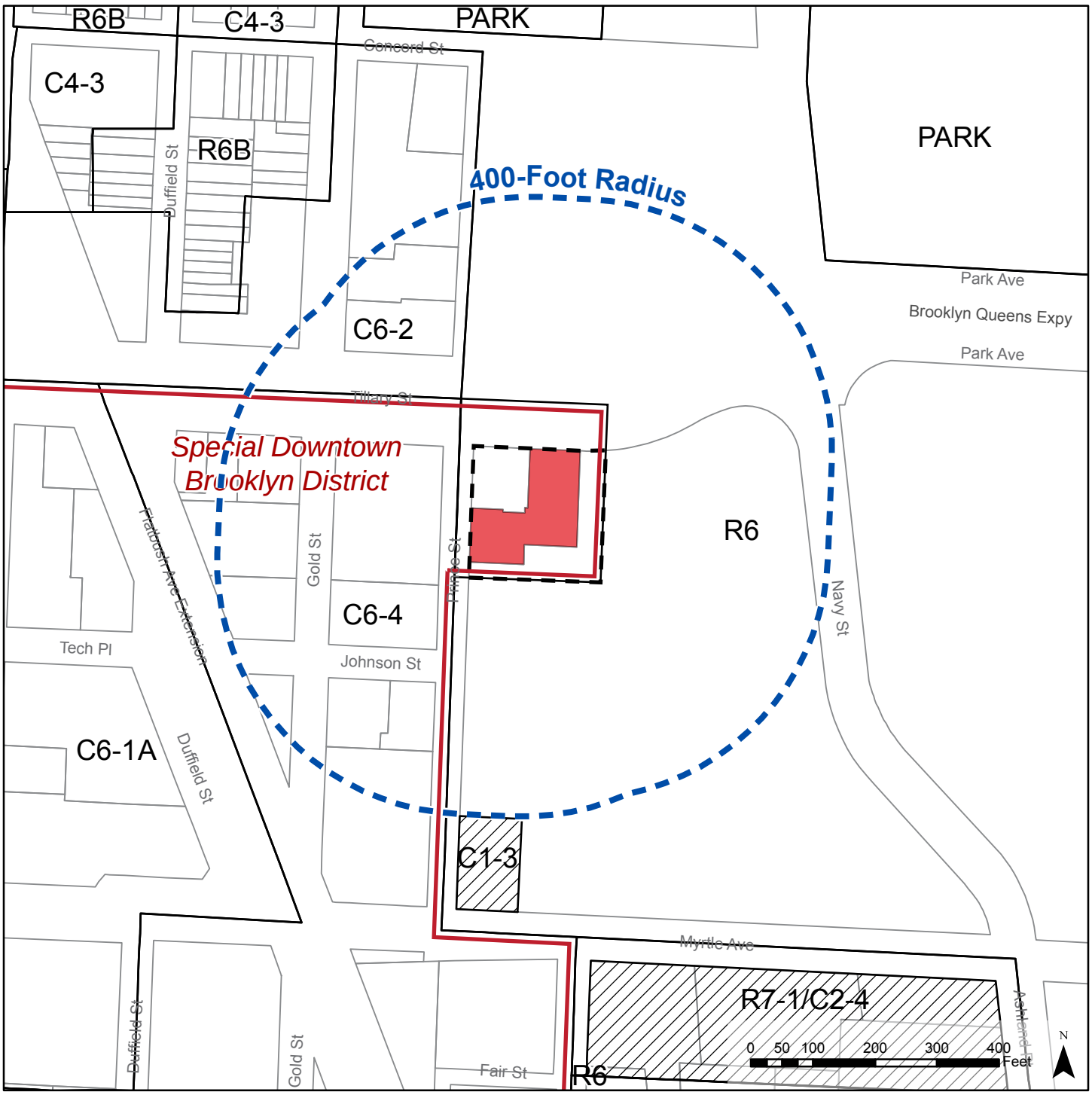
Project Area

Study Area Boundary

Special Downtown Brooklyn District

EXISTING ZONING MAP

Figure A-3



Source: NYCDCP, 2015 Pluto

Development Site

Project Area

Study Area Boundary

Special Downtown Brooklyn District

PROPOSED ZONING MAP

Figure A-4

Source: NYCDCP, 2015 Pluto

Development Site

Project Area

Study Area Boundary

One & Two Family Residence

Multi-Family Residence (Walkup)

Multi-Family Residence (Elevator)

Mixed Residential & Commercial

Commercial Use

Industrial / Manufacturing

Transportation / Utility

Public Facilities & Institutions

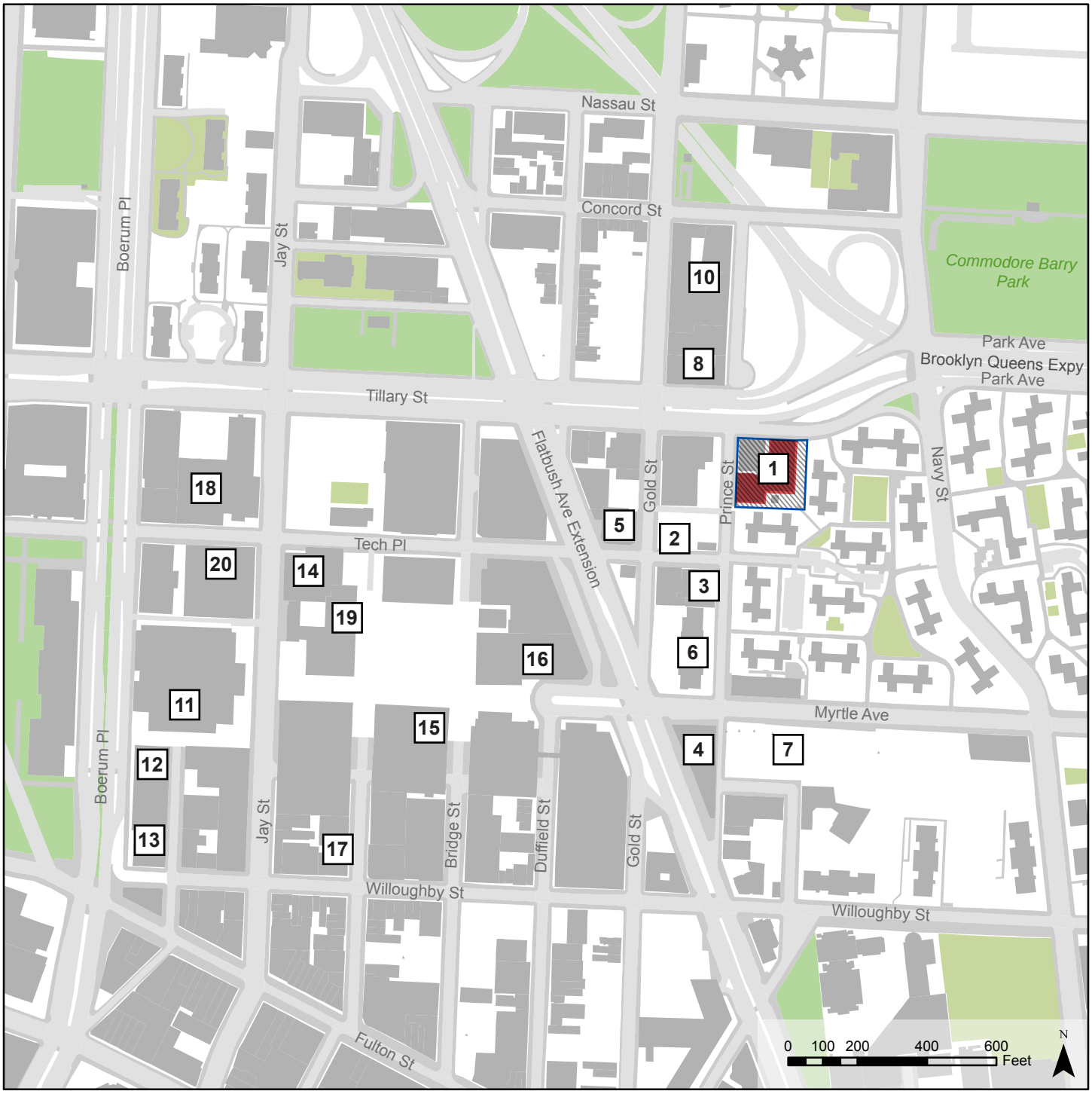
Open Space & Recreation

Parking

Vacant Land

LAND USE MAP

Figure A-5



Source: NYCDCP, 2015 Pluto

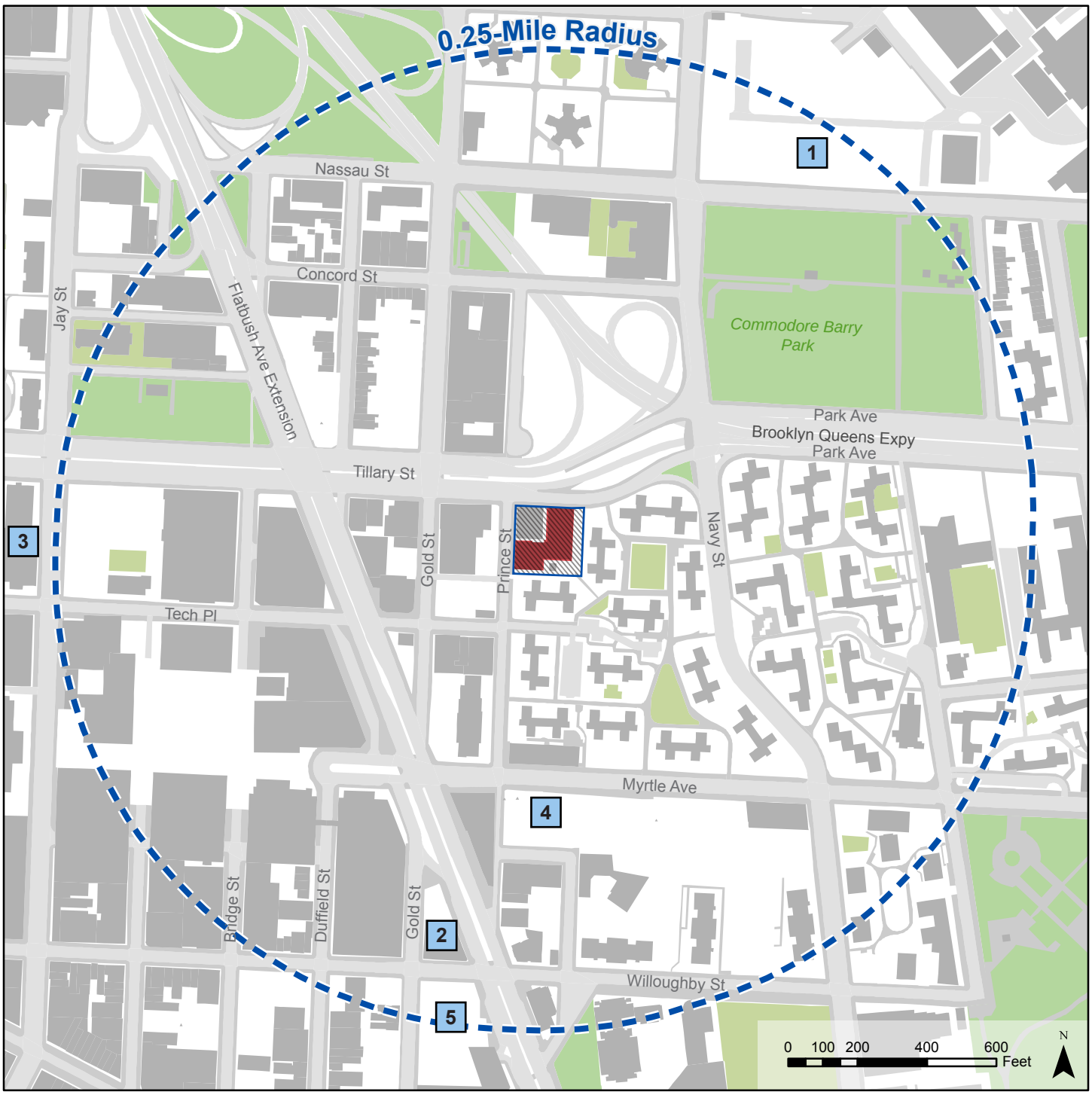
Development Site

Project Area

1 Recent Developments

RECENT DEVELOPMENTS MAP

Figure A-6



Source: NYCDCP, 2015 Pluto

Development Site

Project Area

No-Action Projects Study Area

1 No-Action Development Projects

NO-ACTION DEVELOPMENT PROJECTS MAP

Figure A-7

Source: NYCDCP, 2015 Pluto

Development Site

Project Area

Study Area Boundary

Location & Number of Photographs

SITE LOCATION AERIAL

Figure A-8

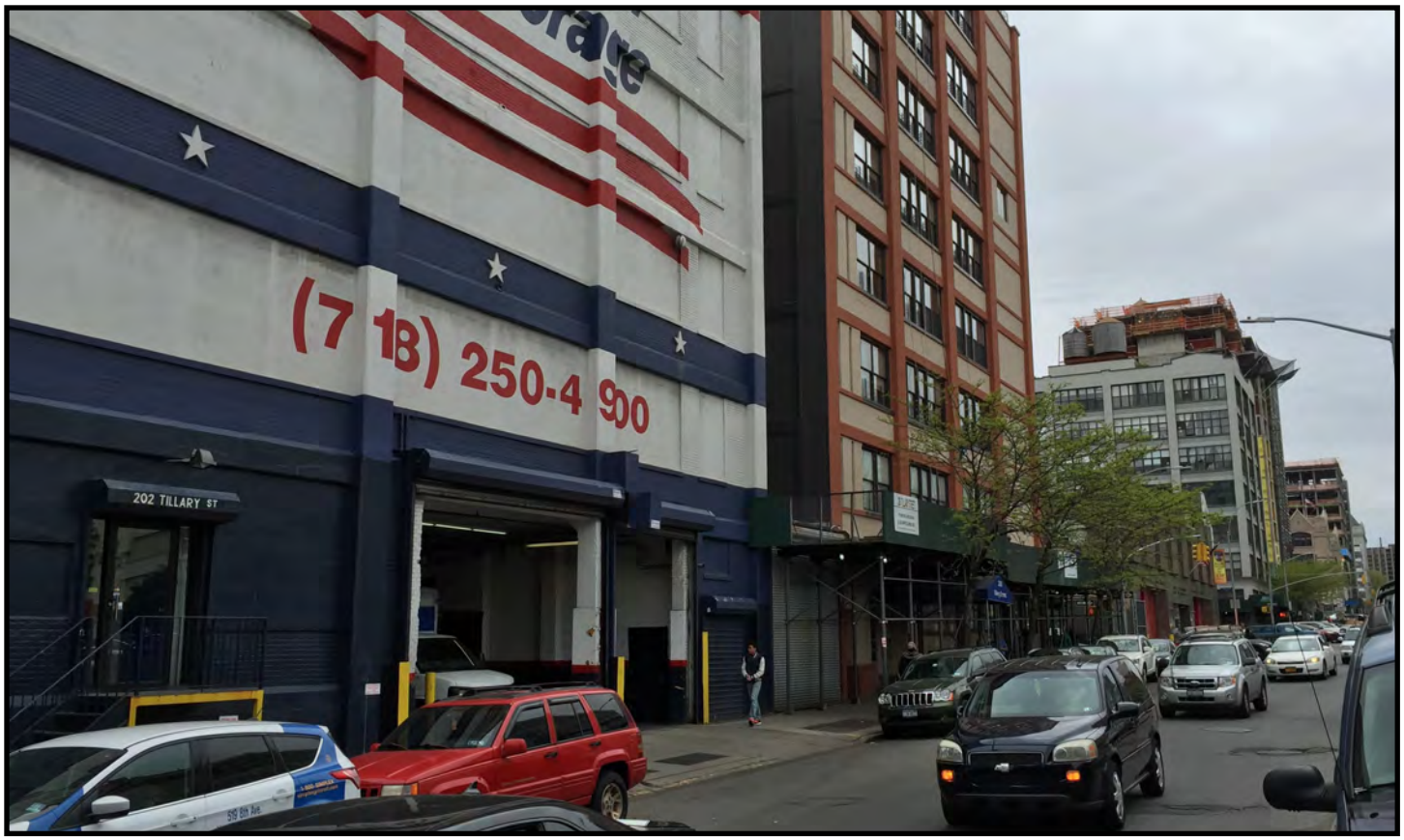


Photo A-1

Photo A-2

Photo A-3

Photo A-4

Source: Aufgang

PROPOSED DEVELOPMENT PERSPECTIVE RENDERING

Figure A-9

Attachment A: Project Description

I. INTRODUCTION

YYY Brooklyn NY LLC (the "Applicant") requests approval of the following discretionary actions subject to the Uniform Land Use Review Procedure (ULURP) for property located on Block 2050, Lots 1 (p/o), 100, and 104 (the "Project Area") in Brooklyn Community District 2 (CD2):

- A zoning map amendment to rezone the Project Area from its existing zoning designation of R6 to C6-4 (R10 equivalent);
- A zoning text change to Appendix F (Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing Areas) of the Zoning Resolution (ZR) to designate the Project Area as a Mandatory Inclusionary Housing (MIH) Area;
- A zoning text change to Appendix E: Special Downtown Brooklyn District Maps 1-7 (Article X, Chapter 1) to include the Project Area within the Special Downtown Brooklyn District (Special District) and within the Flatbush Avenue Extension Height Limitation Area: Height Restriction of 400 Feet;

As described in Section VII, "Framework for Analysis" of this attachment, Lot 100 is owned by the Applicant, while Lot 104 is owned by a separate private party and is not under the control of the Applicant. In addition, the Applicant may secure the transfer of air rights and fee title from a portion of Lot 1, an adjacent property that is owned by the New York City Housing Authority (NYCHA). In support of Mayor de Blasio's *Housing New York: A Five Borough, Ten-Year Plan*, the proposed zoning changes would allow the Applicant to develop an approximately 266,542 gsf mixed-use development (including 79 affordable housing units) consisting of two connected buildings, one facing Tillary Street and one facing Prince Street on Lot 100 (the "Development Site"). Both buildings would include 13,723 gsf of commercial space on the first and second floors, upper-story dwelling units (DUs), and attendant-staffed underground parking **(Figure A-1: Site Location Map, Figure A-2: Tax Lot Map).**

It is the current intent of the Applicant to develop the Project Area in conformance to Option One of the MIH program, where 25% of the residential floor area would be provided as housing affordable to households at an average of 60% of the Area Median Income (AMI), with at least 10% of the residential floor area provided as housing affordable to households at an average of 40% AMI. No units will be targeted at a level exceeding 130% of AMI.

II. PROJECT LOCATION

The Project Area is located at the intersection of Tillary Street and Prince Street in the Downtown Brooklyn neighborhood, and encompasses Lot 100, Lot 104, and a portion of Lot 1 in Block 2050. Block 2050 is bounded by Tillary Street to the north, Navy Street to the east, Myrtle Avenue to the south, and Prince Street to the west. Block 2050 is a "superblock" occupied by the Project Area and 21 multi-family residential buildings, which are part of the Ingersoll Houses owned by NYCHA.

III. DESCRIPTION OF THE PROPOSED DEVELOPMENT[1]

The Applicant proposes to develop a mixed-use development ("Proposed Development") on the Development Site that conforms to Quality Housing Program (QHP) Regulations (ZR 28-00) **(Figure A-2).** The Proposed Development would consist of two buildings (referenced to as "Building A" and "Building B") that, together, would result in an approximately 266,542 gsf structure with a residential FAR of 11.3, a commercial/retail FAR of 0.7, 44 underground, attendant-staffed, parking spaces, and 132 bicycle parking spaces. Proposed uses would include approximately 234,316 gsf of Residential Use Group (UG) 2 DUs comprised of 183 market-rate DUs and 79 affordable DUs (30% of total DUs) averaged at below 80% AMI, and approximately 13,723 gsf of UG 6 commercial/retail space on the ground floor of both Building A and Building B.

Of the 44 attendant-staffed underground parking spaces that would be provided, 37 would be accessory residential parking pursuant to ZR 25-23 (parking requirements are waived for affordable DUs in designated Transit Zones pursuant to ZR 25-251). The remaining seven parking spaces (10% of total parking spaces) would be set aside as reservoir parking (pursuant to ZR 101-52). Parking requirements for the proposed commercial/retail program are waived pursuant to ZR 36-20. Access to the underground parking garage would be provided from Prince Street.

Program distribution for the Proposed Development is summarized as follows:

- **Building A** would consist of 23 stories of residential DUs (146,596 gsf) and would occupy the northern portion of the lot facing Tillary Street.
- **Building B** would consist of 21 stories of residential DUs (87,720 gsf) and would occupy the southern portion of the lot facing Prince Street.
- **Commercial Use** would consist of a total of 13,723 gsf of local retail and be located on the first floor and connect both building A and B.

The proposed development program, comprised of residential uses with ground floor retail use, is the most feasible development scenario for the Applicant-controlled Development Site due to the predominately residential nature of the R6 zoning district located immediately to the north and east of the Project Site, east of Flatbush Avenue Extension, compared to the significant amount of commercial and community facility development that exists within the Special District located immediately to the west of the Project Site, on the other side of Flatbush Avenue Extension.

The following Project Components Related to the Environment (PCREs) would be implemented:

- Tillary Street and Flatbush Avenue
    - During the **Weekday AM and Weekday PM peak hours**, reallocate 1 second of green time from the northbound/southbound phase to the eastbound/westbound through-right phase.
- Tillary Street and Prince Street
    - During the **Weekday AM peak hour**, reallocate 1 second of green time from the eastbound phase to the northbound phase.

[1] The description of the Proposed Development Site and the Proposed Development are illustrative as befits a rezoning action. They are based upon the property currently owned by the Applicant. It is possible that between submission of the application and eventual development, the details of the Development Site and the Proposed Development may change based upon discussions with the adjacent property owner to the east and south (NYCHA).

- Tillary Street and Gold Street
    - This intersection operates on the same signal controller as the Tillary Street and Prince Street intersection. To maintain the same signal timing, 1 second of green time from the eastbound/westbound phase would be reallocated to the southbound phase during the **Weekday AM peak hour.**

IV. ACTIONS NECESSARY TO FACILITATE THE PROPOSED DEVELOPMENT

The Applicant requests approval of the following actions:

- A zoning map amendment to rezone the Project Area from its existing zoning designation of R6 to C6-4 (R10 equivalent);
- A zoning text change to Appendix F (Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing Areas) of the Zoning Resolution (ZR) to designate the Project Area as a Mandatory Inclusionary Housing (MIH) Area; and
- A zoning text change to Appendix E: Special Downtown Brooklyn District Maps 1-7 (Article X, Chapter 1) to include the Project Area within the Special Downtown Brooklyn District and within the Flatbush Avenue Extension Height Limitation Area: Height Restriction of 400 Feet.

V. BUILD YEAR

The Proposed Development would be completed and occupied in 2020.

VI. PURPOSE AND NEED FOR THE PROPOSED ACTION

The Proposed Development would provide a transition from the high-density commercial development in the Special District on the west to the residential-only development that characterizes the R6 zoning district on the east, and would provide much-needed housing (including affordable units) in an area that has experienced population growth.

The proposed zoning change from R6 to C6-4 (R10 equivalent) would continue to permit residential use, with an increase in FAR from 2.43 to 12 (with MIH). Developers may choose between QHP Regulations or Tower Regulations with residential and mixed buildings eligible to receive residential FAR bonus for the creation or preservation of income-restricted housing, pursuant to the Inclusionary Housing Program (up to 12 FAR). QHP Regulations produce large, high lot coverage buildings set at or near the street line which maintain the traditional street wall found along major streets and avenues. On wide streets (75 feet or more), the base height before setback is 125 to 150 feet with a maximum building height of 210 feet. On narrow streets (75 feet or less), the base height before setback is 60 to 125 feet with a maximum building height of 185 feet.

The proposed zoning amendment to C6-4 would also allow commercial use with a maximum FAR of 10, and permit commercial and retail UGs 5 to 12. Community facility development is also permitted with a maximum FAR of 10. This proposed zoning amendment would extend the existing C6-4 zoning across Prince Street to the Project Area. It is an appropriate change since the zoning and current use of the Project Area is inconsistent with the adjacent zoning to the west. The proposed zoning amendment would permit development consistent with the remainder of Downtown Brooklyn. Since the Project Area would also be designated through a zoning text change as an MIH Area, this zoning amendment and text change would

be consistent with the City's policy of requiring Inclusionary Housing in areas that are rezoned to allow increased density.

The extension of the Special District would recognize the proximity of the Project Area to the Downtown core and result in development that is consistent with the goals of the Special District. The proposed development would strengthen the nearby business core of Downtown Brooklyn by improving the working and living environments; foster development in Downtown Brooklyn by providing much-needed housing; encourage the design of new buildings that are in character with the area; and promote the most desirable use of land and building development for Downtown Brooklyn by replacing an existing self-storage facility with new development, and thus conserve the value of land and buildings and thereby preserve City tax revenues.

The Special Downtown Brooklyn District regulations modify certain zoning regulations that would be otherwise applicable to a particular underlying zoning district, including use regulations (for example, the Special District requires certain ground floor retail uses and transparency) and bulk regulations (for example, in certain districts the floor area provisions are modified, as are the otherwise applicable height and setback and tower regulations). There are also Height Limitation Areas and mandatory district plan elements that apply to certain areas within the Special District (as per the maps contained in Appendix E), such as street wall location, sidewalk widening and relocation of subway stairs. Finally, there are special parking and loading regulations which apply in the Special District, modifying the otherwise applicable parking regulations (for example, off-site parking location).

VII. FRAMEWORK FOR ANALYSIS

Existing Conditions

Description of the Proposed Study Area

In conformance with guidance in the *CEQR Technical Manual*, the Study Area was defined as an, approximately 400-feet buffer from the Development Site. The Study Area is within Brooklyn CD 2, which encompasses the neighborhoods of Boerum Hill, Brooklyn Heights, Clinton Hill, Downtown Brooklyn, DUMBO, Fort Greene, Fulton Ferry, Navy Yard, and Vinegar Hill. Major thoroughfares near the Development Site include (1) the Brooklyn-Queens Expressway (BQE) located north of the Development Site, (2) the Flatbush Avenue Extension located west of the Development Site, (3) Flushing Avenue, located north of the Development Site, and (4) Tillary Street, which fronts the north side of the Development Site and serves as an east-bound on-ramp to the BQE. Nearby public transit includes the B57 (Gowanus-Maspeth) bus route, and the B62 (Downtown Brooklyn-Long Island City) bus route.

Existing land uses within the Study Area are primarily residential with some institutional, manufacturing, and transportation/utility uses **(Figure A-4: Land Use Map)**. While there are no open space resources within the Study Area, Commodore Barry Park, Golconda Playground, and McLaughlin Park are located immediately outside of the Study Area. Land uses in the Study Area immediately south and east of the Development Site include the Ingersoll Houses, which is a grouping of 21 multi-family residential buildings with 1,826 DUs, owned by the New York City Housing Authority (NYCHA) and mixed-use residential developments with ground floor commercial/retail uses. Land uses west of the Development Site include the New York City Police Department (NYPD) 84th Precinct station, and a Fire Department of New York City (NYFD) fire station located on the west side of Prince Street. Retail uses are prevalent along the Flatbush Avenue Extension, which serves as a major retail corridor just west of the Study Area **(Figure A-1)**. As illustrated by the land use map **(Figure A-4)** existing land uses to the east of Flatbush Avenue Extension (where the Development Site is located) are predominately residential with ground floor retail use, while commercial development is more prevalent to the west of Flatbush Avenue Extension.

Description of the Proposed Development Site

The Proposed Development Site is located on Lot 100, Block 2050. Lot 100 is an irregular "L" shaped lot with 79 ft of frontage on Tillary Street (a wide street) and 87.75 ft of frontage on Prince Street (a narrow street). It borders Lot 104 (a corner lot) on both the eastern and southern lot lines of Lot 104. The Proposed Development Site has a total lot area of 19,523.9 sf and is occupied by a five-story building built in 1948 that is used for storage and warehousing. The building has 114,500 gsf of floor area and an FAR of 5.86. Since it is in a residential zoning district (R6), the current use is non-conforming and the building is non-complying in floor area. The building is approximately 56 ft in height and covers all of its lot at the ground floor. It has two loading docks, each approximately 25 ft in width. The western edge of the curb cut is approximately 110 ft from the intersection of Tillary and Prince Streets.

Reasonable Worse Case Development Scenario (RWCDS)

A Reasonable Worst Case Development Scenario (RWCDS) establishes the appropriate framework for analysis to allow the lead agency to make reasonable conclusions regarding the likely environmental effects of a proposed development. The RWCDS focuses on the increment between the potential development that would be permitted with and without the proposed action(s). The RWCDS for the Proposed Action analyzed the increment between the Future No-Action and Future With-Action on future development sites in the Project Area.

As defined in the *CEQR Technical Manual*, one Projected Development Site (i.e., a site that is likely to be developed due to a proposed action within a 10-year planning horizon) has been identified within the boundaries of the Project Area based on coordination with the New York City Department of City Planning (DCP). (See **Table A-1).**

Table A-1: Project Area Summary

Lot	Block	Development Site
100	2050	Projected Development Site
104	2050	N/A*

*Lot 104, Block 2050 is expected to remain in its existing conditions under the With-Action Analysis Scenario since the property is improved with a 7.5-FAR building that is occupied by non-profit operated women's and men's homeless shelters (262 beds total) that have a 20-year lease with the building owner, and a 9-year contract with the New York City Department of Homeless Services (DHS) and the New York City Human Resources Administration (HRA).

Lot 100 Block 2050 (Projected Development Site – Applicant Controlled)

The Projected Development Site is controlled by the Applicant and consists of Block 2050, Lot 100**.** Lot 100 is an irregular "L" shaped lot with 79 ft of frontage on Tillary Street (a wide street) and 87.75 ft of frontage on Prince Street (a narrow street). It borders Lot 104 (a corner lot) on both the eastern and southern lot lines of Lot 104. The Projected Development Site has a total lot area of 19,523.9 sf and is occupied by a five-story building built in 1948 that is used for storage and warehousing. The building has 114,500 gsf of floor area and an FAR of 5.86. Since it is in a residential zoning district (R6), the current use is non-conforming and the building is non-complying in floor area. The building is approximately 56 ft in height and covers all of its lot at the ground floor. It has two loading docks, each approximately 25 ft in width. The western edge of the curb cut is approximately 110 ft from the intersection of Tillary and Prince Streets.

Lot 104 Block 2050

Lot 4 Block 2050 **(Figure A-1)** has an approximate lot area of 8,753 sf with 96.5 ft. of frontage along Tillary Street. The 65,645 gsf, eight-story structure on Lot 104 is approximately 80 ft tall and has an FAR of 7.5. The lot is currently improved with a women's and men's homeless shelter comprised of 1) the 200-bed "Tillary Street Women's Shelter" operated by ICL (Institute for Community Living) for women with mental illness and co-morbid substance abuse disorders; and 2) the 62-bed "Opportunity House" men's shelter operated by CAMBA. Both ICL and CAMBA are non-profit, mission-driven organizations that have been providing services to New Yorkers in need, including the homeless, for 30 and 40 years, respectively. The shelter facility provides temporary housing, case management, housing referral and placement services, and on-site medical and mental health services. The shelter facility is operating under a 20-year lease with the building owner, and a one-year renewable funding agreement with New York City Department of Homeless Services (DHS) and the New York City Human Resources Administration (HRA).

Future No-Action Scenario

Absent the Proposed Actions, it is projected that the Project Area would remain in its current state, as under existing conditions. Based on coordination with DCP Brooklyn Borough Office, there is no known ongoing or proposed development within the Project Area other than the project proposed by the Applicant.

Future No-Action Development Projects

Based on coordination with the DCP Brooklyn Borough Office and a review of recent building permits through the New York City Department of Buildings (DOB), five projects were identified within approximately 0.25 miles of the Development Site that would potentially be fully occupied by the end of 2020 **(Figure A-7: No-Action Development Projects).** These No-Action development projects would generate a combined 1,877 DUs[2], 354,026 gsf of commercial/retail space, 7000 gsf of community facility space, 386,000 gsf of academic/institutional space, and 127,000 gsf of light industrial space. These five projects are listed in **Table A-2.**

[2] The number of dwelling units estimated for each No-Action project was determined by applying the density allowance under current zoning to the total residential floor area.

Table A-2: No-Action Development Projects

Map No.	Address	Block and Lot	Description
1	63 Flushing Ave	Block 2023, Lot 50	293,000 gsf development complex with a 74,000 gsf supermarket, 127,000 gsf of light industrial space, 79,000 gsf of retail for local stores, and 7,000 gsf of community facility space
2	141 Willoughby St	Block 2060, Lots 1,4 and 8	372,078 gsf mixed-use development with 29,923 gsf of retail space, 94,103 gsf of commercial office space and 248,052 gsf of residential floor area
3	285 Jay St	Block 131, Lot 1	386,000 gsf academic building
4	86 Fleet Pl	Block 2061, Lot 50	400,000 gsf mixed-use development with 10,000 gsf of retail space and 390,000 gsf of residential use
5	138 Willoughby St	Block 149, Lot 1	705,000 gsf mixed-use development with 67,000 gsf of retail space and 638,000 gsf of residential use

Future With-Action Scenario

A mixed-use building taller than the Proposed Development that conforms to the Tower Regulation requirements will be considered in the assessment of the potential impacts of the Proposed Actions, since assessment of a larger building would result in disclosure of the maximum potential impacts of the Proposed Action. This scenario assumes the transfer of air rights from the portion of Lot 1 owned by NYCHA that is included within the Project Area (162,634.2 sf) and Lot 104 in Block 2050 (21,991 sf).[3] Under this scenario, the Development Site would consist of two buildings (referenced to as "Building A1", and "Building B1" below) that together would result in an approximately 441,363 gsf mixed-use development with a residential FAR of 9.13, a commercial/retail FAR of 0.85, 72 underground, attendant-staffed parking spaces, and 220 bicycle parking spaces. Uses would include approximately 326 market-rate DUs and 109 affordable DUs[4] at or below 60% AMI (25% of total DUs), approximately 13,721 gsf of UG 6 commercial/retail space on the ground floor and a locally-oriented 21,991 gsf health and physical culture facility (gym) located above the ground floor retail use.

Though the Proposed Development would only include residential units with street-level retail, consistent with development in the surrounding area, since the proposed C6-4 zoning district permits more commercial floor area, additional commercial floor area above the ground floor retail was assumed for conservative analysis purposes. However, for reasons discussed below, the amount and type of commercial floor area that could feasibly be located above ground floor retail within a development at the Project Site is very limited.

[3] Due to the height and bulk limitation within the Flatbush Avenue Extension Height Limitation Area, 21,991 sf from Lot 104 in Block 2050 is the maximum amount of air rights that will be able to be accommodated in the Applicant's Site (Lot 100 Block 2050).
[4] An average dwelling unit size of 850 zoning floor area (ZFA) was used to estimate the number of dwelling units under the Future With-Action Scenario to comply with apartment size regulations and dwelling unit distribution ratios set by the New York City Department of Housing Preservation and Development (HPD).

Existing land use in the Study Area is predominately residential, and recent development has reinforced the residential character of the area. On January 9, 2017, a land use survey was conducted of new development (within the past 12 years) near the Project Site (east of Flatbush Avenue), and within the vicinity of the Jay-Street MetroTech subway station (west of Flatbush Avenue). See **Table A-3** and **Figure A-6: Recent Developments Map**. Recent buildings with office space are concentrated west of Flatbush Avenue, in greater proximity to subway stations. Recent development east of Flatbush Avenue consists of residential developments with retail use only on the ground floor, likely due to the greater distance from subway stations that serve the area and the prevailing residential character established by the 21-building Ingersoll Houses.

Table A-3: Recent Developments

Map Reference	Address	Ground Floor Use	Upper Level Use
East of Flatbush			
2	309 Gold Street	Retail	Residential
3	176 Johnson Street	Retail	Residential
4	150 Myrtle Avenue	Retail	Residential
5	306 Gold Street	Retail	Residential
6	343 Gold Street	Retail	Residential
7	81 Fleet Place	Retail	Residential
8	277 Gold Street	Retail	Residential
9	170 Tillary Street	Residential	Residential
10	235 Gold Street	Retail	Residential
West of Flatbush			
11	350 Jay Street	Retail	Commercial (Hotel)
12	339 Adams Street	Retail	Commercial (Hotel)
13	345 Adams Street	Retail	Commercial (Office)
14	80 Tech Place	N/A	Commercial (Office)
15	100 Myrtle Street	Retail	Commercial (Office)
16	115 Myrtle Street	Retail	Commercial (Office)
17	57 Willoughby Street	Retail	Commercial (Office)
18	300 Jay Street	N/A	Public Facility (CUNY)
19	327 Jay Street	Retail	Public Facility (NYU)
20	330 Jay Street	N/A	Public Facility (Court House)

Based on the results of this survey, it is reasonable to conclude that mixed residential and commercial development with significantly more than one floor of commercial would not be a viable development program for the Project Site and would be difficult to finance. While unlikely, it is possible that an additional one or two floors of non-residential use, depending upon the use, could be feasible.

Commercial uses that could be included for purposes of this conservative CEQR analysis were considered and it was determined that the only other potentially feasible use (besides retail) on the Project Site would be a health and physical culture facility (gym), due to untapped demand in the area, the local nature of this type of use, and the upper floor location and square footage. There is an observed need for a health and fitness facility in the general area near the Project Site, and the health and fitness facility would provide a

needed facility for use by residents of the adjacent Ingersoll Houses, which contain 1,826 apartments within walking distance. As part of the NYCHA Next Generation Vision Study published in 2016, Ingersoll Houses' residents identified improving accessibility and quality of playgrounds and recreational facilities as a priority along with the creation of affordable services. Moreover, Council Member Laurie Cumbo, who represents CD 2 in which the Development Site is located, supports the creation of additional health and fitness services that can benefit the local community. Practically, a gym would be an ideal tenant for this type of commercial space since physical culture establishments often seek a 2nd floor or cellar location, usually above or below other retail use, with approximately 15,000 to 20,000 square feet of space and access from a small ground floor lobby. Having a gym tenant on an upper floor is often an incentive for potential ground floor retail tenants, making that space more attractive due to the additional foot traffic the gym draws. Lastly, proximity to transit is not critical in a dense residential area, as the gym's membership would be local.

Other uses considered for inclusion in the development program on the upper floors of the proposed project for CEQR assessment purposes included retail uses, office use, and medical offices. While other uses such as commercial office space or medical office space would be allowed under the proposed rezoning, these types of uses are typically located in buildings with greater accessibility to transit services as shown from the results of the land use survey. Since the Development Site is located 10 to 15 minutes walking distance from the nearest subway station, it is unlikely that most commercial uses with a greater reliance on transit access would be viable, especially given the limited floor area available. Therefore, a locally-oriented 21,991 gsf health and physical culture facility located above the proposed ground floor retail use was considered most likely for purposes of this With-Action Scenario.

Of the 72 attendant-staffed underground parking spaces that would be provided, 65 would be accessory residential parking pursuant to ZR 25-23 (parking requirements are waived for affordable DUs in designated Transit Zones pursuant to ZR 25-251). The remaining seven parking spaces (10% of total parking spaces) would be set aside as reservoir parking (pursuant to ZR 101-52). Parking requirements for the proposed commercial/retail and community facility program are waived pursuant to ZR 36-20 and ZR 25-31. Access to the underground parking garage would be provided on Prince Street.

The Tower Regulation With-Action Analysis Scenario is described below:

- **Building A1** would consist of 42 stories of residential use (204,478.5 gsf) and would occupy the northern portion of the lot facing Tillary Street.
- **Building B1** would consist of 42 stories of residential use (178,722.5 gsf) and would occupy the southern portion of the lot facing Prince Street.
- **Commercial Use** would be located on the first and second floor and connect both buildings A1 and B1, totaling 35,712 gsf with 13,721 gsf of local retail and a 21,991 gsf physical culture establishment.

Future With-Action Scenario – Air Quality

A shorter building would present a more conservative analysis scenario for purposes of the CEQR stationary-source Air Quality impact assessment. Therefore, under the "With-Action Scenario – Air Quality", development on the Development Site would be assumed to be the same as that described in Section VII, "Description of the Proposed Development," and would consist of two buildings (referenced to as "Building A", and "Building B" below) that together would result in an approximately 266,542 gsf structure with a residential FAR of 11.3, a commercial/retail FAR of 0.7, 44 underground, attendant-staffed, parking spaces, and 132 bicycle parking spaces. Proposed uses would include approximately 234,316 gsf of UG 2 residential DUs comprised of 196 market-rate DUs and 66 affordable DUs (25% of total DUs) at or below

80% AMI, and approximately 13,723 gsf of UG 6 commercial/retail space on the ground floor of both Building A and Building B.

Of the 41 attendant-staffed underground parking spaces that would be provided, 39 would be accessory residential parking pursuant to ZR 25-23 (parking requirements are waived for affordable DUs in designated Transit Zones pursuant to ZR 25-251). The remaining two parking spaces (5% of total parking spaces) would be set aside as reservoir parking (pursuant to ZR 101-52). Parking requirements for the proposed commercial/retail program are waived pursuant to ZR 36-20. Access to the underground parking garage would be provided on Prince Street.

Program distribution for the Proposed Development is outlined below:

- **Building A** would consist of 23 stories of residential DUs (146,596 gsf) and would occupy the northern portion of the lot facing Tillary Street.
- **Building B** would consist of 21 stories of residential DUs (87,720 gsf) and would occupy the southern portion of the lot facing Prince Street.
- **Commercial Use** would be located on the first floor and connect both building A and B, totaling 13,723 gsf.

VIII. CONCLUSION

In conformance to guidance in the *CEQR Technical Manual*, the framework for analysis in the EAS is established by identifying the incremental change that would occur in the With-Action scenario as measured against the No-Action scenario. For the purposes of this EAS, the framework for analysis, will be based on the incremental increase of 435 residential DUs (383,201 gsf), inclusive of 109 affordable DUs at or below 60% AMI (25% of total residential DUs), and 35,712 gsf of commercial/retail use to the Development Site. As described previously, a more conservative analysis scenario will be used to assess stationary-source Air Quality impacts, and include the incremental increase of 262 residential DUs (234,316 gsf), inclusive of 66 affordable DUs at or below 60% AMI (25% of total residential DUs), and 13,723 gsf of ground floor retail use to the Development Site.

Table A-4: Description of Existing and Proposed Conditions: With-Action Analysis Scenario

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
LAND USE				
Residential	☐ YES ☒ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Describe type of residential structures			Multi-Family Elevator Residential	Multi-Family Elevator Residential
No. of market-rate dwelling units	0	0	326	+326 units
No. of low- to moderate-income units	0	0	109	+109 units
Total dwelling units			435	+435 units
Gross floor area (sq. ft.)	0	0	383,201 gsf	+383,201 gsf
Commercial	☐ YES ☒ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Describe type (retail, office, other)			Ground floor retail and second floor gym	Ground floor retail and second floor gym
Gross floor area (sq. ft.)	0		35,712 gsf	+35,712 gsf
Manufacturing/Industrial	☒ YES ☐ NO	☒ YES ☐ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Type of use	Self-storage facility	Self-storage facility		
Gross floor area (sq. ft.)	114,500 gsf	114,500 gsf	0	-114,500 gsf
Open storage area (sq. ft.)	0	0	0	
If any unenclosed activities, specify:				
Community Facility	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Type				
Gross floor area (sq. ft.)				
Vacant Land	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:				
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			72	+72
Lots	☒ YES ☐ NO	☒ YES ☐ NO	☐ YES ☒ NO	
If "yes," specify the following:				
No. of public spaces				
No. of accessory spaces	12	12	0	-12
ZONING				
Zoning classification	R6	R6	C6-4	C6-4
Maximum amount of floor area that can be developed	0.78-2.43	0.78-2.43	12	
Predominant land use and zoning classifications within land use study area(s) or a 400 ft. radius of proposed project	R6, C6-2, C6-4	R6, C6-2, C6-4	R6, C6-2, C6-4	R6, C6-2, C6-4

Table A-5: Description of Existing and Proposed Conditions:
With-Action Analysis Scenario – Air Quality

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
LAND USE				
Residential	☐ YES ☒ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Describe type of residential structures			Multi-Family Elevator Residential	Multi-Family Elevator Residential
No. of market-rate dwelling units	0	0	196	+196 units
No. of low- to moderate-income units	0	0	66	+66 units
Total dwelling units			262	+262 units
Gross floor area (sq. ft.)	0	0	234,316 gsf	+234,316 gsf
Commercial	☐ YES ☒ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Describe type (retail, office, other)			Ground floor retail	Ground floor retail
Gross floor area (sq. ft.)	0		13,723 gsf	+13,723 gsf
Manufacturing/Industrial	☒ YES ☐ NO	☒ YES ☐ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Type of use	Self-storage facility	Self-storage facility		
Gross floor area (sq. ft.)	114,500 gsf	114,500 gsf	0	-114,500 gsf
Open storage area (sq. ft.)	0	0	0	
If any unenclosed activities, specify:				
Community Facility	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Type				
Gross floor area (sq. ft.)				
Vacant Land	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:				
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			41	+41
Lots	☒ YES ☐ NO	☒ YES ☐ NO	☐ YES ☒ NO	
If "yes," specify the following:				
No. of public spaces				
No. of accessory spaces	12	12	0	-12
ZONING				
Zoning classification	R6	R6	C6-4	C6-4
Maximum amount of floor area that can be developed	0.78-2.43	0.78-2.43	12	
Predominant land use and zoning classifications within land use study area(s) or a 400 ft. radius of proposed project	R6, C6-2, C6-4	R6, C6-2, C6-4	R6, C6-2, C6-4	R6, C6-2, C6-4

Attachment B: Supplemental Screening

I. PROJECT DESCRIPTION

See Attachment A, "Project Description."

II. LAND USE, ZONING AND PUBLIC POLICY

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

III. SOCIOECONOMIC CONDITIONS

See Attachment D, "Socioeconomic Conditions."

IV. COMMUNITY FACILITIES AND SERVICES

See Attachment E, "Community Facilities and Services."

V. OPEN SPACE

See Attachment F, "Open Space."

VI. SHADOWS

See Attachment G, "Shadows."

VII. HISTORIC & CULTURAL RESOURCES

Architectural Resources

According to the *CEQR Technical Manual*, regardless of whether any known historic resources are located near the site of the project, architectural resources should be surveyed and assessed if a proposed project would result in any of the following:

- New construction, demolition, or significant physical alteration to any building, structure, or object;
- A change in scale, visual prominence, or visual context of any building, structure, object, or landscape feature;
- Construction, including, but not limited to, excavating vibration, subsidence, dewatering, and the possibility of falling objects;
- Additions to, or significant removal, grading, or replanting of, significant historic landscape features;
- Screening or elimination of publicly accessible views; or

- Introduction of significant new shadows of significant lengthening of the duration of existing shadows on a historic landscape or on a historic structure if the features that make the structure significant depend on sunlight

The Proposed Actions would result in demolition and construction activities and the development of new residential and mixed-use buildings that would be of a larger scale than those that currently exist on the Development Site. The New York City Landmarks Preservation Commission (LPC) was consulted in February 2017 and determined that there are no significant historic landscape features on the Development Site, no culturally or historically significant publicly accessible view corridors, and no historic landscapes or structures with features that depend on sunlight. No designated architectural resources or resources potentially eligible for designation by LPC were identified **(Appendix A)**. Therefore, in accordance with CEQR guidelines, no further analysis of architectural resources is required.

Archaeological Resources

According to the *CEQR Technical Manual*, regardless of whether any known historic resources are located near the site of the project, archaeological resources should be assessed for projects that would result in any in-ground disturbance to an area not previously excavated, including new excavation that is deeper and/or wider than previous excavation on the same site. Examples of projects that typically require assessment are:

- Above-ground construction resulting in-ground disturbance, including construction of temporary roads and access facilities, grading, or landscaping.
- Below-ground construction, such as installation of utilities or excavation, including that for footings or piles

The Proposed Actions would result in-ground disturbance to areas that have not been previously excavated or new excavation that is deeper and/or wider than previous excavation on the same site. LPC was consulted in February 2017, and concluded neither new/additional in-ground disturbance as a result of the Proposed Actions on the Development Site would not have any archaeological significance **(Appendix A).** Therefore, in accordance with CEQR guidelines, no further analysis of archaeological resources is required.

VIII. URBAN DESIGN & VISUAL RESOURCES

See Attachment H, “Urban Design & Visual Resources.”

IX. NATURAL RESOURCES

According to Chapter 11 of the *CEQR Technical Manual*, a natural resources assessment should be conducted if there is a natural resource on or near the project site. The Development Site and its immediate surrounding area does not have any classified water bodies, unique geological features, state-regulated freshwater wetlands, rare plants and rare animals, or significant natural communities, according to the New York Natural Heritage Program’s Ecological Communities of New York State publication. Therefore, a natural resources assessment is not warranted.

X. HAZARDOUS MATERIALS

See Attachment I, “Hazardous Materials.”

XI. WATER AND SEWER INFRASTRUCTURE

See Attachment J, "Water and Sewer Infrastructure."

XII. SOLID WASTE AND SANITATION SERVICES

According to Chapter 14 of the *CEQR Technical Manu*al, a solid waste and sanitation assessment should be conducted if a project has the potential to cause a substantial increase in solid waste production that may overburden available waste management capacity or otherwise be inconsistent with New York City Solid Waste Management Plan. However, CEQR guidance recommends that the solid waste and service demand generated by a project be disclosed.

According to Attachment A, "Project Description," the Proposed Actions would result in a net increase of 435 residential DUs (383,201 gsf) and 35,712 gsf of commercial/retail use on the Development Site. According to Table 14-1 of the *CEQR Technical Manual*, the proposed project would generate an estimated additional 20,656 pounds of solid waste per week, which is below the 100,000 pounds per week threshold. Therefore, a detailed solid waste generation analysis is not warranted.

XIII. ENERGY

According to Chapter 15 of the *CEQR Technical Manual*, a detailed assessment of energy impacts is limited to projects that may significantly affect the transmission of energy. While significant adverse energy impacts are not anticipated for the great majority of projects analyzed under CEQR, the manual recommends that the projected amount of energy consumption during long-term operation be disclosed in the environmental assessment.

According to Attachment A, "Project Description," the Proposed Actions would result in a net increase of 435 residential DUs (383,201 gsf) and 35,712 gsf of commercial/retail use on the Development Site. According to Table 15-1 of the *CEQR Technical Manual*, the proposed project would generate approximately 56,276,072 MBtus. Since the Proposed Action would not adversely affect the transmission or generation of energy, a detailed assessment of energy impact is not warranted.

XIV. TRANSPORTATION

See Attachment K, "Transportation."

XV. AIR QUALITY

See Attachment L, "Air Quality."

XVI. NOISE

See Attachment M, "Noise."

XVII. PUBLIC HEALTH

According to Chapter 20 of the *CEQR Technical Manual*, a public health analysis is required if significant unmitigated adverse impacts are found in other CEQR analysis areas, such as air quality, water quality, hazardous materials, or noise. Since the Proposed Actions would not result in any significant adverse impacts for the above impact assessment categories, a detailed analysis of public health is not warranted.

XVIII. NEIGHBORHOOD CHARACTER

According to Chapter 21 of the *CEQR Technical Manual*, a neighborhood character assessment is required if significant unmitigated adverse impacts are found in other CEQR analysis areas such as land use, zoning and public policy, socioeconomic conditions, open space, historic and cultural resources, urban design and visual resources, shadows, transportation, and noise.

As described elsewhere in this Environmental Assessment Statement (EAS), the Proposed Actions would not result in any significant adverse impacts on land use, zoning, and public policy, socioeconomic conditions, open space, historic and cultural resources, urban design and visual resources, transportation, or noise. Further the proposed project would not result in a combination of moderate effects to several elements that may cumulatively affect neighborhood character. Thus, the proposed project would not result in any significant adverse impacts to neighborhood character, and no further analysis of neighborhood character is warranted.

XIX. CONSTRUCTION

See Attachment N, “Construction.”

Attachment C: Land Use, Zoning and Public Policy

I. INTRODUCTION

As described in Section 210 of Chapter 4 of the *CEQR Technical Manual*, the Land Use, Zoning and Public Policy assessment evaluates the uses and development trends in the area and considers whether a proposed project is compatible with those conditions or may affect them. Similarly, the assessment considers the project's compliance with, and effect on, the area's zoning and other applicable public policies.

The Applicant has requested the rezoning of Lot 1 (p/o), 100, and 104 of Block 2050 in Brooklyn Community district 2 (the "Project Area") from its existing designation of R6 to C6-4 (R10 equivalent). The Proposed Actions would affect an area located at the intersection of Tillary Street and Prince Street. The Applicant also seeks a text amendment to Zoning Resolution (ZR) Appendix F to classify the Project Area as a *Mandatory Inclusionary Housing* (MIH) designated area, and a text amendment to ZR Appendix E to map the Project Area within the Special Downtown Brooklyn District.

As described in Attachment A, "Project Description", the With-Action scenario, compared to the No-Action scenario, would result in an incremental addition of 383,201 gsf of residential use and 35,712 gsf of commercial/retail use on Lot 100 Block 2050 in Brooklyn (the "Development Site"). A total of 435 residential dwelling units (DU), with 109 affordable DUs at or below 60% of Area Median Income (AMI), would be provided. In addition, approximately 13,721 gsf of Use Group (UG) 6 commercial/retail space would be provided on the ground floor, and a locally-oriented 21,991 gsf health and physical culture facility (gym), would be located above the ground floor retail use.

Guidance in the *CEQR Technical Manual* requires that a preliminary assessment, which includes a basic description of existing and future land uses and zoning, should be provided for all projects that would affect land use or would change the zoning on a site, regardless of the project's anticipated effects. In conformance to additional guidance in the *CEQR Technical Manual*, a detailed assessment of land use conditions should be undertaken if a detailed assessment is required in other technical areas. Since the Proposed Actions involve a rezoning, a detailed land use, zoning and public policy assessment has been conducted for the 2020 analysis year for the 400-foot buffer study area surrounding the Development Site. As indicated in the *CEQR Technical Manual*, the changes that would occur between the No-Action and With-Action scenarios are disclosed.

II. PRINCIPAL CONCLUSIONS

No significant adverse impacts on land use, zoning, or public policy, as defined in the *CEQR Technical Manual*, are anticipated in the future with the Proposed Actions. The Proposed Actions would not directly displace any land uses, adversely affect surrounding land uses, or generate land uses that would be incompatible with land uses, zoning, or public policy in the study area.

While changes in land use and zoning would occur, the land use changes on the Development Site would be consistent with current development trends of large-scale mixed-use residential and commercial/retail developments in the surrounding area. The Proposed Actions would change zoning designations within the study area in a manner that is intended to promote affordable housing development, encourage economic development, create pedestrian-friendly streets, and improve existing community resources.

III. METHODOLOGY

The purpose of this attachment is to examine the effects of the Proposed Actions on land use, zoning, and public policy and determine whether they would result in significant adverse impacts.

As described in Attachment A, "Project Description," a reasonable worst case development scenario (RWCDS) was established to assess the potential effects of the Proposed Actions on land use, zoning and public policy for the 2020 analysis year. The identification of potential impacts of the Proposed Actions was based on the assessment of the incremental difference between the Future No-Action and Future With-Action scenarios that would occur on the Development Site.

In accordance with the *CEQR Technical Manual*, the detailed analysis describes existing and anticipated future conditions to a level necessary to understand the relationship of the Proposed Actions to such conditions. The detailed analysis assesses the nature of any changes to these conditions that could be created by the Proposed Actions in the 2020 analysis year for the study area **(Figure C-1: Land Use Map)**. Existing land uses were identified through the New York City Zoning and Land Use (Zola) database and PLUTO™ 15v1 shapefiles, which were verified through site visits. New York City Zoning Maps and the Zoning Resolution of the City of New York were consulted to describe existing zoning districts in the study areas, and provided the basis for the zoning evaluation of the Future No-Action and Future With-Action scenarios. Research was conducted to identify relevant public policy documents, recognized by DCP and other city agencies. Land use, zoning, and public policy are addressed and analyzed for the Proposed Actions within the study area, which extends an approximate 400-foot radius from the boundary of the Project Area and encompasses areas that would potentially experience indirect impacts as a result of the Proposed Actions. The study area was established in accordance with the guidelines set forth in the *CEQR Technical Manual* and are depicted in **Figure C-1.**

Source: NYCDCP, 2015 Pluto

Development Site

Project Area

Study Area Boundary

One & Two Family Residence

Multi-Family Residence (Walkup)

Multi-Family Residence (Elevator)

Mixed Residential & Commercial

Commercial Use

Industrial / Manufacturing

Transportation / Utility

Public Facilities & Institutions

Open Space & Recreation

Parking

Vacant Land

LAND USE MAP

Figure C-1

IV. EXISTING CONDITIONS

Land Use

Project Area

The Project Area is located at the intersection of Tillary Street and Prince Street in the Downtown Brooklyn neighborhood, and encompasses Lot 100, 104, and a portion of Lot 1 in Block 2050. Block 2050 is bounded by Tillary Street to the north, Navy Street to the east, Myrtle Avenue to the south, and Prince Street to the west. Block 2050 is a "superblock" occupied by the Project Area and 21 multi-family residential buildings, which are part of the Ingersoll Houses owned by NYCHA.

Lot 100, Block 2050 (Development Site) is controlled by the Applicant and is an irregular "L" shaped lot with 79 ft of frontage on Tillary Street (a wide street) and 87.75 ft of frontage on Prince Street (a narrow street). It borders Lot 104 (a corner lot) on both the eastern and southern lot lines of Lot 104. The Projected Development Site has a total lot area of 19,523.9 sf and is occupied by a five-story building built in 1948 that is used for storage and warehousing. The building has 114,500 gsf of floor area and an FAR of 5.86. Since it is in a residential zoning district (R6), the current use is non-conforming and the building is non-complying in floor area.

Lot 104, Block 2050 has an approximate lot area of 8,753 sf with 96.5 ft. of frontage along Tillary Street. The 65,645 gsf, eight-story structure on Lot 104 is approximately 80 ft tall and has an FAR of 7.5. It is occupied by a shelter facility comprised of 1) the 200-bed "Tillary Street Women's Shelter" operated by ICL (Institute for Community Living) for women with mental illness and co-morbid substance abuse disorders; and 2) the 62-bed "Opportunity House" men's shelter operated by CAMBA.

The portion of Lot 1, Block 2050 included in the Project Area has an approximate area of 13,552.9 sf with 40 ft of frontage on Tillary Street and 15.6 ft of frontage on Prince Street. It is immediately adjacent to the east and south of the Development Site. It is currently improved with 21 multi-family residential buildings, as part of the NYCHA Ingersoll Houses.

Study Area

Existing land uses within the Study Area are primarily residential with some institutional, manufacturing, and transportation/utility uses **(Figure C-1)**. While there are no open space resources within the Study Area, Commodore Barry Park, Golconda Playground, and McLaughlin Park are located immediately outside of the Study Area. Land uses in the Study Area immediately south and east of the Project Area include the Ingersoll Houses, which is a grouping of 21 multi-family residential buildings with 1,826 DUs, owned by the New York City Housing Authority (NYCHA) and mixed-use residential developments with ground floor commercial/retail uses. Land uses west of the Project Area include the New York City Police Department (NYPD) 84th Precinct station, and a Fire Department of New York City (NYFD) fire station located on the west side of Prince Street. Retail uses are prevalent along the Flatbush Avenue Extension, which serves as a major retail corridor just west of the Study Area **(Figure C-1)**. As illustrated by the land use map **(Figure C-1)** existing land uses to the east of Flatbush Avenue Extension (where the Project Area is located) are predominately residential with ground floor retail use, while commercial development is more prevalent to the west of Flatbush Avenue Extension.

Zoning

Project Area

The Project Area is currently zoned R6, which is commonly mapped in built-up, medium-density areas in Brooklyn, Queens and the Bronx **(Figure C-2: Zoning Map)**. Developers can choose between two sets of bulk regulations under the R6 zoning classification: (1) Standard Height Factor (SHF) Regulations, which typically produce small multi-family buildings on small zoning lots and, on larger lots, tall buildings that are set back from the street; (2) Quality Housing Program (QHP) Regulations, which typically produce high lot coverage buildings within height limits. Under the SHF Regulations, the maximum floor area ratio (FAR) in R6 districts ranges between 0.78 and 2.43; the open space ratio (OSR) ranges between 27.5 and 37.5. Height limits for SHF buildings must be set within a sky exposure plane, which begins at a height of 60 ft above the street line and then slopes inward over the zoning lot. Off-street parking is required for 70% of a building's DUs. Under QHP regulations, developers are permitted an FAR of 3.0 (outside of the Manhattan Core) that can increase the allowable FAR to 3.6 for developments participating in the Inclusionary Housing Program, on or within 100 ft of a wide street, with a maximum base height of 60 ft before a required setback of 10 ft, and a maximum building height of 70 ft. An FAR of 2.2 is permitted on a narrow street, which can be increased to 2.42 FAR when participating in the Inclusionary Housing Program, with a maximum base height of 45 ft before a required setback of 15 ft, and a maximum building height of 55 ft. The area between a building's street wall and the street line must be planted and the buildings must have interior amenities for the residents pursuant to the QHP. Off-street parking, which is not permitted in front of a building, is required for 50% of all DUs and can be waived if fewer than five parking spaces are required.

Study Area

The predominant existing zoning district in the study area is R6, which is also mapped over the Project Area and described above. Additional existing zoning districts within the study area include C6-4, which is mapped immediately west of the Project Area as part of the Special Downtown Brooklyn District, and is included in the Proposed Actions as a zoning map amendment to rezone the Project Area from its existing zoning designation of R6 to C6-4 (R10 equivalent). The area northwest of the Project Area is mapped as C6-2, and would not be affected by the Proposed Actions.

C6-4 (R10 Equivalent)

C6-4 districts are typically mapped within the city's major business districts and have a maximum commercial and residential FAR of 10, which can be increased with the provision of a public plaza or participation in the Inclusionary Housing Program. R10 designation represents the highest residential density in the city and can be found in commercial districts with a residential district equivalent of R10. Developers may choose between QHP regulations or Tower regulations with residential and mixed buildings eligible to receive residential FAR bonus for the creation or preservation of income-restricted housing, pursuant to the Inclusionary Housing Program (up to 12 FAR).

QHP regulations produce large, high lot coverage buildings set at or near the street line which maintain the traditional street wall found along major streets and avenues. On wide streets (75 feet or more), the base height before setback is 125 to 150 feet with a maximum building height of 210 feet. On narrow streets (75 feet or less), the base height before setback is 60 to 125 feet with a maximum building height of 185 feet.

Tower regulations allow buildings to penetrate the sky exposure plane, which results in buildings taller than those allowed under WHP regulations. Within the context of the Special Downtown Brooklyn District, for buildings that contain residential floor area above a height of 85 feet, the tower portion must be set back at least 10 feet from a wide street and 15 feet from a narrow street. All buildings shall have a maximum lot coverage of 65% of the lot area of the zoning lot above a height of 150 feet, up to a height of 300 feet.

Above a height of 300 feet, all buildings shall have a maximum lot coverage of 50% of the lot area of the zoning lot. However, any portion of a building containing residential floor area above a height of 150 feet shall have a maximum lot coverage of 40% of the lot area of the zoning lot.

Public Policy

Applicable public policies include the Food Retail Expansion to Support Health (FRESH) Program, the *One New York: The Plan for a Strong and Just City (OneNYC)*, and the Special Downtown Brooklyn District. The land use study area falls outside of New York City's coastal zone boundary and therefore would not be subject to the City's Waterfront Revitalization Program. Neither the Project Site nor land use study area are subject to 197-a plans.

Food Retail Expansion to Support Health (FRESH) Program

The FRESH Program promotes the establishment and retention of neighborhood grocery stores in underserved communities by providing zoning and financial incentives to eligible grocery store operators and developers. The land use study area is located within a FRESH program area that provides discretionary financial incentives to promote the establishment and retention of neighborhood grocery stores, including real estate tax reductions, sales tax exemption, and mortgage recording tax deferral.

Stores that benefit from the FRESH program must also meet the following criteria:

a) Provide a minimum of 6,000 sf of retail space for a general line of food and non-food grocery products intended for home preparation, consumption and utilization;
b) Provide at least 50 percent of a general line of food products intended for home preparation, consumption and utilization;
c) Provide at least 30 percent of retail space for perishable goods that include dairy, fresh produce, fresh meats, poultry, fish and frozen foods; and
d) Provide at least 500 sf of retail space for fresh produce.

One New York: The Plan for a Strong and Just City (OneNYC)

OneNYC is the City's long-term sustainability plan to address New York City's long-term challenges: the forecast of nine million residents by 2040, changing climate conditions, an evolving economy, and aging infrastructure. The plan sets goals and targets that are both aspirational and achievable, encompassing both short-term actions and ambitious plans to address future challenges. Originally released in 2007, and updated most recently in 2011 and 2015 under Local Law 84 (2013), a long-term plan that considers population projections, housing, air quality, coastal protections, and other sustainability and resiliency factors is required every four years on Earth Day. The plan is divided into four visions for a stronger, more equitable, more sustainable, and more resilient New York City, and includes over 200 new initiatives, with over 80 specific new metrics and targets. *OneNYC* represents a unified vision for a sustainable, resilient, and equitable city and charts the path for collectively achieving this goal.

Special Downtown Brooklyn District

The Special Downtown Brooklyn District establishes special height and setback regulations and urban design guidelines to promote and support the continued growth of Downtown Brooklyn as a unique mixed-use area. The economic, civic and retail center of the borough, Downtown Brooklyn is the city's third largest central business district – a hub of office buildings, courthouses and government buildings, major academic and cultural institutions, and active retail corridors, surrounded by historic residential neighborhoods. District-specific flexible height and setback regulations have been established for a range of moderate- to high-density residential and commercial zoning districts facilitate development on the small, irregularly-shaped lots typical of Downtown Brooklyn. The higher density zoning districts allow either Quality Housing buildings with height limits or Tower regulations. The Inclusionary Housing Program, applicable for high-density zoning districts, offers FAR incentives for the provision of affordable housing. The moderate-density zoning districts allow for flexible building envelopes with height limits. A height limitation area is designated on Schermerhorn Street and Flatbush Avenue Extension as a transition between the high-rise core of the central business district and adjacent residential neighborhoods. Urban design guidelines promote ground floor retail and street wall continuity, storefront glazing, sidewalk widening, curb cut restrictions and off-street relocation of subway stairs.

The Special Downtown Brooklyn District regulations modify certain zoning regulations that would be otherwise applicable to a particular underlying zoning district, including use regulations (for example, the Special District requires certain ground floor retail uses and transparency) and bulk regulations (for example, in certain districts the floor area provisions are modified, as are the otherwise applicable height and setback and tower regulations). There are also Height Limitation Areas and mandatory district plan elements that apply to certain areas within the Special District (as per the maps contained in Appendix E), such as street wall location, sidewalk widening and relocation of subway stairs. Finally, there are special parking and loading regulations which apply in the Special District, modifying the otherwise applicable parking regulations (for example, off-site parking location).

V. FUTURE WITHOUT PROPOSED ACTIONS

Land Use, Zoning and Public Policy

Project Area

Absent the Proposed Actions, the Project Area, inclusive of the Development Site would remain as under existing conditions in the 2020 analysis year. No zoning changes would occur.

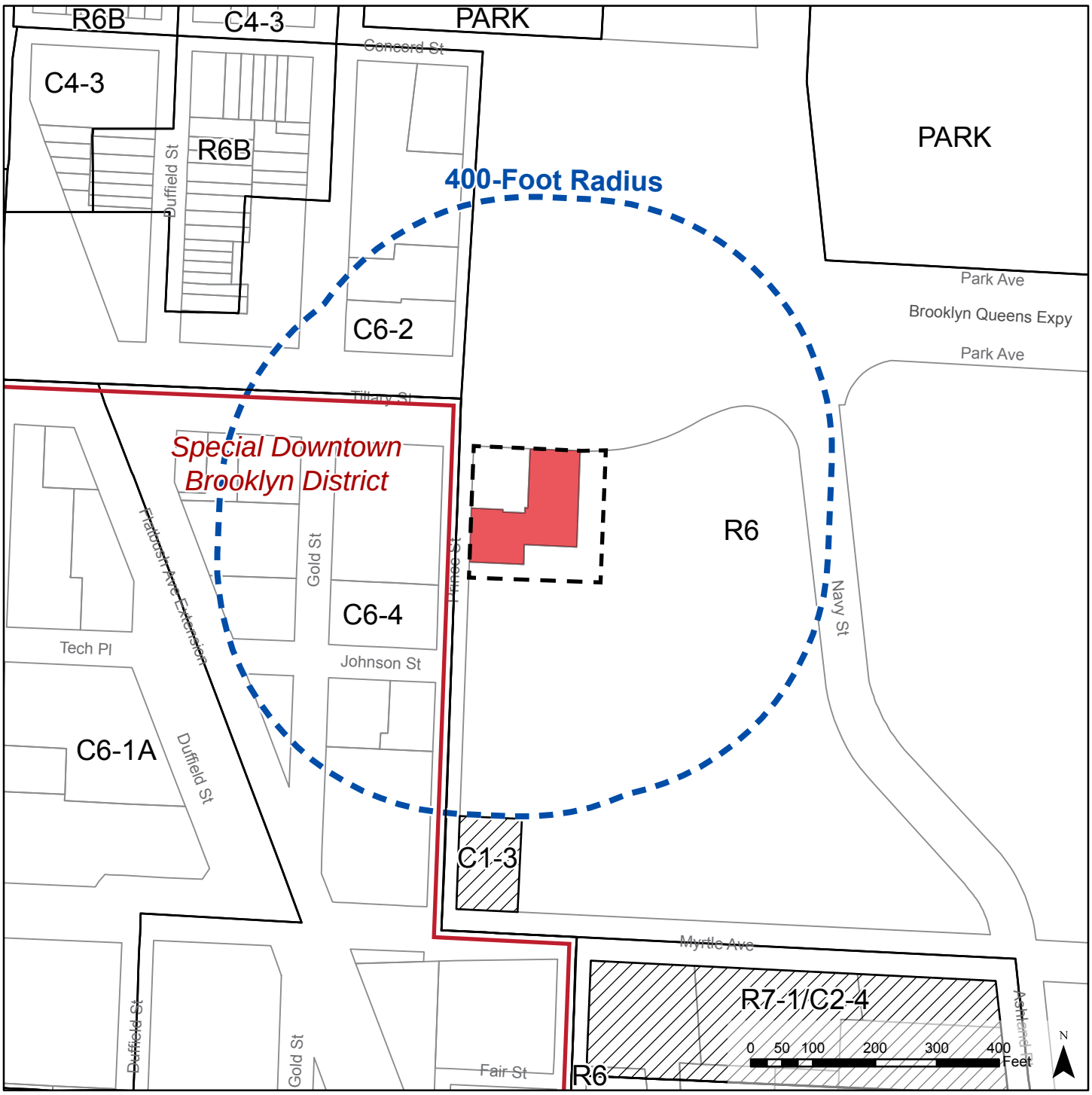
Study Area

As described in detail in Attachment A, "Project Description," five projects have been identified within approximately 0.25-mile of the Development Site that would potentially be completed and occupied by the end of 2020. All are independent of the Proposed Actions **(Table** C-1 and **Figure C-2: No-Action Sites)**. These "Future No-Action" projects would generate a combined total of 1,877 DUs, 354,026 gsf of commercial/retail space, 7000 gsf of community facility space, 386,000 gsf of academic/institutional space, and 127,000 gsf of light industrial space.

Table C-1: Future No-Action Development Sites

Map No.	Address	Block and Lot	Description

1	63 Flushing Ave	Block 2023, Lot 50	293,000 gsf development complex with a 74,000 gsf supermarket, 127,000 gsf of light industrial space, 79,000 gsf of retail for local stores, and 7,000 gsf of community facility space
2	141 Willoughby St	Block 2060, Lots 1,4 and 8	372,078 gsf mixed-use development with 29,923 gsf of retail space, 94,103 gsf of commercial office space and 248,052 gsf of residential floor area
3	285 Jay St	Block 131, Lot 1	386,000 gsf academic building
4	86 Fleet Pl	Block 2061, Lot 50	400,000 gsf mixed-use development with 10,000 gsf of retail space and 390,000 gsf of residential use
5	138 Willoughby St	Block 149, Lot 1	705,000 gsf mixed-use development with 67,000 gsf of retail space and 638,000 gsf of residential use



Source: NYCDCP, 2015 Pluto

Development Site

Project Area

Study Area Boundary

Special Downtown Brooklyn District

EXISTING ZONING MAP

Figure C-2

VI. FUTURE WITH PROPOSED ACTIONS

Land Use and Zoning

Project Area

In the future with the Proposed Actions, the Project Area would be rezoned from R6 to C6-4 (R10 equivalent) in addition to participation in the MIH program, inclusion within the Special Downtown Brooklyn District and subject to the provisions of the Flatbush Avenue Extension Height Limitation Area.

The zoning map amendment from R6 to C6-4 would continue to permit residential use, with an increase in FAR from 2.43 to 12 (with MIH). It would also allow commercial use in the Project Area. This amendment would extend the exact same zone that is across Prince Street to this Project Area. It is an appropriate change since the Project Area's zoning and current use is inconsistent with the adjacent zoning to its west and through this change would permit development consistent with the remainder of Downtown Brooklyn. Since the Project Area would also be designated through a zoning text change as a MIH Area this zoning amendment and text change would be consistent with the City's new policy of requiring Inclusionary Housing in areas that are rezoned to allow increased density. Thus 25% of the units in the development will be permanently affordable. The third action, the extension of the Special Downtown Brooklyn District (and the Flatbush Avenue Extension Height Limitation Area: Height Restriction of 400 Feet) to include the Development Site, would recognize this site's location in the Downtown core and require development consistent with the goals of the special district

<u>Development Site</u>

The C6-4 (R10 equivalent) zoning, participation in the MIH program and inclusion within the Special Downtown Brooklyn District would allow for an appropriate density and floor area to achieve the affordable housing goals of the Proposed Development, while maintaining the financial viability of the Proposed Project.

Under the Future With-Action Scenario, a mixed-use building taller than that included in the Proposed Development, which conforms to the Tower regulation requirements will be considered in the assessment of the potential impacts of the Proposed Actions, since assessment of a larger building would result in disclosure of the maximum potential impacts of the Proposed Actions. This scenario assumes the transfer of air rights from the portion of Lot 1 owned by NYCHA that is included within the Project Area (162,634.2 sf) and Lot 104 in Block 2050 (21,991 sf). Under this scenario, the Development Site would be improved with two new buildings (referenced to as "Building A1", and "Building B1" below) that together would result in an approximately 441,363 gsf mixed-use development with a residential FAR of 9.13, a commercial/retail FAR of 0.85, 72 underground, attendant-staffed parking spaces, and 220 bicycle parking spaces. Uses include approximately 326 market-rate DUs and 109 affordable DUs at or below 60% AMI (25% of total DUs), approximately 13,721 gsf of UG 6 commercial/retail space on the ground floor and a locally-oriented 21,991 gsf health and physical culture facility (gym) located above the ground floor retail use.

Of the 72 attendant-staffed underground parking spaces that would be provided, 65 would be accessory residential parking pursuant to ZR 25-23 (parking requirements are waived for affordable DUs in designated Transit Zones pursuant to ZR 25-251). The remaining seven parking spaces (10% of total parking spaces) would be set aside as reservoir parking (pursuant to ZR 101-52). Parking requirements for the proposed commercial/retail and community facility program are waived pursuant to ZR 36-20 and ZR 25-31. Access to the underground parking garage would be provided on Prince Street.

Study Area

The Proposed Development would be compatible with land uses within the land use study area, which primarily consists of multi-family residential apartments with ground floor supportive retail. Land use patterns and trends, supporting residential development, would continue as under the No-Action condition. The Proposed Actions would not require zoning changes outside the Project Site.

Public Policy

FRESH Program

The Proposed Actions would not directly displace any FRESH grocery stores. It would also not affect the goals of FRESH in the land use study area, which is to encourage the development and retention of convenient, accessible stores that provide fresh meat, fruit and vegetables, and other perishable goods in addition to a wide range of grocery products.

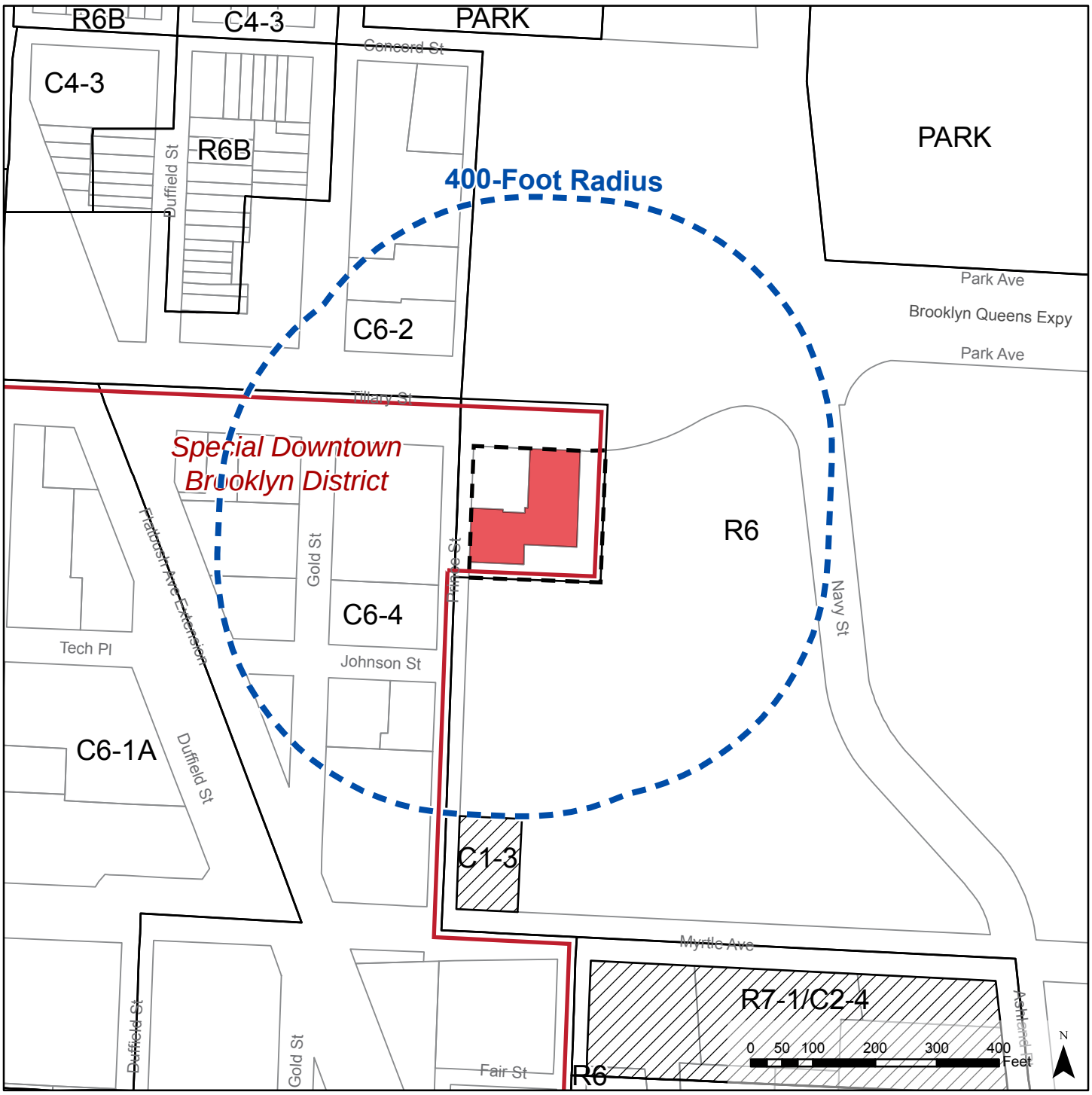
One New York: The Plan for a Strong and Just City (OneNYC)

The Proposed Actions would be consistent with *OneNYC*, specifically Initiative 1 related to housing under, "Vision 1: Our Growing, Thriving City."

Initiative 1 for Housing states, "Create and preserve 200,000 affordable housing units over ten years to alleviate New Yorkers' rent burden and meet the needs of a diverse population. Support efforts by the private market to produce 160,000 additional new units of housing over ten years to accommodate a growing population." The Proposed Actions would facilitate the development of approximately 435 DUs to the neighborhood, which would include a mix of market-rate and approximately 109 affordable DUs at or below 60% AMI (25% of total DUs). The addition of housing would help accommodate the growing, and increasingly rent-burdened, population in Brooklyn.

Special Downtown Brooklyn District

The Proposed Actions would extend the same zoning designation that is across Prince Street to the Project Area. The zoning change is appropriate since the Project Area's zoning and current land use is inconsistent with the adjacent zoning to its west and through this zoning change would permit development consistent with the remainder of the Special Downtown Brooklyn District. The extension of the Special Downtown Brooklyn District (and the Flatbush Avenue Extension Height Limitation Area: Height Restriction of 400 Feet) to include the Development Site, would recognize this site's location in the Brooklyn Downtown core and require development consistent with the goals of the special district.



Source: NYCDCP, 2015 Pluto

Development Site

Project Area

Study Area Boundary

Special Downtown Brooklyn District

PROPOSED ZONING MAP

Figure C-3

VII. CONCLUSION

The Proposed Actions would be consistent with the previous actions and the ensuing development pattern resulting in this portion of the Brooklyn Downtown core along Tillary Street east of Flatbush Avenue. It would extend the Special Downtown Brooklyn District and the type of zoning associated with the Special District to this isolated non-conforming property immediately adjacent to the current Special District. While this area of Tillary Street had been initially developed with commercial uses it has now largely changed to a residential area. The commercial development located on the Development Site is now an outlier in use and form with how the area is currently developed. To the east of the Development Site is mid-rise residential development of seven and 11-stories in a tower in a park format while to the west and south of the Development Site the area has been transitioning from commercial use to residential with a number of tall, large residential buildings being developed consistent with the goals for the area. The rezoning would make the Project Area and the Development Site consistent with the development that has been encouraged within a block of the Development Site.

The zoning map amendment and extension of the Special Downtown Brooklyn District (and Flatbush Avenue Extension Height Limitation Area) to this Project Area and Development Site would be consistent with the goals of the Special District to improve working and living conditions of Downtown Brooklyn; encourage the design of new buildings in character with the area and to provide an appropriate transition between the Brooklyn Downtown core and the Fort Greene neighborhood. Without this rezoning the Development Site would likely remain in its existing conditions and would not be redeveloped, leaving a self-storage facility that is inconsistent both in bulk and in use with the surrounding area. The Proposed Development would also significantly advance the City's goal of providing additional affordable housing.

The Proposed Actions would be consistent with the underlying intent of the Downtown Brooklyn Special District while the Proposed Development would be compatible with and supportive of existing land uses and current development trends, and consistent with public policy. Therefore, there would be no significant adverse impacts related to land use, zoning and public policy.

Attachment D: Socioeconomic Conditions

I. INTRODUCTION

This chapter assesses the potential impact of the Proposed Action on socioeconomic conditions. In conformance to guidance in Chapter 5 of the *CEQR Technical Manual*, a socioeconomic assessment should be conducted if a project may reasonably be expected to create substantial socioeconomic changes within the area affected by the project that would not occur in the absence of the project. As indicated in Chapter 5 of the *CEQR Technical Manual,* projects that would trigger an assessment of impacts on socioeconomic conditions include the following:

- Direct displacement of a residential population so that the socioeconomic profile of the neighborhood would be substantially altered. Displacement of less than 500 residents would not typically be expected to affect socioeconomic conditions in a neighborhood.
- Direct displacement of more than 100 employees; or the direct displacement of a business or institution that is unusually important as follows: it has a critical social or economic role in the community, it would have unusual difficulty in relocating successfully, it is of a type or in a location that makes it the subject of other regulations or publicly adopted plans aimed at its preservation, it serves a population uniquely dependent on its services in its present location, or it is particularly important to neighborhood character.
- Introduction of substantial new development that is markedly different from existing uses, development, and activities within the neighborhood. Such an action could lead to indirect displacement. Residential development of 200 units or fewer or commercial development of 200,000 square feet (sf) or less would typically not result in significant socioeconomic impacts.
- Projects that are expected to affect conditions within a specific industry, such as a citywide regulatory change that could adversely impact the economic and operational conditions of certain types of businesses.

As described in Attachment A, “Project Description”, the Future With-Action scenario, compared to the Future No-Action scenario, would result in an incremental addition of 383,201 gsf of residential use and 35,712 gsf of commercial/retail use on Lot 100 Block 2050 in Brooklyn (the “Development Site”). A total of 435 residential dwelling units (DU), with 109 affordable DUs at or below 60% of Area Median Income (AMI), would be provided. In addition, approximately 13,721 gsf of Use Group (UG) 6 commercial/retail space would be provided on the ground floor, and a locally-oriented 21,991 gsf health and physical culture facility (gym), would be located above the ground floor retail use. Since the Proposed Actions would result in substantial new development that is markedly different from existing uses on the Development Site, an assessment of the impact of the Proposed Actions on socioeconomic conditions is included in this attachment.

II. PRINCIPAL CONCLUSIONS

Based on the results of a preliminary screening of the Proposed Actions in conformance to criteria included in the *CEQR Technical Manual*, a detailed assessment of the impact of the Proposed Actions on socioeconomic conditions was not warranted. The Proposed Actions would not result in any direct residential displacement, nor would it result in any indirect business displacement. However, the project would result in an incremental addition of more than 200 residential DUs, warranting a preliminary assessment of potential indirect residential displacement.

The results of the preliminary assessment of potential indirect residential displacement indicated that the Proposed Actions would not exceed *CEQR Technical Manual* preliminary assessment impact thresholds since the Study Area already experienced a readily observable trend of increasing rents.

Finally, while the Proposed Actions would directly displace an existing self-storage business located on the Development Site, the number of affected employees would not exceed the *CEQR Technical Manual* threshold, and the existing products and services are not essential to the economy of the Study Area. Therefore, a detailed assessment of direct business displacement was not warranted.

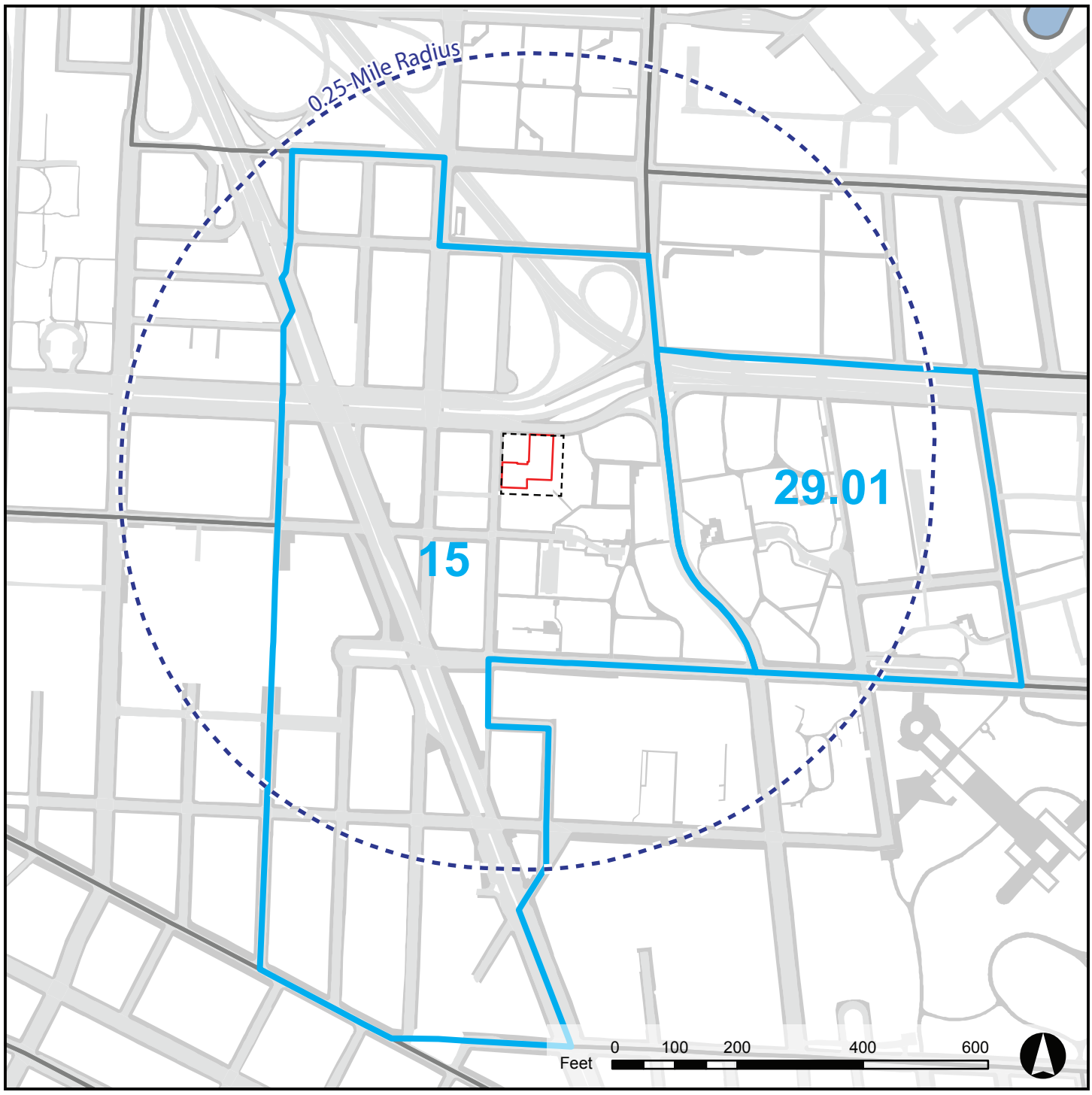
III. METHODOLOGY

Study Area

Consistent with guidance in the *CEQR Technical Manual*, a 0.25-mile buffer around the Development Site (the "Study Area") was selected for the assessment of the potential impact of the Proposed Action on socioeconomic conditions. Also, consistent with guidance in the *CEQR Technical Manual*, since the socioeconomics analysis examines population and income data that are only available at the census tract level, the 0.25-mile Study Area was adjusted to include all census tracts with at least 50 percent of their area within the 0.25-mile boundary. The resulting Study Area includes Kings County census tracts 15 and 29.01 **(Figure D-1: Socioeconomic Study Area)**.

Data Source

Population and income data were obtained from the U.S. Census Bureau's 2011-2015 American Community Survey (ACS). Data were also obtained from U.S. Census Bureau's 2009-2013 and 2010-2014 American Community Surveys (ACS) to determine income trends.



Source: 2015 Pluto, NYCDCP

Development Site

Project Area

Study Area Boundary

Study Area Census Tracts

Census Tracts

SOCIOECONOMIC STUDY AREA MAP

Figure D-1

IV. PRELIMINARY ASSESSMENT

Direct Business Displacement

Consistent with guidance in the *CEQR Technical Manual*, an assessment was completed to determine whether the Proposed Actions would result in the direct displacement of businesses with more than 100 employees or would displace a business that is unusually important because its products or services are uniquely dependent on its location. For projects exceeding this threshold, assessments of direct business displacement and indirect business displacement are appropriate. This preliminary assessment follows the methodology described in Chapter 5 of the *CEQR Technical Manual*.

The Proposed Actions would only directly displace an existing self-storage facility located on the Development Site. A review of staffing levels at the existing self-storage facility revealed that the facility employees less than five workers. A land use survey of the area near the Development Site also revealed that there are four other self-storage facilities within a 0.25-mile radius of the Development Site. Since the Proposed Actions would not displace more than 100 employees, or would it displace a business that is providing products or services essential to the local economy within the Study Area, a detailed assessment of direct business displacement was not warranted.

Indirect Residential Displacement

As indicated in the *CEQR Technical Manual*, the principal concern with respect to indirect residential displacement is whether the Proposed Actions could lead to increases in property values, and thus rents, making it difficult for some residents to afford their homes. The objective of the indirect residential displacement assessment is to determine whether the proposed project would either introduce a trend or accelerate a trend of changing socioeconomic conditions that may potentially displace a vulnerable population to the extent that the socioeconomic character of the neighborhood would change.

This preliminary assessment follows the methodology described in Chapter 5 of the *CEQR Technical Manual* as summarized below.

***Step 1: Determine if the Proposed Action would add new population with higher median incomes compared to the median incomes of the existing populations and any new population expected to reside in the study area without the project*.**

Median Household Income

As shown in **Table D-1**, based on 2011-2015 ACS data, the median household income of the two census tracts comprising the Study Area vary greatly from each other. The median household income in census tract 15 is $90,616, which is higher than both Brooklyn ($48,902) and New York City ($53,373), while the median household income in census tract 29.01 is $17,544. While the weighted average of median household income for the Study Area is $67,210, the discrepancy between the Census Tracts is too great for them to be treated as one study area. Therefore, each Census Tract's income level is analyzed separately.

Table D-1: Median Household Income for New York City, Brooklyn, and the Study Area's Census Tracts, 2013-2015 (in 2015 dollars)

	2013	2014	2015	Percent Change 2013-2015
Census Tract 15	$81,600	$91,101	$90,616	9.9%
Census Tract 29.01	$12,865	$14,890	$17,544	26.7%
Study Area[1]	$54,780	$64,902	$67,210	18.5%
Brooklyn	$46,888	47,014	$48,201	2.7%
New York City	$53,169	$52,800	$53,373	0.4%

[1] Median household income for the study area was estimated based on a weighted average of median household incomes for the census tracts in the study area
Source: U.S. Census Bureau 2009-2013, 2010-2014 and 2011-2015 American Community Surveys

Property Values and Rent

The Proposed Actions would result in new market-rate and affordable residential DUs on the Development Site. As described above, the Proposed Actions would introduce up to 109 affordable residential DUs for households earning up to 60% of Area Median Income (AMI). The maximum incomes, (adjusted for family size) at 60% AMI would be as follows[1]:

- Family of four: $54,360
- Family of three: $48,960
- Family of two: $43,500
- Individual: $38,100

Based on this data, new residents of affordable residential DUs are expected to have lower median household income in comparison to the existing income levels of residents in Census Tract 15. New affordable housing residents would have higher median household income in comparison to the existing income levels of residents in Census Tract 29.01. However, the entirety of Census Tract 29.01 is composed of New York City Housing Authority (NYCHA) developments and all DUs are publicly owned. The residents of those units will not experience any increase in rent as a result of the Proposed Actions.

Consequently, Step 2 of the preliminary assessment for affordable residential DUs is not warranted.

The study area has 59 privately-owned buildings, all of which are located in Census Tract 15. Of those buildings, six are listed with the New York State Department of Homes and Community Renewal (DHCR) as having rent-regulated units, while 29 buildings are unregulated small buildings with less than 6 units. The rent-regulated buildings in Census Tract 15 include five new buildings with approximately 1,633 units constructed in or after 2008, as part of the 421-a program. Under the 421-a program, 20 percent of the units in a building are rent-regulated for a set amount of time, with the initial rents set at the area's market rates at time of construction

The total population of privately-owned units in Census Tract 15 is approximately 7,238, of which 2,418 residents live in rental units.[2] Small buildings in Census Tract 15 that do not include rent regulated units are

[1] "Income Limits and Maximum Rents" (2015), retrieved from NYC HPD online, http://www1.nyc.gov/site/hpd/developers/inclusionaryhousing.page
2 Total renting population minus NYCHA population in Census Tract 15.

home to 118 renting residents. The share of low income renters in Census Tract 15 is 37.1 percent of the entire renting population.[3] Assuming an even distribution of low income renters across regulated and unregulated buildings and units, there are approximately 44 low income residents in the study area who live in unregulated small buildings, constituting 0.2 percent of renting population in Census Tract 15 and 0.004 percent of the entire population in the study area. In the With Action Condition, the share of unprotected low income renters is estimated to decrease to 0.003 percent of the entire population in Census Tract 15.

Property listings were reviewed to determine rents for market-rate residential DUs in the Study Area. Based on recent listings as reported by Trulia.com (accessed on February 8th, 2016), the median rental rates for available units in the Study Area[4] are approximately $3,038 for one-bedroom units; $3,829 for two-bedroom units; and $7,500 for three-bedroom units (Only five three-bedroom apartments were found in the Study Area). Median rental rates for one-bedroom units is generally consistent with average rents reported in MNS's *Brooklyn Rental Market Report December 2016*, which estimated average rents to be $3,055 for one-bedroom units for Downtown Brooklyn. The rental rate for two-bedroom units is slightly lower than average rental rate listed in the MNS report, which found the average rate to be $4,236. The average rent per square foot computes to $4.68 after deleting the lowest and highest rental rates as identified in **Table D-2** below.

Table D-2: Market-Rate Properties for Rent is Study Area, February 2017

Address	Price ($)	Square Feet (sf)	$ / sf	Beds
180 Nassau St	2,995	N/A	N/A	1
180 Nassau	2,795	N/A	N/A	1
10 City Pt	3,465	N/A	N/A	1
277 Gold St	2,515	N/A	N/A	1
257 Gold St	2,608	N/A	N/A	1
257 Gold St	3,462	N/A	N/A	2
309 Gold St	3,900	N/A	N/A	2
80 DeKalb Ave	4,890	N/A	N/A	2
Undisclosed Address	2,200	N/A	N/A	2
277 Gold St	3,695	N/A	N/A	2
60 Duffield St	3,568	N/A	N/A	2
214 Duffield St	11,490	1,505	$7.63	3
100 Willoughby St	2,945	487	$6.05	1
100 Willoughby St	2,805	487	$5.76	1
60 Duffield St	3,964	719	$5.51	2
100 Willoughby St	2,640	487	$5.42	1
180 Myrtle Ave	3,196	627	$5.10	1

[3] As defined by HUD, low-income population are those earning 80 percent of AMI, or less
[4] Based on a 60% sample size from a search for all available rental units that fall within the Study Area boundary (Census tracts 15 and 29.01).

180 Myrtle Ave	3,195	627	$5.10	1
100 Willoughby St	3,950	791	$4.99	2
100 Willoughby St	4,015	816	$4.92	2
81 Fleet Pl	3,300	671	$4.92	1
306 Gold St	3,700	756	$4.89	1
180 Myrtle Ave	3,533	725	$4.87	1
81 Fleet Pl	3,209	668	$4.80	1
60 Duffield St	3,918	818	$4.79	2
343 Gold St	3,054	664	$4.60	1
306 Gold St	7,500	1,647	$4.55	3
150 Myrtle Ave	8,950	1,967	$4.55	3
81 Fleet Pl	3,300	727	$4.54	1
81 Fleet Pl	3,022	668	$4.52	1
180 Myrtle Ave	4,200	931	$4.51	2
343 Gold St	5,911	1,315	$4.50	3
180 Nassau St	3,350	770	$4.35	2
180 Nassau St	2,995	723	$4.14	1
180 Myrtle Ave	3,758	920	$4.08	2
343 Gold St	5,112	1,274	$4.01	3
189 Bridge St	3,499	875	$4.00	2
70 Fleet St	2,907	742	$3.92	1
214 Duffield St	3,940	1,017	$3.87	1
306 Gold St	3,500	933	$3.75	2
150 Myrtle Ave	4,100	1,113	$3.68	2

Source: Trulia.com, https://www.trulia.com/for_rent/40.693225896337,40.699627618217,-73.987773126266,-73.977473443649_xy/3_beds/17_zm/, accessed on February 16, 2017.

Based on this data, and assuming that households spend approximately 30 percent of their annual income on rent, new residents of a market-rate one-bedroom in the Study Area are estimated to earn approximately $121,500 annually; new residents of a market-rate two-bedroom apartment are estimated to earn slightly over $153,100; and new residents of a market-rate three-bedroom apartment are estimated to earn $300,000 **(Table D-3).** Therefore, the proposed market-rate residential DUs would likely attract residents with higher median household income when compared with the existing median household income for each of the census tracts in the Study Area.

Table D-3: Imputed Household Income by Unit Type/Median Rental Rates

	1 BR	2 BR	3 BR
Study Area median market-rate rent	$3,038	$3,829	$7,500
Imputed household income for new residents in market rate DUs*	$121,500	$153,100	$300,000

* Household incomes were imputed using HUD 30% guideline described above.

Step 2: Would the project's increase in population be large enough relative to the size of the population expected to reside in the study area without the project to affect real estate market conditions in the study area?

As indicated in guidance in the *CEQR Technical Manual*, if a project would result in more than five percent increase in the study area's population in the future without the proposed project, Step 3 of the preliminary assessment should be conducted.

Based on 2011-2015 ACS data, the Study Area's population is approximately 9,494 residents. As described in Attachment A, "Project Description," five projects have been identified within an approximately 0.25-mile radius around the Development Site that would potentially be completed and occupied by the end of the 2020 build year. These No-Action projects would generate a combined 5,143 residents.[5,6] The anticipated No-Action projects are expected to increase the Study Area's population to 14,637 residents by the year 2020.

The proposed project would introduce an additional 326 market-rate residential DUs or 893 people, based on the U.S. Census Bureau, Brooklyn 2010-2014 profile (2.74 persons per household). The Future With-Action Scenario, when compared to the Future No-Action Scenario, would result in an approximately 6.1% percent increase in Study Area's population by 2020, and would exceed the five percent threshold. Consequently, Step 3 of Preliminary Assessment was completed to assess whether the Proposed Actions would have the potential to result in a significant impact on socioeconomic conditions.

Step 3: Has the study area already experienced a readily observable trend toward increasing rents and what is the likely effect of the action on such trends?

As indicated in guidance in the *CEQR Technical Manual*, if the project's increase in population is larger than five percent relative to the size of the population expected to reside in the Study Area without the project, further analysis is required to determine existing trends in the Study Area. In case the vast majority of the Study Area has already experienced a readily observable trend toward increasing rents and new market rate development, further analysis is not necessary.

As shown in **Table D-4,** median gross rent in both census tracts of the Study Area has increased significantly in recent years. Census tract 15 saw an increase of 12.9 percent in median gross rent between 2013 and 2015 while median gross rent in census tract 29.01 rose by 21.2 percent. During that period, median gross rent increased in Brooklyn and New York City by 5.4 percent and 4.4 percent, respectively.

[5] As described in Attachment A, "Project Description," the number of dwelling units provided at each No-Action project was determined by applying the density allowance under current zoning to the total residential floor area.
[6] Assumes 2.74 persons per DU for residential units in Brooklyn (2010-2014 Census)

Table D-4: Median Gross Rent for New York City, Brooklyn, and the Study Area's Census Tracts, 2013-2015 (in 2015 dollars)

	2013	2014	2015	Percent Change 2013-2015
Census Tract 15	1,910	2,000*	2,156	**11.4%**
Census Tract 29.01	354	386	445	**20.4%**
Brooklyn	1,169	1,190	1,215	**3.8%**
New York City	1,220	1,235	1,255	**2.8%**

* The estimate for census tract 15's median gross rent in 2014 falls in the upper interval of an open-ended distribution

No-Action projects constructed by the 2020 analysis year are expected to introduce an additional 5,142 residents, demonstrating an existing trend of new market-rate developments. It is projected that with at least a portion of new DUs being market-rate units, the trend of increased median gross rent evident in **Table D-4** would continue.

The Proposed Project would introduce 409 additional DUs. Up to 25 percent of the units would be regulated affordable housing units for households earning up to 60 percent of AMI. By including affordable housing units, the Proposed Project would support Mayor de Blasio's *Housing New York: A Five Borough, Ten-Year Plan*. While the market rate DUs included in the Proposed Project are expected to attract residents who could afford higher rents compared to the existing conditions, a review of available data indicates that the majority of the Study Area has already experienced a readily observable trend of increasing rents for market-rate residential DUs. Therefore, the proposed Actions would be part of an already existing trend in the Study Area. Consequently, no further analysis is warranted.

V. CONCLUSION

The Proposed Actions provide additional opportunities for affordable housing development, would not result in any direct displacement of residents, nor would it result in any indirect business displacements. While direct business displacement would occur following the Proposed Actions, the number of employees impacted would not exceed 100 and the existing business on the Development Site does not provide products or services essential to the local economy of the Study Area. Furthermore, an assessment of the potential for indirect displacement of residents also found that the Study Area already experiences a readily observable trend toward increasing rents and the Proposed Actions would not have a significant impact on that trend. Therefore, the Proposed Actions would not result in significant adverse impacts on socioeconomic conditions and no additional assessment is warranted.

Attachment E: Community Facilities and Services

I. INTRODUCTION

This attachment assesses the potential impact of the Proposed Actions on community facilities and services. According to Chapter 6 of the *CEQR Technical Manual,* a community facilities assessment should be conducted if a project would directly or indirectly affect existing community facilities, including publicly supported day care, libraries, public schools, health care facilities, and fire and police protection services. A project can affect community services when it physically displaces or alters a community facility or causes a change in population that may affect the services delivered by a community facility, as might happen if a facility is already over-utilized, or if a project is large enough to create a demand that could not be met by the existing facility.

As described in Attachment A, "Project Description", the With-Action Scenario, compared to the No-Action Scenario, would result in an incremental addition of 383,201 gsf of residential use and 35,712 gsf of commercial/retail use on Lot 100, Block 2050 in Brooklyn (the "Development Site"). A total of 435 residential dwelling units (DU), 109 of which would be affordable DUs at or below 60% of Area Median Income (AMI), would be provided. In addition, approximately 13,721 gsf of Use Group (UG) 6 commercial/retail space would be provided on the ground floor, and a 21,991 gsf local health and physical culture facility (gym), would be located above the ground floor retail use. The Development Site is expected to experience an increase of 1,192 residents[1] and 107 workers[2] in With-Action Scenario, compared to the No-Action Scenario. It would not eliminate, displace, or alter any public or publicly-funded community facility.

II. PRINCIPAL CONCLUSIONS

The Development Site is located in Sub-district 2 of CSD 13 in Brooklyn. Based on the results of a preliminary screening in conformance to criteria included in the *CEQR Technical Manual*, a detailed assessment of the impact of the Proposed Actions on high schools, libraries, health care facilities, and fire and police protection services was not warranted. The Proposed Actions would not have a direct impact or any significant adverse indirect impacts on these community facilities and services.

However, a detailed assessment of the potential impact of the Proposed Actions on elementary and intermediate schools was warranted, since the number of eligible children generated by the Proposed Actions exceeded the preliminary screening thresholds outlined in the *CEQR Technical Manual.*

The Proposed Actions would not exceed the *CEQR Technical Manual* impact threshold of an increase of five percent or more in the collective utilization rate of public elementary and intermediate schools in Sub-District 2 of CSD 13 in Brooklyn, between the No-Action and With-Action Scenarios. Therefore, there would be no significant adverse impacts on elementary and intermediate schools in the Sub-District study area.

Consequently, since the Proposed Actions would have no significant adverse impact on community facilities and services.

[1] Assumes 2.74 persons per DU for residential units in Brooklyn (2010-2014 Census)
[2] Estimate of workers based on three employees per 1,000 sf of retail/health and physical culture facility (East New York Rezoning Proposal FEIS)

III. METHODOLOGY

Data for the community facilities and services analysis was gathered from the latest databases provided by the New York City Department of City Planning (DCP). Consistent with *CEQR Technical Manual* guidance, a preliminary screening was conducted to determine whether a detailed community facilities assessment is required for impact on public schools, publicly supported child care centers and Head Start programs, libraries, police/fire services and health care facilities. For those community facilities and services for which the preliminary assessment indicated that the Proposed Actions had the potential to result in either direct or indirect effects on community facilities and services, a detailed assessment of potential impacts was prepared.

The Proposed Actions would not directly alter or displace any community facility. The Proposed Actions would add an incremental increase of up to 435 DUs to the Development Site over the No-Action Scenario. Based on application of the community facility and services thresholds for Brooklyn provided in Table 6-1 of the *CEQR Technical Manual,* it was determined that the Proposed Actions would not have the potential to result in a significant adverse impact on high schools, libraries, health care facilities, and fire and police protection services. However, consistent with guidance in the *CEQR Technical Manua*l, the projected number of elementary and intermediate students generated by the Proposed Actions warrants a detailed analysis for elementary and intermediate schools.

IV. PRELIMINARY ASSESSMENT

Public Schools

Indirect Effects

The CEQR Technical Manual defines the threshold for a detailed analysis to be the addition of 50 students for elementary and intermediate schools. The threshold for high school students is defined as an addition of 150 students. Based on student generation rates for public elementary, intermediate and high schools for Brooklyn included in the *CEQR Technical Manual*, the net increase of 435 residential units that would be generated by the Proposed Actions would result in 126 elementary school students, 52 Intermediate school students, and 61 high school students (See **Table E-1**). Consistent with guidance in the *CEQR Technical Manual*, this projected number of students warrants a detailed analysis of the potential impact of the Proposed Actions on elementary and intermediate schools as the total number of students is greater than 50. The number of high school students generated is below the threshold of 150 students, and, consequently a detailed analysis of the potential impact of the Proposed Actions on public high schools is not warranted.

Table E-1: Public School Threshold Calculations

	Net Increase in Dwelling Units from Proposed Actions	Multiplier (Students/Unit in Brooklyn)	Additional Students from Proposed Actions	Threshold for detailed analysis (Brooklyn)
Elementary/ Intermediate School Students	435	0.29	126	50
	435	0.12	52	50
High School Students	435	0.14	61	150

Group Child Care and Head Start Centers

Indirect Effects

The *CEQR Technical Manual* threshold for determining whether a detailed analysis is warranted of the potential impact of a proposed action on group child care and Head Start Centers is an addition of 20 or more eligible children under age 6, based on the number of low or low/moderate income residential units. Based on the 109 affordable residential units that would be generated by the Proposed Actions and the generation rates for the Bronx in the *CEQR Technical Manual*, it is estimated that 19 eligible children will be generated by the Proposed Actions (See **Table E-2**). This number of students does not warrant a detailed analysis of the potential of the Proposed Actions on publicly supported child care centers and Head Start programs.

Table E-2: Child Care Threshold Calculations

	New Units from Proposed Actions	Multiplier (Children Under the Age of Six/Unit for Brooklyn)	Additional Children Eligible for Publicly Funded Child Care + Head Start from Proposed Actions	Threshold for Detailed Analysis (Brooklyn)
Group Child Care and Head Start	109	0.178	**19**	**20**

Libraries

The Proposed Actions would not physically alter or directly displace any libraries, and, consequently, there would be no direct effects to existing libraries. As indicated in guidance in the *CEQR Technical Manual*, a proposed project in Brooklyn that generates a 5 percent increase in the average number of residential units served per library branch (734 residential units in Brooklyn) may cause significant adverse impacts on library services and warrants a detailed analysis. The Proposed Actions is expected to result in a net increase of 435 residential units, which is below the 734 residential unit threshold for Brooklyn. Consequently, a detailed analysis of the potential impact of the Proposed Actions on libraries is not warranted.

Police/ Fire Services

The Proposed Actions would not physically alter or directly displace any police or fire service facilities, and consequently, would not result in any direct impacts on existing police or fire facilities or services. The *CEQR Technical Manua*l recommends that a detailed analysis of the impact of a proposed action on police and fires service is warranted in cases where the Proposed Actions would create a sizeable new neighborhood where none existed before. Since the Proposed Actions would be located in an existing neighborhood and would not represent a sizeable new neighborhood where none existed before, a detailed analysis of the potential impact of the Proposed Actions on police and fire services is not warranted.

Health Care Facilities

The Proposed Actions would not physically alter or directly displace any health care facilities, and, consequently, the Proposed Actions would not result in any direct impacts on existing health care facilities. The *CEQR Technical Manua*l indicates that a detailed analysis of the potential impact of a proposed action on health care facilities is warranted if the Proposed Actions would create a sizeable new neighborhood where none existed before. Since the Proposed Actions would be located in an existing neighborhood and would not represent a sizeable new neighborhood where none existed before, a detailed analysis of the potential impact of the Proposed Actions on health care is not warranted.

V. DETAILED ASSESSMENT – Public Schools

Existing Conditions

Study Area

In conformance to guidance in the *CEQR Technical Manual*, the study area for the analysis of elementary and intermediate school is the "sub district" of the school district in which the project is located. The Proposed Development Site is located entirely within Sub-district 2 of Brooklyn Community School District 13 (CSD 13) (See **Figure E-1**). Sub-district 2 is the westernmost Sub-district in School District 13. School District 13, which is located in north-west Brooklyn, is bounded by School District 14 to the north, School District 16 to the east, and School Districts 17 and 15 to the south. Sub-district 2 contains nine public elementary school organizations in eight buildings and eight intermediate school organizations in eight buildings.

The *CEQR Technical Manual* also requires that the detailed assessment identify, for informational purposes, the "zoned" elementary and intermediate schools that would serve students generated by the proposed project. The zoned elementary school for the Proposed Development is P.S. 067 Charles A. Dorsey (K067) located at 51 Saint Edwards Street. There is no Zoned Middle School for the Proposed Development; students are zoned to School District 13.

Schools within Study Area

Table E-3 shows the name, location, current enrollment, target capacity, number of available seats, utilization rate, and grades served by each school in Sub-District 2. Data summarized in **Table E-3** was collected from the School Construction Authority (SCA) Enrollment, Capacity and Utilization Report, 2015-2016.

Table E-3: Public Elementary and Intermediate School Enrollment, Capacity, and Utilization for Existing Conditions, School District 13, Sub District-2 Study Area

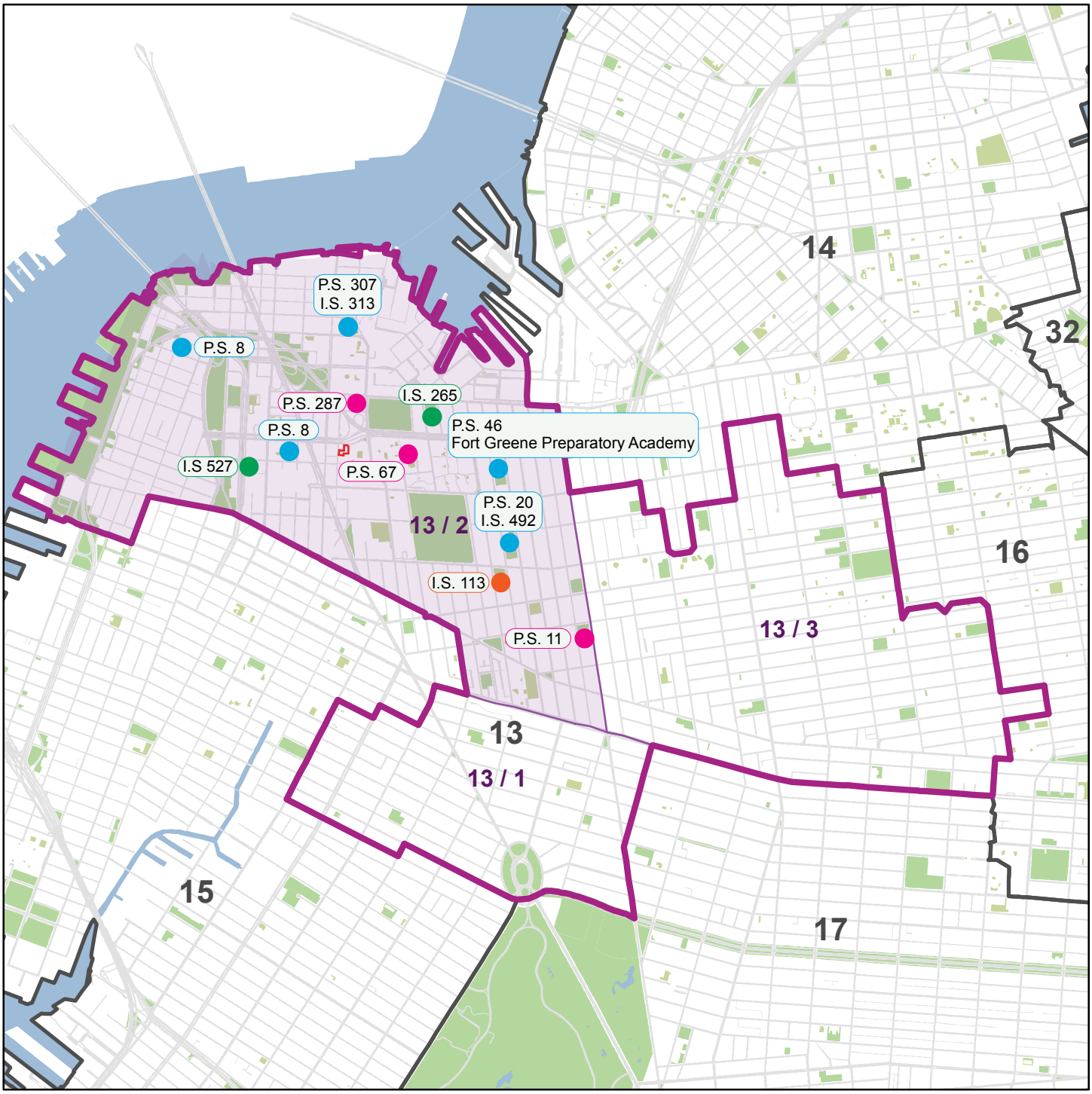
Org. ID	School Name	Address	Grades	Bld Exc	Enrollment	Target Capacity	Available Seats	Utilization
Elementary Schools								
K008	P.S. 8 - K	37 Hicks Street	PK-8*		551	418	-133	132%
K008	P.S. 8 - K	105 Johnson Street	PK-8*		161	270	109	60%
K011	P.S. 11 - K	419 Waverly Avenue	PK-5		831	757	-74	110%
K020	P.S. 20 - K	225 Adelphi Street	PK-5		401	336	-65	119%
K046	P.S. 46 - K	100 Clermont Avenue	PK-5		361	381	20	95%
K067	P.S. 67 - K	51 St Edwards Street	PK-5		228	219	-9	104%
K287	P.S. 287 - K	50 Navy Street	PK-5		198	361	163	55%
K307	P.S. 307 - K	209 York Street	PK-5		380	339	-41	112%
K492	I.S. 492- K	225 Adelphi Street	PK-8*		334	248	-86	135%
			Study Area Total		3,445	3,330	**-115**	**103%**
Intermediate Schools								
K008	P.S. 8 - K	37 Hicks Street	PK-8**		164	125	-39	132%
K008	P.S. 8 - K	105 Johnson Street	PK-8**		48	81	33	60%
K113	I.S. 113 - K	300 Adelphi Street	6-8		414	959	545	43%
K265	I.S. 265 - Brooklyn	101 Park Avenue	6-12**		115	181	66	63%
K313	I.S. 313 - K	209 York Street	6-8		77	298	221	26%
K492	I.S. 492- K	225 Adelphi Street	PK-8**		181	134	-47	135%
K527	I.S. 527 - K	283 Adams Street	6-12**		172	222	50	78%
K691	Fort Greene Preparatory Academy - K	100 Clermont Avenue	6-8		241	236	-5	102%
			Study Area Total		1412	2,235	**823**	**63%**

Source: NYC DOE's "Enrollment, Capacity and Utilization Report 2015-2016," SCA
*Enrollment and capacity data for only PS
**Enrollment and capacity data only for IS

Future without the Proposed Actions (No-Action Scenario)

Enrollment Changes

Projected public elementary and intermediate school enrollments in the study area for the 2020 No-Action Scenario were based on ten-year DOE Enrollment Projections (Projected 2015-2024). These are the most recent projections available from the SCA.



Source: NYC DOE's "Enrollment, Capacity and Utilization Report 2014-2015" SCA website

Project SiteSite

School District 13

Sub-District 2

NY School Districts

NY Sub-Districts

Primary Schools

Intermediate Schools

Primary School/
Intermediate School
Mixed Building

Intermediate School/
High School
Mixed Building

PUBLIC ELEMENTARY + INTERMEDIATE SCHOOLS SCHOOL DISTRICT 13-2

Figure E-1

202-208 Tillary Street

According to those projections, Brooklyn CSD 13 would have an enrollment of 7,605 elementary school level students and 2,295 intermediate level school students in the 2020-2021 school year. Based on SCA-approved percentages for Sub-district share of the total school district enrollment, it is projected that Sub-district 2 would have an elementary school enrollment of 4,275 elementary school students and an intermediate level school enrollment of 1,530 intermediate level school students.

Table E-4: SCA Enrollment Projections Apportioned to Sub-District 2, 2020 Build Year

	Elementary	Intermediate
2020 Projected CSD 13 Enrollment*	7,605	2,295
Percentage Provided for Sub-District 2**	56.21%	66.63%
2020 Projected Enrollment for CSD 13 Sub-district 2	4,275	1,530

**Source:* Grier Final Projections 2015-2024

***Source:* DOE 2020 Enrollment by Zone Projections, as of December 2016

No-Action Developments

As described in Attachment A, "Project Description", absent the Proposed Actions, in the No-Action Scenario on the Development Site would remain in its current state, as under existing conditions. Within the surrounding area, five projects were identified within approximately 0.25 miles of the Development Site that would potentially be occupied by the end of 2020. Of these, three are anticipated to include residential uses, which are: 141 Willoughby Street, 86 Fleet Place, and 138 Willoughby Street[3]. According to SCA projections for the 2020 Build year, enrollment for CSD 13, Sub-district 2 would increase by 2,504 elementary school students and 999 intermediate school students. In coordination with SCA and DCP, it was determined that these projections included 141 Willoughby Street and 86 Fleet Place, but not 138 Willoughby Street. In addition, only 710 DUs at 141 Willoughby Street and 86 Fleet Place were included in the total projections, which are 229 less the 939 DUs as stated in the No-Action Scenario in Attachment A, "Project Description." The additional DUs amongst the three projects would bring an additional 1,167 DUs to Sub-district 2 – generating an additional 339 elementary school students and 140 intermediate school students.

Based on the SCA Capital Plan Report and DOE Utilization changes, The Dock Street Educational Complex is expected to bring 333 additional seats for public intermediate school students, which was completed in July 2016. The new school would increase the total capacity for intermediate schools in the Sub-district by 333 seats. There would be no increase in capacity for elementary schools in the Sub-district.

Summary

As shown in **Table E-5,** it is projected that by the 2020 Build Year, elementary student enrollment in Sub-district 2 will increase from 3,445 students to 7,118 students. School capacity in the study area is anticipated to remain the same as in existing conditions. Elementary schools in Sub-district 2 will have a utilization rate of 213.8% and a shortfall of 3,788 seats. Intermediate student enrollment will increase from 1,412 students to 2,670 students in Sub-district 2. As described above, the capacity of schools in the study area is

[3] As described in Attachment A, "Project Description," the number of dwelling units provided at each No-Action project was determined by applying the density allowance under current zoning to the total residential floor area.

anticipated to increase by 333 seats from the construction of the Dock Street Educational Complex. Intermediate schools in the Sub-district will have a utilization rate of 103.9% and a shortfall of 101 seats.

Table E-5: School Enrollment, Capacity, and Utilization for 2020 No-Action Scenario, Sub-district 2

	Projected Enrollment 2020	No-Action Students	Total No-Action Enrollment	Capacity	Available Seats	Utilization
Elementary Schools						
CSD 13, Sub-District 2	**4,275**	**2,843**	**7,118**	**3,330**	**-3,788**	**213.78%**
Intermediate Schools						
CSD 13, Sub-District 2	**1,530**	**1,140**	**2,670**	**2,568**	**-101**	**103.94%**

Future with Proposed Actions (With-Action Scenario)

Elementary and Intermediate Schools

Project Generated Enrollment

Compared to the No-Action Scenario, the Proposed Actions would result in 435 residential units, which would generate 126 public elementary school students and 52 intermediate school students, calculated using the multipliers of 0.29 elementary school students per household and 0.12 intermediate students per household provided for Brooklyn in Table 6-1a of the *2014 CEQR Technical Manual.* **(Table E-6)**

In the With-Action Scenario by the 2020 Build Year, it is anticipated that the total number of public elementary school students in Sub-District 2 would be 7,244 students. The capacity of schools in the study area is not anticipated to change from existing conditions. The Sub-district will have a utilization rate of 217.5% and a shortfall of 3,915 seats.

In the With-Action Scenario by the 2020 Build Year, it is anticipated that the total number of public intermediate school students in the Sub-District 2 would be 2,722 students. The capacity of schools in the study area anticipated to grow by 333 seats to 2,568 seats. The sub-district will have a utilization rate of 106% and a shortfall of 153 seats.

Table E-6: School Enrollment, Capacity, and Utilization for 2020 With-Action Scenario, Sub-district 2

	Projected No-Action Enrollment	Students Generated by the Proposed Development	Total With-Action Enrollment	Capacity	Available Seats	Utilization
Elementary Schools						
CSD 13, Sub-District 2	*7,118*	*126*	*7,224*	*3,330*	*-3,915*	*217.6%*
Intermediate Schools						
CSD 13, Sub-District 2	*2,670*	*52*	*2,722*	*2,568*	*-153*	*106%*

VI. CONCLUSION

Elementary and Intermediate Schools

According to the *CEQR Technical Manual*, a significant adverse impact may result, warranting consideration of mitigation, if the proposed action would result in both of the following:

- A collective utilization rate of the elementary or intermediate schools that is equal to or greater than 100 percent in the With-Action Scenario; and
- An increase of five percent or more in the collective utilization rate between the No-Action and With-Action Scenarios.

In the With-Action Scenario by the 2020 Build Year, it is anticipated that the total number of public elementary school students in the study area would be 7,244 students. Based on the SCA FY 2015-2016 Five Year Capital Plan, there are no projected increases in the capacity of elementary schools in the study area by the 2020 Build Year. However, based on coordination with DCP, there are 1,620 funded public elementary school seats scheduled for completion in 2021-2022, but were not included in this analysis. Sub-district 2 will have a utilization rate of 217.6% and a shortfall of 3,915 seats. The collective elementary school utilization rate in Sub-district 2 in the With-Action Scenarios would increase 3.8% over the future No-Action Scenarios, from 213.8% to 217.6%, increasing the shortfall of seats from 3,788 seats in the No-Action Scenario to 3,915 seats in the With-Action Scenarios. Since the Proposed Actions would not increase the Sub-district's elementary school utilization rate by greater than 5 percent, no significant adverse impact on elementary schools in Sub-district 2 is anticipated.

In the With-Action Scenario by the 2020 Build Year, it is anticipated that the total number of public intermediate school students in the study area would be 2,568 students. Based on SCA FY 2015-2016 Five Year Capital Plan, there is a projected increase of 333 seats in the capacity of intermediate schools in the study area by the 2020 Build Year. Sub-district 2 will have a utilization rate of 106% and a shortfall of 153 seats. The collective intermediate school utilization rate in Sub-district 2 in the With-Action Scenario would increase by 2% over the future No-Action Scenario, from 104% to 106%, increasing the shortfall of seats from 101 seats to 153 seats. Since the Proposed Actions would not increase the Sub-district's elementary school utilization rate by greater than 5 percent, a significant adverse impact on intermediate schools in Sub-district 2 is not anticipated.

Attachment F: Open Space

I. INTRODUCTION

This chapter assesses the potential impact of the Proposed Actions on open space resources. Open space is defined in the *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. Guidance in the *CEQR Technical Manual* indicates that an open space analysis should be conducted if an action would result in a direct effect, such as the physical loss or alteration of public open space, or an indirect effect, such as when a substantial new population could place added demanded on an area's open spaces.

As described in Attachment A, "Project Description", the Future With-Action Scenario, compared to the Future No-Action Scenario, would result in an incremental addition of 383,201 gsf of residential use and 35,712 gsf of commercial/retail use on Lot 100 Block 2050 in Brooklyn (the "Development Site"). A total of 435 residential dwelling units (DU), with 109 affordable DUs at or below 60% of Area Median Income (AMI), would be provided. In addition, approximately 13,721 gsf of Use Group (UG) 6 commercial/retail space would be provided on the ground floor, and a locally-oriented 21,991 gsf health and physical culture facility (gym), would be located above the ground floor retail use. The With-Action Scenario, compared to the No-Action Scenario, is expected to result in an incremental addition of 1,192 residents[1]and 107 workers[2].

The Project Area is located at the intersection of Tillary Street and Prince Street in the Downtown Brooklyn neighborhood, and encompasses Lot 100, 104, and a portion of Lot 1 in Block 2050 in Brooklyn Community District 2. The Project Area is not located within an underserved or well-served open space area as defined in the *CEQR Technical Manual*. The *CEQR Technical Manual* states that for a project not located within an underserved or well-served area, an open space assessment should be conducted if it would generate more than 200 residents or 500 employees. Since the Proposed Development generates more than 200 residents, an open space assessment was warranted.

II. PRINCIPAL CONCLUSIONS

The Proposed Actions would not result in the physical loss of existing public open space resources, nor would it result in any adverse shadow, air, noise, or other environmental impacts that would affect the usefulness of any Study Area public open space .However, since the Proposed Actions are expected to introduce an incremental increase of 1,192 residents and 107 workers compared to the Future No Action condition, a preliminary open space analysis for the incremental increase in residential population was conducted, pursuant to the *CEQR Technical Manual*.

The preliminary assessment revealed that the existing open space ratio(OSR) for the Study Area is 2.7 acres of open space per 1,000 residents, which is higher than the CEQR guideline of 2.5 acres of open space per 1,000 residents. As stated in the *CEQR Technical Manual*, as a planning goal, a ratio of 2.5 acres of open space 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 plans and proposals. Under the Future No-Action Scenario, the OSR is expected to be reduced to approximately 2.2

[1] Assumes 2.74 persons per DU for residential units in Brooklyn (2010-2014 Census)
[2] Estimate of workers based on three employees per 1,000 sf of retail/health and physical culture facility (East New York Rezoning Proposal FEIS)

acres of open space per 1,000 residents. Under the Future With-Action Scenario, the OSR is expected to be reduced to approximately 2.1 acres of open space per 1,000 residents. The total OSR would decrease by approximately four percent in the Future With-Action Scenario compared to the Future No-Action Scenario. This percentage change is less than the 5% threshold for projects located in neither a well-served or underserved open space area. As indicated in the *CEQR Technical Manual,* a decrease in the OSR of greater than 5% is generally considered to be a substantial change warranting more detailed analysis. Additionally, the preliminary assessment is conservative since it does not account for existing private open space, most of which is part of NYCHA housing and may be accessible to not only NYCHA residents but also residents of the Study Area. Based on these considerations, it is anticipated that the Proposed Actions would not result in a significant adverse impact on open space resources in the Study Area or warrant further detailed analysis.

III. METHODOLOGY

The analysis of the potential impact of the Proposed Actions on open space resources has been conducted in accordance with guidance in Chapter 7 of the *CEQR Technical Manual*. As described in those guidelines, the adequacy of open space in the study area is assessed quantitatively using a ratio of usable open space acreage to the study area population, referred to as OSR. This quantitative measure is then used to assess the changes in the adequacy of open space resources in the future, both without and with the Proposed Actions, and to determine whether the Proposed Actions would result in a significant impact on open space resources.

Direct Effects

As stated in Chapter 7 of the *CEQR Technical Manual*, a proposed project would directly affect open space conditions if it causes the direct loss of public open space, changes the use of an open space so that it no longer serves the same user population, limits public access to an open space, or results in increased noise or air pollutant emissions, odor, or shadows that would temporarily or permanently affect the usefulness of a public open space. The Proposed Actions would not directly displace any public open space, nor change the use of or access to any public open space. As such, there would be no direct impact on open space from the Proposed Actions.

Indirect Effects

As described in Chapter 7 of the *CEQR Technical Manual*, open space can be indirectly affected by a proposed action if the 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. An open space analysis is generally conducted if a proposed project would generate more than 200 residents or 500 employees. However, the need for an analysis varies in certain areas of the city that have been identified as either underserved, well-served or neither underserved nor well-served by open space.[3] If a project is in an underserved area, the threshold for an open space analysis is 50 residents or 125 workers. If a project is in a well-served area, the threshold for an open space analysis is 350 residents or 750 workers.

[3] The *CEQR Technical Manual* defines underserved areas as areas of high population density in the City that are generally the greatest distance from parkland, where the amount of open space per 1,000 residents is currently less than 2.5 acres. Well-served areas are defined as having an open space ratio above 2.5 accounting for existing parks that contain developed recreational resources; or are located within 0.25 mile (approximately a 10-minute walk) from developed and publicly accessible portions of regional parks.

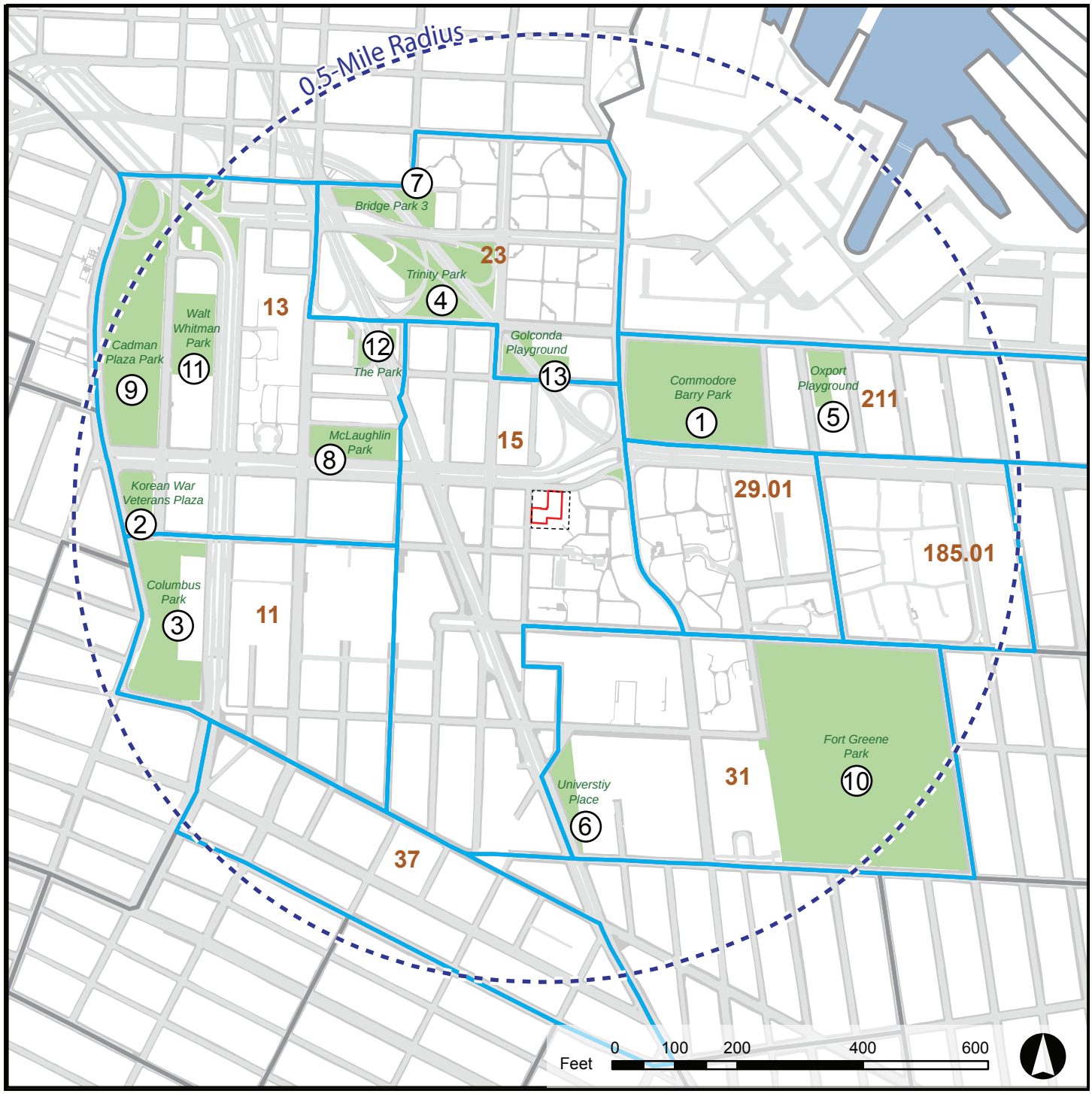
If a project is not located in an underserved or well-served area, an open space analysis should be conducted if the project would generate more than 200 residents or 500 employees. A review of maps in the Open Space Appendix of the *CEQR Technical Manual* indicates that the proposed Project Area is not in an area that is either underserved or well-served by open space.

As discussed in Attachment A, "Project Description," the Proposed Actions would introduce up to 435 incremental residential DUs, which would introduce an estimated 1,192 residents and 107 workers from the Proposed Development, compared to the No-Action Scenario. As such, an open space assessment for the residential population generated by the Proposed Actions is warranted.

Study Area

The first step in assessing potential open space impacts is to establish the appropriate study areas for the new population(s) to be added due to the Proposed Actions. As indicated in the *CEQR Technical Manual*, the open space study areas are based on the distance a person is assumed to walk to reach a neighborhood open space. This distance differs by user. Workers typically use passive open spaces within a short walking distance of their workplaces. Residents are more likely to travel farther to reach parks and recreational facilities, and they use both passive and active open spaces. Workers are assumed to walk up to a 0.25-mile distance to reach neighborhood open spaces, and residents are assumed to walk up to a 0.5-mile distance. While they may also visit certain regional parks, such open spaces are not included in the study area's quantitative analysis, but are described qualitatively.

A residential study area was established based on a 0.5-mile buffer from the Development Site (the "Study Area"). Consistent with guidance in guidance in the *CEQR Technical Manual*, the Study Area was adjusted to include all census tracts with at least 50 percent of their area within the 0.5-mile boundary. Study Area boundaries are identified in **Figure F-1: Open Space Inventory Map.**



Source: 2015 Pluto, NYCDCP

Development Site

Project Area

Study Area Boundary

Study Area Census Tracts

Census Tracts

1 Study Area Open Space

OPEN SPACE INVENTORY MAP

Figure F-1

Assessment Level

Guidance in Chapter 7 of the *CEQR Technical Manual* indicates that an initial quantitative assessment of the potential impact of a proposed action should be completed to determine whether more detailed analyses are warranted, but also recognizes that for projects that introduce a large population in an area that is underserved by open space, a detailed analysis should be conducted. The change in total population relative to total open space in the Study Area was examined to determine whether the elimination of open space and/or increase in user population would significantly reduce the amount of available open space for the area's population.

Impact Assessment

Impacts are based in part on how a project would change the open space ratios in the study area. As indicated in the *CEQR Technical Manual,* if a proposed project would result in a decrease in OSRs compared with those in the future without the project, the decrease is generally considered to be a substantial change, warranting a detailed analysis, if it would approach or exceed 5 percent. However, if a study area exhibits a low open space ratio (e.g. below 1.5 acres per 1,000 residents or 0.15 acres of passive space per 1,000 non-residential users), indicating a shortfall of open space, smaller decreases in that ratio due to the action may constitute a significant adverse impact. 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 guidelines included in the *CEQR Technical Manual.* It is recognized that the open space ratio benchmarks noted in the *CEQR Technical Manual* are not feasible for many areas of the City, and they are not considered impact thresholds on their own. Rather, these benchmarks indicate how well served is an area by open space.

IV. PRELIMINARY OPEN SPACE ASSESSMENT

As indicated in the *CEQR Technical Manual*, an initial quantitative open space assessment may be useful to determine if a detailed open space analysis is necessary, or whether the open space assessment can be targeted to a particular user group. In the initial assessment, the OSR is calculated by comparing the existing residential population to the total open space in the study area. It then compares that ratio with the OSR in the future with the proposed action. If there is a decrease in the OSR that would approach or exceed 5 percent, or if the study area exhibits a low open space ratio from the onset (indicating a shortfall of open spaces), a detailed analysis is warranted. The detailed analysis examines passive and active open space resources available to both residents and nonresidents (e.g., daily workers and visitors) within study areas delineated in accordance with the *CEQR Technical Manual*.

Existing Conditions

As summarized in **Table F-1**, according to the 2015 5-year American Community Survey (ACS) population data, there are a total of 27,181 residents in the Study Area. As summarized in **Table F-2** and shown in **Figure F-1**, the Study Area contains 13 publicly accessible open space resources, with a total area of 73.4 acres (both active and passive). In accordance with CEQR methodology, the assessment of open space resources in the study area focuses on the ratio of acres of open space per 1,000 persons.

The existing OSR in the Study Area is approximately 2.7 acres of open space per 1,000 persons, which is greater than the City benchmark of 2.5 acres of open space per 1,000 residents.

Table F-1: Census Tracts and Population in the Study Area

Census Tracts	Population[1]
11	967
13	2,562
15	5,962
23	4,342
29.01	3,532
31	2,837
37	1,087
185.01	4,530
211	1,362
Total	**27,181**

[1] 2015 5-Year American Community Survey (ACS)

Table F-2: Open Space Resources in the Study Area

Map No.	Open Space Resource	Location	Size (acres)
1	Commodore Barry Park	Nassau St., Park Ave., bet. Navy St. and N. Elliot Pl.	10.39
2	Korean War Veterans Plaza	Cadman Plaza West, Cadman Plaza East bet. Tillary St. and Johnson St.	1.20
3	Columbus Park	Adam St., Court St., Cadman Plaza West bet. Johnson St. and Fulton St.	4.14
4	Trinity Park	Nassau St., Sands St. bet. Manh. Bridge and Gold St.	6.30
5	Oxport Playground	Flushing Ave. between N. Portland Ave. and N. Oxford St.	1.03
6	University Place	Flatbush Ave. at Fleet St.	1.16
7	Bridge Park 3	Sands St., Prospect St. bet. Bridge St. and Manh. Bridge	1.93
8	McLaughlin Park	Jay St., Bridge St. bet. Tillary St. and Cathedral Pl.	1.98
9	Cadman Plaza Park	Cadman Plaza West, Cadman Plaza East bet. BQE and Tillary St.	10.38
10	Fort Greene Park	Myrtle Ave., De Kalb Ave. bet. Washington Park and St. Edward's St.	30.17

11	Walt Whitman Park	Cadman Plaza East, Adams St. bet. Red Cross Pl. and Tillary St.	2.91
12	Park	Flatbush Ave. from Nassau St. to Concord St. between Bridge St. and Bridge Plaza Ct.	0.31
13	Golconda Playground	Gold St. between Nassau St. and Concord St.	1.5
		Total	**73.40**

Source: New York City Department of Parks and Recreation (DPR)

Future No-Action Scenario

As described in Attachment A, "Project Description," five projects have been identified within an approximately 0.25-mile radius around the Development Site that would potentially be completed and occupied by the end of the 2020 build year. These Future No-Action projects would generate a combined total of 5,143 residents[4] and 1,177 employees[5]. The anticipated Future No-Action projects are expected to increase the population of the Study Area to 32,323 residents. The existing OSR of 2.7 acres of open space per 1,000 residents calculated for the open space Study Area is expected to be reduced to approximately 2.2 acres of open space per 1,000 residents under the Future No-Action Scenario, assuming no additional open space resources are added to the area. This would result in a decrease of approximately 18.5% in OSR under the Future No-Action Scenario compared to existing conditions.

Future With-Action Scenario

Preliminary screening procedures from the *CEQR Technical Manual* indicate that impacts may occur if a project reduces the OSR by more than five percent. Under the Future With-Action Scenario, there would be an increase of up to 1,192 residents and 107 workers in the Study Area, thereby increasing the Study Area population from approximately 32,323 residents under the Future No-Action Scenario to 33,515 residents under the Future With-Action Scenario. This increase in population would result in a decrease in the OSR from 2.2 acres of open space per 1,000 residents under the Future No-Action Scenario to 2.1 acres of open space per 1,000 residents under the Future With-Action Scenario, a decrease of approximately four percent. This decrease in the OSR with the Proposed Actions would be less than the five percent impact assessment threshold in the *CEQR Technical Manual*. Therefore, no significant adverse impacts to open space resources would occur due to the Proposed Actions and no further analysis is warranted.

[4] Assumes 2.74 persons per DU for residential units in Brooklyn (2010-2014 Census)
[5] Estimate of workers based on 1 employee per 250 sf of office, 3 employees per 1,000 sf of retail and community facility space (East Midtown Rezoning and Related Actions FEIS, and East New York Rezoning Proposal FEIS)

Attachment G: Shadows

I. INTRODUCTION

This attachment assesses the potential for significant adverse impacts related to shadows created by the Proposed Development on sunlight-sensitive resources. Section 200 of Chapter 8 of the *CEQR Technical Manual* states that a shadows assessment is necessary for projects that would either result in new structures (or additions to existing structures) of 50 feet in height or more, or be located adjacent to, or across the street from, 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. Examples include public open spaces, architectural resources, and natural resources.

As described in Attachment A, "Project Description", the With-Action scenario, compared to the No-Action scenario, would result in an incremental addition of 383,201 gsf of residential use and 35,712 gsf of commercial/retail use on Lot 100 Block 2050 in Brooklyn (the "Development Site"). A total of 435 residential dwelling units (DU), with 109 affordable DUs at or below 60% of Area Median Income (AMI) under the Future With-Action condition. In addition, approximately 13,721 gsf of Use Group (UG) 6 commercial/retail space would be provided on the ground floor, and a locally-oriented 21,991 gsf health and physical culture facility (gym), would be located above the ground floor retail use.

II. PRINCIPAL CONCLUSIONS

The shadows assessment showed that shadows from the Proposed Development would be cast on four potential resources of concern: Commodore Barry Park, Golconda Playground, The Park, and McLaughlin Park. Results from the detailed analysis show that the incremental shadows from the Proposed Development would not result in a significant adverse shadows-related impact on any of these resources. New incremental shadows on Commodore Barry Park, Golconda Playground, and The Park would only occur on the December 21st analysis day but would not reduce the usability of the open space resources as temperatures would be colder and the use of active recreational space would not be as high (compared to warmer months). New incremental shadows on McLaughlin Park would only occur on the March 21st analysis day for less than one hour. As shadows shift throughout the analysis day, the park's amenities would continue to receive direct sunlight and would not affect utilization. The vegetation in McLaughlin Park would also continue to receive over seven hours of direct sunlight after the shadow as passed, greater than the minimum four to six hours a day advised by the *CEQR Technical Manual.* As such, no significant adverse shadows-related impacts would occur.

III. METHODOLOGY

The assessment of shadows impacts begins with a preliminary screening assessment to ascertain whether a project's shadow may reach any sunlight-sensitive resources at any time of the year. Sunlight-sensitive resources of concern, as defined by *CEQR*, are those resources that depend of sunlight or require direct sunlight to maintain their usability or architectural integrity. Potential sunlight-sensitive resources include both publicly-accessible open space, as identified in Chapter 7, "Open Space" in the *CEQR Technical Manual*, as well as architectural resources, as defined in Chapter 9, "Historic and Cultural Resources" of the *CEQR Technical Manual,* that depend on direct sunlight for their enjoyment by the public. Only the

features that are sunlight-sensitive should be considered in the shadows assessment, as opposed to the entire architectural resource.

The preliminary screening assessment was completed in conformance to a tiered assessment process prescribed in the *CEQR Technical Manual*. Major steps in this process included:

- ***Base Map.*** Development of a base map that illustrates the proposed site location in relationship to the sunlight-sensitive resources.
- ***Tier 1 Screening Assessment.*** Development of the longest shadow area. The longest shadow study area encompasses the site of the proposed project and a perimeter around the site's boundary with a radius equal to the longest shadow. According to the *CEQR Technical Manual*, the longest shadow that a structure will cast in New York City, except for periods close to dawn or dusk, is 4.3 times its height. The purpose of the Tier 1 Screening Assessment is to determine whether the sunlight-sensitive resources are located within the longest shadow study area.
- ***Tier 2 Screening Assessment.*** If any portion of a sunlight-sensitive resource lies within the longest study area, a Tier 2 Screening Assessment is warranted. Due to the path of the sun across the sky in the northern hemisphere, no shadow can be cast in a triangular area south of any given project site. In New York City, this area lies between -108 and +108 degrees from true north. The purpose of the Tier 2 Screening Assessment is to determine whether the sunlight-sensitive resources identified in the Tier 1 Screening Assessment are located within portions of the longest shadow study area that can receive shadows from the Proposed Development.
- ***Tier 3 Screening Assessment.*** According to the *CEQR Technical Manual*, a Tier 3 Screening Assessment should be performed to determine if, in the absence of intervening buildings, shadows resulting from a proposed action can reach a sunlight-sensitive resource, thereby warranting a detailed shadow analysis. The Tier 3 Screening Assessment is used to determine if shadows resulting from a proposed action can reach a sunlight-sensitive resource at any time between 1.5 hours after sunrise and 1.5 hours before sunset on representative analysis dates.

  For New York City area, the months of interest for an open space resource encompass the growing season (March through October) and one month between November and February (usually December) representing a cold-weather month. Representative days for the growing season are generally the March 21st vernal equinox (or September 21st autumnal equinox), the June 21st summer solstice, and a spring or summer day halfway between the summer solstice and equinoxes such as May 6th or August 6th (which are approximately the same). As the sun rises in the east and travels across the southern part of the sky to set in the west, a project's earliest shadows would be cast in a westward direction. Throughout the day, the shadows would shift clockwise (moving northwest, then north, then northeast) until sunset. Therefore, a project's earliest shadow on a sunlight-sensitive resource would occur in a similar pattern, depending on the location of the resource in relation to the Development Site.

If the preliminary screening analyses described above does not rule out the possibility that project-generated shadows would reach any sunlight-sensitive resources, then a detailed shadows analysis is warranted. The detailed shadows analysis establishes a baseline condition (Future No-Action) that is compared to the future condition resulting from the proposed project (Future With-Action) to illustrate the shadows cast by existing or future buildings and distinguish the additional (incremental) shadow cast by the project. The detailed analysis for the Proposed Development was conducted using a three-dimensional (3D) digital model of the study area using 2015 PLUTO data to characterize the building footprints and approximate heights. In order to evaluate the extent of the shadows, the 3D model was geo-located to the Development Site so that sunlight and shadow conditions would be accurately approximated in the model.

The results of the detailed analysis were documented in graphic form and accompanied by a table summarizing the extent and duration of the incremental shadows.

The detailed shadows analysis provided in this attachment includes a description of the effects of incremental shadows on sunlight-sensitive resources within the maximum shadow radius, and determines whether those effects constitute significant adverse impacts under CEQR. As described in the *CEQR Technical Manual,* an incremental shadow is generally not considered significant when its duration is no longer than 10 minutes at any time of year and the resource continues to receive substantial direct sunlight. A significant shadow impact generally occurs when an incremental shadow of 10 minutes or longer falls on a sunlight-sensitive resource and results in one of the following:

- Vegetation: a substantial reduction in sunlight available to a sunlight-sensitive feature of the resource to less than the minimum time necessary for its survival (when there was sufficient sunlight in the future without the project), or a reduction in direct sunlight exposure where the sensitive feature of the resource is already subject to substandard sunlight (i.e., less than the minimum time necessary for its survival).
- Historic and cultural resources: a substantial reduction in sunlight available for the enjoyment or appreciation of the sunlight-sensitive features of an historic or cultural resource.
- Open space utilization: a substantial reduction in the usability of open space as a result of increased shadow, including information regarding anticipated new users and the open space's utilization rates throughout the affected time periods.
- For any sunlight-sensitive feature of a resource: complete elimination of all direct sunlight on the sunlight-sensitive feature of the resource, when the complete elimination results in substantial effects on the survival, enjoyment, or, in the case of open space or natural resources, the use of the resource.

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

IV. EXISTING CONDITIONS

Base Map and Sunlight-Sensitive Resources of Concern

A base map was developed that identified the study area in relationship to resources of concern **(Figure G-1)**. As shown on **Figure G-1**, resources of concern in the vicinity of the Development Site include Commodore Barry Park, portion of Oxport Playground, Golconda Playground, Trinity Park, McLaughlin Park, portion of University Place, portion of Fort Green Park, and a group of vegetated open space (the "Park") on either side of Flatbush Avenue Extension between Nassau Street and Concord Street.

Commodore Barry Park

Commodore Barry Park is bounded by Flushing Avenue to the north, Elliot Place to the east, Park Avenue to the south, and Navy Street to the west. The park is approximately 10.4 acres and consists of handball courts, basketball courts, baseball fields, football fields, playgrounds and an outdoor swimming pool.

Oxport Playground

Export Playground is bounded by Flushing Avenue to the north, Oxford Street to the east, Park Avenue to the south, and Portland Avenue to the west. The playground consists of basketball courts, playground and fitness equipment and spray showers. New York City acquired this park in 1956 and opened as a jointly operated playground with Junior High School 265 in 1960.

Golconda Playground

Golconda Playground is bounded by Nassau Street to the north, Navy Street to the east, Concord Street to the south and Gold Street to the west. The playground consists of basketball and handball courts, and playground equipment. The playground is also bisected by the elevated Brooklyn-Queens Expressway (BQE).

Trinity Park

Trinity Park is approximately bounded by Sand Street to the north, Gold Street to the east, Nassau Street to the south and Jay Street to the west. This park consists of grass fields and bench seating, and is largely intersected by the BQE and its access ramps.

McLaughlin Park

McLaughlin Park is bounded by Cathedral Place to the north, Flatbush Avenue Extension to the east, Tillary Street to the south, and Jay Street to the west. The park consists of basketball and handball courts, a baseball field, fitness and playground equipment, public bathrooms, and spray showers.

University Place

University Place is a triangle park bounded by Fleet Street to the north, University Plaza (pedestrian walkway) to the east, and the Flatbush Avenue Extension to the west. The park consists of bench seating, landscaped vegetation, and paved paths.

Fort Greene Park

Fort Greene Park is bounded by Myrtle Avenue to the north, Washington Park to the east, Dekalb Avenue to the south, and Edwards Street to the west. The park consists of basketball and tennis courts, playground equipment, public bathrooms, and a nature center.

The Park

The Park consists of two triangle plazas, separated by the Flatbush Avenue Extension and roughly bounded by Nassau Street to the north, Bridge Street to the east, Concord Street to the south, and Bridge Plaza Center to the west. The two plazas consist of small grass fields and trees.

Tier 1 Screening Assessment

In conformance with guidance in Section 312 of Chapter 8 of the *CEQR Technical Manual*, a Tier 1 Screening Assessment was completed that identified the longest shadow that could be cast by the Proposed Development, which is 4.3 times the height of the structure and occurs on December 21st (winter solstice) **(Figure G-1)**. As shown on **Figure G-1**, the highest (400 feet tall) building that would be constructed under the Proposed Actions could cast a shadow to a maximum radius of 1,720 feet from the Development Site.

Tier 2 Screening Assessment

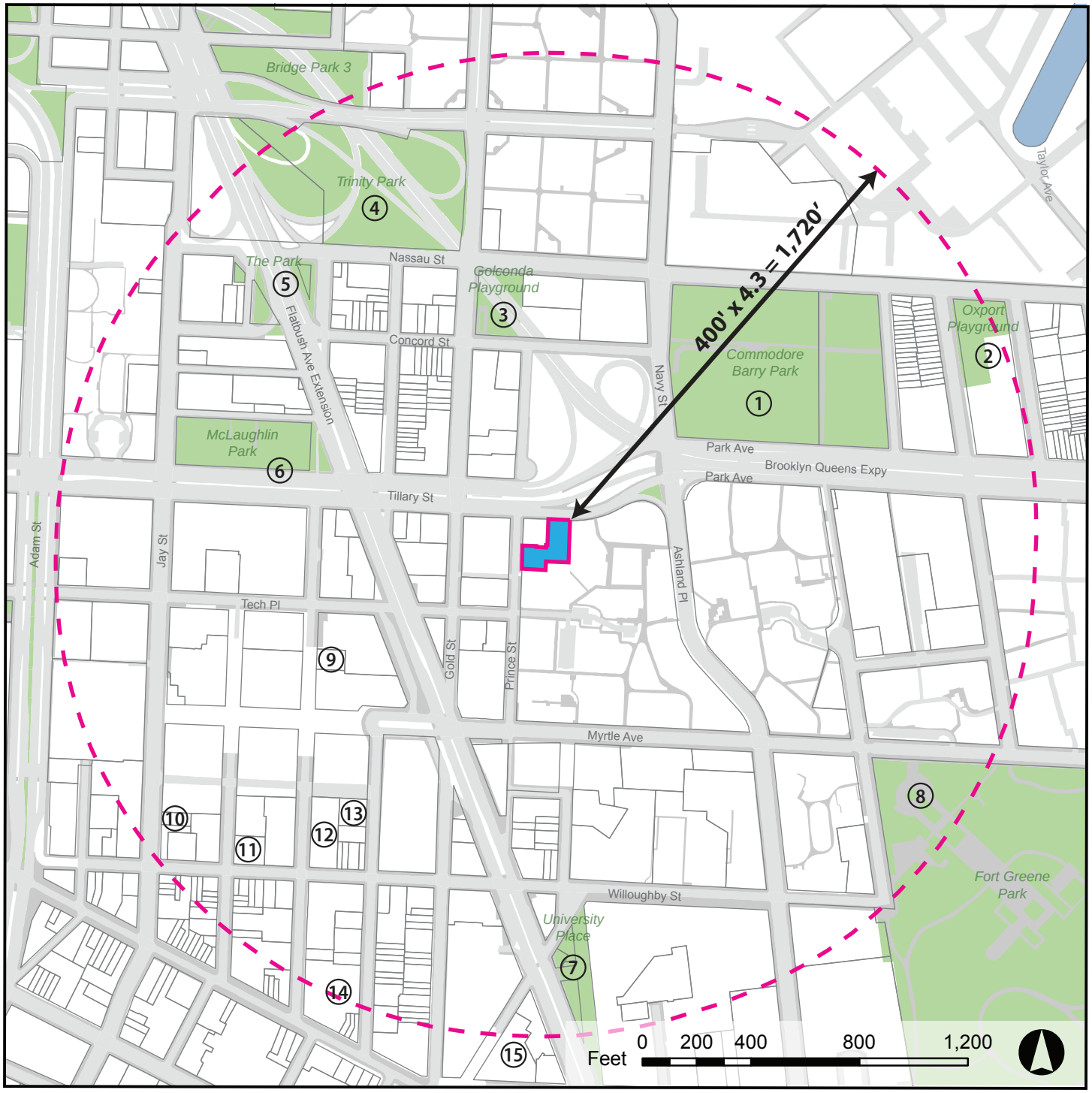
Since eight resources of concern would lie within the longest shadow study area, as described in Section 313 of Chapter 8 of the *CEQR Technical Manual*, a Tier 2 Screening Assessment was performed. In New York City, no shadow can be cast within an area between -108 and +108 degrees from true north of a site. **Figure G-2** depicts the area that could not be shaded as a result of the Proposed Development. As indicated in **Figure G-2**, incremental shadows due to the Proposed Action could still potentially cast shadows on Commodore Barry Park, portion of Oxport Playground, Golconda Playground, Trinity Park, the Park, and McLaughlin Park. As a result, a Tier 3 Screening Assessment was performed.

Tier 3 Screening Assessment

The analysis timeframe considers shadows which occur 90 minutes following sunrise and 90 minutes preceding sunset. In conformance to *CEQR Technical Manual* guidelines, daylight savings time is not used to determine the timeframes for analysis; all times are listed in Eastern Standard Time.

Figure G-3 through **Figure G-6** show the Tier 3 Screening Assessment for the representative days of December 21st, March 21st, May 6th, and June 21st. For December 21st **(Figure G-3)**, shadows would be cast on the Park, Trinity Park, Golconda Playground, and Commodore Barry Park throughout the analysis day. For March 21st **(Figure G-4)**, shadows would be cast over McLaughlin Park during the early morning of the analysis day.

Since Tier 3 Screening Assessment indicated that the Proposed Actions could potentially cast shadows on multiple resources of concern, a detailed shadow analysis was completed to quantify the extent of these effects on all four analysis days.



Source: 2015 Pluto, NYCDCP

Development Site

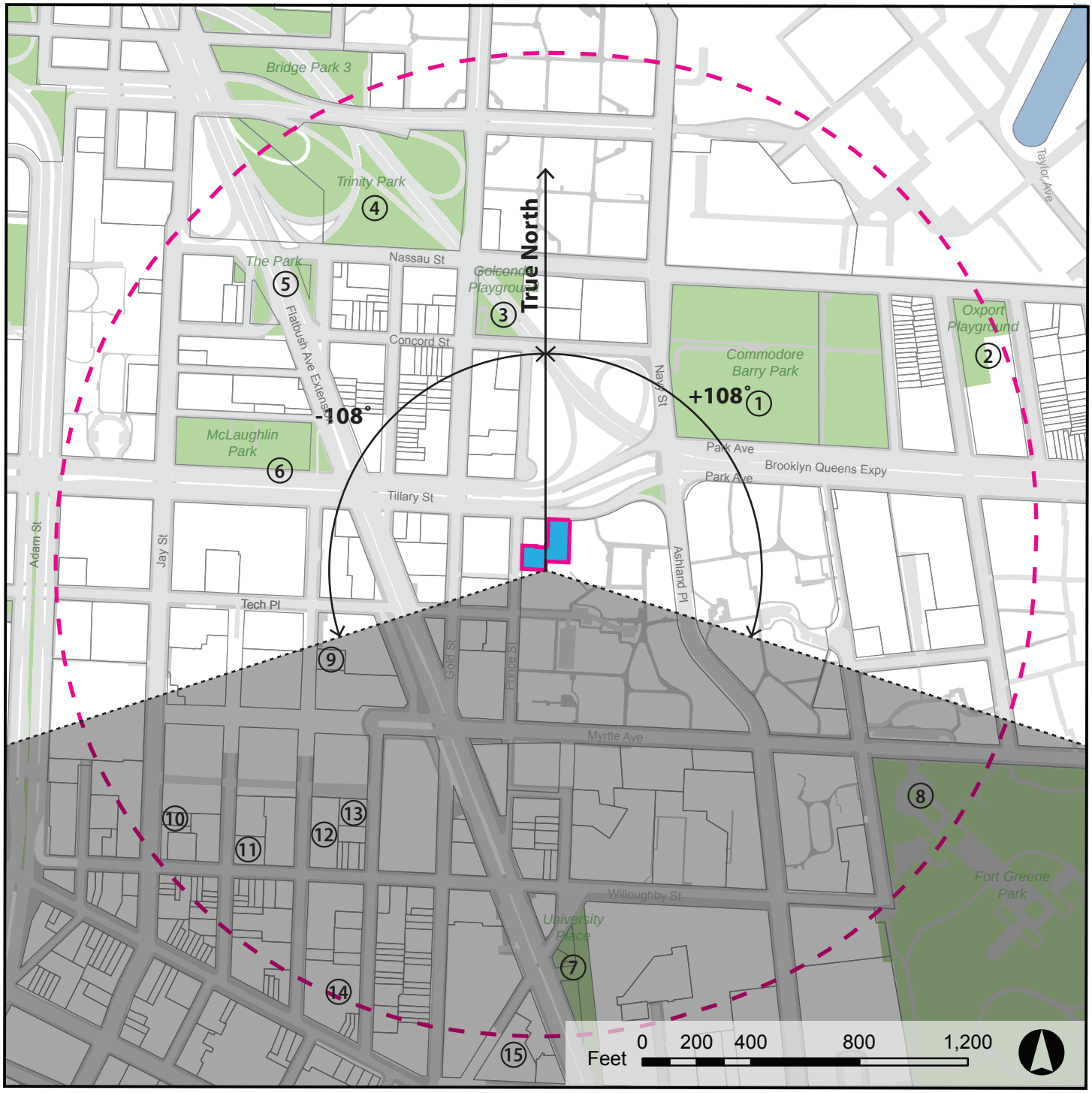
① Sunlight-sensitive Resources

Longest Shadow Study Area Boundary

TIER 1 SHADOW ANALYSIS

Figure G-1

202-208 Tillary Street Rezoning EAS



Source: 2015 Pluto, NYCDCP

Development Site

① Sunlight-sensitive resources

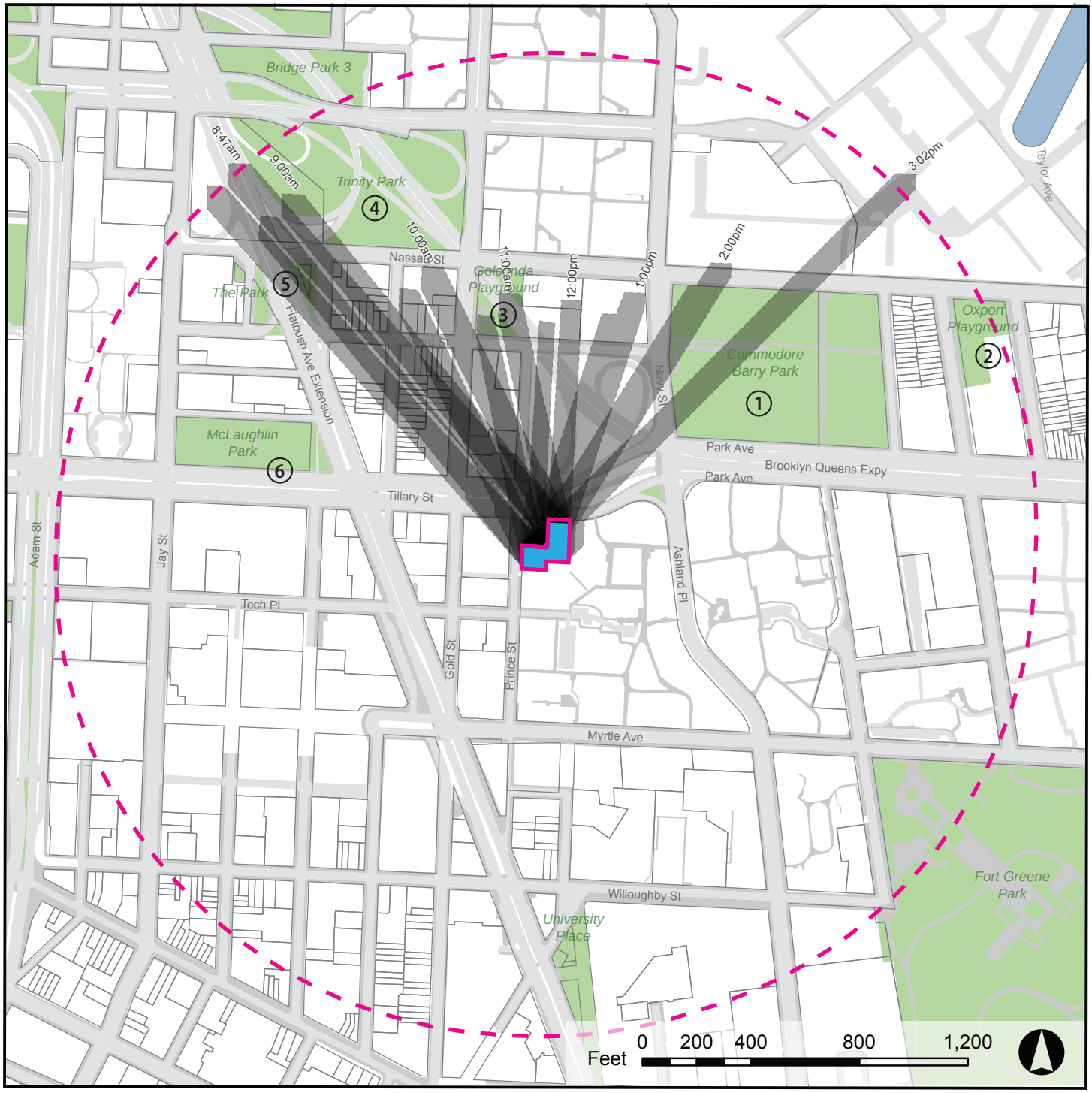
Longest shadow study area boundary

Area that cannot be shaded by the proposed development

TIER 2 SHADOW ANALYSIS

Figure G-2

202-208 Tillary Street Rezoning EAS



Source: 2015 Pluto, NYCDCP

Development Site

① Sunlight-sensitive resources

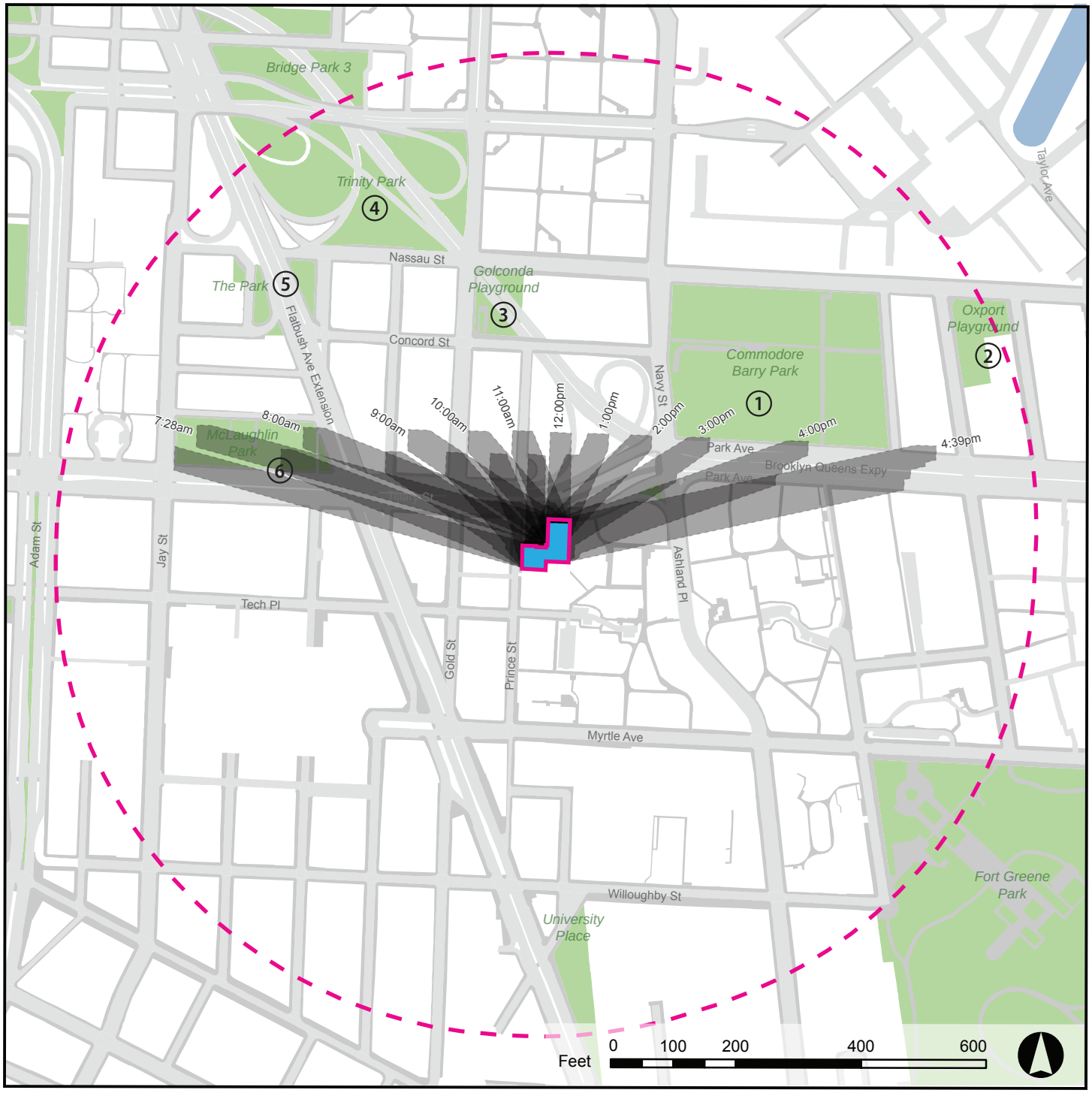
Longest shadow study area boundary

TIER 3 SHADOW ANALYSIS

Dec 21st Analysis Day

Figure G-3

202-208 Tillary Street Rezoning EAS



Source: 2015 Pluto, NYCDCP

Development Site

① Sunlight-sensitive resources

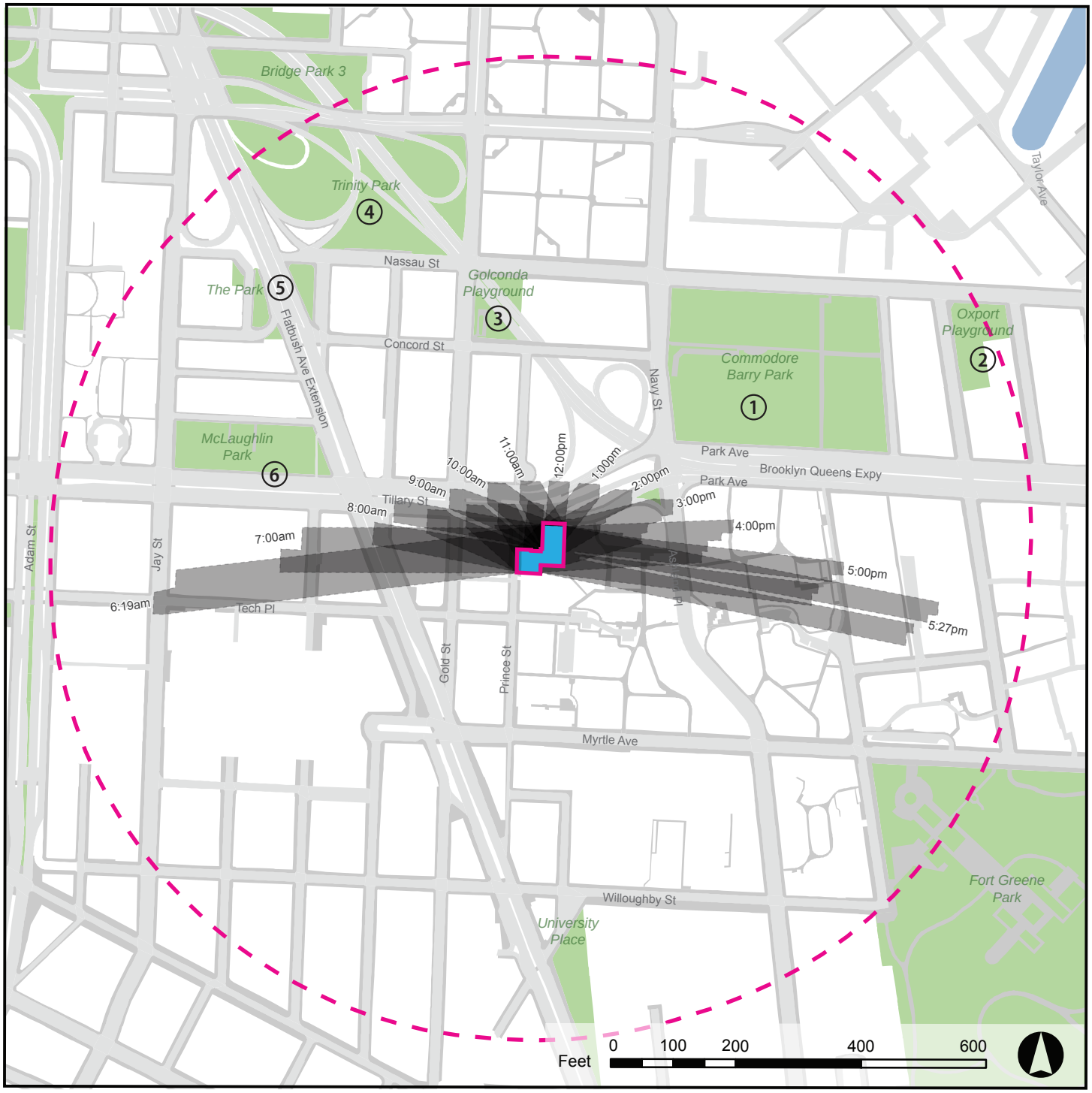
Longest shadow study area boundary

TIER 3 SHADOW ANALYSIS

March 21st Analysis Day

Figure G-4

202-208 Tillary Street Rezoning EAS



Source: 2015 Pluto, NYCDCP

Development Site

1 Sunlight-sensitive resources

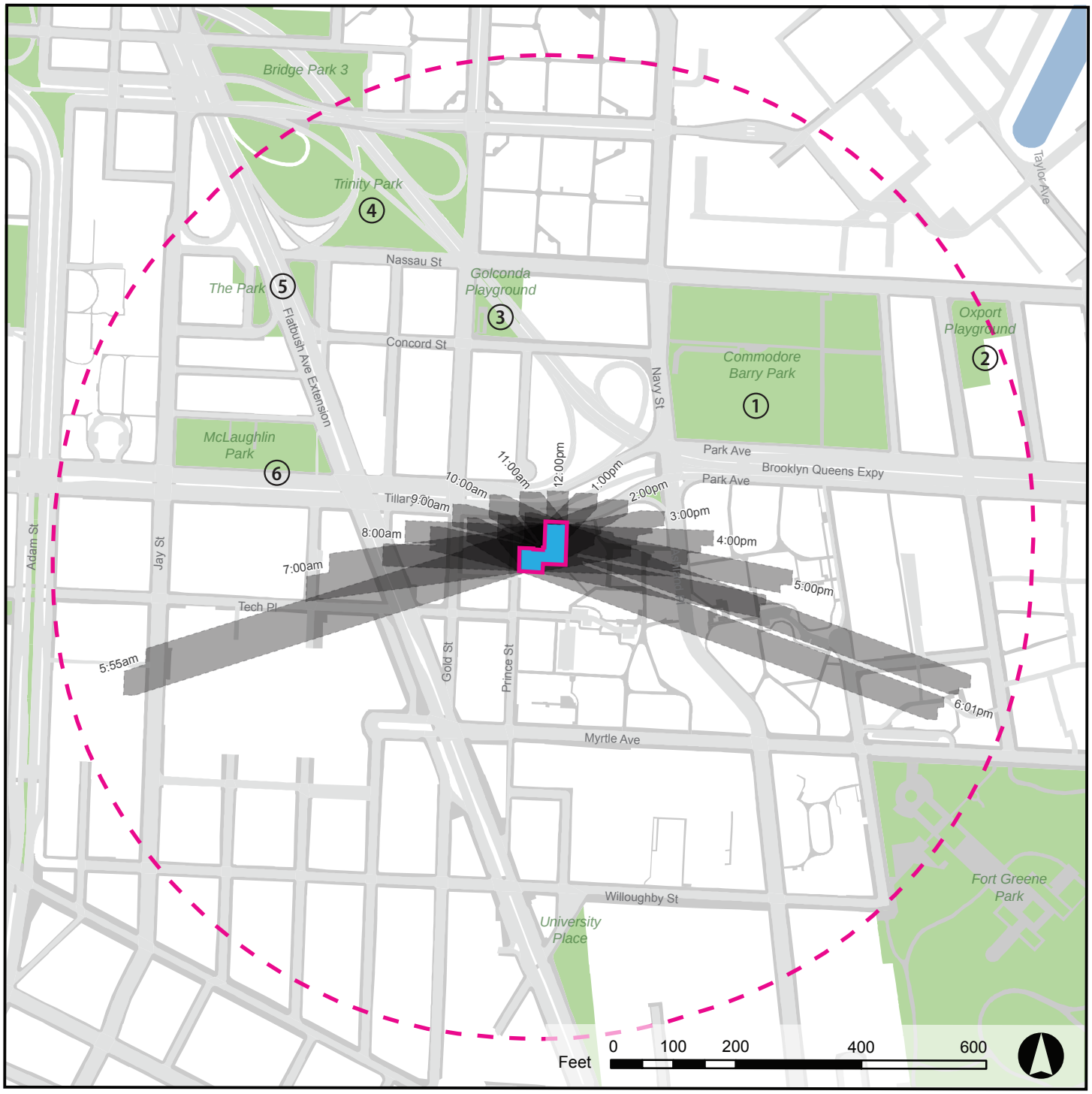
Longest shadow study area boundary

TIER 3 SHADOW ANALYSIS

May 6th Analysis Day

Figure G-5

202-208 Tillary Street Rezoning EAS



Source: 2015 Pluto, NYCDCP

Development Site

1 Sunlight-sensitive resources

Longest shadow study area boundary

TIER 3 SHADOW ANALYSIS

June 21st Analysis Day

Figure G-6

202-208 Tillary Street Rezoning EAS

V. DETAILED ANALYSIS

A detailed shadow analysis compares the extent of shading that would occur in the Future No-Action Scenario with the extent of shading that would occur in the Future With-Action Scenario. The purpose of the detailed analysis is to determine the extent and duration of new incremental shadows that would fall on sunlight-sensitive resources as a result of the proposed project.

For the detailed analysis, a 3D digital model of the Development Site and surrounding area was developed to evaluate the incremental shadows cast by the Proposed Development. As described in Attachment H, "Urban Design and Visual Resources," the area surrounding the Development Site is generally composed of multi-family elevator apartment buildings such as the NYCHA Ingersoll Houses immediately south and east of the Development Site with an average height of six stories, and mixed-use luxury residential tower apartments to the west and north of the Development Site with a height of between 36 to 42 stories. The built density (FAR) in the surrounding area varied between 2.0 FAR to 16.0 FAR or more.

Commodore Barry Park

On the December 21st analysis day, the incremental shadow of the Proposed Development would cover the northwestern portion of the Commodore Barry Park. The incremental shadow first enters the northwestern corner of the park at approximately 1:28 PM and exits at approximately 3:02 PM (the end of the analysis day) **(Figure G-7 to G-9)**. The total incremental shadow duration is approximately 1 hour and 34 minutes.

Golconda Playground

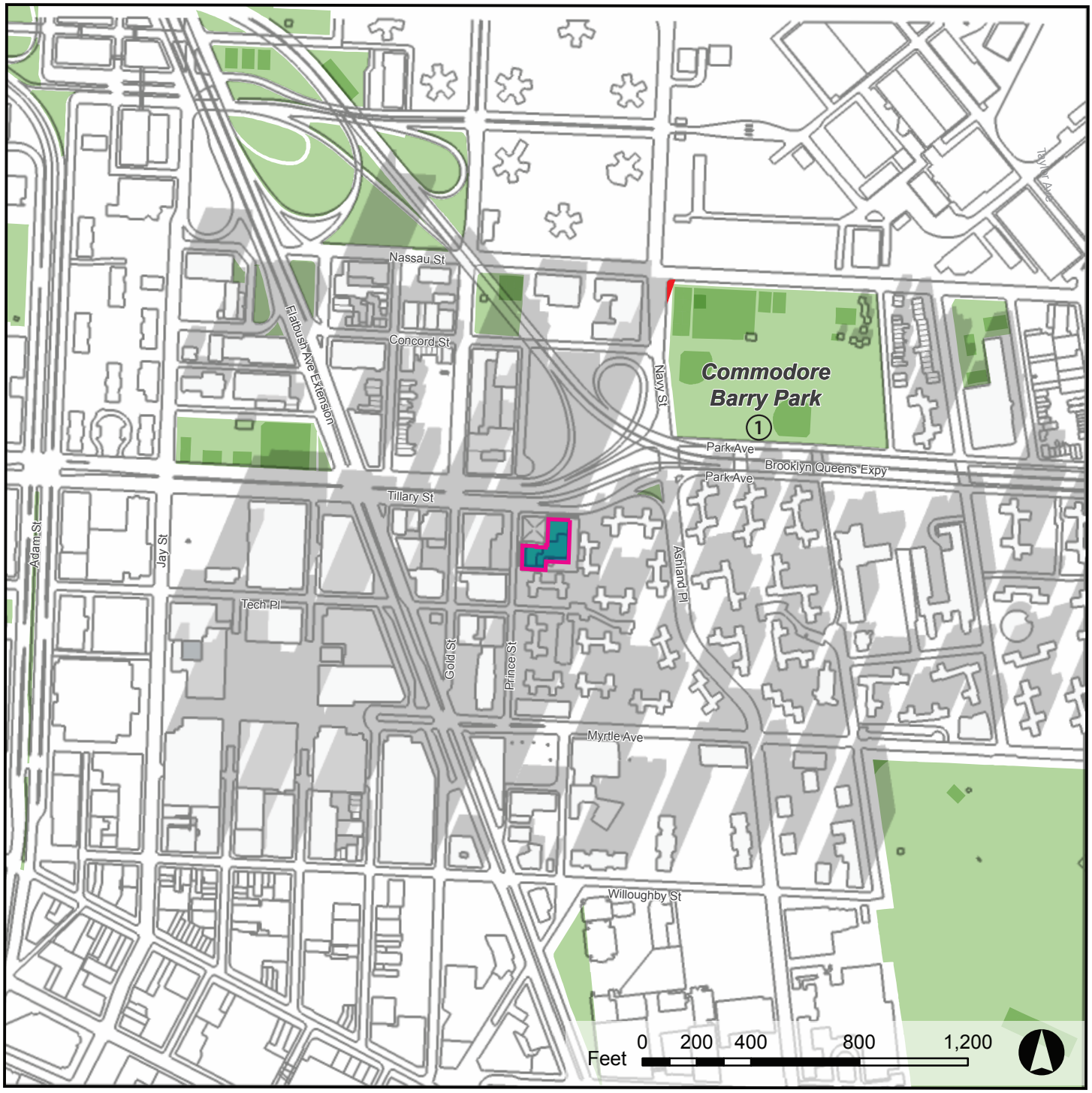
On the December 21st analysis day, the incremental shadow of the Proposed Development would cover portions of the Golconda Playground. The incremental shadow first enters the western side of the playground at approximately 10:30 AM and exits at approximately 11:20 AM **(Figure G-10 to G-11).** The total incremental shadow duration is approximately 50 minutes.

The Park

On the December 21st analysis day, the incremental shadow of the Proposed Development would cover portions of The Park. The incremental shadow first enters the northwestern corner of the triangle plaza on the east side of the Flatbush Avenue Extension at approximately 8:47 AM (the beginning of the analysis day) and exits at approximately 9:19 AM **(Figure G-12 to G-14).** The total incremental shadow duration is approximately 32 minutes.

McLaughlin Park

On the March 21st analysis day, the incremental shadow of the Proposed Development would cover portions of the McLaughlin Park. The incremental shadow first enters the park at approximately 7:28 AM (the beginning of the analysis day) and exits at approximately 8:22 AM **(Figure G-15 to G-17)**. The total incremental shadow duration is approximately 54 minutes.



Source: 2015 Pluto, NYCDCP

Development Site

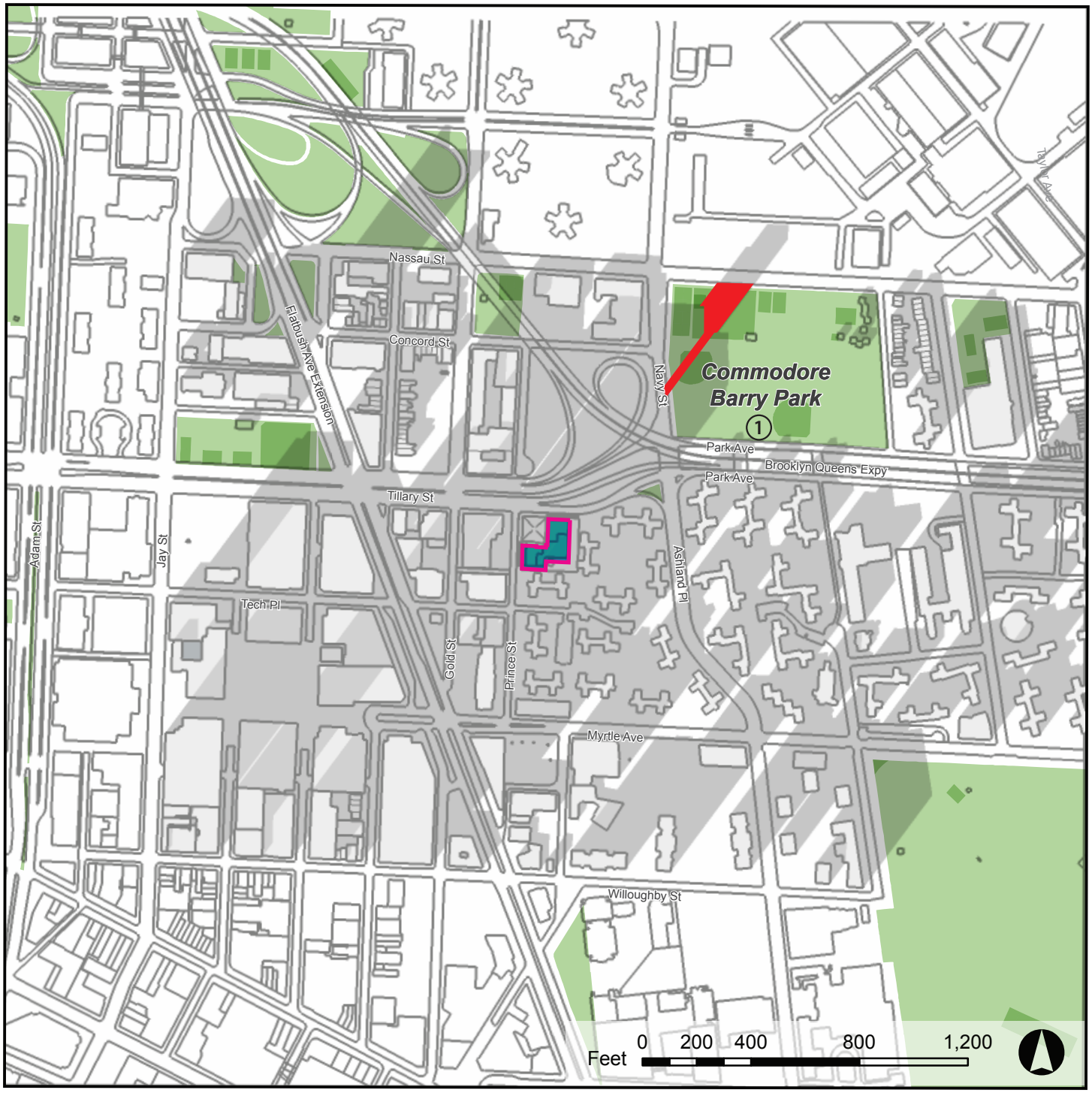
1 Sunlight-sensitive Resources

INCREMENTAL SHADOWS 1:28 PM

December 21st Analysis Day

Figure G-7

202-208 Tillary Street Rezoning EAS



Source: 2015 Pluto, NYCDCP

Development Site

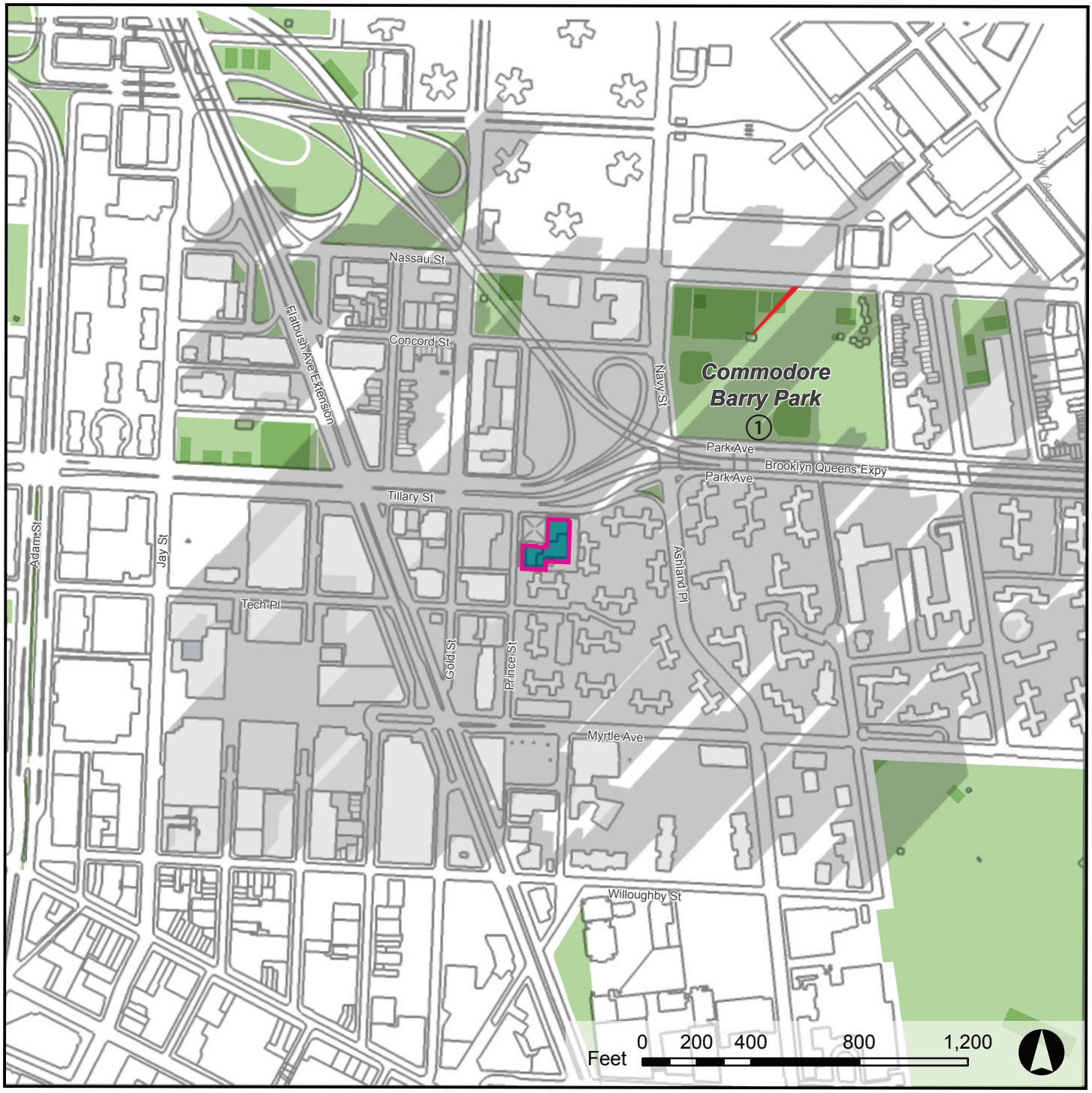
1 Sunlight-sensitive Resources

INCREMENTAL SHADOWS 2:30 PM

December 21st Analysis Day

Figure G-8

202-208 Tillary Street Rezoning EAS



Source: 2015 Pluto, NYCDCP

Development Site

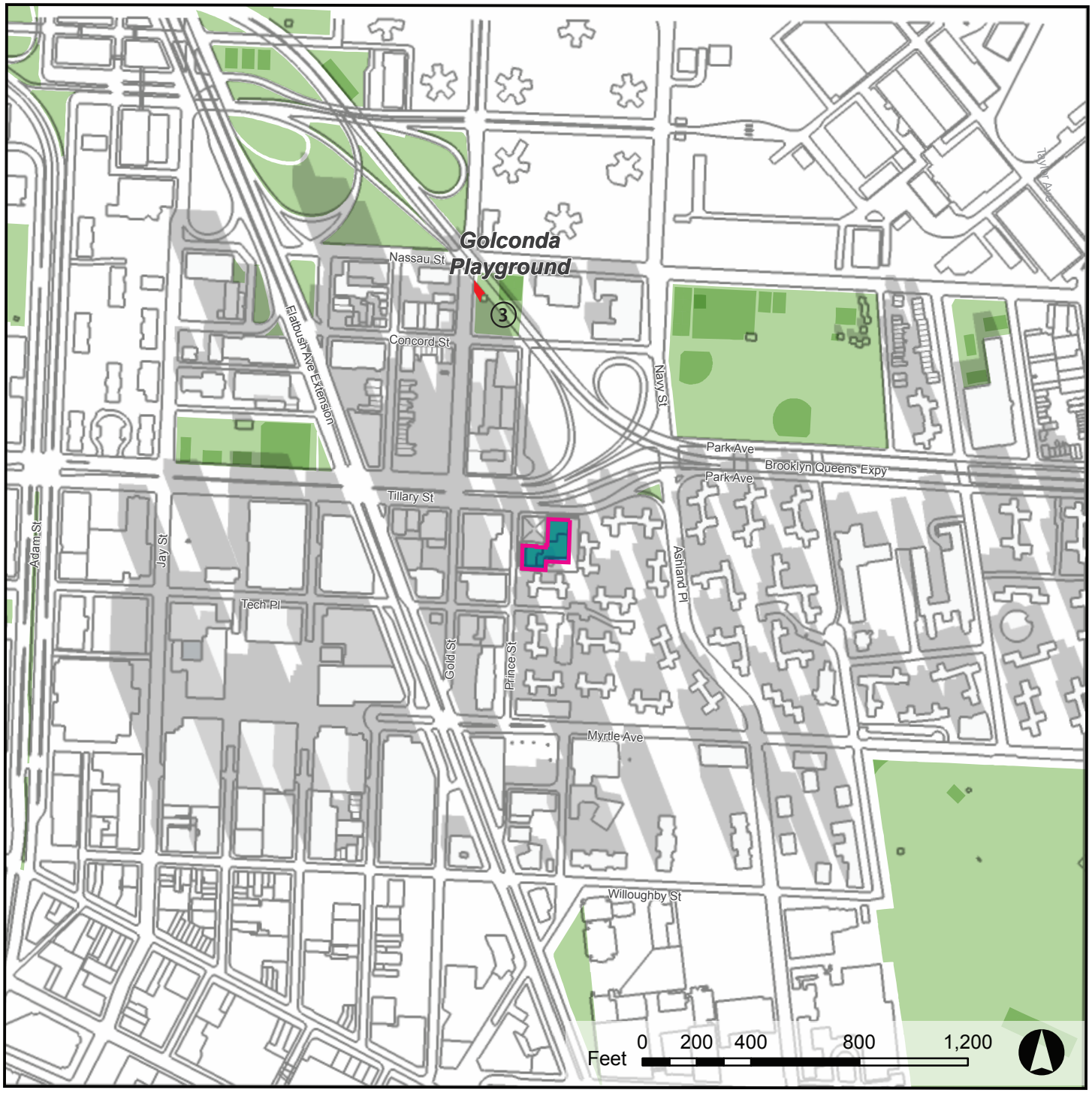
1 Sunlight-sensitive Resources

INCREMENTAL SHADOWS 3:02 PM

December 21st Analysis Day

Figure G-9

202-208 Tillary Street Rezoning EAS



Source: 2015 Pluto, NYCDCP

Development Site

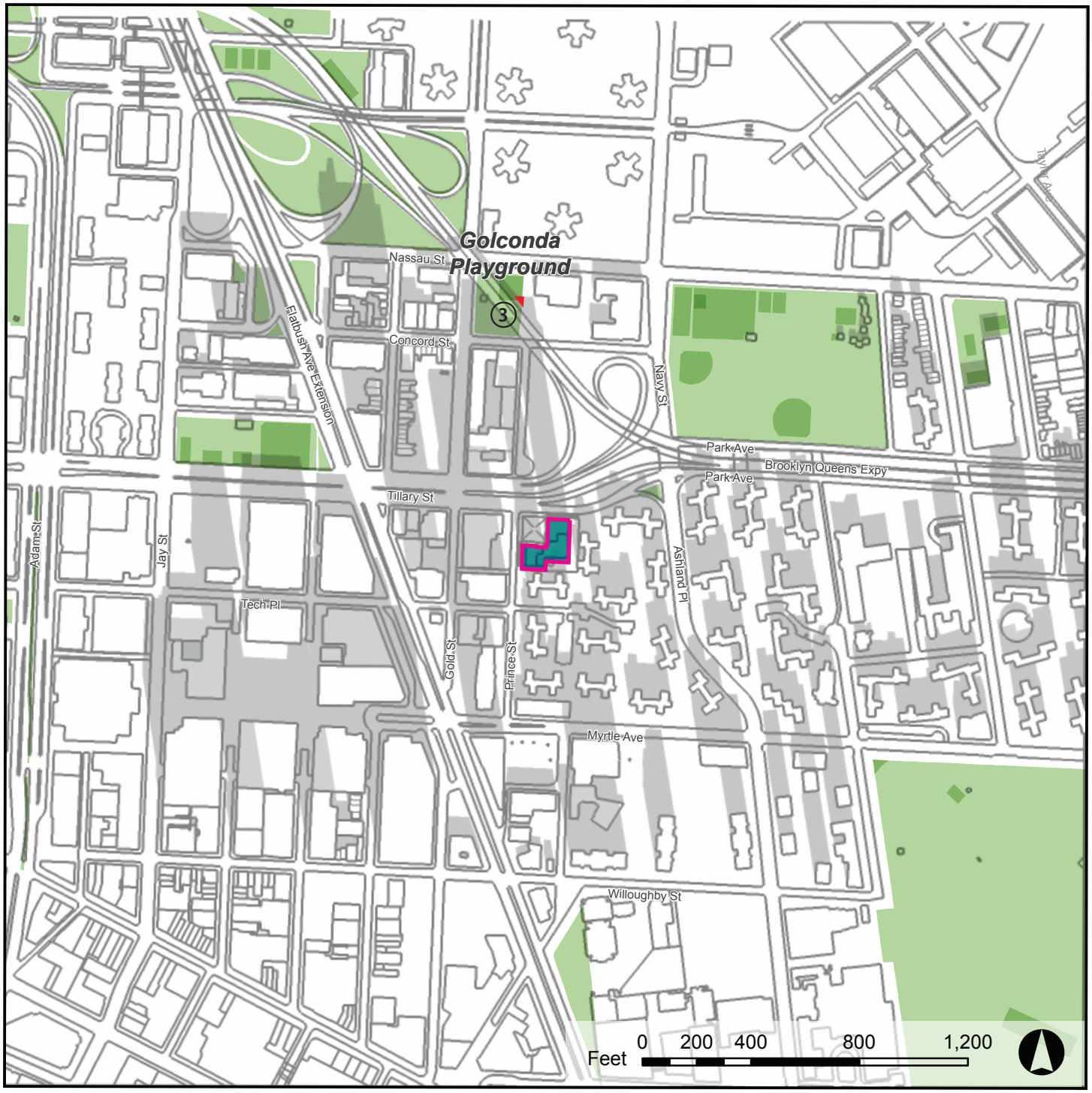
1 Sunlight-sensitive Resources

INCREMENTAL SHADOWS 10:30 AM

December 21st Analysis Day

Figure G-10

202-208 Tillary Street Rezoning EAS



Source: 2015 Pluto, NYCDCP

Development Site

① Sunlight-sensitive Resources

INCREMENTAL SHADOWS 11:20 AM

December 21st Analysis Day

Figure G-11

202-208 Tillary Street Rezoning EAS

Source: 2015 Pluto, NYCDCP

Development Site

1 Sunlight-sensitive Resources

INCREMENTAL SHADOWS 8:47 AM

December 21st Analysis Day

Figure G-12

202-208 Tillary Street Rezoning EAS

Source: 2015 Pluto, NYCDCP

Development Site

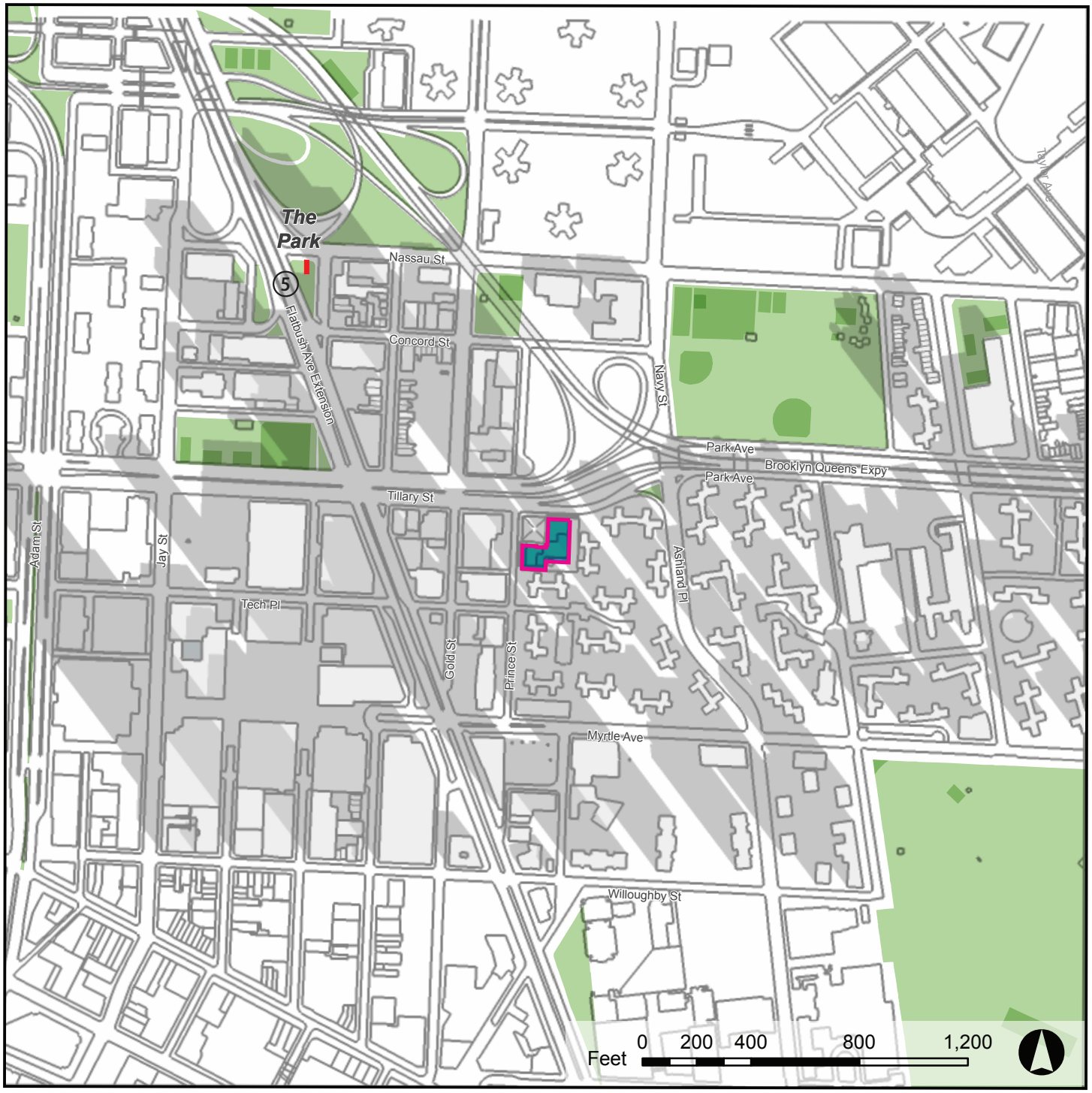
1 Sunlight-sensitive Resources

INCREMENTAL SHADOWS 9:00 AM

December 21st Analysis Day

Figure G-13

202-208 Tillary Street Rezoning EAS



Source: 2015 Pluto, NYCDCP

Development Site

1 Sunlight-sensitive Resources

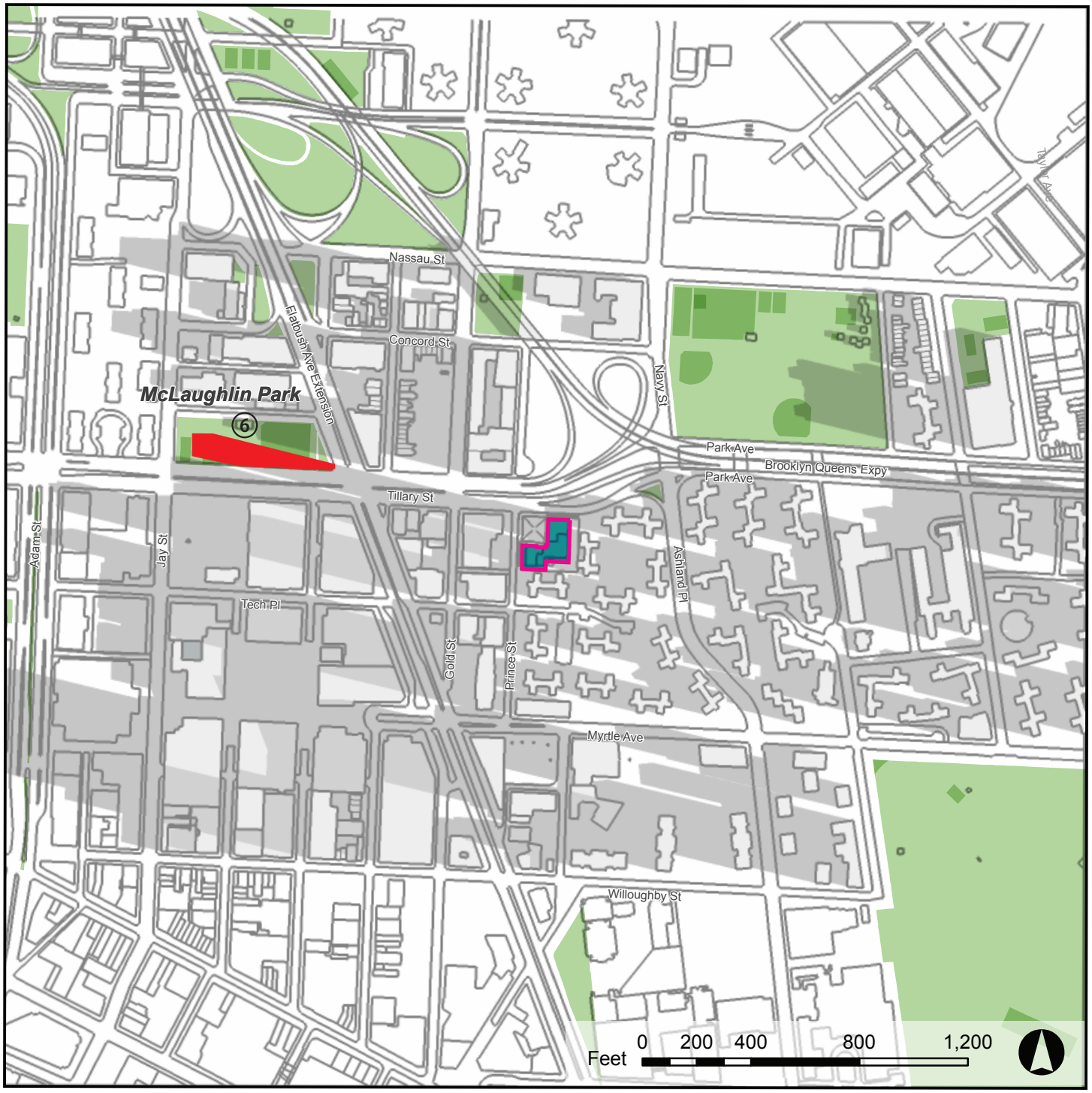
Longest Shadow Study Area Boundary

INCREMENTAL SHADOWS 9:19 AM

December 21st Analysis Day

Figure G-14

202-208 Tillary Street Rezoning EAS



Source: 2015 Pluto, NYCDCP

Development Site

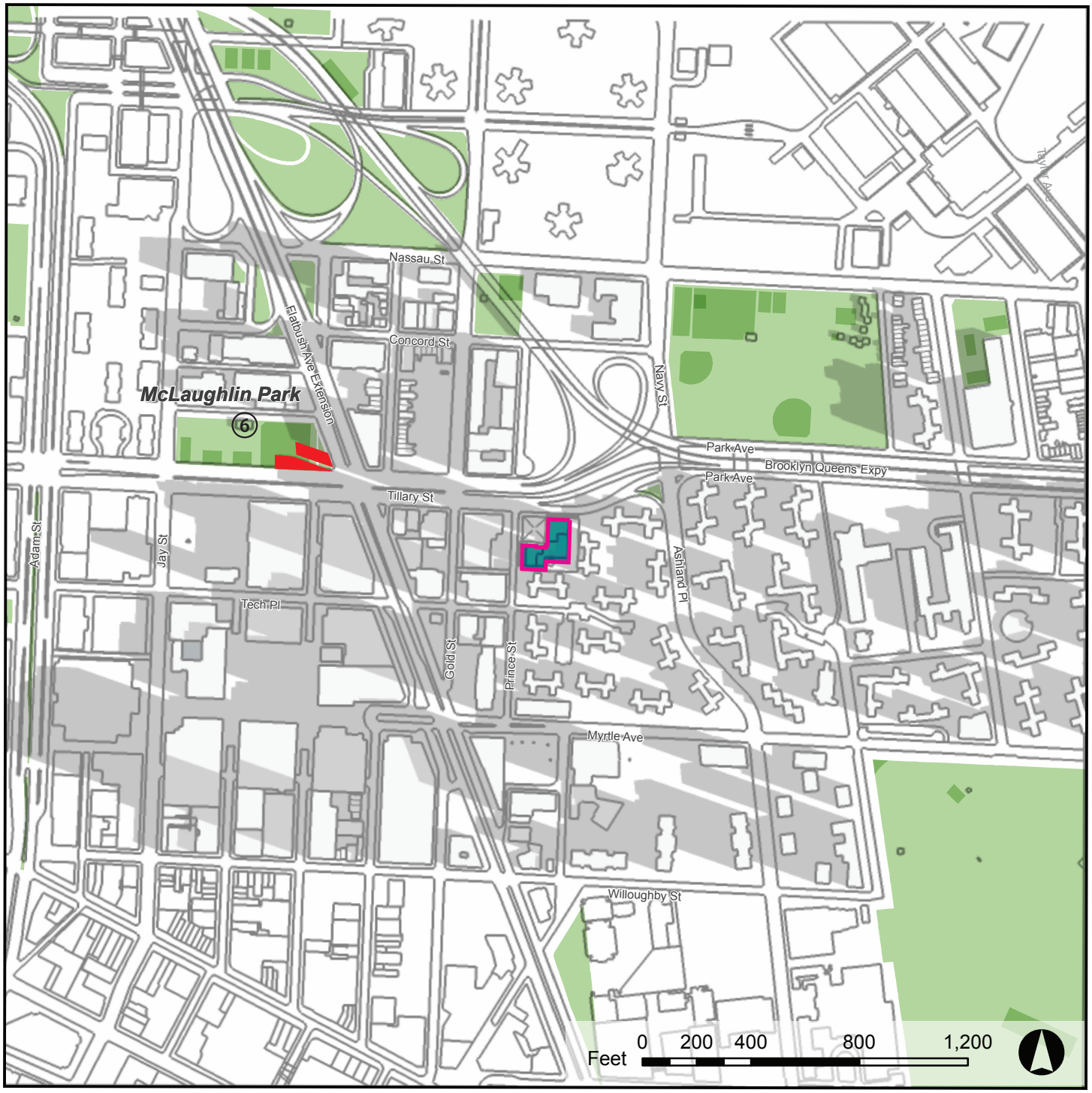
① Sunlight-sensitive Resources

INCREMENTAL SHADOWS 7:28 AM

March 21st Analysis Day

Figure G-15

202-208 Tillary Street Rezoning EAS



Source: 2015 Pluto, NYCDCP

Development Site

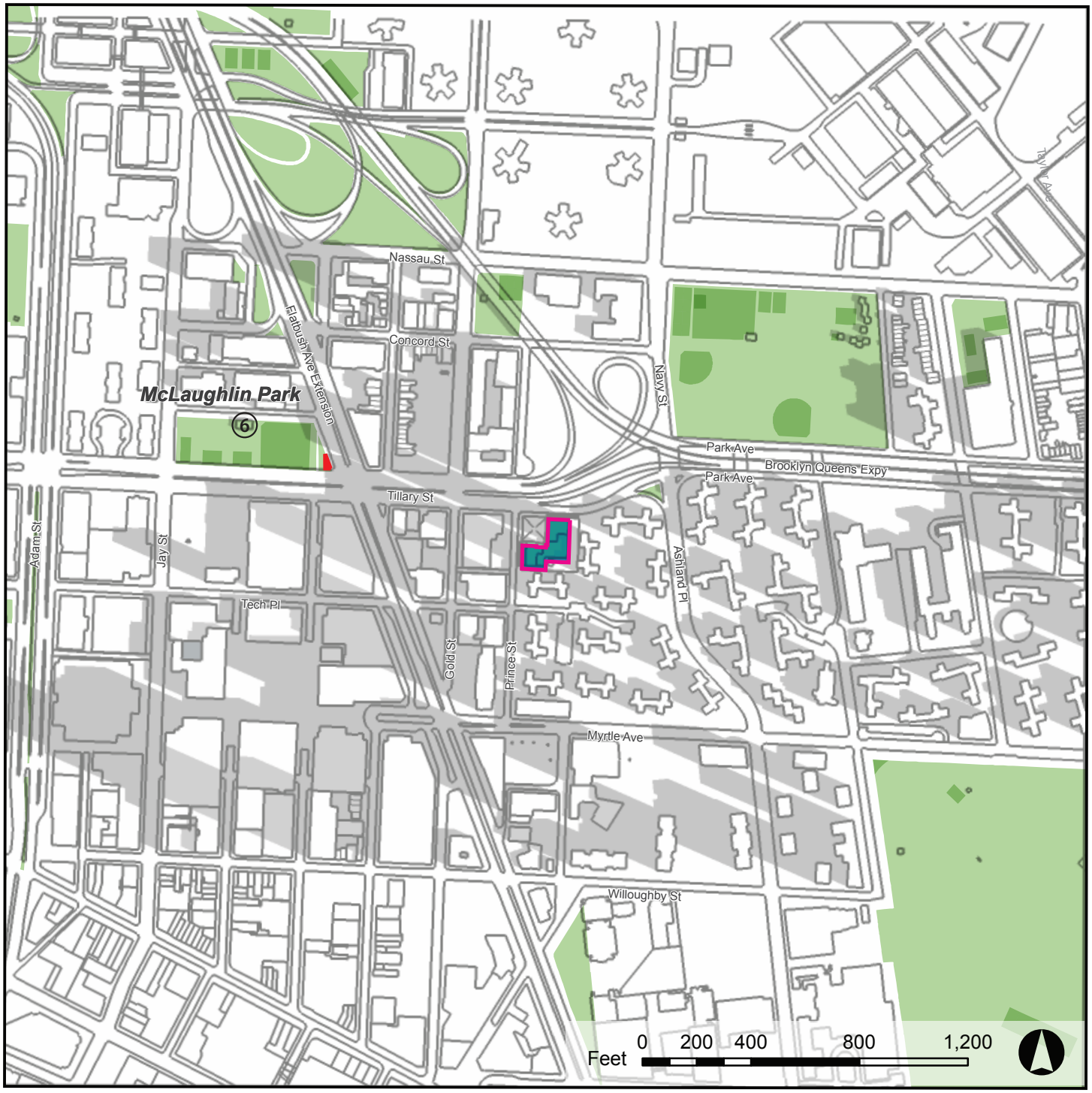
1 Sunlight-sensitive Resources

INCREMENTAL SHADOWS 8:00 AM

March 21st Analysis Day

Figure G-16

202-208 Tillary Street Rezoning EAS



Source: 2015 Pluto, NYCDCP

Development Site

1 Sunlight-sensitive Resources

INCREMENTAL SHADOWS 8:22 AM

March 21st Analysis Day

Figure G-17

202-208 Tillary Street Rezoning EAS

Table G-1: Analysis Summary

Sunlight-Sensitive Resource	Analysis Day Timeframe Window	December 21st 8:47 AM - 3:02 PM	March 21st 7:28 AM - 4:39 PM	May 6th 6:19 AM - 5:27 PM	June 21st 5:55 AM - 6:01 PM
(1) Commodore Barry Park	Shadow Enter -Exit Times	1:28 PM - 3:02 PM	---	---	---
	Incremental Shadow Duration	1 hr 34 mins	---	---	---
(3) Golconda Playground	Shadow Enter -Exit Times	10:30 AM - 11:20 AM	---	---	---
	Incremental Shadow Duration	50 mins	---	---	---
(5) The Park	Shadow Enter -Exit Times	8:47 AM - 9:19 AM	---	---	---
	Incremental Shadow Duration	32 mins	---	---	---
(6) McLaughlin Park	Shadow Enter -Exit Times	---	7:28 AM - 8:22 AM	---	---
	Incremental Shadow Duration	---	54 mins	---	---

Note: Daylight savings time not used

VI. ASSESSMENT

CEQR Technical Manual guidelines indicate that the significance of shadows impacts on a sunlight-sensitive resource is based on (i) the information resulting from the detailed shadow analysis describing the extent and duration of incremental shadows and (ii) an analysis of the resource's sensitivity to reduced sunlight. A shadows impact occurs when the incremental shadow from a proposed project falls on a sunlight-sensitive resource or feature and reduces its direct sunlight exposure. Determining whether this impact is significant or not depends on the extent and duration of the incremental shadow and the specific context in which the impact occurs.

For open space and natural resources, the uses and features of the resource indicate its sensitivity to shadows. Sensitivity is assessed for both (i) warm-weather dependent features like wading pools and sand boxes, or vegetation that could be affected by a loss of sunlight during the growing season; and (ii) features, such as benches that could be affected by a loss of winter sunlight.

Assessment

Commodore Barry Park, Golconda Playground, and The Park

The incremental shadows would cover very small portions of Commodore Barry Park, Golconda Playground, and The Park throughout the December 21st analysis day. As shadows are not static and move from west to east throughout the day, these open space amenities would continue to receive direct sunlight

on the December 21st analysis day when temperatures would also be colder and the use of active recreational space (handball and basketball courts) would not be as high (compared to warmer months), and would not affect the utilization or enjoyment of this open space resource. Vegetation would not be affected by incremental shadows, as the December 21st analysis day falls outside the plant growing season as defined by the *CEQR Technical Manual*. Therefore, the incremental shadows due to the Proposed Development would not significantly reduce direct sunlight exposure on the Commodore Barry Park.

McLaughlin Park

For a short duration in the morning of the March 21st analysis day, incremental shadows would cover the southern portion of McLaughlin Park for a total duration of approximately 54 minutes. The affected area consists of hard surface basketball and handball courts, and the southern half of the baseball field. As shadows are not static and move from west to east throughout the day, the park's amenities would continue to receive direct sunlight and would not affect the utilization or enjoyment of this open space resource. In addition, the northern portion of McLaughlin Park features tree pits with large foliage cover, providing existing shadows during warmer months. Vegetation would not be affected by incremental shadows as the affected active park amenities included hard surface pavement courts and typical baseball diamond lawn grass. The vegetation in McLaughlin Park would continue to receive over seven hours of direct sunlight after the shadow as passed, greater than the minimum four to six hours a day advised by the *CEQR Technical Manual.*

VII. CONCLUSION

The Proposed Development would not result in a significant adverse impact on sunlight-sensitive resources. New incremental shadows would not reduce the usability of these open space resources, and, during the growing season, there would be no vegetated areas that would receive less than four to six hours of sunlight on the analysis days.

Attachment H: Urban Design and Visual Resources

I. INTRODUCTION

This chapter assesses the potential impact of the Proposed Actions on urban design and visual resources. Urban design is the composite of elements that may affect a pedestrian's experience of public space. These elements include streets, buildings, visual resources, open space, natural features, and wind. As described in Chapter 10 of the *CEQR Technical Manual*, the urban design and visual resources assessment evaluates whether the Proposed Actions may have effects on one or more elements of pedestrian experience.

As described in Attachment A, "Project Description", the With-Action scenario, compared to the No-Action Scenario, would result in an incremental addition of 383,201 gsf of residential use and 35,712 gsf of commercial/retail use on Lot 100 Block 2050 in Brooklyn (the "Development Site"). A total of 435 residential dwelling units (DU), with 109 affordable DUs at or below 60% of Area Median Income (AMI), would be provided. In addition, approximately 13,721 gsf of Use Group (UG) 6 commercial/retail space would be provided on the ground floor, and a locally-oriented 21,991 gsf health and physical culture facility (gym), would be located above the ground floor retail use. A minimum of 72 attendant-staffed underground parking spaces would be provided. The tallest portion of the Proposed Development under the Future With-Action scenario would rise to a height which is greater than allowed under the current mapped R6 zoning district. The height and bulk of the Proposed Development under the Future With-Action scenario would have the potential for a pedestrian to observe, from the street level, a physical alternation beyond that allowed by existing zoning. As such, a preliminary urban design assessment has been prepared and presented below.

II. PRINCIPAL CONCLUSIONS

Based on the guidelines set forth in the *CEQR Technical Manual*, the Proposed Actions would not result in significant adverse impacts on urban design and visual resources. The proposed zoning changes would not result in development that is substantially taller, or with greater density, than those in the immediate surroundings of the Development Site. The Proposed Development would not obstruct important visual resources or result in any changes to block form or street arrangement and orientation.

The style and character of the Proposed Development would be cohesive with the existing buildings in the neighborhood, utilizing similar architectural details and materials as those already found in the study area. Consequently, the Proposed Actions would not result in a change to the built environment's arrangement, appearance, or functionality in a way that would negatively affect a pedestrian's experience of the area. Therefore, the Proposed Action would not result in any significant adverse impacts to urban design or visual resources in the study area.

III. METHODOLOGY

As defined in the *CEQR Technical Manual*, urban design is the totality of components that may affect a pedestrian's experience of public space. The following elements play an important role in that experience:

1. **Streets.** For many neighborhoods, streets are the primary component of public space. The arrangement and orientation of streets define the location and flow of activity in an area, set street

views, and create the blocks on which buildings and open spaces are organized. The apportionment of street space between cars, bicycles, transit, and sidewalks and the careful design of street furniture, grade, materials used, and permanent fixtures, including plantings, street lights, fire hydrants, curb cuts, or newsstands are critical to making a successful streetscape.

2. **Buildings.** Buildings support streets. A building's street walls for the most common backdrop in the city for public space. A building's size, shape, setbacks, lot coverage, and placement on the zoning lot and block; the orientation of active uses; and pedestrian and vehicular entrances all play major roles in the vitality of the streetscape. The public realm also extends to building façades and rooftops, offering more opportunity to enrich the visual character of an area.

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

4. **Open Space.** For the purpose of urban design, open space includes public and private areas such as parks, yards, cemeteries, parking lots, and privately owned public spaces.

5. **Natural Features.** Natural features include vegetation and geologic, topographic, and aquatic features. Rock outcroppings, steep slopes or varied ground elevation, beaches, or wetlands may help define the overall visual character of an area.

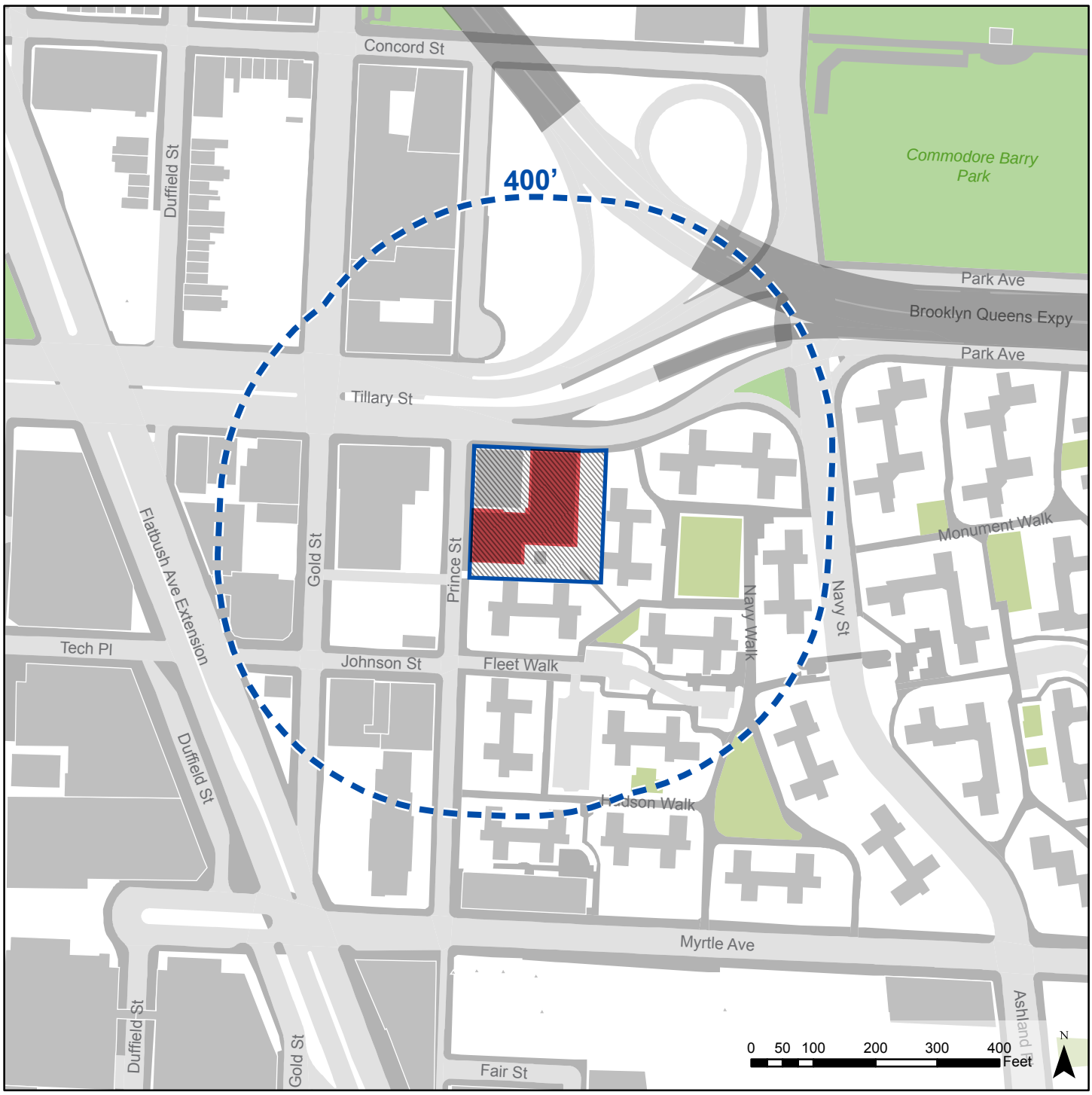
6. **Wind.** Channelized wind pressure from between tall buildings and downwashed wind pressure from parallel tall buildings may cause winds that affect pedestrian comfort and safety.

An urban design and visual resources assessment is necessary when a proposed action may have effects on one or more of the defined elements that contribute to the pedestrian experience. According the *CEQR Technical Manual*, a preliminary assessment for urban design is appropriate when there is the potential for a pedestrian to observe, from the street, a physical alteration beyond that allowed by existing zoning, including the following:

1. Projects that permit the modification of yard, height, and setback requirements;

2. Projects that result in increase in built floor area beyond what would be allowed "as-of-right" or in the future without the proposed project.

The Proposed Actions would result in a potential for a pedestrian to observe, from the street level, a physical alternation beyond that allowed by existing zoning. As such, a preliminary urban design assessment has been conducted. The preliminary assessment describes the existing conditions and discusses the Future With-Action and Future No-Action urban design and visual resources for a surrounding 400-foot study area (the "Study Area") from the Development Site **(Figure H-1)**. The changes that would occur between the Future No-Action and Future With-Action scenarios are disclosed.



Source: NYCDCP, 2015 Pluto

Development Site

Project Area

400-foot Study Area

URBAN DESIGN AND VISUAL RESOURCES STUDY AREA

Figure H-1

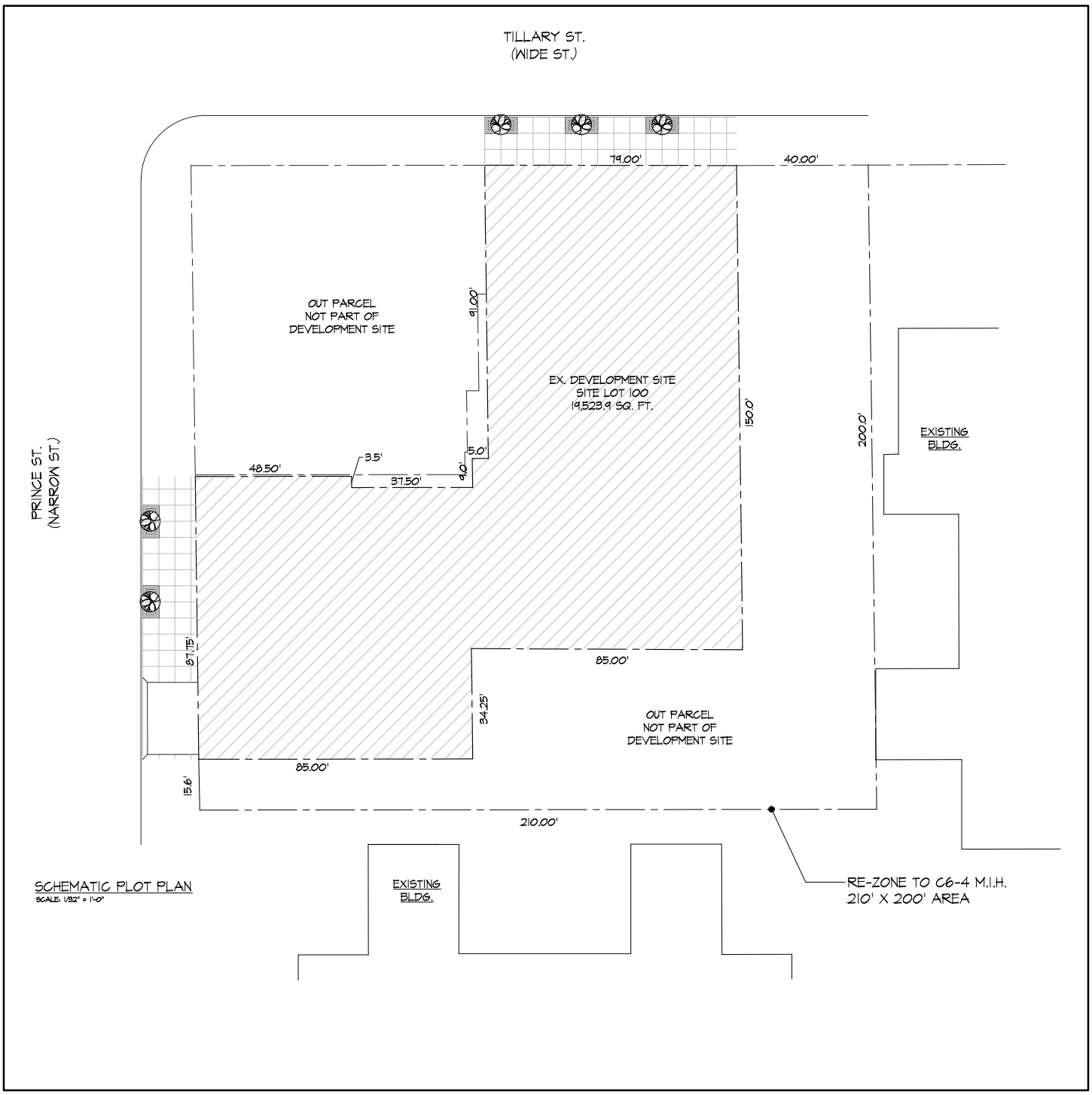
Wind

Construction of projects involving multiple, tall buildings at or in close proximity to waterfront sites may result in exacerbation of wind conditions due to 'channelization' or 'downwash' that may affect pedestrian comfort and safety. The Proposed Actions would not result in the construction of a large building at a location that is along the waterfront. The Development Site is located over 3,900 feet (ft) from the nearest waterfront resource. In addition, while the Proposed Development under the Future With-Action Scenario would consist of two buildings rising to a maximum height of 400 ft, they are by connected by two floors of retail/commercial use at the base and would therefore not create the channelized wind pressure conditions that typically occur between two tall buildings placed in close proximity to another. The Proposed Development is also expected to not create downwashed wind pressure conditions that typically occur when there are parallel tall buildings. As such, a wind analysis is not warranted for the Proposed Actions.

IV. EXISTING CONDITIONS

Development Site

The Development Site is located on Lot 100, Block 2050. Lot 100 is an irregular "L" shaped lot with 79 ft of frontage on Tillary Street (a wide street) and 87.75 ft of frontage on Prince Street (a narrow street). It borders Lot 104 (a corner lot) on both the eastern and southern lot lines of Lot 104. The Development Site has a total lot area of 19,523.9 sf and is occupied by a five-story building built in 1948 that is used for storage and warehousing. The building has 114,500 gsf of floor area and an FAR of 5.86. Since it is in a residential zoning district (R6), the current use is non-conforming and the building is non-complying in floor area. The building is approximately 56 ft in height and covers all of its lot at the ground floor. It has two loading docks, each approximately 25 ft in width. The western edge of the curb cut is approximately 110 ft from the intersection of Tillary and Prince Streets. **(Figure H-1)**



Source: Aufgang Architects

EXISTING SITE PLAN

Figure H-2

Source: NYCDCP, 2015 Pluto

Development Site

Project Area

400-foot Study Area

AERIAL MAP + PHOTO LOCATIONS

Figure H-3

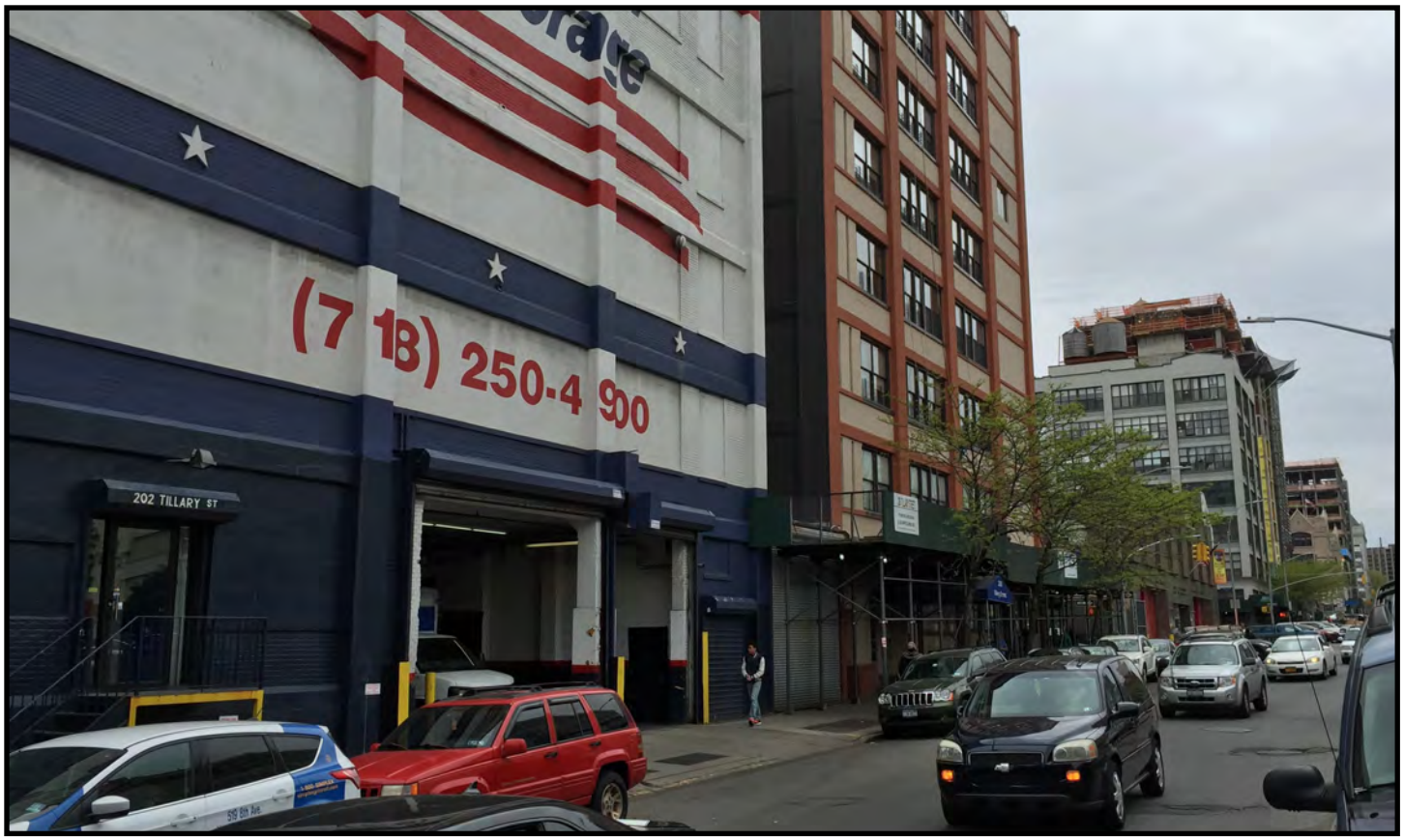


Photo A-1

Photo A-2

Photo A-3

Photo A-4

Study Area

Streets

The predominant street pattern within the Study Area follows typical grid alignments that are partially broken up by Block 2050, which is a "superblock" occupied by 21 multi-family residential buildings as part of the Ingersoll Houses owned by the New York City Housing Authority (NYCHA), and Tillary Street, which runs in an east-west direction and transitions into both on- and off-ramps for the Brooklyn-Queens Expressway (BQE).

Tillary Street is a wide[1], east-west roadway that varies in width at the intersection with Gold Street (a narrow street[2]) and as it merges with both the on- and off-ramps from the BQE. In the westbound direction, Tillary Street consists of two travel lanes with informal parking on the south sidewalk, which transitions into three travel lanes at the intersection with Gold Street with a single-lane off-ramp from BQE Exit 29B. West of Gold Street, Tillary Street transitions into five travel lanes. In the eastbound direction, Tillary Street consists of five travel lanes as it approaches the Gold Street intersection. East of Gold Street, Tillary Street transitions into two/three travel lanes with backed-in parking on the south-side curb and informal parking on the north side of the street. Tillary Street then splits into a single-lane on-ramp to the BQE with informal parking on the south side of the on-ramp and continues to east with two travel lanes, curbside parking, and bounds the Development Site to the north.

Prince Street, Gold Street, and Johnson Street are all narrow roadways within the Study Area. Prince Street bounds the Development Site to the west and consists of a single northbound one-way travel lane with backed-in sidewalk parking on both sides of the curb. Gold Street is a single southbound one-way travel lane with backed-in sidewalk parking on the east side and typical on-street parking on the west side. Johnson Street consists of a single westbound one-way travel lane with on-street parking on both sides, and transitions into Fleet Walk, which provides two-way access into the Ingersoll Houses and terminates near Navy Street to the east.

Sidewalk conditions in the Study Area vary slightly and is often associated with adjacent property developments where new development constructions would also include good quality sidewalk spaces. Streetscape elements in the Study Area consists generally of street trees and narrow sidewalk widths that are interrupted by informal parking on the sidewalk itself. Street furniture that can be found throughout the Study Area include street lights, standard street signs, fire hydrants, and trash cans.

Buildings

As described in Attachment B, "Land Use, Zoning, and Public Policy," the Study Area consists primarily of residential uses with some institutional, manufacturing, and transportation/utility uses. Immediately south and east of the Development Site include the Ingersoll Houses, which is a grouping of 21 multi-family residential buildings with 1,826 DUs, owned by NYCHA. Buildings west of the Development Site include the New York City Police Department (NYPD) 84th Precinct station, a Fire Department of New York City (NYFD) fire station on the west side of Prince Street, and mixed-use residential tower developments with ground floor commercial/retail uses. These types of developments are also prevalent north of the Development Site.

Within the Study Area, building characteristics vary significantly with the Ingersoll Houses, south and east of the Development Site, sharing similar built forms and facade materials as other typical NYCHA residential complexes. Mixed-use residential towers towards the north and west of the Development Site are generally built with contemporary designs with ground floor retail. Building heights within the Study

[1] The Zoning Resolution of the City of New York defines wide streets as streets 75 feet or more in width
[2] The Zoning Resolution of the City of New York defines narrow streets as streets 75 feet or less in width

Area vary significantly with the Ingersoll Houses having a height of six floors while mixed-use residential tower apartments have heights ranging between 36 to 42 stories **(Figure H-4)**. The NYPD 84th Precinct and NYFD fire station on the west of Prince Street and across from the Development Site has a height of two stories with backed-in parking on all three street frontages. The built density also varies significant between 2.0 FAR to more than 16.0 FAR **(Figure H-5)**.

Open Space

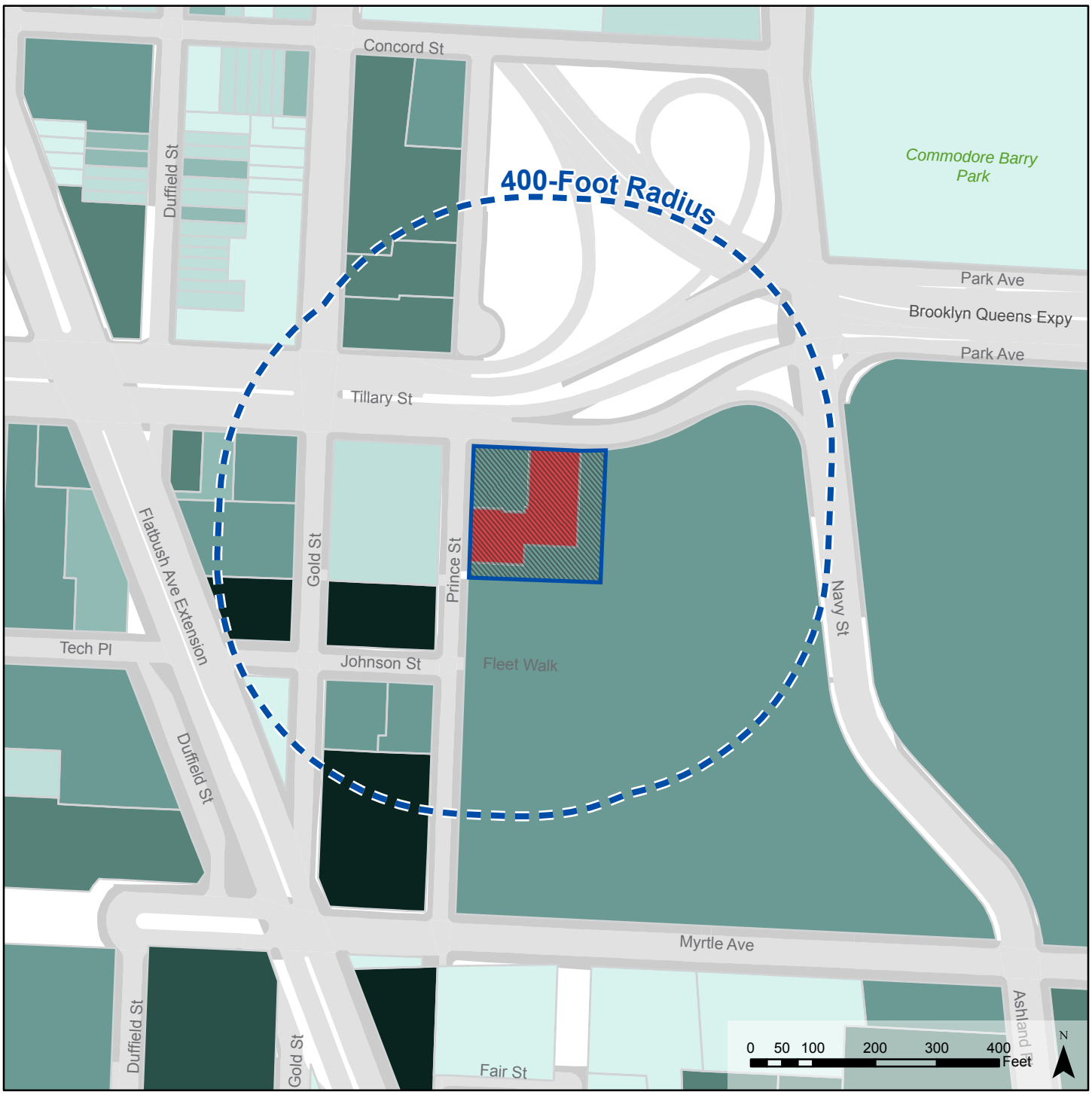
While there are no open space resources within the Study Area, Commodore Barry Park, Golconda Playground, and McLaughlin Park are located immediately outside of the Study Area.

Natural Resources

As discussed in Attachment B, "Supplemental Screening," the Development Site and its immediate surrounding area does not have any classified water bodies, unique geological features, state-regulated freshwater wetlands, rare plants and rare animals, or significant natural communities, according to the New York Natural Heritage Program's Ecological Community of New York State publication.

Visual Resources

There are no significant natural or built features, including views of the waterfront, public parks, landmark structures or districts, distinct buildings, or groups of buildings or natural resources on the Development Site or its immediate surrounding area.



Source: NYCDCP, 2015 Pluto

Development Site

Project Area

Study Area Boundary

0 to 1 Floor

1 to 3 Floors

3 to 5 Floors

5 to 10 Floors

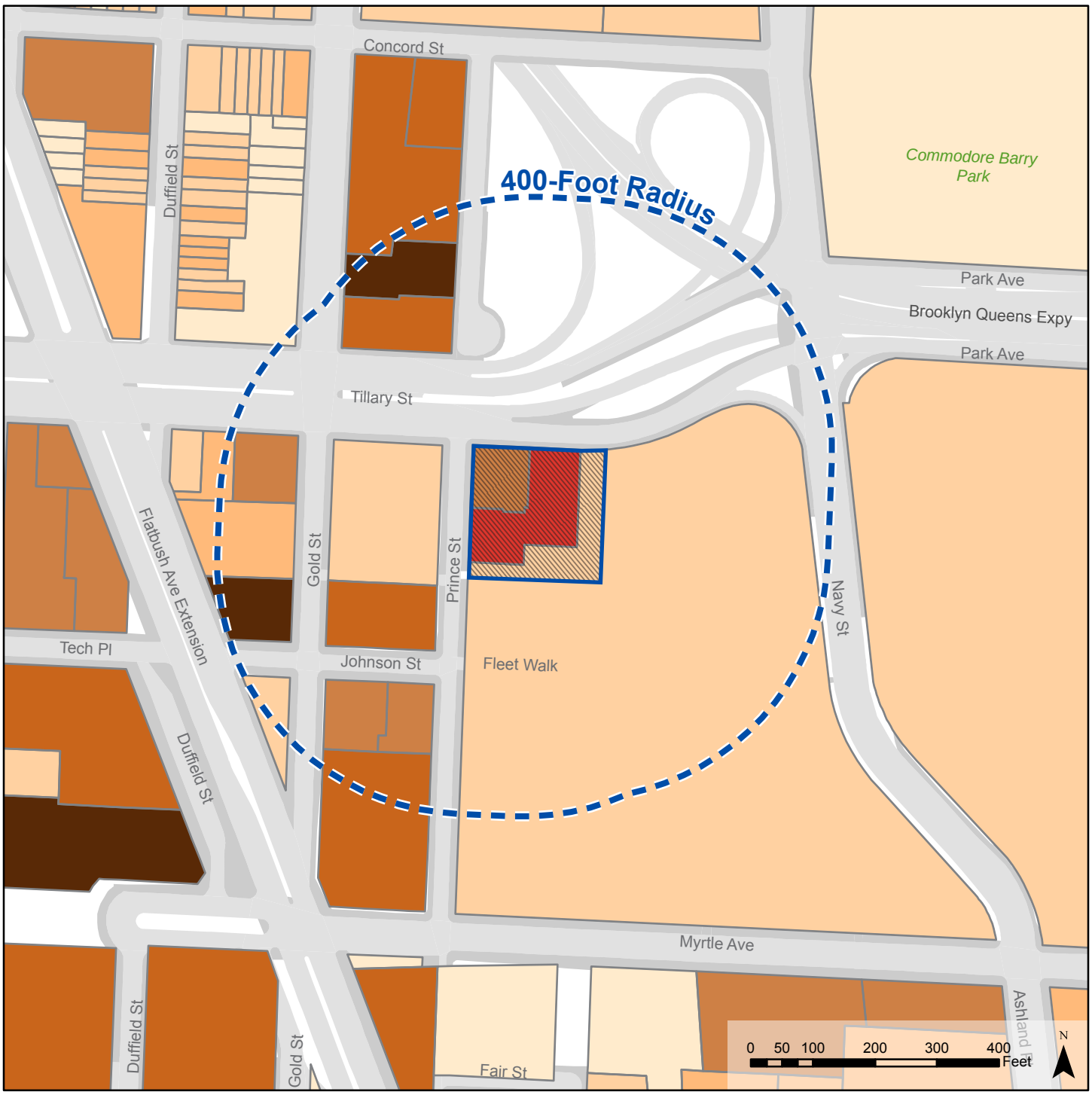
10 to 20 Floors

20 to 30 Floors

30+ Floors

EXISTING BUILDING HEIGHTS (NUMBER OF FLOORS)

Figure H-4



Source: NYCDCP, 2015 Pluto

Development Site
Project Area
Study Area Boundary

0 FAR
0.1 - 2.0 FAR
2.1 - 4.0 FAR

4.1 - 8.0 FAR
8.1 - 16 FAR
16.1+ FAR

EXISTING DENSITY (BUILT FAR)

Figure H-5

V. FUTURE NO-ACTION SCENARIO

Development Site

Absent the Proposed Actions (Future No-Action Scenario), the Development Site would remain as under existing conditions in the 2020 build year. There would be no change in the buildings, sidewalk conditions, or visual corridors in the Future No-Action Scenario.

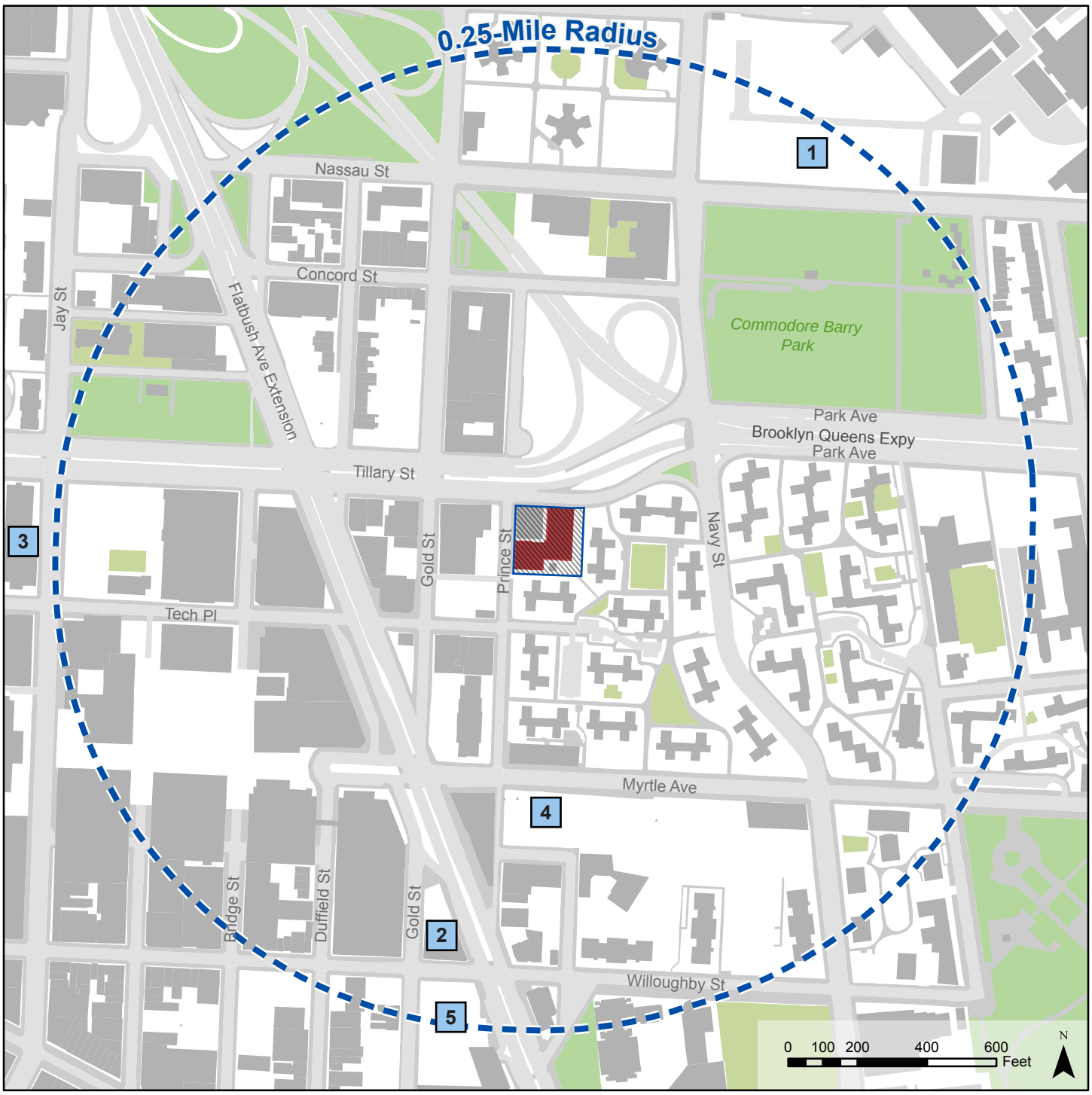
Study Area

As described in Attachment A, "Project Description," five projects have been identified within approximately 0.25 miles of the Development Site that would potentially be completed and available for occupancy by the end of 2020. All would occur independently of the Proposed Actions **(Table H-1** and **Figure H-6)**. These "No-Action" projects would generate a combined total of approximately 1,877 DUs[3], 354,026 gsf of commercial/retail space, 7000 gsf of community facility space, 386,000 gsf of academic/institutional space, and 127,000 gsf of light industrial space.

Table H-1: Future No-Action Development Sites

Map No.	Address	Block and Lot	Description
1	63 Flushing Ave	Block 2023, Lot 50	293,000 gsf development complex with a 74,000 gsf supermarket, 127,000 gsf of light industrial space, 79,000 gsf of retail for local stores, and 7,000 gsf of community facility space
2	141 Willoughby St	Block 2060, Lots 1,4 and 8	372,078 gsf mixed-use development with 29,923 gsf of retail space, 94,103 gsf of commercial office space and 248,052 gsf of residential floor area
3	285 Jay St	Block 131, Lot 1	386,000 gsf academic building
4	86 Fleet Pl	Block 2061, Lot 50	400,000 gsf mixed-use development with 10,000 gsf of retail space and 390,000 gsf of residential use
5	138 Willoughby St	Block 149, Lot 1	705,000 gsf mixed-use development with 67,000 gsf of retail space and 638,000 gsf of residential use

[3] As described in Attachment A, "Project Description," the number of dwelling units provided at each No-Action project was determined by applying the density allowance under current zoning to the total residential floor area.



Source: NYCDCP, 2015 Pluto

Development Site

Project Area

No-Action Projects Study Area

1 No-Action Development Projects

NO-ACTION DEVELOPMENT PROJECTS MAP

Figure H-6

VI. FUTURE WITH-ACTION SCENARIO

Development Site

In the future with the Proposed Actions (Future With-Action Scenario), the Development Site would be rezoned from R6 to C6-4 (R10 equivalent), would participate in the Mandatory Inclusionary Housing (MIH) program, and would be included within the Special Downtown Brooklyn District and the Flatbush Avenue Extension Height Limitation Area with a height restriction of 400 ft.

With the Proposed Actions, the Proposed Development would consist of two buildings (referenced to as "Building A1" and "Building B1" below) that together would result in an approximately 441,363 gsf mixed-use development with a residential FAR of 9.13, a commercial/retail FAR of 0.85, 72 underground, attendant-staffed parking spaces, and 220 bicycle parking spaces. Uses would include approximately 326 market-rate DUs and 109 affordable DUs at or below 60% AMI (25% of total DUs), approximately 13,721 gsf of UG 6 commercial/retail space on the ground floor and a locally-oriented 21,991 gsf health and physical culture facility (gym) located above the ground floor retail use.

Of the 72 attendant-staffed underground parking spaces that would be provided, 65 would be accessory residential parking pursuant to ZR 25-23 (parking requirements are waived for affordable DUs in designated Transit Zones pursuant to ZR 25-251). The remaining seven parking spaces (10% of total parking spaces) would be set aside as reservoir parking (pursuant to ZR 101-52). Parking requirements for the proposed commercial/retail and community facility program are waived pursuant to ZR 36-20 and ZR 25-31. Access to the underground parking garage would be provided on Prince Street.

The Proposed Development under the Future With-Action Scenario is described below:

- **Building A1** would consist of 42 stories of residential use (204,478.5 gsf) and would occupy the northern portion of the lot facing Tillary Street.
- **Building B1** would consist of 42 stories of residential use (178,722.5 gsf) and would occupy the southern portion of the lot facing Prince Street.
- **Commercial Use** would be located on the first and second floor and connect both buildings A1 and B1, totaling 35,712 gsf with 13,721 gsf of local retail and a 21,991 gsf physical culture establishment.

Study Area

Streets

The Proposed Actions would not alter the arrangement or orientation of streets within the Study Area. The streetscape elements within the Study Area are limited primarily to sidewalks lined with trees with tree guards. The Proposed Development would maintain similar or improved streetscape conditions around and near the Development Site.

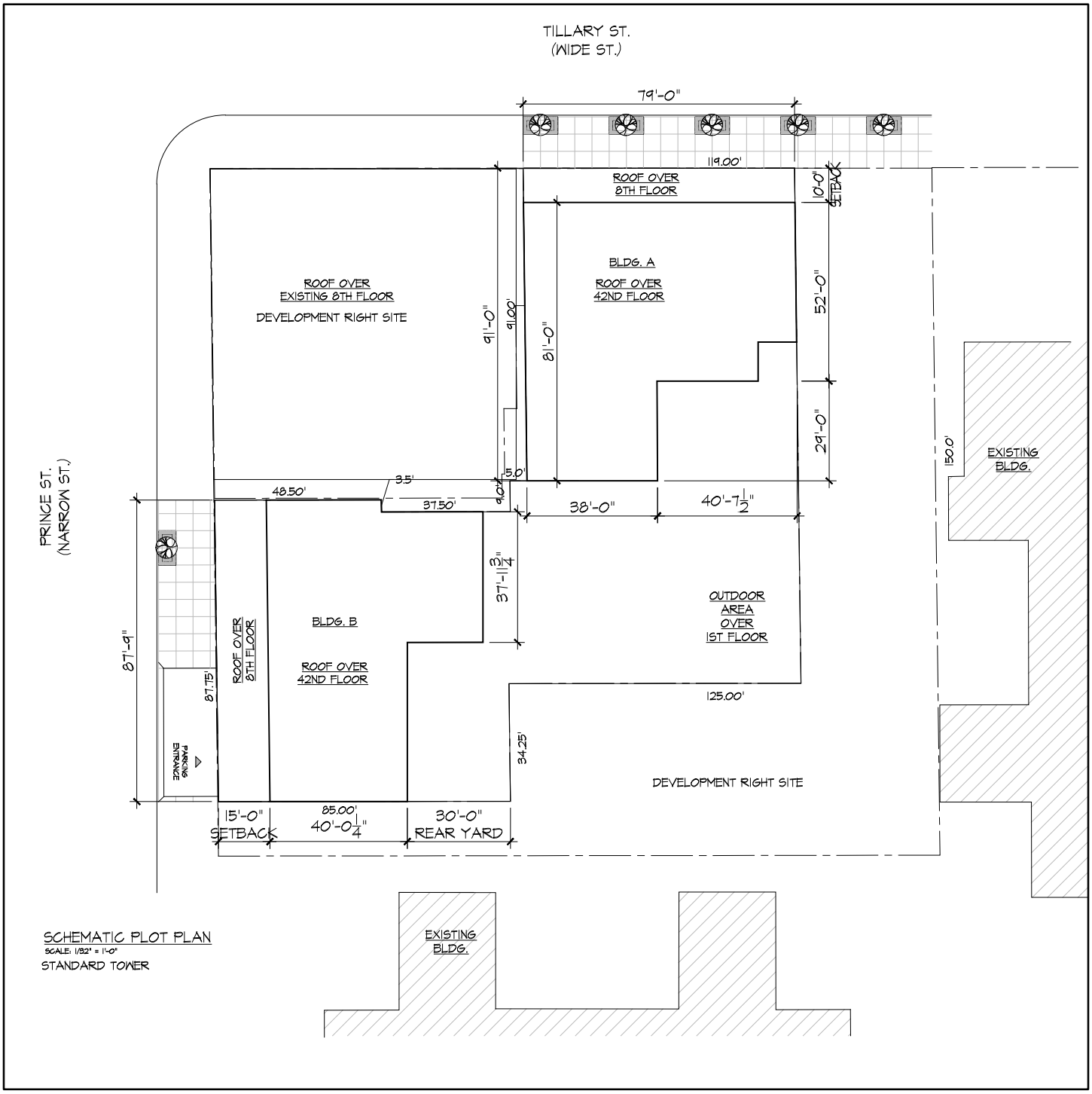
Buildings

The Proposed Actions would not have a direct effect on buildings outside of the Development Site, and would not result in built forms and building types that are substantially larger in scale or bulkier than those currently existing in the Study Area. The Proposed Actions are appropriate for the Development Site since the zoning and current use of the Development Site is inconsistent with adjacent zoning to the west and the proposed zoning amendment would permit development consistent with the remainder of Downtown Brooklyn. The extension of the Special Downtown Brooklyn District (and the Flatbush Avenue

Extension Height Limitation Area: Height Restriction of 400 Feet) would recognize the proximity of the Development Site to the Downtown core and require development consistent with the goals the special district. As such, the Proposed Actions would not alter pedestrian conditions noticeably from that which currently exists in the Study Area and that which would occur in the Future No-Action Scenario.

Open Space

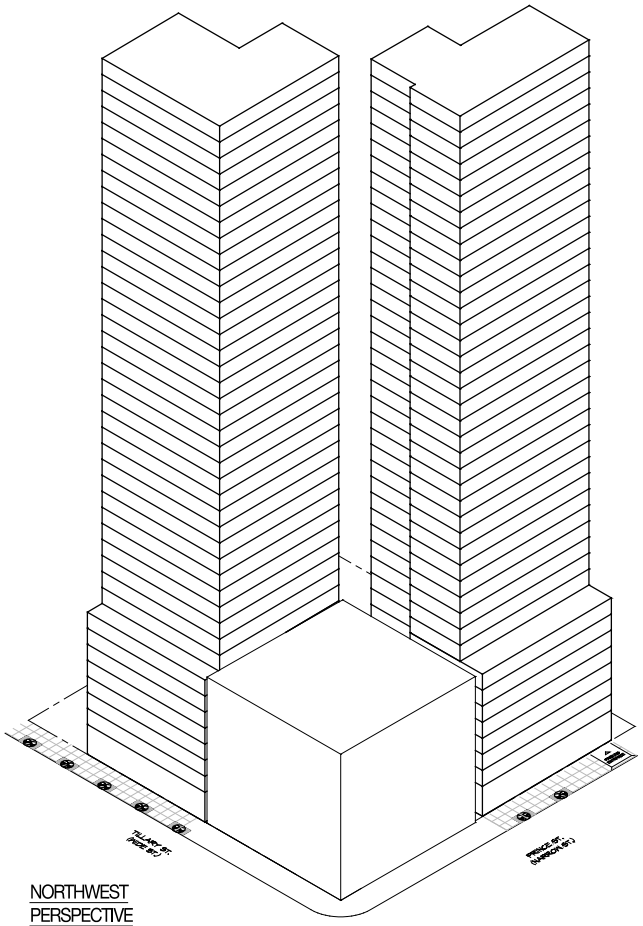
There is no open space within the Study Area and as described in Attachment F, “Open Space,” the Proposed Actions would not result in any direct effects or significant adverse impacts on open space resources in the area.

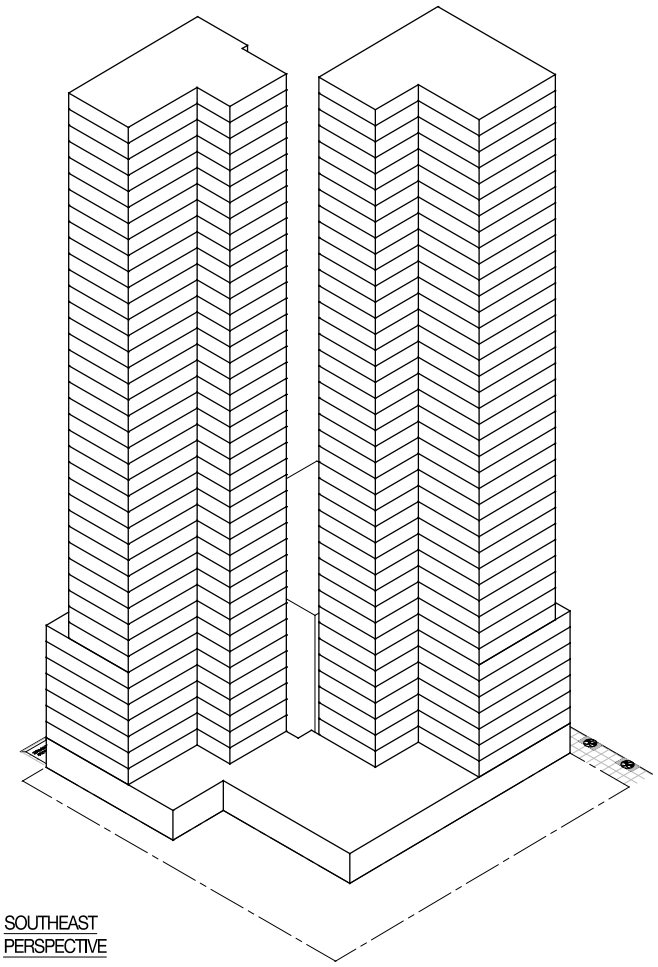


Source: Aufgang Architects

WITH-ACTION SITE PLAN

Figure H-7

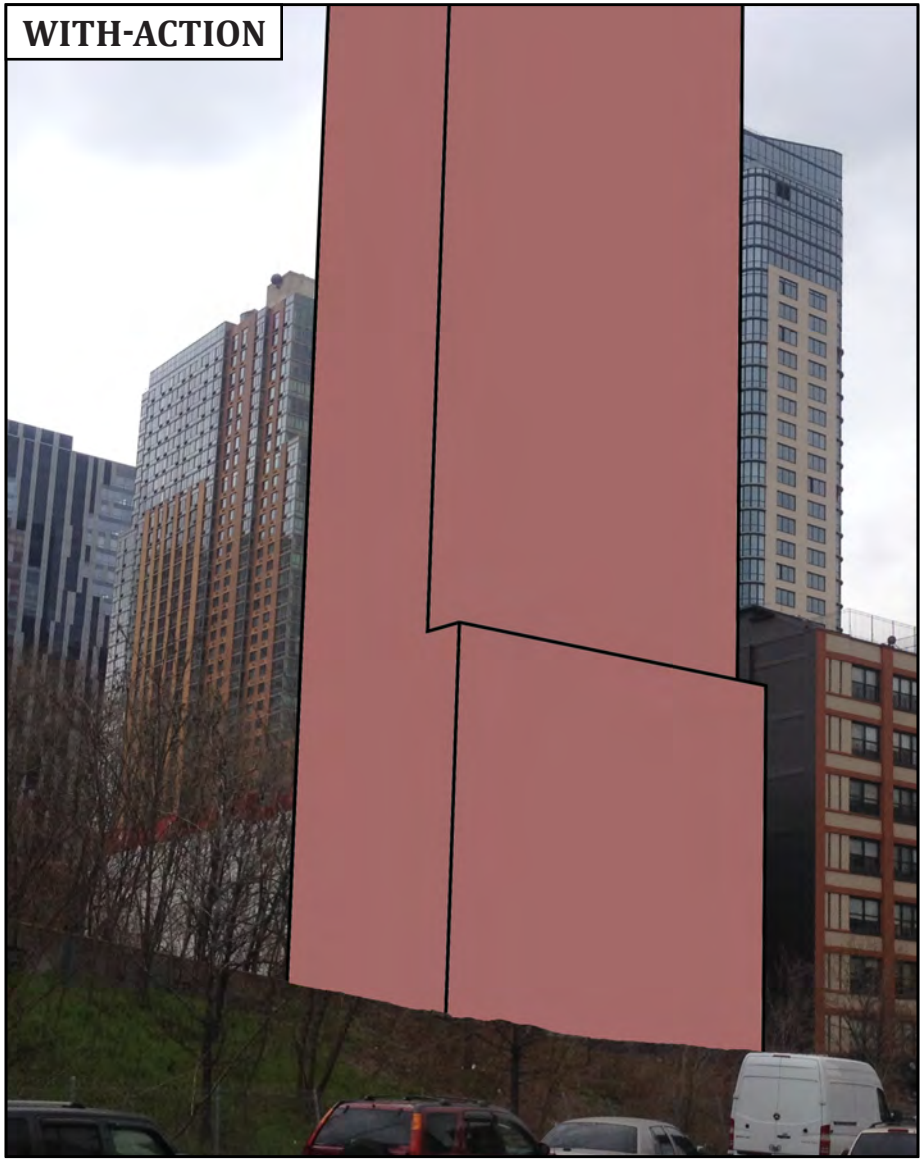




Source: Aufgang Architects

WITH-ACTION PROPOSED DEVELOPMENT PERSPECTIVE

Figure H-8



Source: Aufgang Architects

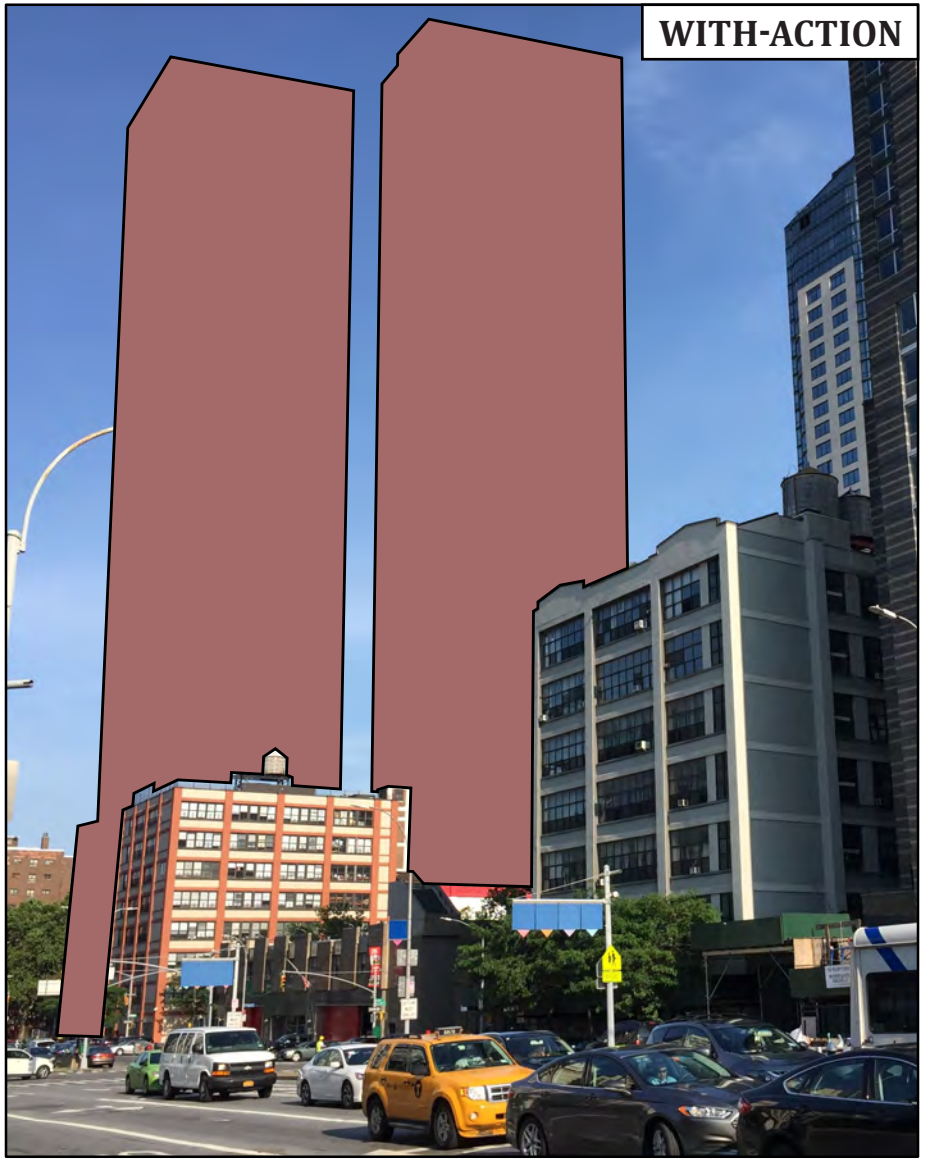
PERSPECTIVE VIEW FROM TILLARY STREET, LOOKING WEST

Figure H-9

Source: Aufgang Architects

PERSPECTIVE VIEW FROM PRINCE STREET, LOOKING SOUTH

Figure H-10



Source: Aufgang Architects

PERSPECTIVE VIEW FROM TILLARY STREET, LOOKING EAST

Figure H-11

VII. CONCLUSION

The Proposed Actions would not result in any changes to block form or street arrangement and orientation, nor would it have a significant adverse impact on the visual resources in the 400-foot urban design and visual resources Study Area. Consequently, the Proposed Actions would not result in a change to the built environment's arrangement, appearance, or functionality in a way that would result in a significant adverse impact on a pedestrian's experience of the area. The uses of the surrounding buildings located within the Study Area are similar to those that would occur on the Development Site as a result of the Proposed Actions. The scale and bulk of the Proposed Development would not be larger and would not have greater bulk than the buildings that currently exist in the Study Area. Additionally, the design and massing of the Proposed Development incorporates elements of the existing neighborhood's built forms and minimizes the change of pedestrian level experience. Therefore, the Proposed Actions would not result in any significant adverse impacts to urban design or visual resources in the Study Area.

Attachment I: Hazardous Materials

I. INTRODUCTION

This attachment assesses the potential for the Proposed Action to increase the exposure of people or the environment to hazardous materials, and if so, whether this increased exposure would result in potentially significant public health or environmental impacts. As indicated in guidance in Chapter 12 of the *CEQR Technical Manual*, a hazardous materials assessment may be necessary when a Proposed Action could lead to increased exposure of people or the environment to hazardous materials. As defined in Chapter 12, hazardous materials are substances that pose a threat to human health or the environment and can include heavy metals, volatile organic compounds (VOCS), semi-volatile organic compounds (SVOCS), methane, polychlorinated biphenyls (PCBS), pesticides, dioxins, and hazardous wastes.

II. PRINCIPAL CONCLUSIONS

Based on the results of the Phase I Environmental Site Assessment (ESA) for the Project Site prepared by Brinkerhoff Environmental Services Inc. (Brinkerhoff) in July, 2015, a Phase II ESA is not recommended. While a search of available public data bases revealed that a 150-gallong diesel oil spill at the subject property occurred on April 6, 1990, cleanup was implemented and no open New York State Department of Environmental Conservation (NYSDEC) spill number exists, and no further investigation was proposed by the regulatory agency. No recognized environmental conditions (RECs), controlled recognized environmental conditions (CRECs) or historical recognized environmental conditions (HRECs) were identified at the subject site.

Based on the findings of the Phase I ESA and coordination with the New York City Department of Environmental Protection (DEP), the Proposed Action would include the (E-437) designation for the Project Site to account for any impact from the potential presence of contaminated materials. The implementation of the preventative and remedial measures outlined in the (E-437) designation would reduce or avoid the potential for significant adverse hazardous materials impacts resulting from the construction on the project Site that would be allowed by the Proposed Action. In addition, a Remedial Action Plan (RAP) and associated Construction Health and Safety Plan (CHASP) will be prepared for implementation during construction. The RAP and CHASP will be subject to approval by DEP or the Mayor's Office of Environmental Remediation (OER).

With compliance to the recommendations stated in the Phase 1 ESA and the implementation of the (E-437) designation, RAP, and CHASP, there would be no significant adverse impact from the Proposed Action due to the potential presence of contaminated materials.

III. METHODOLOGY

The Phase I ESA for the Project Site was conducted by Brinkerhoff in July 2015. The scope of the Phase I ESA is in general conformance with United States Environmental Protection Agency (USEPA) Standards and Practices for All Appropriate Inquiries, 40 Code of Federal Regulations (CFR) Part 312, and the American Society for Testing and Materials (ASTM) Standard Practice E 1527-13 for Environmental Site Assessments (ASTM E 1527-13).

The purpose of the ESA is to:

- Review the general environmental condition of the land and structure that comprise the subject property
- Identify recognized environmental conditions (RECs), controlled recognized environmental conditions (CREDs), and historical recognized environmental conditions (HRECs), as defined by ASTM E 1527-13), on and near the Project Site that may adversely impact the subject property owner or operator under existing federal, state and local environmental laws, and
- Recommend further actions necessary to confirm, quantify or abate those conditions.

A recognized environmental condition (REC) is defined by ASTM E 1527-13 as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to the release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.

ASTM E 1527-13 defines

- a HREC as a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls, and
- a CREC is defined as a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.

Conditions determined to be *de minims conditions* are not considered to be RECs nor CRECs. A *de minims condition* is defined by ASTM E 1527-13 as a condition that generally does not present a threat to human health or the environment and generally would not be the subject of an enforcement action if brought to the attention of appropriate government agencies.

The Phase I ESA entailed the following activities:

- A physical inspection of the subject property on July 7, 2015, by Brinkerhoff to locate and identify: obvious signs of chemical spills; visual and documented evidence of chemical storage tanks; improper use, storage and disposal of hazardous materials; and, polychlorinated biphenyl (PCB)-containing electrical equipment.
- A review of federal and state standard environmental record sources using minimum search distances from the subject property, as defined by ASTM E 1527-13, to identify nearby sites with known environmental impairments or operations registered to handle hazardous substances and wastes.
- A review of reasonably ascertainable standard historical sources that might include aerial photographs, fire insurance maps, property tax files, recorded land title records, United States Geological Survey (USGS) 7.5 Minute Topographic Maps, local street directories, building department records, zoning/land use records, or other historical sources.

This Phase I ESA reflects conditions that were visibly evident in those areas where access was available on the site visit. The assessment offers both information about the site and operations performed on site; however, visual inspections were limited to those areas of the subject property that were accessible during the site visit. It is possible that hazardous materials might be found in inaccessible areas.

The site reconnaissance involved inspecting reasonably accessible areas and did not involve subsurface investigations, investigations under debris piles, asphalt paving, concrete slabs, sidewalks, or other areas that could not be reasonably inspected without the use of specialty equipment such as heavy machinery or geophysical probing devices. Additionally, since the building is a self-storage facility containing more than

1,300 privately-rented storage units, access was not possible within the units with the exception of the units and rooms containing utility services such as electric, natural gas and fire suppression systems.

IV. PHASE I ESA CONCLUSIONS AND RECOMMENDATIONS

The Phase I ESA revealed the following conclusions and recommendations:

Data Gaps

- As of the date of report preparation, the NYSDEC and the NYCDEP had not yet responded to requests for site information.

Recognized Environmental Conditions (RECs)

- According to the EDR environmental database search, the subject property was identified in the ERNS database at the 202 Tillary Street address. According to the ERNS database, the listing is related to a 150-gallon diesel oil spill that occurred on April 6, 1990. The report indicated that the oil spilled while a delivery truck was approaching the fuel dock and it struck a curb. The police and fire department were on site, and a cleanup was undertaken. The material spilled from the truck's fuel tank. No additional information was provided by EDR. Since cleanup was implemented and no open NYSDEC spill number exists, no further investigation is proposed.

Based on the findings of this report, a Phase II ESA is not recommended at this time.

Controlled Recognized Environmental Conditions (CRECs)

Based upon findings of the Phase I ESA, CRECs were not identified.

Historic Recognized Environmental Conditions (HRECs)

Based upon findings of the Phase I ESA, HRECs were not identified.

Other Environmental Concerns

- Urban Historic Fill - The potential exists that urban historic fill is present on the property. Urban historic fill is common in highly urbanized areas and can contain contaminants such as heavy metals and semi-volatile organic compounds. If identified, appropriate transportation and disposal/recycling procedures should be followed.
- Asbestos-Containing Materials (ACMs)/Lead-Based Paint (LBP) - The structures on the subject property were constructed in the early 1900s when ACMs and/or LBP were commonly used. It is possible that ACMs and/or LBP may be present. ACM and LBP surveys should be conducted prior to the renovation or demolition of the structures.

V. (E-437) DESIGNATION

Based on the findings of the Phase I ESA and coordination with DEP, the Proposed Action would include the (E-437) designation for the Project Site to account for potential hazardous material contamination, and the potential for adverse impacts to human health and the environment. The (E) designation provides a mechanism to ensure that testing for and mitigation and/or remediation of hazardous materials, if necessary, are completed prior to, or as part of, future development of an affected site, thereby eliminating the potential for a hazardous materials impact. With respect to lots with (E) designations, the New York City Department of Buildings (DOB) will not issue building permits or certificates of occupancy until it receives an appropriate "Notice" from the OER that the environmental requirements have been met.

The (E-437) designation requirements related to hazardous materials would apply to the Project Site and is as follows:

Task 1 – Sampling Protocol

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

Task 2 – Remediation Determination and Protocol

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

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

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

VI. CONCLUSION

Based on the results of the Phase I ESA prepared by Brinkerhoff in July, 2015 for the Project Site, a Phase II ESI is not recommended at this time. In addition, based on coordination with DEP, with the (E-437) designation in place, no significant adverse impacts related to hazardous materials are expected as a result of the Proposed Actions, and no further analysis is warranted.

Attachment J: Water and Sewer Infrastructure

I. INTRODUCTION

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

This attachment assesses the potential effects of the Proposed Actions on the City's water supply, wastewater treatment, and stormwater management infrastructure in accordance with the 2014 *City Environmental Quality Review (CEQR) Technical Manual*. As described in Attachment A, "Project Description", the With-Action Scenario, compared to the No-Action Scenario, would result in an incremental addition of 383,201 gsf of residential use and 35,712 gsf of commercial/retail use on Lot 100 Block 2050 in Brooklyn (the "Development Site"). A total of 435 residential dwelling units (DU), with 109 affordable DUs at or below 60% of Area Median Income (AMI), would be provided. In addition, approximately 13,721 gsf of Use Group (UG) 6 commercial/retail space would be provided on the ground floor, and a locally-oriented 21,991 gsf health and physical culture facility (gym), would be located above the ground floor retail use.

The Proposed Development would connect to both the municipal water supply and combined wastewater and stormwater conveyance and treatment systems. Wastewater from the area is conveyed to the Newtown Creek Wastewater Treatment Plant (WWTP), which has a total capacity of 310 million gallons per day (MGD). This attachment assesses the potential impact of the Proposed Actions on these facilities.

II. PRINCIPAL CONCLUSIONS

Water Supply

The Proposed Actions would not result in significant adverse impacts on the City's water supply system. The Future With-Action Scenario would result in an increase of 435 residential DUs, and 35,712 gsf of commercial/retail use. The additional water usage from the Future With-Action Scenario as a result of the Proposed Actions is expected to total approximately 97,917 gallons per day (gpd), compared to the Future No-Action Scenario **(Table J-5).** This incremental demand would represent less than one percent of the City's overall water supply and would not trigger the need for a preliminary or detailed assessment of potential impacts as demand would not be large enough to have a significant adverse impact on the City's water supply system.

Wastewater Treatment

The Proposed Actions would result in an increase of anticipated sewage demand by approximately 111,311 gpd from the Existing and the Future No-Action Scenario to the Future With-Action Scenario. In the future with the Proposed Actions, wastewater from the Future With-Action Scenario would be treated by the Newtown Creek WWTP. With an existing average dry weather flow of 199.5 mgd to the Newtown Creek WWTP and the addition of approximately 111,311 gpd (0.11 mgd), the Newtown Creek WWTP would continue to have ample reserve capacity. The Proposed Actions would result in an increase of 348% for the sanitary flow in the adjacent sewers. The New York City Department of Environmental Protection

(NYCDEP) will be consulted at the time of submittal of the site connection proposal application to determine whether the existing sewer system is capable of supporting higher density development and related increase in wastewater flow, or whether there will be a need to upgrade the existing sewer system. In addition, NYCDEP has determined that there will be a need to amend the existing drainage plan. Based on the relatively low demand on WWTP capacity and consultation with NYCDEP regarding upgrades to the existing drainage system and amendment to the existing drainage plan, the Proposed Actions would not result in significant adverse impacts on the sewer system.

The Proposed Development is located within the NCB-03/04 sub-catchment area of the Newtown Creek WWTP. Sub-catchment area flows would increase by 0.02 to 0.08 million gallons during storm events with up to 2.5 inches of rainfall. These increased flows to the City's combined sewer system may be discharged as combined sewer overflow (or CSOs) into the East River during rain events.

Because of the available assimilative capacity of the Newtown Creek WWTP, the projected increased flows to the combined sewer system would not have a significant adverse impact on water quality. Therefore, the Proposed Actions would not result in significant adverse impacts to local water supply or wastewater and stormwater conveyance and treatment infrastructure.

Stormwater Drainage and Management

With the Proposed Development, the impervious surfaces on the Development Site would be the same as under existing conditions, and as such, there would be no change in stormwater runoff associated with the Development Site.

III. METHODOLOGY

According to the *CEQR Technical Manual*, a preliminary water supply infrastructure analysis is needed if a project would result in an exceptionally large demand for water (e.g., more than one mgd) or is located in an area that experiences low water pressure (e.g., areas at the end of the water supply distribution system). The Proposed Development would not result in increased impermeability on the Development Site and, consequently, would not result in increased stormwater flows. Therefore, an assessment of stormwater flows and drainage is not needed. In addition, the incremental additional water demand from the Proposed Development would represent less than one percent of the City's overall water supply and therefore would not have a significant adverse impact.

As indicated in Section 220 of Chapter 13 of the *CEQR Technical Manual*, a preliminary assessment of the impact of the Proposed Development on wastewater and stormwater conveyance and treatment is needed if the Proposed Development:

- Is located in a combined sewer area and would exceed the following incremental development of DUs or commercial, public facility, and institution and/or community facility space above the predicted No-Action scenario:
    - 1,000 DUs or 250,000 sf of commercial, public facility, and institution and/or community facility space in Manhattan; or,
    - 400 DUs or 150,000 sf of commercial, public facility, and institution and/or community facility space or more in the Bronx, Brooklyn, Staten Island, or Queens.
- Is located in a separately sewered area and would exceed certain incremental development (above the predicted No-Action scenario) of DUs or commercial, public facility, and institution and/or community facility space per site.

- Is located in an area that is partially sewered or currently unsewered.
- Involves development on a site five acres or larger where the amount of impervious surface would increase.
- Would involve development on a site one acre or larger where the amount of impervious surface would increase and one of the following would apply: Located within the Jamaica Bay watershed; or located in certain specific drainage areas including the Bronx River, Coney Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, and Westchester Creek.
- Would involve construction of a new stormwater outfall that requires federal and/or state permits.

Since the Proposed Actions would result in up to 435 residential DUs, which is greater than the 400 DU threshold, a preliminary assessment of wastewater and stormwater conveyance and treatment impacts of the Proposed Development is conducted. Since the Proposed Actions would not allow for new industrial/manufacturing uses, an assessment of potential effects of proposed industrial facilities is not necessary.

To assess the Proposed Actions' potential impacts on water and sewer infrastructure, this attachment:

- Describes the existing water and sewer infrastructure serving the rezoning area and estimate water demand and wastewater generation on the Project Site under existing and No-Action conditions. Existing and future water demands and sewage generation are calculated based on use generation rates provided in the *CEQR Technical Manual*. Sanitary flows are calculated using the New York City Department of Environmental Protection's (DEP's) Volume Calculation Matrix;
- Describes planned No-Action infrastructure improvements in the rezoning area, project components, and current schedules;
- Forecasts water demand and sewage and stormwater generation by the proposed development induced by the Proposed Actions based on the *CEQR Technical Manual* guidelines; and
- Assesses the effects of the With-Action water demand and sewage and stormwater generation on the City's water and sewer infrastructure, in conformance to the *CEQR Technical Manual* guidelines.

IV. PRELIMINARY ASSESSMENT

Existing Conditions

Wastewater Treatment

According to the *CEQR Technical Manual*, wastewater includes sanitary sewage, wastewater generated by industries, and stormwater. Water used for air conditioning generates a negligible amount of wastewater since it recirculates or evaporates in the cooling and heating process.

The majority of New York City's wastewater treatment system is comprised by the sewer network beneath the streets and the 14 WWTPs located throughout the City. The majority of New York City's sewers are called "combined sewers," since they receive sanitary wastewater and stormwater runoff. Wastewater generated in a "drainage basin" (the area served by a WWTP) is conveyed through a network of combined sewers to the WWTP.

During dry weather, the WWTP primarily treats sanitary sewage. The average daily flow during dry weather is known as the average "dry-weather flow." WWTPs have treatment capacities set at twice their dry weather design flow for a limited amount of time. However, because the majority of New York City's sewers are combined sewers, they also receive stormwater and rainwater runoff from impermeable surfaces that generally contain pollutants such as oil and floatable debris. During wet weather, stormwater enters the combined sewer system along with sanitary sewage, and both are treated at a WWTP. During wet weather, rainfall runoff can reach ten to 50 times the dry weather flow, which is well above the WWTP design capacity. To avoid flooding the WWTPs, built-in regulators act as relief valves to direct the excess water to an outfall. During storm events, sanitary sewage entering, or already in, the combined sewer system and stormwater and debris can be discharged, untreated, into the nearest body of water. This untreated flow is known as "combined sewer overflow" (CSO).

During the 1990s, the City instituted a range of water conservation measures in response to excess flows to the City's WWTPs that exceeded the dry weather flow allowed in accordance with their respective State Pollutant Discharge Elimination System (SPDES) permits. Measures included equipping fire hydrants with locks to prevent illegal uses and requiring that all new plumbing fixtures in the City (including replacements in existing structures and new fixtures in new structures) be of a low-flow design (Local Law No. 29, 1989). The City also implemented a metering program, installing water meters at thousands of properties where water fees had previously been based on property frontage rather than usage. This metering provided a new financial incentive to identify and repair leaks in the water distribution system. These programs have reduced water demand and load in the City's WWTPs. At many WWTPs, this reduction has been in the order of magnitude of several million gallons per day. Overall, actual water demand has reduced by more than 30 percent since the 1990s, despite consistent increases in population. The DEP projects that savings from the continued implementation of these and other conservation measures over the next decade will exceed any increases in water demand from consumers.

As noted above, the majority of New York City wastewater is collected by a combined sewer system and treated by WWTPs. As shown in **Figure J-1**, the Development Site is served by the Newtown Creek WWPT. The Development Site is located within the NCB-03/04 sub-catchment area, and would be served by the regulators for those areas. The Newtown Creek WWTP has a permitted capacity of 310 mgd. As summarized in **Table J-1**, in 2016, average flows to the facility ranged from 190 mgd to 212 mgd and averaged 199.5 mgd.

Table J-1: Monthly Average Dry Weather Flows from the Newtown Creek WWTP (2016)

Month	Monthly Avg. Flow (mgd)
January	200
February	202
March	193
April	191
May	190
June	195
July	209
August	212
September	207
October	203
November	195
December	197

Source: NYCDEP

Based on guidance in the *CEQR Technical Manual*, estimates of an area's daily sanitary sewage generation are typically equivalent to the domestic water usage rates. Wastewater from air conditioning systems is not included in the overall volumes used for analysis, as minimal volumes of wastewater are generated from the re-circulation and evaporation processes involved in the air-cooling process. **Table J-2** shows the estimated existing wastewater generated on the Development Site.

Table J-2: Water Consumption and Sewage Generation on the Development Site – Existing Conditions

Use	Rate[1]	Area (gsf) / Units (DU)	Domestic Water/Wastewater Generation (gpd)	A/C (gpd)
Light Manufacturing	0.10 gpd/sf[3]	114,500	11,450	19,465
	A/C: 0.17 gpd/sf			
Water Consumption Subtotals			**11,450**	**19,465**
Sewage Generation Subtotal			**11,450**	
Total Water Consumption			**30,915**	
Total Wastewater Generation			**11,450**	

Notes:
1. Use and generation rates from Chapter 13, 2014 CEQR Technical Manual, unless otherwise noted
2. Assumes 2.74 residents per DU for all residential development in Brooklyn
3. Commercial/Office water usage and sewage generation rates assumed for self-storage facilities

Stormwater Drainage and Management

Currently, stormwater runoff from impermeable surfaces on the Development Site is collected by catch basins along the street and conveyed by the City's combined sewer system to the Newtown Creek WWTP. During dry weather, regulators built into the combined sewer system direct flows to interceptor sewers leading to the WWTP. However, during storm events, the regulators allow only twice the dry weather design flow into interceptor sewers and the remaining flow is discharged as CSOs into the East River during rain events.

Stormwater runoff is generated by rainwater that collects on the surfaces of land or built structures. The volume of runoff generated by these surfaces varies depending on the type of land cover, which includes "pervious" covers such as soil, grassed or landscaped features that allow water to percolate into the ground below. Consequently, runoff from pervious surfaces will percolate into the ground, reducing the amount of runoff to a local street. Runoff "coefficients" used to estimate the amount of stormwater flow to the drainage system vary based on the type of surface. The runoff coefficient from pervious surfaces is typically about 0.20, compared to the runoff coefficient from a building roof, which is 1.00, and the runoff coefficient from paved areas such as streets and sidewalks, which is 0.85.

The self-storage facility currently occupies the entirety of the Development Site with impervious surfaces that have high runoff coefficients. A visual inspection of the Development Site also indicated an absence of on-site stormwater detention systems. **Table J-3**, provides a summary of surface types under existing conditions.

Table J-3: Surface types on the Development Site – Existing Conditions

Surface Type[1]	Roof[2]	Pavement & Walks	Grass & Softscape	Total
Percentage of Total Area	100%	0%	0%	100%
Surface Area (sf)	19,524	0	0	19,524
Runoff Coefficient	1.00	0.85	0.20	1.00

Notes:
1. Runoff coefficients for each surface type are as per DEP
2. Total roof areas onsite

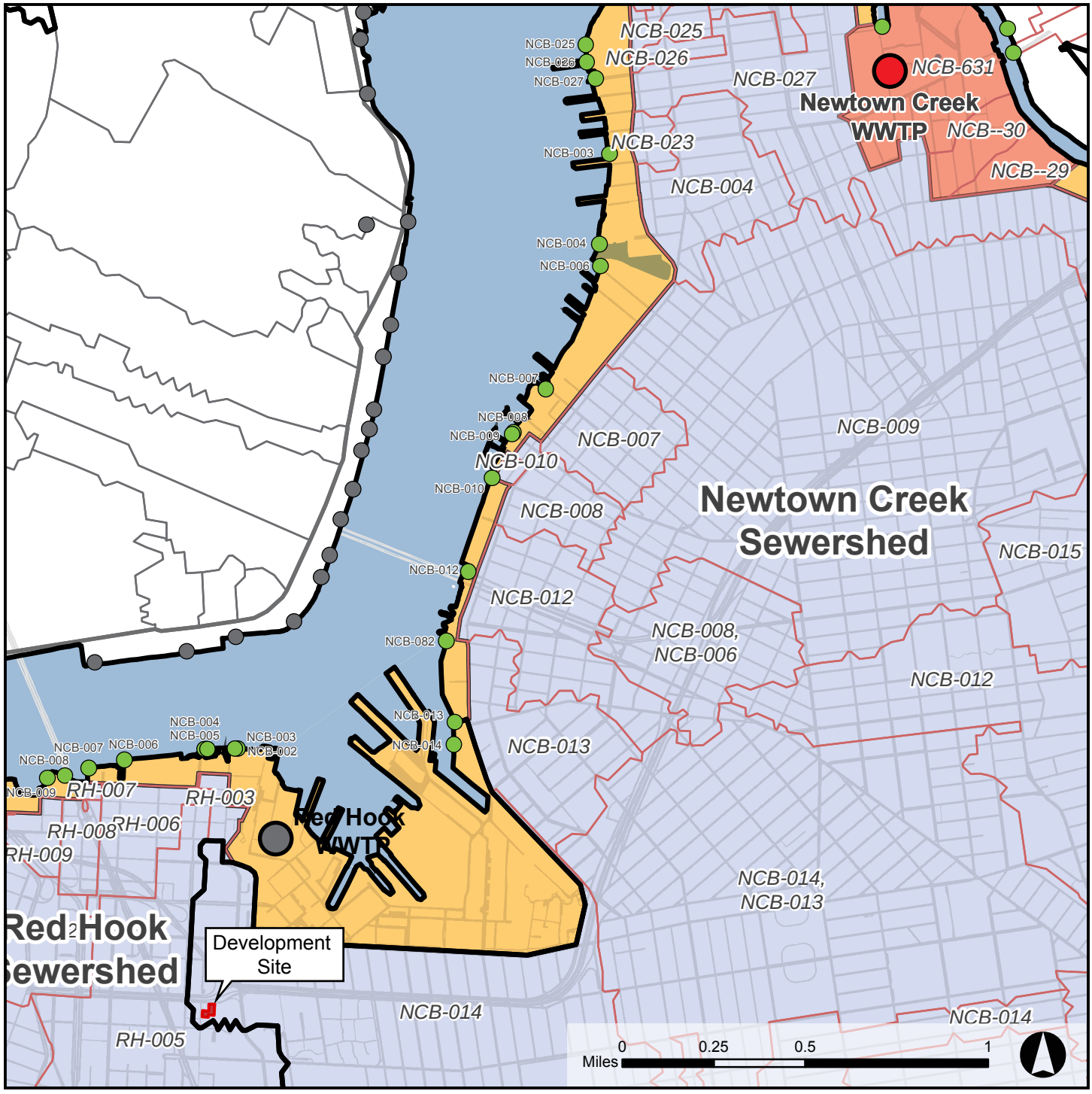
Total existing combined flows to the combined sewer system were estimated for the Development Site using the NYCDEP calculation matrix provided in the *CEQR Technical Manual*. As required, **Table J-4** shows the total volume of combined flows for the Development Site for four different rainfall events. As shown in the table, the combined flow to the sewer system could range between 0.01 million gallons (MG) to 0.04 MG.

Table J-4: Combined Stormwater Runoff and Wastewater Generation on the Development Site – Existing Conditions

CSO SUBCATCHMENT AREA: 1,347.05 acres

Rainfall (inches)[1]	Duration (hours)[1]	Total Area (acres)	Weighted Runoff Coefficient (C)	Stormwater to CSS[2] (MG)[3]	Daily Sanitary Sewage Generation (MGD)[4]	Sanitary to CSS[2] (MG)[3]	Total Volume to CSS[2] (MG)[3]
0.00	3.80	0.448	1.00	0.00	0.011	0.002	0.00
0.40	3.80	0.448	1.00	0.00	0.011	0.002	0.01
1.20	11.30	0.448	1.00	0.01	0.011	0.005	0.02
2.50	19.50	0.448	1.00	0.03	0.011	0.009	0.04

Notes:
1. Based on information provided by NYCDEP
2. CSS = Combined Sewer System
3. MG = Million Gallons
4. MGD = Million Gallons per Day



Source: Open Sewer Atlas NYC

Development Site

Sewershed

Subcatchment Areas

Sewer Outfall

Wastewater Treatment Plant

Direct Drainage

Combined Sewer System

Separate Sewer System

NEWTOWN CREEK WWTP SUBCATCHMENT AREAS

Figure J-1

202-208 Tillary Street Rezoning EAS

Future No-Action Scenario

Under the Future No-Action Scenario, the Development Site would remain unchanged from its existing condition. Water consumption, waste water flow and stormwater flows would not change from the existing condition.

Future With-Action Scenario

Wastewater Treatment

As indicated in Section II, "Principal Conclusions," the anticipated sewage demand as a result of the Proposed Actions would increase by approximately 111,311 gpd from the Existing and the Future No-Action Scenario to the Future With-Action Scenario. This incremental increase in sanitary flow would represent less than 0.1 percent of the Newtown Creek WWTP current dry weather capacity. The Proposed Actions would result in an increase of 348% for the sanitary flow in the adjacent sewers. NYCDEP will be consulted at the time of submittal of the site connection proposal application to determine whether the existing sewer system is capable of supporting higher density development and related increase in wastewater flow, or whether there will be a need to upgrade the existing sewer system. In addition, NYCDEP has determined that there will be a need to amend the existing drainage plan. Based on the relatively low demand on WWTP capacity and consultation with NYCDEP regarding upgrades to the existing drainage system and amendment to the existing drainage plan, the Proposed Actions would not result in significant adverse impacts on the sewer system.

Table J-5: Water Consumption and Sewage Generation on the Development Site – Future No-Action and Future With-Action Scenarios

Use	Rate[1]	Conditions in the Future Without the Proposed Action			Conditions in the Future With the Proposed Action			Incremental Change With the Proposed Action		
		Area (gsf) / Units (DU)	Domestic Water / Wastewater Generation (gpd)	A/C (gpd)	Area (gsf) / Units (DU)	Domestic Water / Wastewater Generation (gpd)	A/C (gpd)	Area (gsf) / Units (DU)	Domestic Water / Wastewater Generation (gpd)	A/C (gpd)
Residential	Domestic: 100 gpd/person[2]	0	0	0	435	119,190	0	435	119,190	0
Light Manufacturing[3]	0.10 gpd/sf A/C: 0.17 gpd/sf	114,500	11,450	19,465	0	0	0	0	0	0
Commercial/ Office	Domestic: 0.10 gpd/sf A/C: 0.17 gpd/sf	0	0	0	35,712	3,571	6,071	35,712	3,571	6,071
Water Consumption Subtotals			**11,450**	**19,465**		**122,761**	**6,071**		**122,761**	**6,071**
Sewage Generation Subtotal			**11,450**			**122,761**			**122,761**	
Total Water Consumption			**30,915**			**128,832**			**97,917**	
Total Wastewater Generation			**11,450**			**122,761**			**111,311**	

Notes:
1. Use and generation rates from Chapter 13, 2014 CEQR Technical Manual, unless otherwise noted
2. Assumes 2.74 residents per DU for all residential development in Brooklyn
3. Commercial/Office water usage and sewage generation rates assumed for self-storage facilities

Stormwater Drainage and Management

With the Proposed Development, the impervious surfaces on the Development Site would be the same as under Existing and No Action conditions, and, as such, there would be no change in the total weighted runoff coefficient. **Table J-6** below, discloses the potential for the Proposed Actions to result incremental increases in the combined stormwater runoff and wastewater generation within the NCB-03/04 sub-catchment area. Increases would vary depending on the rainfall volume and duration ranging between 0.02 MG and 0.12 MG as shown in **Table J-6**.

Table J-6: Combined Stormwater Runoff and Wastewater Generation on the Development Site – Future With-Action Scenario

CSO SUBCATCHMENT AREA: 1,347.05 acres

Rainfall (inches)[1]	Duration (hours)[1]	Total Area (acres)	Weighted Runoff Coefficient (C)	Stormwater to CSS[2] (MG)[3]	Daily Sanitary Sewage Generation (MGD)[4]	Sanitary to CSS[2] (MG)[3]	Total Volume to CSS[2] (MG)[3]
0.00	3.80	0.448	1.00	0.00	0.111	0.018	0.02
0.40	3.80	0.448	1.00	0.00	0.111	0.018	0.02
1.20	11.30	0.448	1.00	0.01	0.111	0.052	0.07
2.50	19.50	0.448	1.00	0.03	0.111	0.090	0.12

Notes:
1. Based on information provided by NYCDEP
2. CSS = Combined Sewer System
3. MG = Million Gallons
4. MGD = Million Gallons per Day

V. CONCLUSION

Incremental demand due to the Proposed Actions would represent less than one percent of the City's overall water supply. The Proposed Actions would result in an increase of 348% for the sanitary flow in the adjacent sewers. NYCDEP will be consulted at the time of submittal of the site connection proposal application to determine whether the existing sewer system is capable of supporting higher density development and related increase in wastewater flow, or whether there will be a need to upgrade the existing sewer system. In addition, NYCDEP has determined that there will be a need to amend the existing drainage plan. Based on the relatively low demand on WWTP capacity and consultation with NYCDEP regarding upgrades to the existing drainage system and amendment to the existing drainage plan, the Proposed Actions would not result in significant adverse impacts on the sewer system.

Assessing the surface area conditions resulting from the Proposed Actions, storm water flows would not increase significantly with the Proposed Actions.

Therefore, no significant adverse impacts to the water and sewer infrastructure are anticipated as a result of the Proposed Actions.

Attachment K: Transportation

I. INTRODUCTION

This attachment examines the potential traffic, pedestrian, and safety impacts associated with the proposed rezoning and redevelopment of 202-208 Tillary Street in Downtown Brooklyn (the "Proposed Project"). As described in Attachment A, "Project Description," a mixed-use building taller than the Proposed Development that conforms to the Tower Regulation requirements was considered for the Transportation assessment, since assessment of a larger building would result in disclosure of the maximum potential impacts of the Proposed Action. This scenario assumes the transfer of air rights from the portion of Lot 1 owned by NYCHA that is included within the Project Area (162,634.2 sf) and Lot 104 in Block 2050 (21,991 sf).[1] Under this scenario, the Development Site would consist of two buildings (referenced to as "Building A1", and "Building B1" below) that together would result in an approximately 441,363 gsf mixed-use development with a residential FAR of 9.13, a commercial/retail FAR of 0.85, 72 underground, attendant-staffed parking spaces, and 220 bicycle parking spaces. Uses would include approximately 435 dwelling units (DUs), approximately 13,721 gsf of local retail space on the ground floor and a locally-oriented 21,991 gsf health and physical culture facility (gym) located above the ground floor retail use.[2]

The Proposed Project is located on Lots 1, 100, and 104 of Block 2050 and is bounded by Tillary Street to the north, Fleet Walk to the south, Prince Street to the west, and Navy Street to the east, as shown on **Figure K-1**.

Four peak hours were considered for the transportation analysis: Weekday AM (8:00 AM to 9:00 AM), Weekday Midday (MD) (2:00 PM to 3:00 PM), Weekday PM (5:00 PM to 6:00 PM), and Saturday MD (12:15 PM to 1:15 PM). The study area includes five signalized intersections and three pedestrian elements.

II. PRINCIPAL CONCLUSIONS

Traffic Flow and Operating Conditions

The Proposed Project would add vehicle trips to the study area. However, with the implementation of several project improvements, the Proposed Project is not expected to result in any significant adverse traffic impacts in the 2020 Future With-Action Scenario.

Pedestrian Facilities

Under the Future With-Action Scenario for the Proposed Project, all analyzed crosswalks, corners, and sidewalks would operate at acceptable levels of service. Therefore, there would not be any pedestrian-related significant adverse impacts associated with the Proposed Project.

Parking Conditions

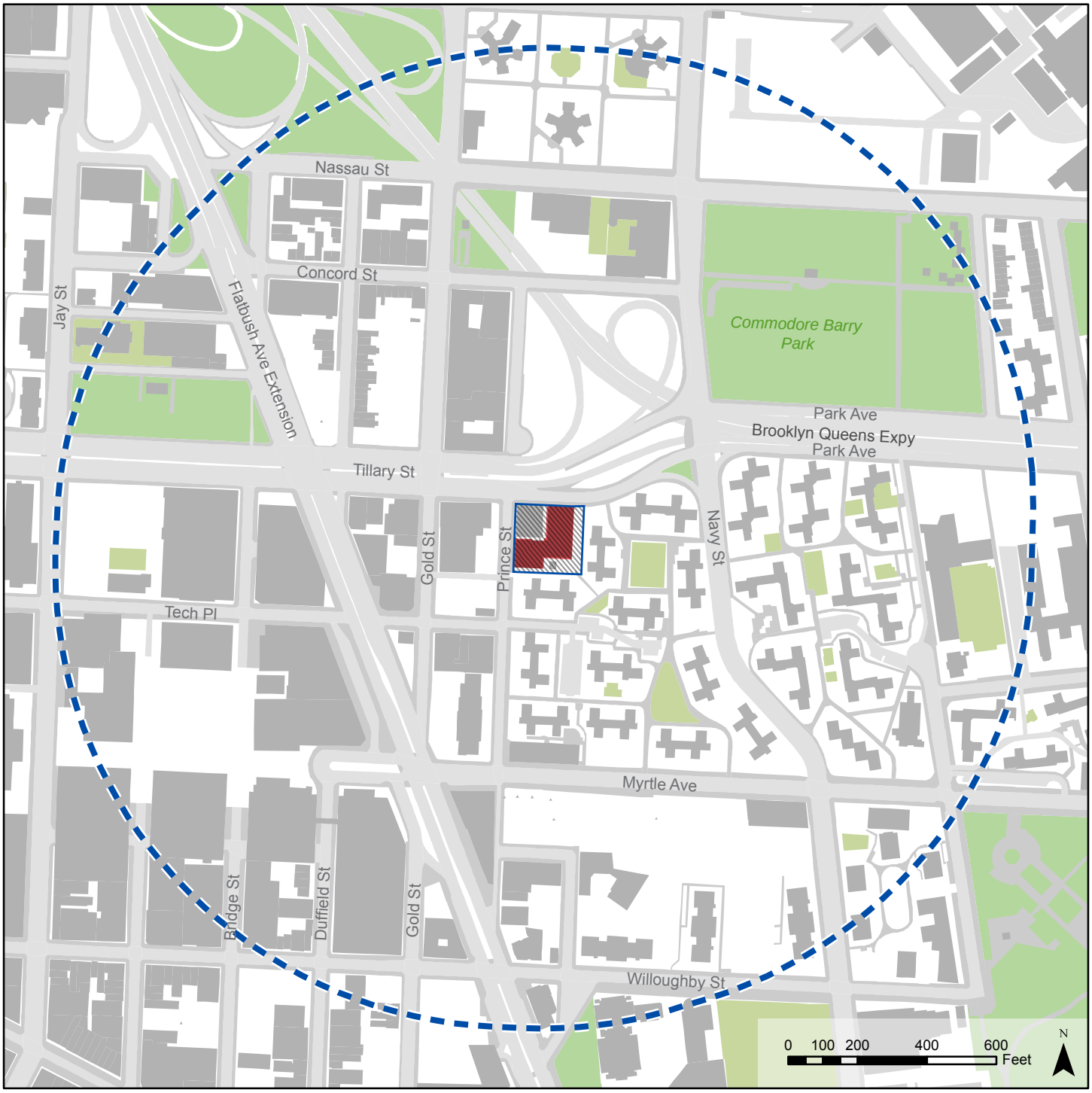
The Proposed Project would provide a minimum of 72 on-site parking spaces for the residential land use; the existing 12 on-site accessory parking spaces would be removed as part of the Proposed Project. The remainder of the parking demand would be accommodated on-street or within off-street parking garages within a 0.25-mile radius of the Project Site. Since there would be sufficient on- and off-street parking

[1] Due to the height and bulk limitation within the Flatbush Avenue Extension Height Limitation Area, 21,991 sf from Lot 104 in Block 2050 is the maximum amount of air rights that will be able to be accommodated in the Applicant's Site (Lot 100 Block 2050).
[2] The transportation analysis also considered child care and medical office uses. In the event such uses replace a certain portion of the proposed retail space, it is anticipated that transportation conclusions would remain unchanged.

capacity to accommodate the parking demand generated by the Proposed Project, there would not be any parking-related significant adverse impacts.

Vehicular and Pedestrian Safety Assessment

There were no study intersections classified as high vehicular or pedestrian/bicycle crash locations per *2014 City Environmental Quality Review Technical Manual (CEQR Technical Manual)* thresholds. Therefore, the Proposed Project is not expected to impact safety due to the associated increase in vehicle and pedestrian trips.



Source: NYCDCP, 2015 Pluto

Development Site

Project Area

1/4 Mile Study Area

PROJECT AREA

Figure K-1

III. SCREENING METHODOLOGY

Transportation impact analysis methodologies for proposed projects in New York City are defined in the *CEQR Technical Manual*, which outlines a two-tiered screening process. The Level 1 screening assessment includes a trip generation analysis to determine whether the Proposed Project would result in more than 50 vehicle trips, 200 subway/rail or bus riders, or 200 pedestrian trips in a peak hour. The Level 2 screening is a trip assignment review that identifies intersections with 50 or more vehicle trips, pedestrian elements with 200 or more pedestrian trips, 50 bus trips in a single direction on a single route, or 200 passengers at a subway station or line during any analysis peak hour which would require detailed analyses. The results of the screening analysis are described below.

Traffic

According to the criteria specified in the *CEQR Technical Manual*, traffic analyses are generally required at intersections where more than 50 new vehicle trips would be generated by a proposed project during an individual peak hour based on the results of the vehicle trip assignment. While no individual intersections, except for Tillary Street and Prince Street, would exceed the *CEQR Technical Manual* threshold during the critical peak hours, it is generally recognized that several intersections in the vicinity of the Project Site currently operate at or near capacity. To disclose any potential impacts associated with the Proposed Action, a detailed traffic analysis was conducted for five intersections for the following two peak hours:

- Weekday AM: 8:00 AM to 9:00 AM
- Weekday PM: 5:00 PM to 6:00 PM

Transit

The transit criteria specified in the *CEQR Technical Manual* thresholds established by New York City Transit/ Metropolitan Transportation Authority (NYCT/MTA) were used to determine which subway/rail and bus routes in the study area would be analyzed. According to the criteria, if a proposed project is projected to result in fewer than 200 peak hour subway/rail passengers assigned to a single subway station or on a single subway line or 50 bus passengers assigned to a single bus line (in one direction), further transit analyses are not typically required, as a proposed project is considered unlikely to create a significant transit impact.

Subway Transit

It was determined that the number of new subway trips generated by the Proposed Project would not exceed the *CEQR Technical Manual* thresholds during any of the peak hours; therefore, analyses of subway lines or subway station elements were not conducted.

Bus Transit

It was determined that the number of new bus trips generated by the Proposed Project would not exceed the *CEQR Technical Manual* thresholds during any of the peak hours; therefore, analyses of bus routes were not conducted.

Pedestrians

Based on criteria specified in the *CEQR Technical Manual*, projected pedestrian volume increases of more than 200 pedestrians per hour at any intersection corner, crosswalk, or sidewalk would be considered a location with the potential for significant impacts and would require a detailed analysis. The Proposed Project would generate more than 200 pedestrians per hour at three locations (one corner and two sidewalks) within the study area during any of the peak hours based on a combination of walk, subway,

and bus trips. Therefore, a detailed pedestrian analysis was conducted for those pedestrian elements during the following four peak hours:

- Weekday AM: 8:00 AM to 9:00 AM
- Weekday MD: 2:00 PM to 3:00 PM
- Weekday PM: 5:00 PM to 6:00 PM
- Saturday MD: 12:15 PM to 1:15 PM

Parking Conditions

According to the *CEQR Technical Manual*, if the threshold for a detailed traffic analysis is met, it is likely that a parking assessment is warranted. As the Proposed Project is expected to generate more than 50 new vehicle trips at an individual intersection during any of the peak hours, a detailed traffic analysis was conducted, and, as such, a parking assessment was conducted.

A parking assessment identifies the extent to which on-street and off-street parking is available and utilized under the Existing, Future No-Action, and Future With-Action scenarios. Typically, this assessment encompasses a study area within 0.25-mile of the Proposed Project. If the assessment identifies a shortfall in parking in the 0.25-mile study area, the study area could be extended to 0.5-mile to identify additional parking supply. The assessment, which takes into consideration anticipated changes in area parking supply, provides a comparison of parking needs versus availability to determine if a parking shortfall is likely to result from additional demand generated by the Proposed Project.

Vehicular and Pedestrian Safety Assessment

An evaluation of traffic safety is necessary for locations within the study area that have been identified as high-crash locations as specified in the *CEQR Technical Manual*. These locations are defined as those with more than 48 total reportable and non-reportable crashes or five or more pedestrian/bicycle injury crashes that occur during any consecutive 12 months of the most recent three-year period for which data is available. Crash histories are reviewed to determine whether projected vehicular and pedestrian traffic would further impact safety as these locations or whether existing unsafe conditions could adversely impact the flow of the projected new vehicular or pedestrian/bicycle trips.

IV. STUDY AREA

To assess the potential transportation impacts associated with the Proposed Project, the study area was defined based on principal access routes to and from the project sites, traffic conditions in the surrounding area, and key intersections likely to be affected by trips generated by the Proposed Project. In total, five signalized intersections were selected for vehicular analyses and three pedestrian elements were selected for the pedestrian analysis. The safety assessment was conducted for all intersections included in the vehicular and pedestrian analyses. The geographic locations of these intersections and pedestrian elements are depicted on **Figure K-2**.

Study Area Intersection and Roadway Characteristics

As shown in **Figure K-2** the study area consists of the following five signalized intersections:

1. Tillary Street and Flatbush Avenue
2. Tillary Street and Gold Street
3. Tillary Street and Prince Street

4. Tillary Street / Park Avenue and Navy Street (South)
5. Tillary Street / Park Avenue and Navy Street (North)

The Proposed Project is located at the southeast corner of the Tillary Street and Prince Street intersection, which effectively operates as a "T" intersection because the center median on Tillary Street separates eastbound and westbound traffic. The physical and operational characteristics of the major roadways in the study area are as follows:

- Tillary Street is a two-way, east-west roadway divided by a median that operates with three travel lanes in each direction and curbside parking on the south side of the street. Drivers park illegally in unmarked spaces along the median that separates eastbound and westbound traffic. Towards the eastern portion of the study area, drivers can access the Brooklyn Queens Expressway (I-278) (BQE) via a left-side on-ramp. Through traffic continues on Tillary Street to Park Avenue, which is located underneath the BQE.
- Prince Street is a one-way northbound roadway that operates with one travel lane and curbside parking on both sides of the street. The parking regulations for both sides of the street state "No Parking" from 8 AM to 6 PM, Monday through Friday. There is New York City Police Department (NYPD) authorized parking on the west side of the street, north of Johnson Street/Fleet Walk.
- Johnson Street between Gold and Prince Streets is a one-way eastbound roadway with no permitted curbside parking based on posted regulations, although NYPD and New York City Fire Department (FDNY) vehicles park on both sides of the street. East of Prince Street, Johnson Street turns into Fleet Walk, which is a two-way, east-west driveway that provides access to residents of the New York City Housing Authority's (NYCHA) Ingersoll Houses complex.
- Flatbush Avenue is a two-way, north-south roadway divided by a median that operates with three travel lanes in each direction and no permitted curbside parking based on posted regulations. This roadway provides direct access to Manhattan Bridge.
- North of Tillary Street, Gold Street is a two-way, north-south roadway that operates with one travel lane in each direction and curbside parking on both sides of the street. The parking regulations for both sides of the street state "No Parking" from 7 AM to 7 PM, Monday through Friday. Gold Street between Johnson and Tillary Streets is a one-way southbound roadway that operates with one travel lane and authorized parking for NYPD on both sides of Gold Street. South of Johnson Street, Gold Street is a one-way southbound roadway that operates with one travel lane and curbside parking on both sides of the street.
- Navy Street is a two-way, north-south roadway that operates with one travel lane in each direction. North of Tillary Street, curbside parking exists on the east side of the street.

Study Area Transit Service

Transit service in the study area includes six subway lines and two bus routes, as shown on **Figure K-3**.

Subway Lines

The A, B, C, F, Q, and R lines operate within the study area and serve two subway stations located within a ¼-mile from the Proposed Project, as shown on **Figure K-3**:

- Dekalb Avenue Station located at Flatbush Avenue and Fleet Street (B/Q/R lines)
- Jay Street – MetroTech Station (A/C/F/R lines are accessible via entrances at Jay Street and Myrtle Promenade, and Lawrence Street and Willoughby Street)

Bus Routes

Two NYCT/MTA local bus routes provide regular bus service to the study area including the B57 and B62. Each bus route is briefly described below and shown on **Figure K-3**.

- *B57* operates between Otsego Street/Beard Street in Red Hook and Flushing Avenue/61st Street in Maspeth. The B57 route provides daily service between 4:05 AM and 1:47 AM. Headways on the B57 are between 10 and 20 minutes during the weekday peak periods and every 20 minutes during the Saturday peak period.
- *B62* operates between Boerum Place/Livingston Street in Downtown Brooklyn and Queens Plaza in Long Island City. The B62 route provides daily service, 24-hours per day. Headways on the B62 are between 7 and 15 minutes during the weekday peak periods and between 10 and 15 minutes during the Saturday peak period.

The B57 and B62 bus routes stop in both directions on Gold Street between Tillary and Concord Streets. The B62 bus route stops in the northbound direction on Navy Street between Tillary and Concord Streets and in the eastbound direction on Park Avenue between Navy and St. Edwards Streets.

Pedestrian Elements

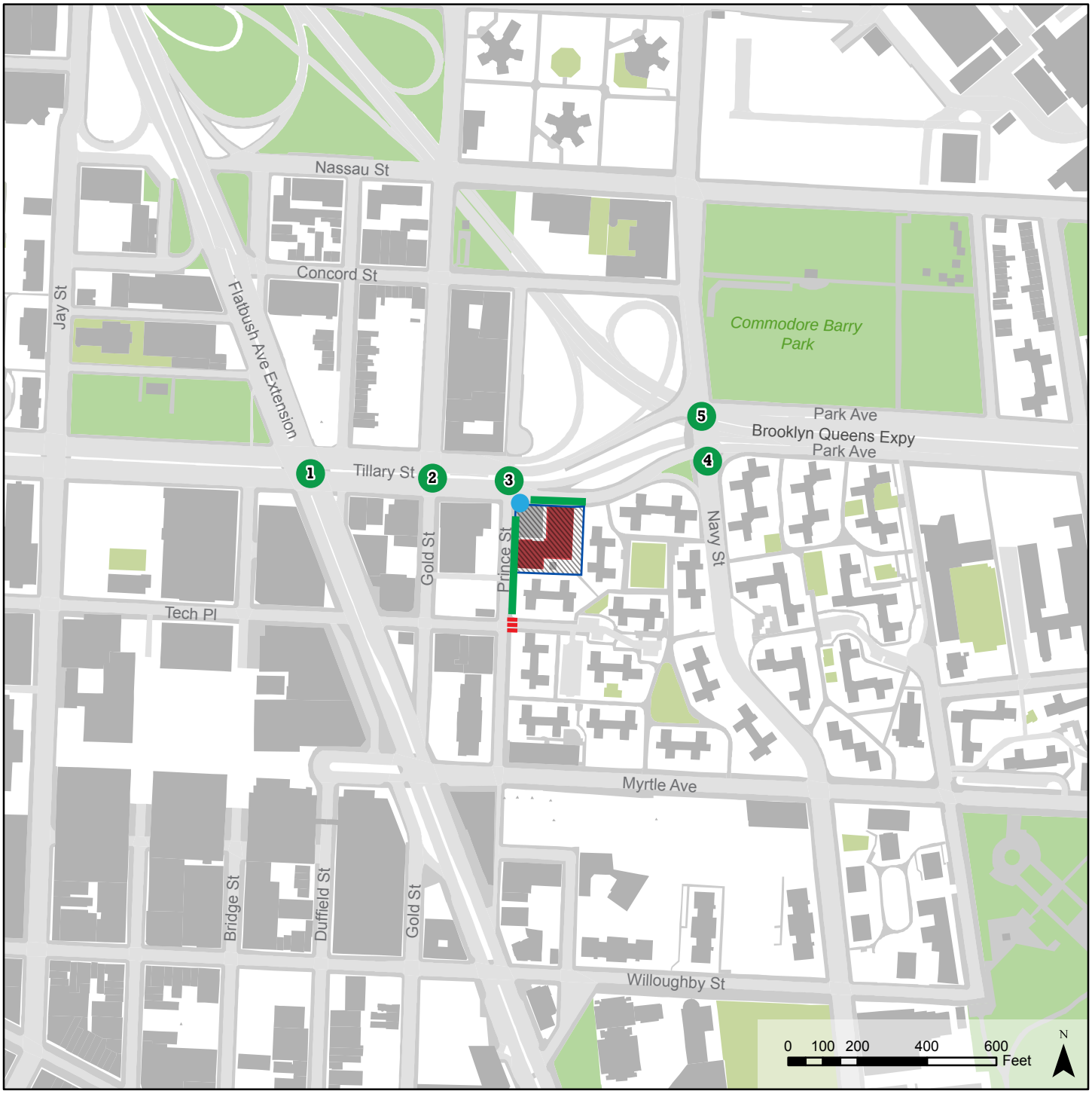
Pedestrian elements including one corner reservoir and two sidewalks were assessed in the vicinity of the Proposed Project. The pedestrian elements are located along key routes to the Project Site entrances and represent locations where the highest concentration of the pedestrians generated by the Proposed Project are anticipated.

These locations are shown on **Figure K-2** and are listed below:

- Prince Street and Tillary Street, south leg, southeast corner
- Prince Street and Tillary Street, south leg, east sidewalk
- Prince Street and Tillary Street, east leg, south sidewalk

Parking Supply and Inventory

Existing study area parking conditions for on-street and off-street parking were evaluated through site visits. On-street parking regulations are shown on **Figure K-4** and summarized in **Table K-1**. Parking utilization surveys were conducted for on- and off-street parking facilities within a 0.25-mile radius of the Project Site. There are seven off-street parking facilities located within a 0.25-mile radius of the Project Site, as shown on **Figure K-5.**



Source: NYCDCP, 2015 Pluto

Development Site

Project Area

Sidewalk

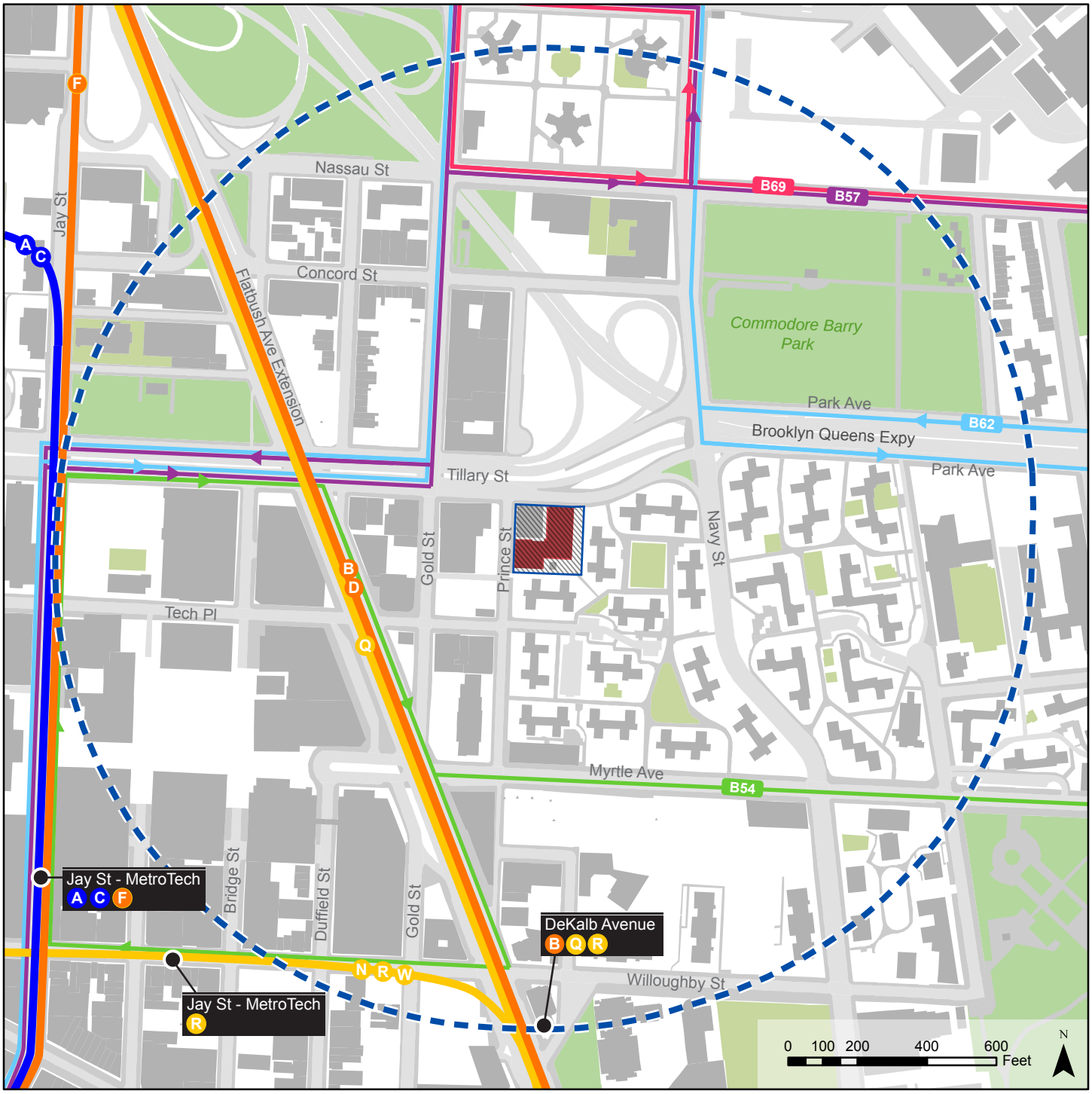
Corner

Crosswalk

1 Study Intersection

PROPOSED PROJECT VEHICULAR AND PEDESTRIAN STUDY LOCATIONS

Figure K-2



Source: NYCDCP, 2015 Pluto

Development Site

Project Area

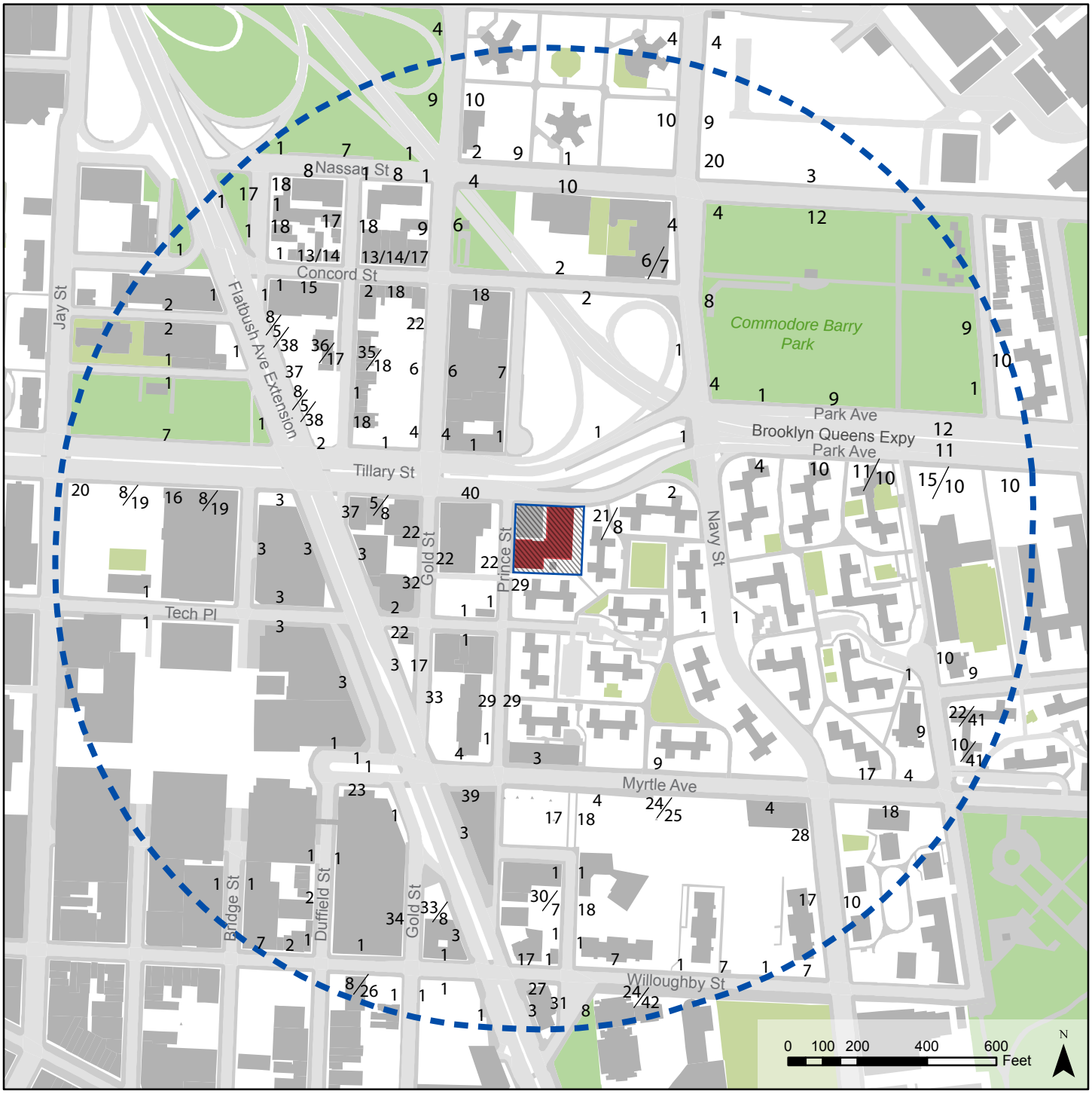
1/4 Mile Study Area

Subway Line (with Station)

Bus Route

TRANSIT MAP

Figure K-3



Source: NYCDCP, 2015 Pluto

Development Site

1/4 Mile Study Area

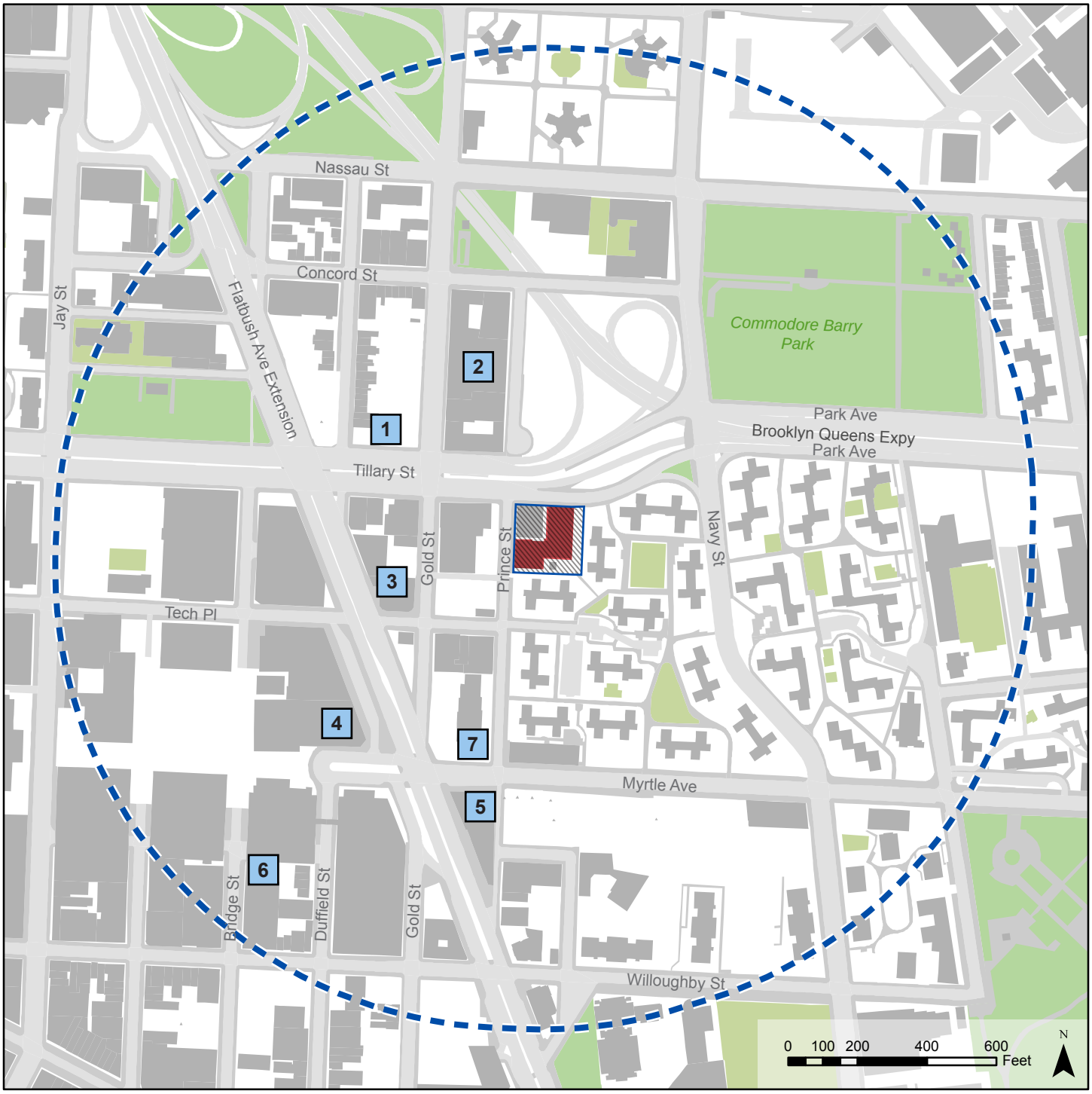
1 Parking Regulation

ON-STREET PARKING REGULATION MAP

Figure K-4

Table K-1: On-Street Parking Regulations Legend

Map #	Regulation
1	No Standing Anytime
2	No Parking Anytime
3	No Stopping Anytime
4	No Standing, Bus Stop
5	No Parking 7am - 7pm Except Sunday
6	No Parking 7am - 7pm Monday - Friday
7	No Parking (Street Cleaning) Monday Wednesday Friday Midnight - 3am
8	No Parking (Street Cleaning) Tuesday Thursday Saturday Midnight - 3am
9	No Parking (Street Cleaning) Thursday 11:30am - 1pm
10	No Parking (Street Cleaning) Friday 11:30am - 1pm
11	No Parking (Street Cleaning) Monday Wednesday Friday 3am - 6am
12	No Parking (Street Cleaning) Tuesday Thursday Saturday 3am - 6am
13	No Standing 4pm-7pm Monday - Friday
14	Truck Loading Only Monday - Friday 7am - 4pm
15	Authorized Vehicles Only Department of Education School Days 7am -7pm
16	No Standing School Days 7am - 4pm
17	No Parking (Street Cleaning) Thursday 8:30am - 10am
18	No Parking (Street Cleaning) Friday 8:30am - 10am
19	4 Hour Metered Parking 9am - 7pm Except Sunday
20	No Standing Anytime Temporary Construction Regulation
21	No Parking 8am - 6pm Except Sunday
22	No Standing Anytime Except Authorized Vehicles Police Department Vehciles
23	No Standing Anyime Taxi Stand
24	No Parking (Street Cleaning) 7:30am - 8am Except Sunday
25	1 Hour Metered Parking 8am - 7pm Except Sunday
26	2 Hour Metered Parking 9am - 7pm Except Sunday
27	No Standing 7pm - 7am Including Sunday
28	Truck Loading Only 7am - 6pm Except Sunday
29	No Parking Monday-Friday 8am - 6pm
30	No Standing Anytime Except Authorized Vehicles Docotrs Vehicles Only
31	Authorized Vehicles only NYC Department of Health and Mental Hygiene 8am - 6pm Except Sunday
32	Truck Loading Only Monday - Friday 7am - 7pm
33	No Parking Monday - Friday 8am - 6pm
34	No Standing 7am - 7pm Monday - Friday Except Authorized Vehicles NYP License Plate Only
35	No Standing Except Authorized Vehicles 8am - 6pm Monday - Friday
36	Authorized Vehicles Only Department of Education School Days 8am - 6pm
37	No Standing Hotel Loading Zone
38	No Standing 7am - 10am Monday - Friday
39	No Standing Except Trucks Loading and Unloading 8am-6pm Except Sunday
40	No Standing Fire Zone
41	Angle Parking Only
42	6 Hour Metered Parking Only 8am - 1pm Except Sunday



Source: NYCDCP, 2015 Pluto

Development Site

Project Area

1/4 Mile Study Area

1 Off-Street Parking Facilities

OFF-STREET PARKING FACILITY MAP

Figure K-5

V. OPERATIONAL ANALYSIS METHODOLOGY

The following sections summarize the operational analysis methodologies and significant impact criteria in accordance with the *CEQR Technical Manual* guidelines for pedestrians and safety.

Traffic Operations

The operations of the study area intersections were analyzed in accordance with the *CEQR Technical Manual* guidelines by applying the methodologies presented in the *2000 Highway Capacity Manual* (HCM 2000) using the Highway Capacity Software (HCS+ 5.5). A description of these methodologies is provided below.

Signalized Intersections

The Level of Service (LOS) of a signalized intersection is defined in terms of control delay per vehicle (seconds per vehicle). Control delay is the portion of total delay experienced by a motorist that is attributed to the traffic signal. Several factors contribute to the delay at a signalized intersection including cycle length, pedestrian crossing times, progression/signal coordination, and volume to capacity (v/c) ratios. For signalized intersections, LOS A describes operations with minimal delays, up to 10 seconds per vehicle, while LOS F describes operations with delays in excess of 80 seconds per vehicle. Delays experienced at LOS A, B, C or mid-D (less than 45 seconds per vehicle) are generally considered "acceptable" operating conditions according to the *CEQR Technical Manual*. Conversely, LOS E and F are generally considered "unacceptable" operating conditions. The LOS criteria for signalized intersections, as defined in the HCM 2000, are provided in **Table K-2**.

Table K-2: LOS Criteria for Signalized Intersections

Level of Service (LOS)	Average Delay
A	≤ 10.0 seconds
B	> 10.0 and ≤ 20.0 seconds
C	> 20.0 and ≤ 35.0 seconds
D	> 35.0 and ≤ 55.0 seconds
E	> 55.0 and ≤ 80.0 seconds
F	> 80.0 seconds

Transportation Research Board. *Highway Capacity Manual*, 2000.

Significant Impact Criteria: Traffic Operations

According to the criteria presented in the *CEQR Technical Manual* for signalized intersections, a lane group under the With-Action Condition operating within LOS A, B, or C, or mid-LOS D up to a maximum average control delay of 45.0 seconds/vehicle is not considered significant. However, if a lane group under the No-Action condition is within LOS A, B, or C, then deterioration under the With-Action Condition to worse than mid-LOS D (delay greater than 45.0 seconds/vehicle) is considered a significant impact.

For lane groups operating at LOS D, E, or F under the No-Action Condition, then deterioration under the With-Action Condition that meet the following criteria are considered significant impacts:

- For a lane group operating at LOS D under the No-Action Condition, an increase in projected average control delay of five or more seconds is considered significant if the With-Action Condition delay exceeds mid-LOS D.
- For a lane group operating at LOS E under the No-Action Condition, an increase in projected average control delay of four or more seconds is considered significant when compared with the With-Action Condition delay.

- For a lane group operating at LOS F under the No-Action Condition, impacts are considered significant and require examination of mitigation if they result in an increase of three or more seconds when compared with the With-Action Condition.

The same criteria for signalized intersections apply to unsignalized intersections (mid-LOS D for unsignalized intersections is 30 seconds of delay); however, for the minor approach to trigger a significant impact, 90 passenger-car-equivalents (PCEs) must be identified in the With-Action condition in any peak hour.

Pedestrian Operations

The pedestrian crosswalk, corner, and sidewalk elements were analyzed in accordance with the *CEQR Technical Manual* guidelines. A description of these methodologies is provided below.

Corner

Corner analyses are conducted at signalized intersections using the analytical procedures described in the *2010 Highway Capacity Manual* (*HCM 2010*). The capacity of corners are evaluated on the basis of pedestrian space measured in terms of square feet per pedestrian (ft^2/p). To calculate pedestrian space, effective crosswalk widths and corner areas, hourly pedestrian volumes (crosswalk, corner, and sidewalk), conflicting hourly turning vehicles, average walking speed (3.5 feet/second or 3.0 feet/second if 20 percent of pedestrians are seniors and/or school children or the intersection is in a Senior Pedestrian Focus Area), and signal timing are required. **Table K-3** shows the LOS criteria for corners based on pedestrian space.

Table K-3: LOS Criteria for Corners (Signalized Intersections)

Level of Service (LOS)	Pedestrian Space (ft^2/p)
A	> 60
B	60 to > 40
C	40 to > 24
D	24 to > 15
E	15 to > 8
F	≤ 8

Transportation Research Board. *Highway Capacity Manual*, 2010.

Sidewalk

As identified in the *HCM 2010*, pedestrian unit flow rate is the primary performance measure used to evaluate sidewalks. This measure is based on PFM (pedestrians per foot per minute) which is calculated by dividing the average per minute two-way pedestrian volume (during the peak hour) by the effective sidewalk width in feet (taking into account a buffer between walls, curbs, and obstructions). To accurate calculate sidewalk LOS, it is important to determine whether the pedestrian flow is generally “platoon” (with surges from a bus stop, subway station, or a crosswalk) or “non-platoon” (uniform) within the peak period being analyzed. Accounting for platoons generally results in a poorer LOS. **Table K-4** shows the non-platoon and platoon LOS criteria for sidewalks based on PFM.

Table K-4: LOS Criteria for Sidewalks

Level of Service (LOS)	Non-Platoon Flow (ft^2/p)	Platoon Flow (ft^2/p)
A	> 60	> 530
B	> 40 to 60	> 90 to 530
C	> 24 to 40	> 40 to 90
D	> 15 to 24	> 23 to 40
E	> 8 to 15	> 11 to 23
F	≤ 8	≤ 11

Transportation Research Board. *Highway Capacity Manual*, 2010.

Significant Impact Criteria: Pedestrian Operations

The *CEQR Technical Manual* provides guidance on the impact criteria for pedestrian facilities based on the general comfort and convenience levels of pedestrians, according to the location of the study area. Pedestrians in central business district (CBD) areas have become accustomed to higher pedestrian volumes and generally are more tolerant of restricted LOS conditions that might not be acceptable in other less congested (non-CBD) locations. An acceptable LOS for CBD areas is generally a mid-LOS D or better while an acceptable LOS for non-CBD areas is generally the upper limit of LOS C or better. For purposes of the pedestrian operations analysis, the pedestrian elements in the study area were considered to be part of a CBD area.

For corners in CBD areas, the average pedestrian space that is considered acceptable ranges from LOS A to mid-LOS D. If the pedestrian space deteriorates to mid-LOS D or worse (less than 19.5 ft^2/p), significant impacts are determined based on a sliding scale, as follows:

- If the average pedestrian space under the Future No-Action Scenario is greater than 21.5 ft^2/p, then a decrease to 19.5 ft^2/p or less under the Future With-Action Scenario is considered a significant impact.
- If the average pedestrian space under the Future No-Action Scenario is between 5.1 and 21.5 ft^2/p, a decrease in space under the Future With-Action Scenario should be considered significant if it is greater than or equal to ((Future No-Action pedestrian space ft^2/p / 9.0) – 0.31). The Future With-Action Scenario increments are provided in Table 16-13 in the *CEQR Technical Manual*.
- If the average pedestrian space under the Future No-Action Scenario is less than 5.1 ft^2/p, then a decrease in pedestrian space greater than or equal to 0.2 ft^2/p under the Future With-Action Scenario is considered a significant impact.

For sidewalks in CBD areas, the average pedestrian space that is considered acceptable ranges from LOS A to mid-LOS D. If the pedestrian space deteriorates to mid-LOS D or worse (less than 19.5 ft^2/p for non-platoon flow and less than 31.5 ft^2/p for platoon flow), significant impacts are determined based on a sliding scale, as follows:

<u>Non-platoon flow</u>

- If the average pedestrian space under the Future No-Action Scenario is greater than 21.5 ft^2/p, then a decrease to 19.5 ft^2/p or less under the Future With-Action Scenario is considered a significant impact.
- If the average pedestrian space under the Future No-Action Scenario is between 5.1 and 21.5 ft^2/p, a decrease in space under the Future With-Action Scenario should be considered significant if it is greater than or equal to ((Future No-Action pedestrian space ft^2/p / 9.0) – 0.31). The Future With-Action Scenario increments are provided in Table 16-15 in the *CEQR Technical Manual*.

- If the average pedestrian space under the Future No-Action Scenario is less than 5.1 ft^2/p, then a decrease in pedestrian space greater than or equal to 0.2 ft^2/p under the Future With-Action Scenario is considered a significant impact.

Platoon flow

- If the average pedestrian space under the Future No-Action Scenario is greater than 39.2 ft^2/p, then a decrease to 31.5 ft^2/p or less under the Future With-Action Scenario is considered a significant impact.
- If the average pedestrian space under the Future No-Action Scenario is between 6.4 and 39.2 ft2/p, a decrease in space under the Future With-Action Scenario should be considered significant if it is greater than or equal to (Future No-Action pedestrian space ft^2/p / (9.5 – 0.321)). The Future With-Action Scenario increments are provided in Table 16-17 in the *CEQR Technical Manual*.
- If the average pedestrian space under the Future No-Action Scenario is less than 6.4 ft^2/p, then a decrease in pedestrian space greater than or equal to 0.3 ft^2/p under the Future With-Action Scenario is considered a significant impact.

Vehicular and Pedestrian Safety Assessment

Crash data is collected for the most recent three-year period from the New York City Department of Transportation (NYCDOT) and classified as Reportable, Non-Reportable, or Property Damage Only. For locations that are identified as a high-crash location, the assessment of safety should include accident type and severity (including pedestrian and bicycle crashes), type of intersection control, and any discernible patterns of crashes. Other factors should be considered such as high volumes of at-risk pedestrian age groups (children or the elderly), crossing locations with difficult sight lines, or uncontrolled locations. High-crash locations are defined as those with more than 48 total reportable and non-reportable crashes or five or more pedestrian/bicycle injury crashes during any consecutive 12 months of the most recent three-year period for which data is available.

Assessment of Vehicular and Safety Issues

The assessment of safety impacts is often subjective and depends largely on the location of the proposed project and the circumstances under which historic crashes took place. It is the goal of this analysis to determine whether the proposed project would increase the potential for pedestrian and bicycle crashes at study intersections that are considered high-crash locations. In cases where this determination is made, measures to improve pedestrian and bicycle safety should be identified and coordinated with NYCDOT.

VI. EXISTING CONDITION

Once the project characteristics have been defined, baseline conditions (“Existing Condition”) are established for transit, pedestrian data, and other physical and operational characteristics.

Traffic Conditions

Existing study area traffic volumes were based on traffic data collected in November 2016, May 2016, and March 2017 during peak periods when background traffic is typically greatest and/or when the Proposed Development is projected to generate the greatest number of trips that would be added to the roadway network. The field programs included manual turning movement counts at study area intersections during the Weekday AM and Weekday PM peak periods while local schools were in session. Crosswalk counts were collected during all peak periods for all intersections.

Turning movement counts and vehicle classification counts were performed at each study intersection. Traffic volumes were balanced between intersections where appropriate.

An inventory of the study intersections was performed to determine traffic signal timing, phasing, and cycle length; street and curbside signage; pavement markings; and lane dimensions to be used in the calculation of street capacities. Also, official signal timing data were obtained from NYCDOT to confirm field observations and for incorporation into the capacity analysis.

Figures K-6 and K-7 show the Existing Condition traffic volumes for the Weekday AM and PM peak hours. The representative peak hours of background traffic in the study area were determined to be:

- Weekday AM peak hour: 8:00 AM to 9:00 AM
- Weekday PM peak hour: 5:00 PM to 6:00 PM

Level of Service

Table K-5 presents the capacity analysis results for the intersections included in the study area. The majority of the analyzed intersection approaches and lane groups operate at an acceptable level of mid-LOS D or better (45.0 seconds of delay for signalized intersections) during the two analysis peak hours.

The exceptions are as follows:

Tillary Street and Flatbush Avenue

- During the **Weekday AM** peak hour, the eastbound left-turn lane group operates at LOS E with an average delay of 64.5 seconds and a v/c ratio of 0.73. The eastbound right-turn lane group operates at LOS D with an average delay of 50.4 seconds and a v/c ratio of 0.70. The westbound left-turn lane group operates at LOS E with an average delay of 63.7 seconds and a v/c ratio of 0.82. The westbound through lane group operates at LOS F with an average delay of 97.8 seconds and a v/c ratio of 1.05. The westbound right-turn lane group operates at LOS F with an average delay of 90.1 seconds and a v/c ratio of 1.04. The northbound left-turn lane group operates at LOS F with an average delay of 96.7 seconds and a v/c ratio of 1.03.
- During the **Weekday PM** peak hour, the eastbound left-turn lane group operates at LOS D with an average delay of 47.4 seconds and a v/c ratio of 0.29. The eastbound through lane group operates at LOS D with an average delay of 45.4 seconds and a v/c ratio of 0.78. The eastbound right-turn lane group operates at LOS F with an average delay of 85.1 seconds and a v/c ratio of 0.97. The westbound left-turn lane group operates at LOS E with an average delay of 57.2 seconds and a v/c ratio of 0.72. The westbound through-right lane group operates at LOS E with an average delay of 77.3 seconds and a v/c ratio of 1.01. The northbound left-turn lane group operates at LOS D with an average delay of 51.3 seconds and a v/c ratio of 0.85.

Tillary Street / Park Avenue and Navy Street (South)

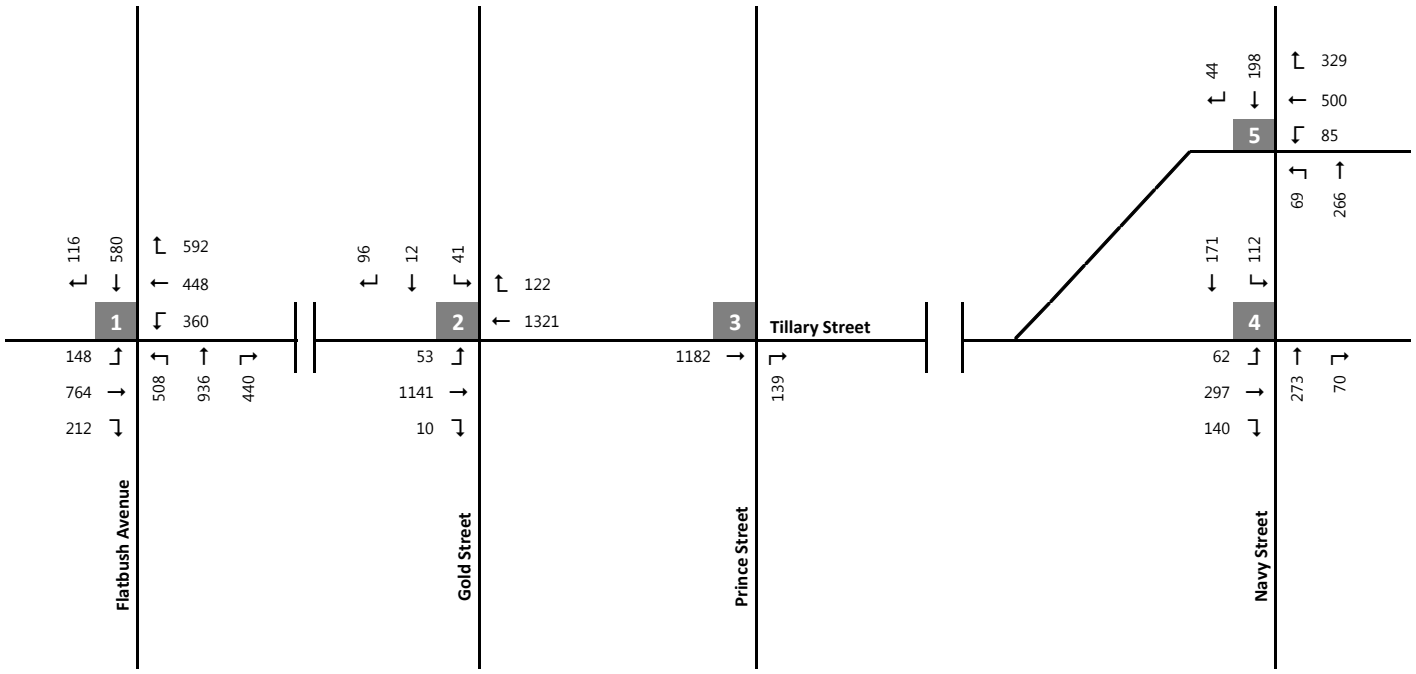
- During the **Weekday PM** peak hour, the southbound left-turn lane group operates at LOS F with an average delay of 92.9 seconds and a v/c ratio of 1.05.

Tillary Street / Park Avenue and Navy Street (North)

- During the **Weekday AM** peak hour, the westbound left-through lane group operates at LOS E with an average delay of 70.1 seconds and a v/c ratio of 1.05.
- During the **Weekday PM** peak hour, the westbound left-through lane group operates at LOS D with an average delay of 51.4 seconds and a v/c ratio of 0.98. The southbound approach operates at LOS D with an average delay of 53.2 seconds and a v/c ratio of 0.95.

Table K-5: 2016 Existing Condition Level of Service Analysis

#	Intersection & Approach	Weekday AM Peak Hour				Weekday PM Peak Hour			
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
1	**Tillary Street and Flatbush Avenue**								
	Eastbound	L	0.73	64.5	E	L	0.29	47.4	D
		T	0.75	44.5	D	T	0.78	45.4	D
		R	0.70	50.4	D	R	0.97	85.1	F
	Westbound	L	0.82	63.7	E	L	0.72	57.2	E
		T	1.05	97.8	F	TR	1.01	77.3	E
		R	1.04	90.1	F	R	0.43	39.5	D
	Northbound	L	1.03	96.7	F	L	0.85	51.3	D
		T	0.77	32.9	C	T	0.69	30.0	C
	Southbound	T	0.52	36.5	D	T	0.67	39.7	D
		R	0.48	40.5	D	R	0.37	36.5	D
		Intersection		60.3	E	Intersection		51.2	D
2	**Tillary Street and Gold Street**								
	Eastbound	L	0.29	21.0	C	L	0.24	17.8	B
		TR	0.80	21.1	C	TR	0.86	24.0	C
	Westbound	T	0.53	19.6	B	T	0.42	17.8	B
		R	0.23	16.3	B	R	0.15	15.3	B
	Southbound	LT	0.16	32.5	C	LT	0.44	38.1	D
		R	0.43	39.7	D	R	0.30	35.7	D
		Intersection		21.0	C	Intersection		22.3	C
3	**Tillary Street and Prince Street**								
	Eastbound	T	0.80	21.2	C	T	0.89	26.7	C
	Northbound	R	0.53	41.5	D	R	0.57	42.4	D
		Intersection		23.6	C	Intersection		28.6	C
4	**Tillary Street / Park Avenue and Navy Street (South)**								
	Eastbound	LT	0.28	13.5	B	LT	0.42	15.0	B
	Northbound	T	0.46	22.6	C	T	0.35	20.8	C
	Southbound	L	0.61	33.9	C	L	1.05	92.9	F
		T	0.35	21.1	C	T	0.55	24.8	C
		Intersection		20.2	C	Intersection		33.8	C
5	**Tillary Street / Park Avenue and Navy Street (North)**								
	Westbound	LT	1.05	70.1	E	LT	0.98	51.4	D
		R	0.62	21.3	C	R	0.51	18.4	B
	Northbound	L	0.26	20.8	C	L	0.37	27.0	C
		T	0.49	23.5	C	T	0.44	22.7	C
	Southbound	T	0.45	22.9	C	T	0.95	53.2	D
		Intersection		42.7	D	Intersection		42.2	D
	Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service.								



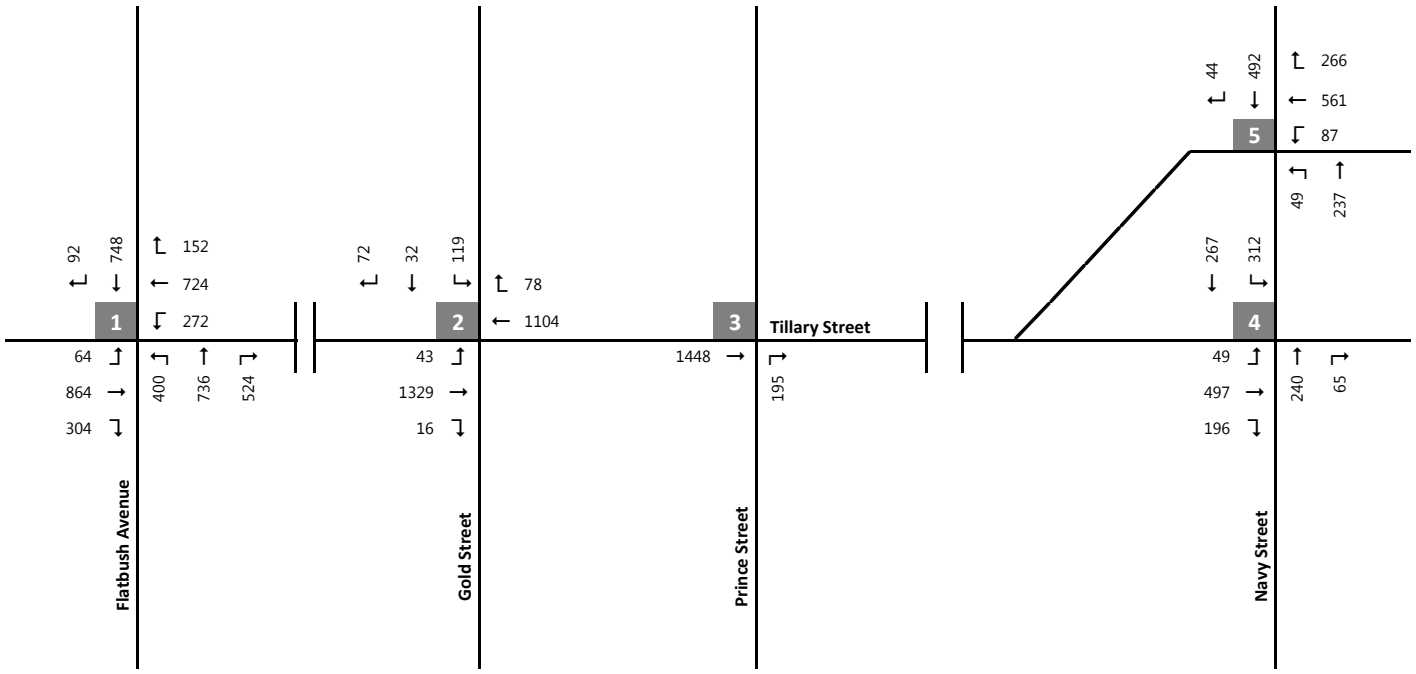
Development Site

Peak Hour Volume

XX Intersection Total Volume

EXISTING TRAFFIC VOLUMES WEEKDAY AM PEAK HOUR

Figure K-6



Development Site

Peak Hour Volume

XX Intersection Total Volume

EXISTING TRAFFIC VOLUMES WEEKDAY PM PEAK HOUR

Figure K-7

Pedestrian Conditions

The existing operations of the study area's sidewalks and corner reservoirs were assessed during the four peak hours (Weekday AM, Weekday MD, Weekday PM, and Saturday MD). The specific elements analyzed were selected based on meeting the criteria of a projected pedestrian volume increase of more than 200 pedestrians per hour during at least one of the four peak hours. The analyses were performed at a total of three locations within the study area including one corner reservoir and two sidewalks.

Pedestrian (corner reservoir and sidewalk) counts were conducted within the study area in June, November, and December 2016 during the four peak periods. These counts were summarized into one-hour intervals.

Corners

The corner reservoir was analyzed using pedestrian data within the study area. As presented in **Table K-6**, the one corner reservoir included in the transportation analysis operates at LOS A during all four peak hours.

Table K-6: 2016 Existing Condition Level of Service Analysis – Corners

Location	Available Circulation Space (ft^2/p)				Corner Circulation LOS			
	Weekday			Sat	Weekday			Sat
	AM	MD	PM	MD	AM	MD	PM	MD
Prince Street and Tillary Street (SE corner)	456	489	470	558	A	A	A	A

Sidewalks

Two sidewalk locations within the study area were analyzed using the collected pedestrian data. At the time of the field observations and measurements, scaffolding was installed along both sidewalks - the south sidewalk on Tillary Street, east of Prince Street, and the east sidewalk on Prince Street, south of Tillary Street, which reduced the effective sidewalk width. The temporary obstruction was considered for the Existing Condition sidewalk analyses. As presented in

Table K-7, the sidewalk locations included in the transportation analysis operate at LOS A for the non-platoon conditions and LOS B or better for platoon conditions during the four peak hours.

Table K-7: 2016 Existing Condition Level of Service Analysis – Sidewalks

Location	Total Width (ft)	Obstruc-tion Width (ft)	Effective Width (ft)	Available Circulation Space (ft^2/p)				Non-Platoon Conditions LOS				Platoon Conditions LOS			
				Weekday			Sat	Weekday			Sat	Weekday			Sat
				AM	MD	PM	MD	AM	MD	PM	MD	AM	MD	PM	MD
Prince Street and Tillary Street (S leg, E sidewalk)	5.0	3.0	2.0	197	252	225	286	A	A	A	A	B	B	B	B
Prince Street and Tillary Street (E leg, S sidewalk)	6.5	3.0	3.5	181	190	190	3675	A	A	A	A	B	B	B	A

Parking Conditions

On-Street Parking

Existing study area on-street parking conditions were evaluated by performing a field inventory of parking regulations and utilization within a 0.25-mile radius of the project sites. On-street parking regulations within 0.25-mile of the study area are summarized on **Figure K-4** and in **Table K-1**.

Parking utilization surveys were conducted in the study area under typical weekday and Saturday conditions in April 2017 during the Weekday AM, MD, PM, and Saturday MD peak periods, as well as the weekday overnight condition, when residential parking demand is expected to be the greatest. Individual street capacities and an hourly assessment of on-street parking utilization were collected for each street in the study area. **Table K-8** presents a summary of the survey results, in terms of the average percentage of available on-street spaces utilized during each peak hour.

There is substantial illegal on-street parking in the study area, primarily along the Tillary Street median, underneath the BQE west of Navy Street, and along the BQE ramps. Most of the illegal parking was observed to be associated with NYPD and FDNY vehicles, and it is not expected that this behavior would change in the future.

The results indicate that within 0.25-mile of the Project Site, legal on-street parking utilization is 89, 88, 85, and 75 percent of available spaces during the Weekday AM, MD, PM, and overnight periods, respectively. The on-street parking utilization was 76 percent for the Saturday MD period.

Table K-8: 2016 Existing Conditions Parking Utilization Summary

	2016 Existing	Weekday AM	Weekday MD	Weekday PM	Weekday Overnight	Saturday MD
On-Street Parking	Existing Legal Capacity	1,273	1,273	1,268	1,376	1,376
	Existing Illegal Capacity	495	495	500	399	399
	Existing Legal Demand	1,130	1,123	1,082	1,038	1,047
	Existing Illegal Demand	465	419	374	247	201
	Available Spaces (Including Illegal Demand)	-322	-269	-188	91	128
	Available Spaces (Excluding Illegal Demand)	143	150	186	338	329
	Utilization (Legal Demand vs. Legal Capacity)	**89%**	**88%**	**85%**	**75%**	**76%**
	Utilization (Total Demand vs. Legal Capacity)	**125%**	**121%**	**115%**	**93%**	**91%**
	Utilization (Total Demand vs. Total Capacity)	**90%**	**87%**	**82%**	**72%**	**70%**
Off-Street Parking	Capacity	983	983	983	983	983
	Demand	763	763	629	456	789
	Available Spaces	221	221	355	527	194
	Utilization	**78%**	**78%**	**64%**	**46%**	**80%**
Total On- and Off-Street Parking	Legal Capacity	**2,256**	**2,256**	**2,251**	**2,359**	**2,359**
	Illegal Capacity	**495**	**495**	**500**	**399**	**399**
	Legal Demand	**1,893**	**1,886**	**1,711**	**1,494**	**1,836**
	Illegal Demand	**465**	**419**	**374**	**247**	**201**
	Available Spaces (Including Illegal Demand)	**-102**	**-49**	**167**	**618**	**322**
	Available Spaces (Excluding Illegal Demand)	**364**	**371**	**541**	**865**	**523**
	Total Utilization (Legal Demand vs. Legal Capacity)	**84%**	**84%**	**76%**	**63%**	**78%**
	Total Utilization (Total Demand vs. Legal Capacity)	**104%**	**102%**	**93%**	**74%**	**86%**
	Total Utilization (Total Demand vs. Total Capacity)	**86%**	**84%**	**76%**	**63%**	**74%**

Off-Street Parking

Existing study area off-street parking conditions were evaluated by performing a field inventory/survey of parking facilities within a 0.25-mile radius of the Project Site, shown on **Figure K-5**. Parking utilization for two off-site parking garages could not be obtained; these parking facilities were conservatively not considered in the parking assessment.

Parking utilization surveys were conducted in the study area under typical weekday and Saturday conditions in April 2017 during the Weekday AM, MD, PM, and Saturday MD peak periods, as well as the weekday overnight condition, when residential parking demand is expected to be the greatest. Existing capacities and an hourly assessment of parking utilization were collected for each off-street parking facility in the study

area, as summarized in **Table K-9**. These results are included in the overall Existing Conditions parking utilization assessment shown in **Table K-8**.

The results indicate that within 0.25-mile of the Project Site, off-street parking utilization is 78, 78, 64, and 46 percent of available spaces during the Weekday AM, MD, PM, and overnight periods, respectively. The off-street parking utilization was 80 percent for the Saturday MD period.

Table K-9: Off-Street Parking Facilities Within ¼ Mile Radius of the Study Area

	Off-Street Parking Facility	Address	License	Capacity	Existing Parking Utilization				
					Weekday AM	Weekday MD	Weekday PM	Weekday Overnight	Saturday MD
1	Vertical Parking Systems	155-169 Tillary St	1438160	138	50%	50%	50%	50%	50%
2	Park Right Corp	235 Gold St	1386026	150	80%	80%	80%	50%	50%
3	Enterprise Parking Systems	306 Gold St	1277075	122	-	-	-	-	-
4	Central Parking System	15 Metrotech	1216515	268	80%	80%	30%	25%	Closed
5	Enterprise Parking Systems	150 Myrtle Ave	2000478	97	-	-	-	-	-
6	Central Parking System	100 Myrtle Ave	1102228	175	90%	90%	90%	25%	Closed
7	Avalon Fort Green Garage	343 Gold St	1340514	252	80%	80%	35%	30%	30%

The overall parking results for on- and off-street parking indicate that within 0.25-mile of the Project Site, total parking utilization is 84, 84, 76, and 63 percent of available spaces during the Weekday AM, MD, PM, and overnight periods, respectively. The parking utilization was 78 percent for the Saturday MD period.

VII. FUTURE SCENARIO WITHOUT THE PROPOSED PROJECT

The future condition without the Proposed Project ("Future No-Action Scenario") builds on the Existing Condition analysis by incorporating background growth, other nearby projects expected to be completed by the project analysis year (Future With-Action year), and anticipated changes in the transportation network. The Future No-Action Scenario analysis focuses on conditions in 2020, when the Proposed Project is expected to be complete. The analysis of the Future No-Action Scenario serves as the baseline to which the future condition with the project will be compared to identify potential impacts.

The *CEQR Technical Manual* (Table 16-4) provides an annual background growth rate for Downtown Brooklyn of 0.25 percent for the first five years and 0.125 percent for the years beyond. The annual growth rates were applied, over a period of 4 years, to the 2016 Existing Condition volumes to develop the 2020 Future No-Action Scenario background traffic and pedestrian. In addition to the background growth, the development projects expected to be completed by 2020 located within and adjacent to the ¼-mile radius described were considered to forecast the Future No-Action Scenario volumes, as shown in **Figure K-8 and Table K-10**, and described below.

Table K-10: Future No-Action Developments

Map No.	Address	Block and Lot	Description
1	63 Flushing Avenue	Block 2023, Lot 50	293,000 sf development complex with a 74,000 sf supermarket, 127,000 sf of light industrial space, 79,000 sf of retail for local stores, and 7,000 sf of community facility space, 295 enclosed parking spaces provided on-site and an additional 130 parking spaces provided in the Navy Yard Industrial Park
2	141 Willoughby Street	Block 2060, Lots 1,4 and 8	418,898 sf mixed-use development with 45,357 sf of retail space, 98,353 sf of commercial office space and approximately 270 dwelling units in 275,188 sf of residential
3	285 Jay Street	Block 131, Lot 1	386,000 sf academic
4	86 Fleet Place	Block 2061, Lot 50	400,000 sf mixed-use development with 10,000 sf of retail space and approximately 400 dwelling units in 390,000 sf residential
5	138 Willoughby Street	Block 149, Lot 1	705,000 sf mixed-use development with 67,000 sf of retail space and approximately 450 dwelling units in 638,000 sf residential

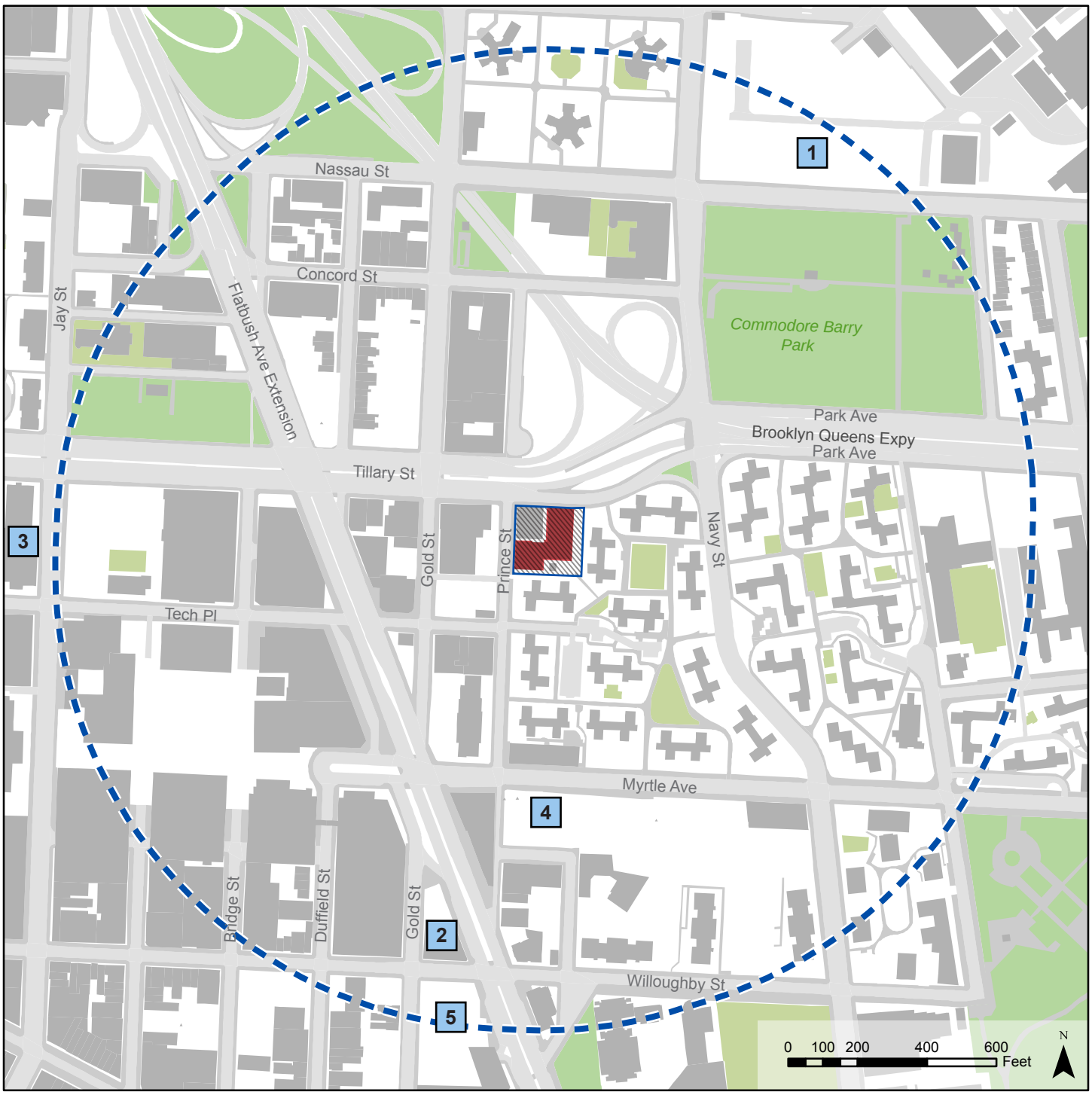
- **63 Flushing Avenue (Admirals Row Plaza):** The total development would include 79,000 sf local retail for local stores, 7,000 sf community facility non-profit office, 127,000 sf industrial/light manufacturing, and 74,000 sf supermarket, 295 enclosed parking spaces provided on-site and an additional 130 spaces provided within the Navy Yard Industrial Park for industrial land use.
- **141 Willoughby Street:** The total development would include 45,357 sf retail, 270 dwelling units, and 98,353 sf office.
- **285 Jay Street:** The total development would include 386,000 sf academic use.
- **86 Fleet Place:** The total development would include approximately 400 dwelling units and 10,000 sf local retail.
- **138 Willoughby Street (City Point Tower III):** The total development would include approximately 450 dwelling units and 67,000 sf local retail.

The background growth and trips generated by the Future No-Action development projects were added to the Existing Condition volumes to develop the Future No-Action volumes.

Roadway Improvements

NYCDOT and the New York City Department of Design and Construction (NYCDDC) are currently constructing improvements on Tillary Street in the study area as part of the Reconstruction of Tillary Street Area project between Cadman Plaza West and just east of Prince Street, planned for completion by 2020. The reconstruction project includes modifications to existing lane configurations and lane widths, roadway re-striping, new trees and planting, installation of bioswales, sidewalk widenings, and improved bicycle facilities. The design plans include geometry changes to the intersections of Tillary Street at Flatbush Avenue and Tillary Street at Gold Street. The design plans do not include changes to the pedestrian elements included in the analysis for the Proposed Project. Therefore, the future geometry that will be created by the reconstruction project was considered for the Future No-Action Scenario vehicle capacity analysis only.

The scaffolding that was installed on the two sidewalks and one corner adjacent to the Project Site was assumed to be removed during the Future No-Action and With-Action Scenarios, and the effective sidewalk widths and corner obstructions were recalculated to ignore the temporary obstructions.



Source: NYCDCP, 2015 Pluto

Development Site

Project Area

1/4 Mile Study Area

1 No-Action Development Projects

NO-ACTION DEVELOPMENT PROJECTS MAP

Figure K-8

Traffic Conditions

Figures K-9 and K-10 show the Future No-Action Scenario traffic volumes for the two peak hours. **Table K-11** presents the Future No-Action Scenario capacity analysis results for the study intersections. Based on the analysis results, the majority of the approaches/lane-groups would operate at the same LOS as in the Existing Condition. At the following locations, the addition of Future No-Action Scenario traffic would result in changes in LOS beyond mid-LOS D:

Level of Service

Tillary Street and Flatbush Avenue

- **Weekday AM** peak hour:
    - The eastbound left-turn lane group would deteriorate within LOS E from an average delay of 64.5 seconds and a v/c ratio of 0.73 to an average delay of 77.0 seconds and a v/c ratio of 0.84.
    - The eastbound through lane group would deteriorate from LOS D with an average delay of 44.5 seconds and a v/c ratio of 0.75 to LOS F with an average delay of 130.4 seconds and a v/c ratio of 1.16.
    - The eastbound right-turn lane group would deteriorate from LOS D with an average delay of 50.4 seconds and a v/c ratio of 0.70 to LOS F with an average delay of 81.3 seconds and a v/c ratio of 0.94.
    - The westbound left-turn lane group would deteriorate within LOS E from an average delay of 63.7 seconds and a v/c ratio of 0.82 to an average delay of 69.4 seconds and a v/c ratio of 0.87.
    - The westbound through lane group would deteriorate within LOS F r an average delay of 97.8 seconds and a v/c ratio of 1.05 to an average delay of 259.4 seconds and a v/c ratio of 1.45.
    - The westbound right-turn lane group would deteriorate within LOS F from an average delay of 90.1 seconds and a v/c ratio of 1.04 to an average delay of 104.9 seconds and a v/c ratio of 1.09.
    - The northbound left-turn lane group would deteriorate within LOS F from an average delay of 96.7 seconds and a v/c ratio of 1.03 to an average delay of 189.2 seconds and a v/c ratio of 1.28.

- **Weekday PM** peak hour:
    - The eastbound left-turn lane group would deteriorate from LOS D with an average delay of 47.4 seconds and a v/c ratio of 0.29 to LOS E with an average delay of 57.6 seconds and a v/c ratio of 0.60.
    - The eastbound through lane group would deteriorate from LOS D with an average delay of 45.4 seconds and a v/c ratio of 0.78 to LOS F with an average delay of 198.8 seconds and a v/c ratio of 1.33.
    - The eastbound right-turn lane group would deteriorate within LOS F from an average delay of 85.1 seconds and a v/c ratio of 0.97 to an average delay of 483.5 seconds and a v/c ratio of 1.95.
    - The westbound left-turn lane group would deteriorate within LOS E from an average delay of 57.2 seconds and a v/c ratio of 0.72 to an average delay of 61.7 seconds and a v/c ratio of 0.79.
    - The westbound through-right lane group would deteriorate from LOS E with an average delay of 77.3 seconds and a v/c ratio of 1.01 to LOS F with an average delay of 139.0 seconds and a v/c ratio of 1.19.
    - The northbound left-turn lane group would deteriorate from LOS D with an average delay of 51.3 seconds and a v/c ratio of 0.85 to LOS F with an average delay of 84.8 seconds and a v/c ratio of 1.02.

Tillary Street / Park Avenue and Navy Street (South)

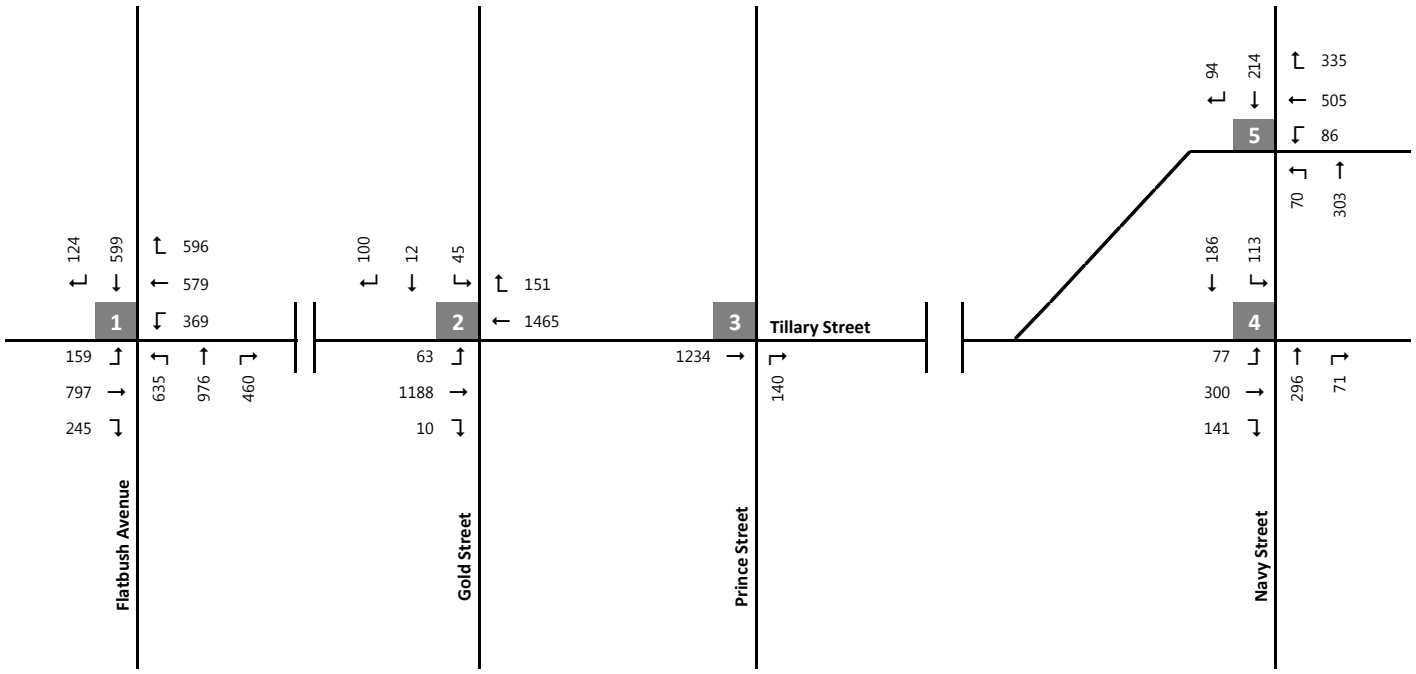
- During the **Weekday PM** peak hour, the southbound left-turn lane group would deteriorate within LOS F from an average delay of 92.9 seconds and a v/c ratio of 1.05 to an average delay of 171.3 seconds and a v/c ratio of 1.26.

Tillary Street / Park Avenue and Navy Street (North)

- During the **Weekday AM** peak hour, the westbound left-through lane group would deteriorate within LOS E from an average delay of 70.1 seconds and a v/c ratio of 1.05 to an average delay of 73.3 seconds and a v/c ratio of 1.06.
- During the **Weekday PM** peak hour, the westbound left-through lane group would deteriorate within LOS D from an average delay of 51.4 seconds and a v/c ratio of 0.98 to an average delay of 54.1 seconds and a v/c ratio of 0.99. The southbound approach would deteriorate from LOS D with an average delay of 53.2 seconds and a v/c ratio of 0.95 to LOS E with an average delay of 70.2 seconds and a v/c ratio of 1.02.

Table K-11: 2020 Future No-Action Scenario Level of Service Analysis

#	Intersection & Approach	Weekday AM								Weekday PM							
		Existing				No-Action				Existing				No-Action			
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
1	**Tillary Street and Flatbush Avenue**																
	Eastbound	L	0.73	64.5	E	L	0.84	77.0	E	L	0.29	47.4	D	L	0.60	57.6	E
		T	0.75	44.5	D	T	1.16	130.4	F	T	0.78	45.4	D	T	1.33	198.8	F
		R	0.70	50.4	D	R	0.94	81.3	F	R	0.97	85.1	F	R	1.95	483.5	F
	Westbound	L	0.82	63.7	E	L	0.87	69.4	E	L	0.72	57.2	E	L	0.79	61.7	E
		T	1.05	97.8	F	T	1.45	259.4	F	TR	1.01	77.3	E	TR	1.19	139.0	F
		R	1.04	90.1	F	R	1.09	104.9	F	R	0.43	39.5	D	R	0.45	40.1	D
	Northbound	L	1.03	96.7	F	L	1.28	189.2	F	L	0.85	51.3	D	L	1.02	84.8	F
		T	0.77	32.9	C	T	0.80	34.4	C	T	0.69	30.0	C	T	0.72	31.1	C
	Southbound	T	0.52	36.5	D	T	0.54	36.8	D	T	0.67	39.7	D	T	0.71	40.8	D
		R	0.48	40.5	D	R	0.52	41.7	D	R	0.37	36.5	D	R	0.39	36.9	D
		Intersection		60.3	E	Intersection		109.5	F	Intersection		51.2	D	Intersection		132.5	F
2	**Tillary Street and Gold Street**																
	Eastbound	L	0.29	21.0	C	L	0.40	28.9	C	L	0.24	17.8	B	L	0.31	22.1	C
		TR	0.80	21.1	C	TR	0.83	22.7	C	TR	0.86	24.0	C	TR	0.95	33.9	C
	Westbound	T	0.53	19.6	B	T	0.61	21.0	C	T	0.42	17.8	B	T	0.48	18.6	B
		R	0.23	16.3	B	R	0.29	17.1	B	R	0.15	15.3	B	R	0.17	15.5	B
	Southbound	LT	0.16	32.5	C	LT	0.17	32.7	C	LT	0.44	38.1	D	LT	0.49	39.3	D
		R	0.43	39.7	D	R	0.44	40.2	D	R	0.30	35.7	D	R	0.34	36.5	D
		Intersection		21.0	C	Intersection		22.6	C	Intersection		22.3	C	Intersection		27.5	C
3	**Tillary Street and Prince Street**																
	Eastbound	T	0.80	21.2	C	T	0.84	23.0	C	T	0.89	26.7	C	T	0.99	42.1	D
	Northbound	R	0.53	41.5	D	R	0.53	41.6	D	R	0.57	42.4	D	R	0.58	42.7	D
		Intersection		23.6	C	Intersection		25.1	C	Intersection		28.6	C	Intersection		42.1	D
4	**Tillary Street / Park Avenue and Navy Street (South)**																
	Eastbound	LT	0.28	13.5	B	LT	0.29	13.7	B	LT	0.42	15.0	B	LT	0.44	15.2	B
	Northbound	T	0.46	22.6	C	T	0.49	23.3	C	T	0.35	20.8	C	T	0.38	21.4	C
	Southbound	L	0.61	33.9	C	L	0.68	39.7	D	L	1.05	92.9	F	L	1.26	171.3	F
		T	0.35	21.1	C	T	0.38	21.6	C	T	0.55	24.8	C	T	0.61	26.6	C
		Intersection		20.2	C	Intersection		21.3	C	Intersection		33.8	C	Intersection		49.1	D
5	**Tillary Street / Park Avenue and Navy Street (North)**																
	Westbound	LT	1.05	70.1	E	LT	1.06	73.3	E	LT	0.98	51.4	D	LT	0.99	54.1	D
		R	0.62	21.3	C	R	0.69	24.6	C	R	0.51	18.4	B	R	0.67	24.7	C
	Northbound	L	0.26	20.8	C	L	0.31	22.3	C	L	0.37	27.0	C	L	0.49	35.7	D
		T	0.49	23.5	C	T	0.55	25.1	C	T	0.44	22.7	C	T	0.52	24.4	C
	Southbound	T	0.45	22.9	C	T	0.48	23.7	C	T	0.95	53.2	D	T	1.02	70.2	E
		Intersection		42.7	D	Intersection		44.6	D	Intersection		42.2	D	Intersection		49.6	D
	Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service.																



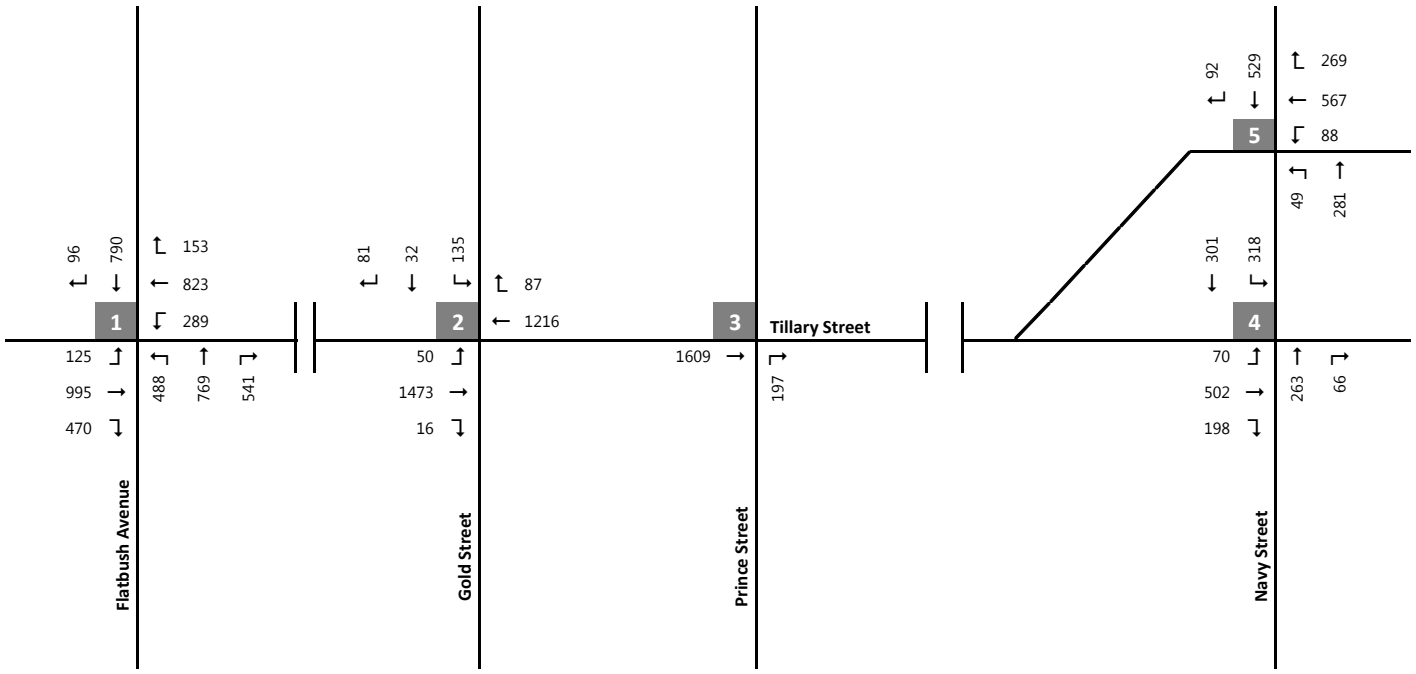
Development Site

Peak Hour Volume

XX Intersection Total Volume

NO-ACTION TRAFFIC VOLUMES WEEKDAY AM PEAK HOUR

Figure K-9



Development Site

Peak Hour Volume

XX Intersection Total Volume

NO-ACTION TRAFFIC VOLUMES WEEKDAY PM PEAK HOUR

Figure K-10

Pedestrian Operations

Pedestrian trips associated with general annual background growth and the development projects planned for 2020 were superimposed onto the existing volumes collected for the pedestrian elements within the study area to generate Future No-Action Scenario peak hour volumes for the four peak hours.

Corners

As presented in **Table K-12**, the corner reservoir included in the transportation analysis is projected to continue to operate at LOS A during the four peak hours during the Future No-Action Scenario.

Table K-12: 2020 Future No-Action Scenario Level of Service – Corners

Location	Available Circulation Space (ft^2/p)				Corner Circulation LOS			
	Weekday			Sat	Weekday			Sat
	AM	MD	PM	MD	AM	MD	PM	MD
Prince Street and Tillary Street (SE corner)	215	121	138	142	A	A	A	A

Sidewalks

The sidewalk locations included in the transportation analysis are projected to operate at LOS B or better for the non-platoon conditions and at LOS C or better for platoon conditions during the four peak hours for the Future No-Action Scenario as presented in **Table K-13**.

Table K-13: 2020 Future No-Action Scenario Level of Service – Sidewalks

Location	Total Width (ft)	Obstruc-tion Width (ft)	Effective Width (ft)	Available Circulation Space (ft^2/p)				Non-Platoon Conditions LOS				Platoon Conditions LOS			
				Weekday			Sat	Weekday			Sat	Weekday			Sat
				AM	MD	PM	MD	AM	MD	PM	MD	AM	MD	PM	MD
Prince Street and Tillary Street (S leg, E sidewalk)	8.0	3.5	4.5	219	125	153	155	A	A	A	A	B	B	B	B
Prince Street and Tillary Street (E leg, S sidewalk)	6.5	3.0	3.5	85	47	54	72	A	B	B	A	C	C	C	C

Parking Supply and Utilization

The utilization of on-street parking facilities in the study area is expected to increase due to the area's background growth by an annual growth rate of 0.25 percent from 2016 to 2020. All No-Action projects within a 0.25-mile radius of the Project Site, with the exception of 63 Flushing Avenue, are assumed to use on- and off-street parking to accommodate their respective parking demands. A portion of the on- and off-street parking demand generated by each No-Action project was assigned to the on- and off-street capacity within a 0.25-mile radius of the Project Site. The peak hour parking demands for each No-Action site were determined based on hourly parking accumulation calculations.

As shown in **Table K-14**, the results indicate that within 0.25-mile radius of the Project Site, on- and off-street parking utilization is expected to increase to 93, 95, 84, and 71 percent during the Weekday AM, Weekday MD, Weekday PM, and Weekday Overnight periods, respectively, in the 2020 No-Action condition. The on- and off-street parking utilization is expected to increase to 87 percent for the Saturday MD period.

Table K-14: 2020 No-Action Condition Parking Utilization Summary

	2020 No-Action	Weekday AM	Weekday MD	Weekday PM	Weekday Overnight	Saturday MD
On-Street Parking	Existing Legal Capacity	1,273	1,273	1,268	1,376	1,376
	Existing Illegal Capacity	495	495	500	399	399
	Legal Demand with Background Growth	1,141	1,134	1,093	1,048	1,058
	Illegal Demand with Background Growth	470	423	378	249	203
	Available Spaces (Including Illegal Demand)	-338	-284	-203	78	115
	Available Spaces (Excluding Illegal Demand)	132	139	175	328	318
	Utilization (Legal Demand vs. Legal Capacity)	**90%**	**89%**	**86%**	**76%**	**77%**
	Utilization (Total Demand vs. Legal Capacity)	**127%**	**122%**	**116%**	**94%**	**92%**
	Utilization (Total Demand vs. Total Capacity)	**91%**	**88%**	**83%**	**73%**	**71%**
Off-Street Parking	Capacity	983	983	983	983	983
	Demand with Background Growth	770	770	635	461	797
	Available Spaces	213	213	348	522	186
	Utilization	**78%**	**78%**	**65%**	**47%**	**81%**
	No Build Project Demand	191	249	162	155	187
Total On- and Off-Street Parking	Legal Capacity	**2,256**	**2,256**	**2,251**	**2,359**	**2,359**
	Illegal Capacity	**495**	**495**	**500**	**399**	**399**
	Legal Demand	**2,102**	**2,153**	**1,890**	**1,665**	**2,041**
	Illegal Demand	**470**	**423**	**378**	**249**	**203**
	Available Spaces (Including Illegal Demand)	**-316**	**-321**	**-17**	**445**	**115**
	Available Spaces (Excluding Illegal Demand)	**154**	**103**	**361**	**694**	**318**
	Total Utilization (Legal Demand vs. Legal Capacity)	**93%**	**95%**	**84%**	**71%**	**87%**
	Total Utilization (Total Demand vs. Legal Capacity)	**114%**	**114%**	**101%**	**81%**	**95%**
	Total Utilization (Total Demand vs. Total Capacity)	**93%**	**94%**	**82%**	**69%**	**81%**

VIII. DESCRIPTION OF THE PROPOSED PROJECT

The Proposed Project would result in the rezoning and redevelopment of 202-208 Tillary Street in Downtown Brooklyn. The Proposed Project is bounded by Tillary Street to the north, Fleet Walk to the south, Prince Street to the west, and Navy Street to the east as shown on **Figure K-1**.

The Proposed Project would include 435 residential units, 21,991 sf of health club space, and 13,721 sf of local retail space. A minimum of 72 parking spaces would be provided on-site.

Analysis Scenarios

The trip generation and assignment estimates were prepared for four peak hours: Weekday AM (8:00 AM to 9:00 AM), Weekday MD (2:00 PM to 3:00 PM), Weekday PM (5:00 PM to 6:00 PM), and Saturday MD (12:15 PM to 1:15 PM).

Trip Generation

The following section describes the assumptions used to develop the trip generation and trip distribution characteristics of the Proposed Project, which are described in greater detail in the Transportation Demand Factors Memo.

Residential

The residential component of the Proposed Project would consist of 435 residential dwelling units. The daily trip generation rates, temporal distribution, daily truck trip generation rates, truck temporal distribution, and truck directional distribution were obtained from the *2014 CEQR Technical Manual*, Table 16-2. Modal split and vehicle occupancy were calculated from the 2015 American Community Survey (ACS) 5-year estimates: Means of Transportation to Work for Census Tract 15 in Brooklyn. Directional distributions were obtained from the *DUMBO Rezoning EAS* (2009), Table B-5.

Health Club

The health club component of the Proposed Project would consist of 21,991 sf of health club space. The daily trip generation rates, temporal distribution, and truck directional distribution were obtained from the *2014 CEQR Technical Manual*, Table 16-2. The daily truck trip generation rates, modal split, vehicle occupancy, truck temporal distribution, and directional distributions were obtained from the *Flushing Commons FEIS* (2010), Table 14-16. The modal splits for bus and subway were adjusted to account for available transit service in the vicinity of the Proposed Project site.

Local Retail

The local retail component of the Proposed Project would consist of 13,721 sf of local retail space. The daily trip generation rates, temporal distribution, daily truck trip generation rates, truck temporal distribution, and truck directional distribution were obtained from the *2014 CEQR Technical Manual*, Table 16-2. Vehicle occupancy and directional distributions were obtained from the *DUMBO Rezoning EAS* (2009), Table B-5. The modal split data was provided by the New York City Department of Transportation (NYCDOT) and the New York City Department of City Planning (NYCDCP).

Linked Trips

Linked trips are those that have multiple destinations within the Project Site and are typical for multi-use developments. A 5% linked trip credit was applied to account for use of the local retail by the residents of the Proposed Project.

Trip Generation Results

The results of the trip generation estimates for the four peak hours are summarized in **Table K-15** for the Proposed Project. Complete transportation demand factors are shown in **Table K-16**, with detailed trip generation estimates shown in **Table K-17** for the Proposed Project.

Table K-15: 202-208 Tillary Street
Proposed Project Trip Generation Estimate Summary

Peak Hour	Vehicle (Auto + Taxi + Truck)	Subway	Bus	Bike/Walk Only
Weekday AM	50	251	20	413
Weekday MD	61	158	36	675
Weekday PM	65	284	27	618
Saturday MD	69	250	27	603

Trip Assignment

Vehicular trips were assigned to the study area along main streets and arterials. Pedestrian trips were assigned to the study area along the main walking routes, particularly the shortest paths to the local subway stations and bus stops. Additional information regarding the Proposed Project trip assignments are provided in the Transportation Demand Factors Memo.

Figures K-11 and K-12 show the trips generated by the Proposed Project for each peak hour.

Parking Accumulation

Tables K-21 and K-22 show the parking accumulation for a typical Weekday and a typical Saturday for the Proposed Project. The total parking demand during a typical weekday would peak at 124 spaces during the overnight hours from 11:00 PM to 7:00 AM. The total parking demand during a typical Saturday would peak at 124 spaces between 10:00 PM and 6:00 AM. The parking demand generated by the Proposed Project would be accommodated by a combination of the 72 off-street/on-site parking spaces and available on- and off-street parking.

Table K-16: 202-208 Tillary Street Transportation Demand Factors

Land Use:		Residential		Health Club		Local Retail	
Program Size	Size	435		21,991		13,721	
	Unit	dwelling unit		gsf		gsf	
Daily Person Trip Generation		(1)		(1)		(1)	
	Weekday	8.075		44.7		205	
	Saturday	9.600		26.1		240	
	Unit	per dwelling unit		per 1,000 gsf		per 1,000 gsf	
Daily Truck Trip Generation		(1)		(4)		(1)	
	Weekday	0.06		0.38		0.35	
	Saturday	0.02		0.00		0.04	
	Unit	per dwelling unit		per 1,000 gsf		per 1,000 gsf	
Modal Split		Weekday	Saturday	Weekday	Saturday	Weekday	Saturday
		(2)		(4,5)		(6)	
	Auto	10.2%	10.2%	25.0%	25.0%	11.0%	15.0%
	Taxi	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%
	Bus	2.4%	2.4%	25.0%	25.0%	2.0%	2.0%
	Subway	68.4%	68.4%	25.0%	25.0%	3.0%	3.0%
	Walk/Bike/Other	18.5%	18.5%	25.0%	25.0%	84.0%	80.0%
		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Vehicle Occupancy		(2)		(4)		(3)	
	Auto	1.07	1.07	1.50	1.50	2.00	2.00
	Taxi	1.07	1.07	1.40	1.40	2.00	2.00
Linked Trips		0%	0%	0%	0%	5%	5%
Temporal Distribution		(1)		(1)		(1)	
	AM	10.0%		4.0%		3.0%	
	MD	5.0%		9.0%		19.0%	
	PM	11.0%		5.0%		10.0%	
	Sat MD	8.0%		9.0%		10.0%	
Truck Temporal Distribution		(1)		(4)		(1)	
	AM	12.0%		7.7%		8.0%	
	MD	9.0%		11.0%		11.0%	
	PM	2.0%		1.0%		2.0%	
	Sat MD	9.0%		0.0%		11.0%	
Directional Distribution		In	Out	In	Out	In	Out
		(3)		(4)		(3)	
	AM	20.0%	80.0%	66.0%	34.0%	50.0%	50.0%
	MD	51.0%	49.0%	58.0%	42.0%	50.0%	50.0%
	PM	65.0%	35.0%	34.0%	66.0%	50.0%	50.0%
	Sat MD	50.0%	50.0%	47.0%	53.0%	55.0%	45.0%
Truck Directional Distribution		(1)		(1)		(1)	
	AM	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
	MD	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
	PM	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
	Sat MD	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%

Notes

(1) 2014 CEQR Technical Manual. Table 16-2.

(2) 2015 American Community Survey 5-year estimates. Table B08006: Sex of Workers by Means of Transportation to Work. Census Tract 15 (Brooklyn).

(3) DUMBO Rezoning EAS (2009). Table B-5.

(4) Flushing Commons FEIS (2010). Table 14-16. YMCA was used for health club land use. Weekday and Saturday Daily vehicle occupancy was used. Daily truck trip generation rates were obtained from the Community Facility land use.

(5) *Sam Schwartz* assumption.

(6) Modal split obtained from NYCDCP/NYCDOT for projects near subway service (in transit zone).

Table K-17: 202-208 Tillary Street
Proposed Project Detailed Trip Generation Estimates

Travel Demand Forecast (Person Trips)

		Residential		Health Club		Local Retail		TOTAL		
Daily Trips	Weekday	3,513		983		2,672		**7,168**		
	Saturday	4,176		574		3,128		**7,878**		
Peak Hour Trips	AM	351		39		80		**470**		
	MD	176		88		508		**772**		
	PM	386		49		267		**702**		
	Sat MD	334		52		313		**699**		
		In	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**TOTAL**
AM	Auto	7	29	6	3	4	4	**17**	**36**	**53**
	Taxi	0	1	0	0	0	0	**0**	**1**	**1**
	Bus	2	7	6	3	1	1	**9**	**11**	**20**
	Subway	48	192	6	3	1	1	**55**	**196**	**251**
	Walk/Bike/Other	13	52	6	3	34	34	**53**	**89**	**142**
	Total	70	281	24	12	40	40	**134**	**333**	**467**
MD	Auto	9	9	13	9	28	28	**50**	**46**	**96**
	Taxi	0	0	0	0	0	0	**0**	**0**	**0**
	Bus	2	2	13	9	5	5	**20**	**16**	**36**
	Subway	61	59	13	9	8	8	**82**	**76**	**158**
	Walk/Bike/Other	17	16	13	9	213	213	**243**	**238**	**481**
	Total	89	86	52	36	254	254	**395**	**376**	**771**
PM	Auto	26	14	4	8	15	15	**45**	**37**	**82**
	Taxi	1	1	0	0	0	0	**1**	**1**	**2**
	Bus	6	3	4	8	3	3	**13**	**14**	**27**
	Subway	172	92	4	8	4	4	**180**	**104**	**284**
	Walk/Bike/Other	46	25	4	8	112	112	**162**	**145**	**307**
	Total	251	135	16	32	134	134	**401**	**301**	**702**
Sat MD	Auto	17	17	6	7	26	21	**49**	**45**	**94**
	Taxi	1	1	0	0	0	0	**1**	**1**	**2**
	Bus	4	4	6	7	3	3	**13**	**14**	**27**
	Subway	114	114	6	7	5	4	**125**	**125**	**250**
	Walk/Bike/Other	31	31	6	7	138	113	**175**	**151**	**326**
	Total	167	167	24	28	172	141	**363**	**336**	**699**

Travel Demand Forecast (Vehicle Trips)

Taxi Overlap Rate 0%		Residential		Health Club		Local Retail		TOTAL		
		In	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**TOTAL**
AM	Auto	7	27	4	2	2	2	**13**	**31**	**44**
	Taxi	0	1	0	0	0	0	0	1	1
	Taxi (Balanced)[1]	1	1	0	0	0	0	**1**	**1**	**2**
	Truck	2	2	0	0	0	0	**2**	**2**	**4**
	Total	10	30	4	2	2	2	**16**	**34**	**50**
MD	Auto	8	8	9	6	14	14	**31**	**28**	**59**
	Taxi	0	0	0	0	0	0	0	0	0
	Taxi (Balanced)[1]	0	0	0	0	0	0	**0**	**0**	**0**
	Truck	1	1	0	0	0	0	**1**	**1**	**2**
	Total	9	9	9	6	14	14	**32**	**29**	**61**
PM	Auto	24	13	3	5	8	8	**35**	**26**	**61**
	Taxi	1	1	0	0	0	0	1	1	2
	Taxi (Balanced)[1]	2	2	0	0	0	0	**2**	**2**	**4**
	Truck	0	0	0	0	0	0	**0**	**0**	**0**
	Total	26	15	3	5	8	8	**37**	**28**	**65**
Sat MD	Auto	16	16	4	5	13	11	**33**	**32**	**65**
	Taxi	1	1	0	0	0	0	1	1	2
	Taxi (Balanced)[1]	2	2	0	0	0	0	**2**	**2**	**4**
	Truck	0	0	0	0	0	0	**0**	**0**	**0**
	Total	18	18	4	5	13	11	**35**	**34**	**69**

Notes
(1) No taxi overlap assumed based on the *CEQR 2014 Technical Manual* .

Travel Demand Forecast (Total Walk Trips)

		Residential		Health Club		Local Retail		TOTAL		
		In	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**	**TOTAL**
AM	Total Walk Trips[1]	63	251	18	9	36	36	**117**	**296**	**413**
MD	Total Walk Trips[1]	80	77	39	27	226	226	**345**	**330**	**675**
PM	Total Walk Trips[1]	224	120	12	24	119	119	**355**	**263**	**618**
Sat MD	Total Walk Trips[1]	149	149	18	21	146	120	**313**	**290**	**603**

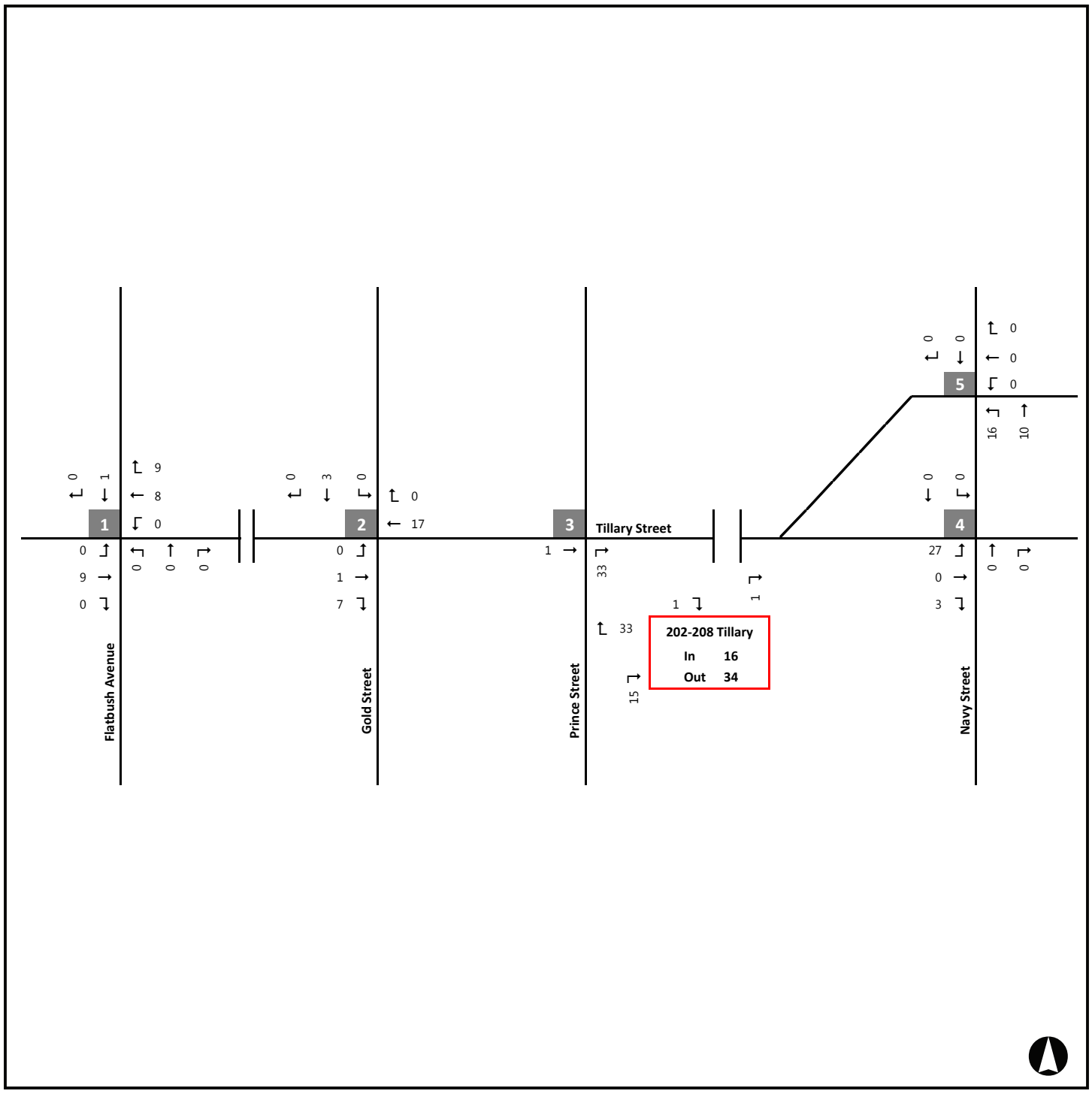
Notes
(1) Total walk trips includes all trips via transit plus walk only trips.

Table K-18: Proposed Project Weekday Parking Accumulation

	Residential			Health Club			Local Retail			Total		
Hour	**IN**	**OUT**	**Accumulation**	**IN**	**OUT**	**Accumulation**	**IN**	**OUT**	**Accumulation**	**IN**	**OUT**	**Accumulation**
Before 12			124							0	0	124
12-1 AM	3	3	124							3	3	124
1-2 AM	1	1	124							1	1	124
2-3 AM	1	1	124							1	1	124
3-4 AM	1	1	124							1	1	124
4-5 AM	1	1	124							1	1	124
5-6 AM	1	1	124							1	1	124
6-7 AM	1	1	124							1	1	124
7-8 AM	1	12	113	5	2	3	1	0	1	7	14	117
8-9 AM	7	27	93	4	2	5	2	2	1	13	31	99
9-10 AM	3	17	79	7	11	1	4	3	2	14	31	82
10-11 AM	3	13	69	6	7	0	6	4	4	15	24	73
11-12 PM	6	9	66	6	6	0	6	6	4	18	21	70
12-1 PM	8	8	66	7	5	2	7	8	3	22	21	71
1-2 PM	8	8	66	6	5	3	4	4	3	18	17	72
2-3 PM	8	8	66	9	6	6	14	14	3	31	28	75
3-4 PM	9	8	67	6	5	7	3	3	3	18	16	77
4-5 PM	15	9	73	7	10	4	6	6	3	28	25	80
5-6 PM	24	13	84	3	5	2	8	8	3	35	26	89
6-7 PM	21	10	95	8	8	2	6	6	3	35	24	100
7-8 PM	20	8	107	5	6	1	5	5	3	30	19	111
8-9 PM	8	4	111	3	4	0	2	5	0	13	13	111
9-10 PM	6	2	115							6	2	115
10-11 PM	8	2	121							8	2	121
11-12 PM	5	2	124							5	2	124

Table K-19: Proposed Project Saturday Parking Accumulation

	Residential			Health Club			Local Retail			Total		
Hour	**IN**	**OUT**	**Accumulation**	**IN**	**OUT**	**Accumulation**	**IN**	**OUT**	**Accumulation**	**IN**	**OUT**	**Accumulation**
Before 12			124							0	0	124
12-1 AM	1	1	124							1	1	124
1-2 AM	1	1	124							1	1	124
2-3 AM	0	0	124							0	0	124
3-4 AM	0	0	124							0	0	124
4-5 AM	0	0	124							0	0	124
5-6 AM	2	2	124							2	2	124
6-7 AM	1	3	122							1	3	122
7-8 AM	3	10	115							3	10	115
8-9 AM	4	12	107	7	3	4	1	0	1	12	15	112
9-10 AM	5	15	97	4	6	2	2	0	3	11	21	102
10-11 AM	6	18	85	4	5	1	9	2	10	19	25	96
11-12 PM	7	20	72	4	5	0	11	11	10	22	36	82
12-1 PM	7	23	56	7	4	3	12	10	12	26	37	71
1-2 PM	16	16	56	4	5	2	13	11	14	33	32	72
2-3 PM	16	11	61	6	6	2	12	10	16	34	27	79
3-4 PM	17	11	67	5	4	3	12	10	18	34	25	88
4-5 PM	17	11	73	4	5	2	10	12	16	31	28	91
5-6 PM	17	11	79	3	5	0	9	9	16	29	25	95
6-7 PM	18	10	87				8	11	13	26	21	100
7-8 PM	21	7	101				8	10	11	29	17	112
8-9 PM	18	6	113				6	11	6	24	17	119
9-10 PM	15	5	123				5	11	0	20	16	123
10-11 PM	7	6	124							7	6	124
11-12 PM	2	2	124							2	2	124



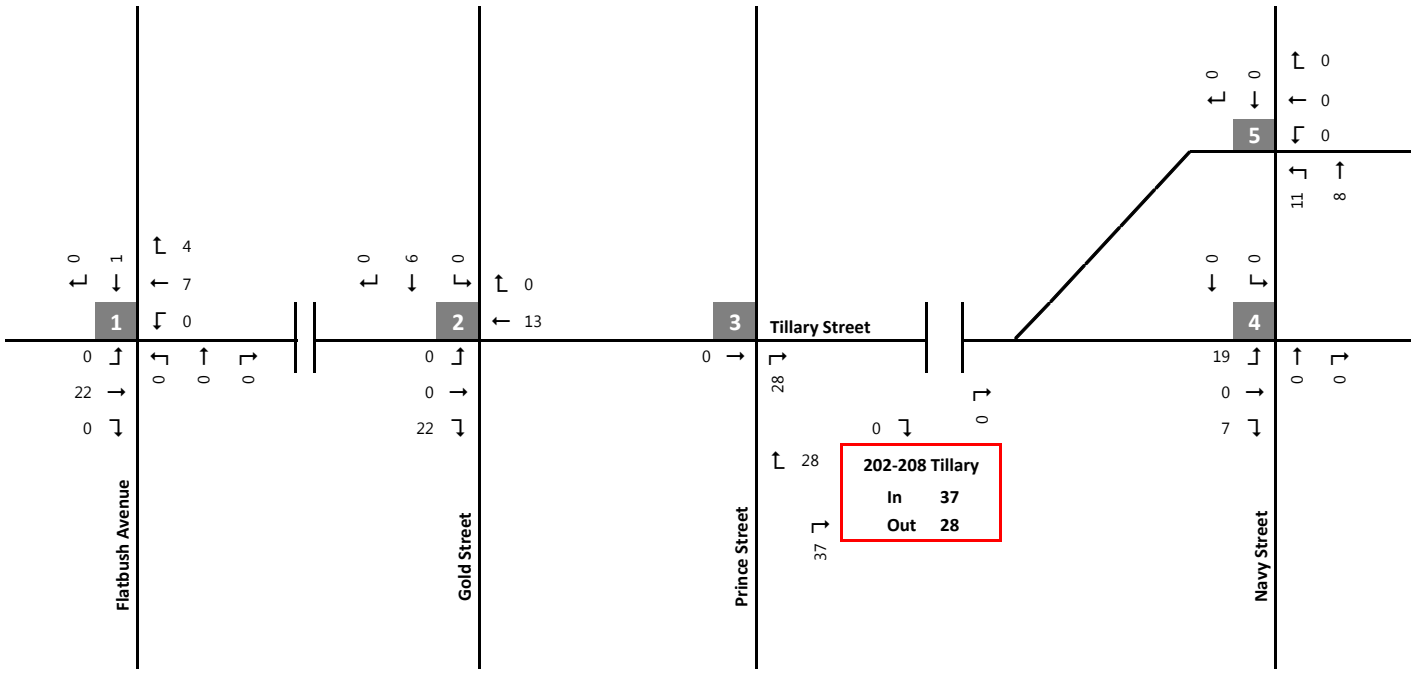
Development Site

Peak Hour Volume

XX Intersection Total Volume

PROPOSED PROJECT INCREMENT WEEKDAY AM PEAK HOUR

Figure K-11



Development Site

Peak Hour Volume

XX Intersection Total Volume

PROPOSED PROJECT INCREMENT WEEKDAY PM PEAK HOUR

Figure K-12

IX. FUTURE SCENARIO WITH THE PROPOSED PROJECT

The Future No-Action Scenario analysis forms the future baseline to which projected trip increments associated with the Proposed Project are added to generate the "Future With-Action Scenario." The *CEQR Technical Manual* defines how impacts to traffic, pedestrians, safety, and parking are to be determined. If the analysis results show that the Proposed Project would result in significant transportation-related impacts, mitigation measures are recommended to alleviate these impacts.

Project Improvements

The following project improvements would be implemented as part of the Proposed Project:

- Tillary Street and Flatbush Avenue
  - During the **Weekday AM and Weekday PM peak hours**, reallocate 1 second of green time from the northbound/southbound phase to the eastbound/westbound through-right phase.
- Tillary Street and Prince Street
  - During the **Weekday AM peak hour**, reallocate 1 second of green time from the eastbound phase to the northbound phase.
- Tillary Street and Gold Street
  - This intersection operates on the same signal controller as the Tillary Street and Prince Street intersection. To maintain the same signal timing, 1 second of green time from the eastbound/westbound phase would be reallocated to the southbound phase during the **Weekday AM peak hour.**

The proposed signal timing changes are summarized in **Table K-20** below.

Table K-20: Existing and Proposed Signal Timings

Intersection	Phase	Existing		Proposed	
		Weekday AM	Weekday PM	Weekday AM	Weekday PM
Tillary Street and Flatbush Avenue	*EB-WB Left Turn*				
	Green	19	19	No Change	No Change
	Yellow	3	3		
	All-Red	2	2		
	EB-WB Through/Right Turn				
	Green	33	33	34	34
	Yellow	3	3	3	3
	All-Red	2	2	2	2
	NB				
	Green	12	12	No Change	No Change
	Yellow	3	3		
	All-Red	2	2		
	NB-SB				
	Green	36	36	35	35
	Yellow	3	3	3	3
	All-Red	2	2	2	2
Tillary Street and Gold Street	*EB-WB*				
	Green	63	63	62	No Change
	Yellow	3	3	3	
	All-Red	2	2	2	
	EB				
	Green	7	7	7	No Change
	Yellow	3	3	3	
	All-Red	2	2	2	
	SB				
	Green	35	35	36	No Change
	Yellow	3	3	3	
	All-Red	2	2	2	
Tillary Street and Prince Street	*EB*				
	Green	75	75	74	No Change
	Yellow	3	3	3	
	All-Red	2	2	2	
	NB				
	Green	35	35	36	No Change
	Yellow	3	3	3	
	All-Red	2	2	2	
Tillary Street / Park Avenue and Navy Street (South)	*EB*				
	Green	45	45	No Change	No Change
	Yellow	3	3		
	All-Red	2	2		
	NB-SB				
	Green	35	35	No Change	No Change
	Yellow	3	3		
	All-Red	2	2		
Tillary Street / Park Avenue and Navy Street (North)	*WB*				
	Green	45	45	No Change	No Change
	Yellow	3	3		
	All-Red	2	2		
	NB-SB				
	Green	35	35	No Change	No Change
	Yellow	3	3		
	All-Red	2	2		

Traffic Conditions

Figures K-13 and K-14 show the Future With-Action Scenario traffic volumes for the two peak hours. **Table K-21** presents a comparison of the Future No-Action and With-Action Scenario capacity analysis results for the study intersections.

Level of Service

The results presented in **Table K-21** assume the implementation of the project improvements listed above and show that there would be no significant adverse traffic impacts.

Table K-21: 2020 Future No-Action and With-Action Scenario
Level of Service Analysis

		Weekday AM								Weekday PM							
		No-Action				With-Action				No-Action				With-Action			
#	Intersection & Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
	Tillary Street and Flatbush Avenue																
	Eastbound	L	0.84	77.0	E	L	0.84	77.0	E	L	0.60	57.6	E	L	0.60	57.6	E
		T	1.16	130.4	F	T	1.14	121.0	F	T	1.33	198.8	F	T	1.32	194.0	F
		R	0.94	81.3	F	R	0.91	74.7	E	R	1.95	483.5	F	R	1.89	457.9	F
	Westbound	L	0.87	69.4	E	L	0.87	69.4	E	L	0.79	61.7	E	L	0.79	61.7	E
1		T	1.45	259.4	F	T	1.43	248.2	F	TR	1.19	139.0	F	TR	1.16	128.4	F
		R	1.09	104.9	F	R	1.08	101.2	F	R	0.45	40.1	D	R	0.45	39.5	D
	Northbound	L	1.28	189.2	F	L	1.28	188.0	F	L	1.02	84.8	F	L	1.02	83.3	F
		T	0.80	34.4	C	T	0.82	35.9	D	T	0.72	31.1	C	T	0.74	32.2	C
	Southbound	T	0.54	36.8	D	T	0.56	37.8	D	T	0.71	40.8	D	T	0.73	42.1	D
		R	0.52	41.7	D	R	0.53	43.2	D	R	0.39	36.9	D	R	0.40	38.0	D
		Intersection		109.5	F	Intersection		106.5	F	Intersection		132.5	F	Intersection		127.8	F
	Tillary Street and Gold Street																
	Eastbound	L	0.40	28.9	C	L	0.41	31.0	C	L	0.31	22.1	C	L	0.32	22.4	C
		TR	0.83	22.7	C	TR	0.85	24.5	C	TR	0.95	33.9	C	TR	0.97	37.9	D
	Westbound	T	0.61	21.0	C	T	0.63	21.9	C	T	0.48	18.6	B	T	0.48	18.7	B
2		R	0.29	17.1	B	R	0.29	17.7	B	R	0.17	15.5	B	R	0.17	15.6	B
	Southbound	LT	0.17	32.7	C	LT	0.18	32.0	C	LT	0.49	39.3	D	LT	0.51	39.9	D
		R	0.44	40.2	D	R	0.44	39.2	D	R	0.34	36.5	D	R	0.35	36.9	D
		Intersection		22.6	C	Intersection		23.8	C	Intersection		27.5	C	Intersection		29.5	C
	Tillary Street and Prince Street																
3	Eastbound	T	0.84	23.0	C	T	0.85	24.4	C	T	0.99	42.1	D	T	0.99	42.1	D
	Northbound	R	0.53	41.6	D	R	0.64	45.2	D	R	0.58	42.7	D	R	0.66	46.2	D
		Intersection		25.1	C	Intersection		27.2	C	Intersection		42.1	D	Intersection		42.6	D
	Tillary Street / Park Avenue and Navy Street (South)																
	Eastbound	LT	0.29	13.7	B	LT	0.31	13.9	B	LT	0.44	15.2	B	LT	0.45	15.4	B
4	Northbound	T	0.49	23.3	C	T	0.49	23.3	C	T	0.38	21.4	C	T	0.38	21.4	C
	Southbound	L	0.68	39.7	D	L	0.68	39.7	D	L	1.26	171.3	F	L	1.26	171.3	F
		T	0.38	21.6	C	T	0.38	21.6	C	T	0.61	26.6	C	T	0.61	26.6	C
		Intersection		21.3	C	Intersection		21.1	C	Intersection		49.1	D	Intersection		48.8	D
	Tillary Street / Park Avenue and Navy Street (North)																
	Westbound	LT	1.06	73.3	E	LT	1.06	73.3	E	LT	0.99	54.1	D	LT	0.99	54.1	D
		R	0.69	24.6	C	R	0.71	25.2	C	R	0.67	24.7	C	R	0.71	26.8	C
5	Northbound	L	0.31	22.3	C	L	0.39	24.3	C	L	0.49	35.7	D	L	0.59	43.4	D
		T	0.55	25.1	C	T	0.57	25.6	C	T	0.52	24.4	C	T	0.54	24.8	C
	Southbound	T	0.48	23.7	C	T	0.48	23.7	C	T	1.02	70.2	E	T	1.02	70.2	E
		Intersection		44.6	D	Intersection		44.6	D	Intersection		49.6	D	Intersection		50.0	D
	Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service. "+" implies a significant adverse impact.																

In absence of the project improvements identified above, the following conditions would occur:

<u>Flatbush Avenue at Tillary Street</u>

During the AM peak hour, the Proposed Project would result in potentially significant adverse impacts for three movements at the intersection of Flatbush Avenue and Tillary Street. Due to high existing traffic volumes and additional traffic associated with No-Action projects in the study area, each of these movements are projected to operate at LOS F during the No-Action condition and are projected to worsen within LOS F during the With-Action condition. The eastbound through movement is expected to operate at LOS F with an average delay of 130.4 seconds during the No-Action condition and degrade within LOS F to an average delay of 135.7 seconds during the With-Action condition. The westbound through movement is expected to operate at LOS F with an average delay of 259.4 seconds during the No-Action condition and degrade within LOS F to an average delay of 267.3 seconds during the With-Action condition. The westbound right-turn movement is expected to operate at LOS F with an average delay of 104.9

seconds during the No-Action condition and degrade within LOS F to an average delay of 114.0 seconds in the With-Action condition.

During the PM peak hour, the Proposed Project would also result in significant adverse impacts on three movements at this intersection. As in the AM peak hour, each of these movements are projected to operate at LOS F during the No-Action condition and are projected to worsen within LOS F during the With-Action condition. The eastbound through movement is expected to operate at LOS F with an average delay of 198.8 seconds during the No-Action condition and degrade within LOS F to an average delay of 211.8 seconds during the With-Action condition. The eastbound right-turn movement is expected to operate at LOS F with an average delay of 483.5 seconds during the No-Action condition and degrade within LOS F to an average delay of 486.7 seconds during the With-Action condition. The westbound through/right-turn movement is expected to operate at LOS F with an average delay of 139.0 seconds during the No-Action condition and degrade within LOS F to an average delay of 144.0 seconds in the With-Action condition.

Each of the potentially significant adverse impacts identified above could be mitigated through signal timing modifications, in each case consisting of a one-second reallocation of green time. While each of the significantly impacted movements at the intersection of Flatbush Avenue and Tillary Street are still expected to operate at LOS F, these delays would reduced to levels better than expected during the No-Action condition upon implementation of the proposed signal timing changes.

Tillary Street at Prince Street

During the AM peak hour, the Proposed Project would result in a potentially significant adverse impact for one movement at the intersection of Tillary Street and Prince Street. The northbound right-turn movement is expected to operate at LOS D with an average delay of 41.6 seconds during the No-Action condition and degrade within LOS D to an average delay of 46.9 seconds during the With-Action condition.

The significant adverse impact identified above could be mitigated through a signal timing modification, consisting of a one-second reallocation of green time.

Pedestrian Operations

Trips associated with the Proposed Project were added to the Future No-Action pedestrian network to generate Future With-Action peak hour volumes for the four peak hours.

Corners

The 2020 Future With-Action Scenario results for the corner reservoir were compared with the Future No-Action Scenario results for all four peak hours. As shown in **Table K-22**, the corner reservoir is projected to continue to operate at LOS A. Therefore, the Proposed Project would not result in a significant adverse impact at the corner reservoir.

Table K-22: 2020 Future With-Action Scenario Level of Service – Corners

Location	Available Circulation Space (ft^2/p)				Corner Circulation LOS			
	Weekday			Sat	Weekday			Sat
	AM	MD	PM	MD	AM	MD	PM	MD
Prince Street and Tillary Street (SE corner)	147	82	91	93	A	A	A	A

Sidewalks

The 2020 Future With-Action Scenario results for the two sidewalk locations were compared with the Future No-Action Scenario results for all four peak hours. As shown in **Table K-23**, the sidewalks are expected to operate at LOS C or better during all peak hours for the non-platoon condition and at better than mid-LOS D or better (31.5 ft^2/p) during all peak hours for the platoon condition. Therefore, the Proposed Project would not result in a significant adverse impact on either sidewalk element.

Table K-23: 2020 Future With-Action Scenario Level of Service – Sidewalks

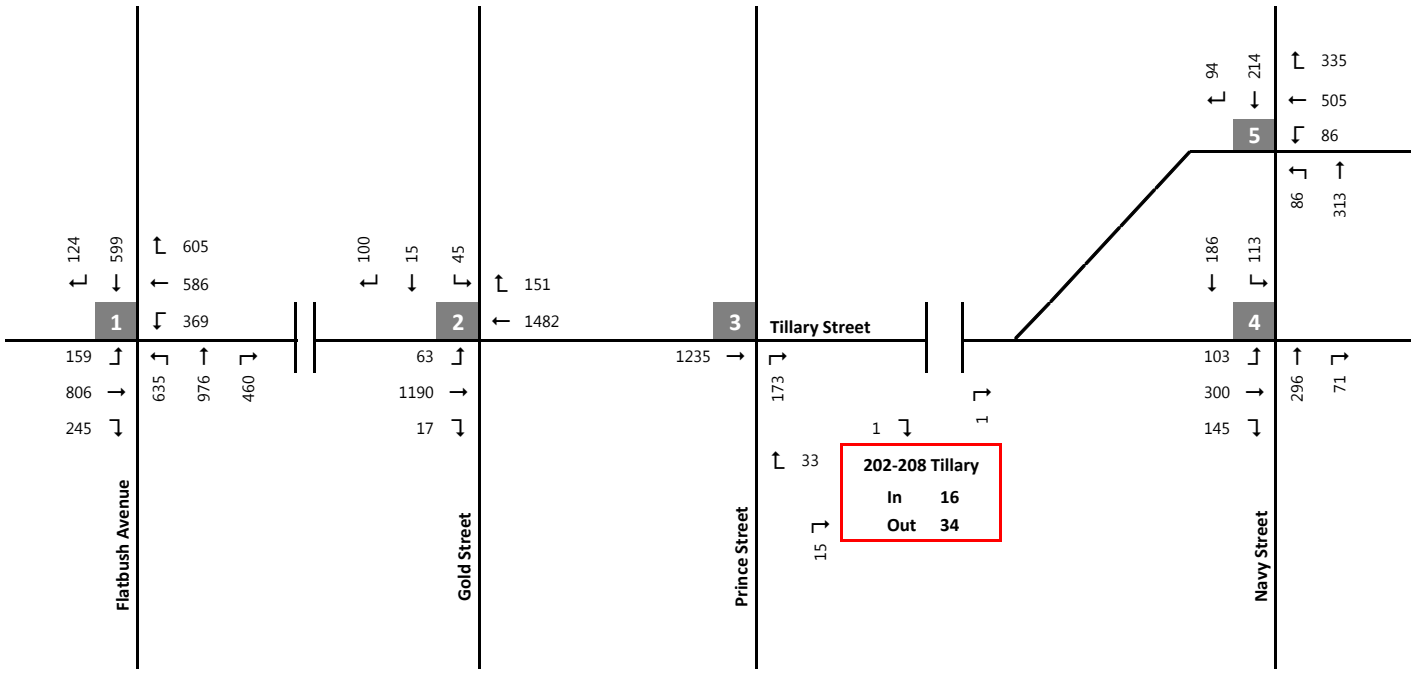
Location	Total Width (ft)	Obstruc-tion Width (ft)	Effective Width (ft)	Available Circulation Space (ft^2/p)				Non-Platoon Conditions LOS				Platoon Conditions LOS			
				Weekday			Sat	Weekday			Sat	Weekday			Sat
				AM	MD	PM	MD	AM	MD	PM	MD	AM	MD	PM	MD
Prince Street and Tillary Street (S leg, E sidewalk)	8.0	3.5	4.5	83	56	61	63	A	B	A	A	C	C	C	C
Prince Street and Tillary Street (E leg, S sidewalk)	6.5	3.0	3.5	58	32	36	43	B	C	C	B	C	D	D	C

Parking Occupancy and Utilization

A minimum of 72 parking spaces would be provided on-site as part of the Proposed Project for the residential use and 12 existing on-site accessory spaces would be removed as part of the Proposed Project. The remaining vehicles were assigned to on- and off-street parking spaces within a 0.25-mile radius of the Project Site. As a result, the utilization of on-street parking spaces in the study area is expected to increase due to the auto trips generated by the Proposed Project. **Table K-24** shows the With-Action Condition parking utilization analysis. Assuming that the existing illegal parking would remain within the same illegal parking spaces, the legal on- and off-street parking spaces would have sufficient capacity to accommodate the project generated demand, with the parking utilization increasing to 95, 96, 86, and 74 percent during the Weekday AM, Weekday MD, Weekday PM, and Weekday Overnight peak hours, respectively. The parking utilization for the Saturday MD peak hour would be 87 percent. Since there would be available on- and off-street parking to accommodate the Proposed Project, there would be no significant adverse parking impacts.

Table K-24: 2020 With-Action Condition On-Street Parking Utilization Summary

	2020 With-Action	Weekday AM	Weekday MD	Weekday PM	Weekday Overnight	Saturday MD
On-Street Parking	No-Action Legal Capacity	1,273	1,273	1,268	1,376	1,376
	No-Action Illegal Capacity	495	495	500	399	399
	No-Action Legal Demand	1,141	1,134	1,093	1,048	1,058
	No-Action Illegal Demand	470	423	378	249	203
	Available Spaces (Including Illegal Demand)	-338	-284	-203	78	115
	Available Spaces (Excluding Illegal Demand)	132	139	175	328	318
	Utilization (Legal Demand vs. Legal Capacity)	**90%**	**89%**	**86%**	**76%**	**77%**
	Utilization (Total Demand vs. Legal Capacity)	**127%**	**122%**	**116%**	**94%**	**92%**
	Utilization (Total Demand vs. Total Capacity)	**91%**	**88%**	**83%**	**73%**	**71%**
Off-Street Parking	Capacity	983	983	983	983	983
	No-Action Demand	770	770	635	461	797
	Available Spaces	213	213	348	522	186
	Utilization	**78%**	**78%**	**65%**	**47%**	**81%**
	No Build Project Demand	**191**	**249**	**162**	**155**	**187**
	Loss of On-Site Parking Capacity	**-12**	**-12**	**-12**	**-12**	**-12**
	Proposed Action Capacity	**72**	**72**	**72**	**72**	**72**
	Proposed Action Demand	99	75	89	124	71
Total On- and Off-Street Parking	Legal Capacity	**2,316**	**2,316**	**2,311**	**2,419**	**2,419**
	Illegal Capacity	**495**	**495**	**500**	**399**	**399**
	Legal Demand	**2,201**	**2,228**	**1,979**	**1,788**	**2,112**
	Illegal Demand	**470**	**423**	**378**	**249**	**203**
	Available Spaces (Including Illegal Demand)	**-355**	**-335**	**-45**	**381**	**104**
	Available Spaces (Excluding Illegal Demand)	**115**	**88**	**332**	**631**	**307**
	Total Utilization (Legal Demand vs. Legal Capacity)	**95%**	**96%**	**86%**	**74%**	**87%**
	Total Utilization (Total Demand vs. Legal Capacity)	**115%**	**114%**	**102%**	**84%**	**96%**
	Total Utilization (Total Demand vs. Total Capacity)	**95%**	**94%**	**84%**	**72%**	**82%**



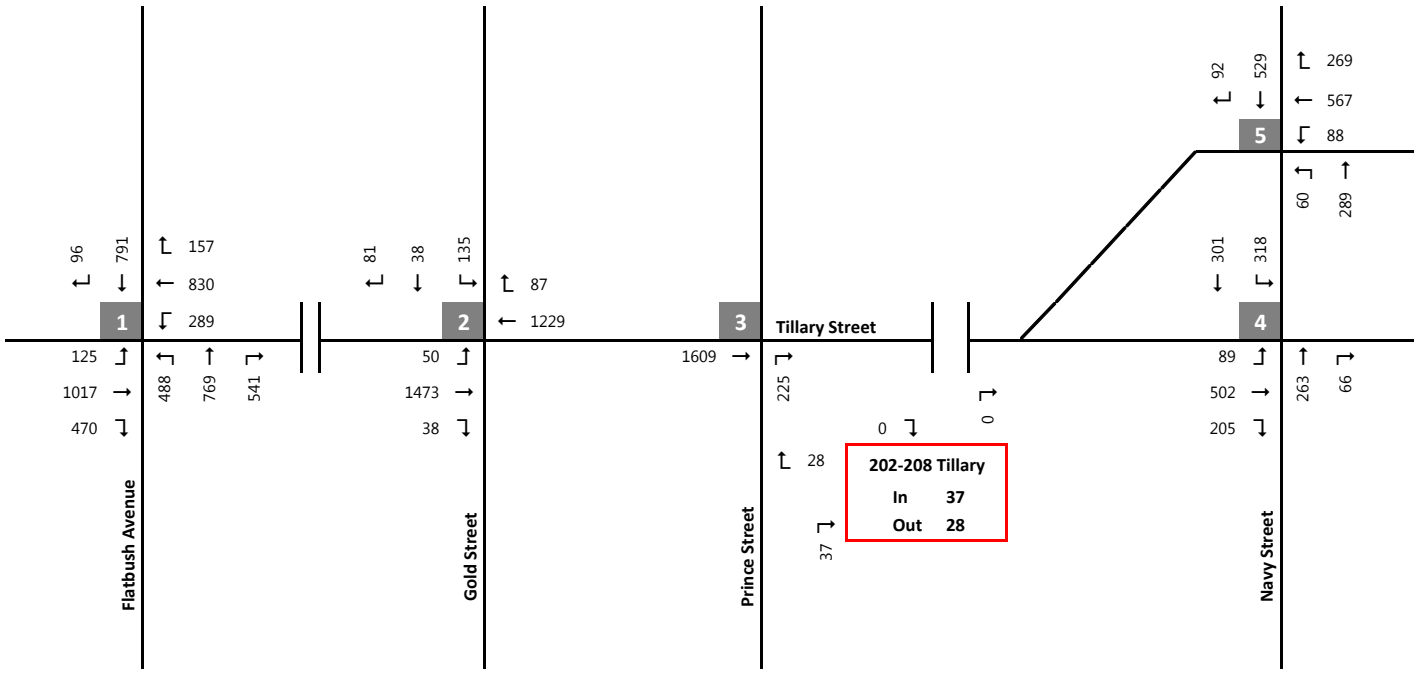
Development Site

Peak Hour Volume

XX Intersection Total Volume

WITH-ACTION TRAFFIC VOLUMES WEEKDAY AM PEAK HOUR

Figure K-13



Development Site

Peak Hour Volume

XX Intersection Total Volume

WITH-ACTION TRAFFIC VOLUMES WEEKDAY PM PEAK HOUR

Figure K-14

X. SAFETY ASSESSMENT

Crash data for the study area intersections were obtained from NYCDOT for the three-year time period between January 1, 2012 and December 31, 2014, and 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 pedestrian- and bicycle-related crashes at each location. According to the *CEQR Technical Manual*, a high-crash location is one with more than 48 total reportable and non-reportable crashes or five or more pedestrian/bicycle injury crashes during any consecutive 12 months of the most recent three-year period for which data is available.

During this three-year period, 166 total crashes, none of which were pedestrian-related or bicycle-related, occurred at the study area intersections. Therefore, based on the crash data, none of the study intersections would be classified as a high-crash location per the *CEQR Technical Manual*. **Table K-25** depicts total crashes by intersection during the three-year period, as well as a breakdown of pedestrian and bicycle crashes by year and location.

Table K-25: Crash Data

Intersection	Total Crashes			Pedestrian			Bicycle			Combined Ped/Bike		
	2012	2013	2014	2012	2013	2014	2012	2013	2014	2012	2013	2014
Tillary Street and Prince Street	2	4	1	0	0	0	0	0	0	0	0	0
Prince Street and Johnson Street/Fleet Walk	0	0	2	0	0	0	0	0	0	0	0	0
Tillary Street and Flatbush Avenue	44	40	35	0	0	0	0	0	0	0	0	0
Tillary Street and Gold Street	8	5	11	0	0	0	0	0	0	0	0	0
Tillary Street / Park Avenue and Navy Street (South)	0	1	0	0	0	0	0	0	0	0	0	0
Tillary Street / Park Avenue and Navy Street (North)	5	5	3	0	0	0	0	0	0	0	0	0
Total	**59**	**55**	**52**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Grand Total	**166**			**0**			**0**			**0**		

Attachment L: Air Quality

I. INTRODUCTION

This chapter assesses the potential impact of the Proposed Action on ambient air quality (i.e., the quality of the surrounding air), or effects on a proposed project because of ambient air quality. Air quality can be affected by mobile sources (pollutants produced by motor vehicles), and by stationary sources (pollutants produced by fixed facilities). According to the *CEQR Technical Manual*, an air quality assessment should be carried out for actions that can result in either significant adverse mobile source or stationary source air quality impacts.

This section evaluates the potential for significant adverse air quality impacts that may result from stationary sources generated by the Proposed Action and the potential adverse impacts from surrounding existing sources.

II. PRINCIPAL CONCLUSIONS

The analyses conclude that the Proposed Actions would not result in any significant adverse air quality impacts on sensitive uses in the surrounding community, and the Proposed Actions would not be adversely affected by existing sources of air emissions in the rezoning area. A summary of the general findings is presented below.

The stationary source analyses determined that there would be no potential significant adverse air quality impacts from fossil fuel-fired heat and hot water systems at the projected and potential development sites. At certain sites, an (E) designation (E-366) would be mapped as part of the zoning proposal to ensure the developments would not result in any significant air quality impacts from fossil fuel-fired heat and hot water systems emissions due to individual or groups of development sites.

An analysis of the potential impacts of industrial sources on projected and potential development sites was performed. Maximum concentration levels at projected and potential development sites were mostly found to be below the air toxic guideline levels and health risk criteria established by regulatory agencies, and below National Ambient Air Quality Standards (NAAQS). In cases where there may be potential for an adverse impact, an (E) designation is placed on the affected development site to ensure no adverse air quality impacts from the existing industrial sources. There were no large and major emissions sources within 1,000 feet of a projected or potential development site.

III. METHODOLOGY

The analysis methodology is based on the guidelines in the *CEQR Technical Manual*. The first step in performing an air quality analysis is to determine the appropriate Study Area. Study areas for the analysis of stationary source impacts depend on the magnitude of the pollutant emission rates from the new source(s), the relative harmfulness of the compounds emitted, the characteristics of the systems that would discharge such pollutants (*e.g.*, stack heights, stack exhaust velocities), and the surrounding topography relative to these sources (e.g., tall residential buildings near shorter stacks). The 400-foot Study Area for a preliminary screening analysis includes nearby buildings with heights similar to or greater than the stack.

The Proposed Action was evaluated for potential air quality impacts from stationary sources including the project's HVAC sources as well as any potential industrial sources within 400 feet, and large or major sources within 1,000 feet of the Project Site. A mobile source analysis was conducted to evaluate the Proposed Action for potential impacts from carbon monoxide (CO), fine particulate matter less than 2.5 microns in diameter ($PM_{2.5}$), and coarse plus fine particulate matter less than 10.0 microns in diameter (PM_{10}) due to vehicular traffic anticipated to be generated by the Proposed Action.

Mobile Sources

Intersection Analysis

The prediction of vehicle-generated emissions and their dispersion in an urban environment incorporates meteorological conditions, traffic details, and the physical configuration of the road network. Numerical dispersion models mathematically simulate how traffic, meteorology, and the physical road network configuration combine to affect pollutant concentrations. The mathematical expressions and formulations contained in the various models attempt to describe an extremely complex physical phenomenon as closely as possible. However, because all models contain simplifications and approximations of actual conditions and interactions, and since it is necessary to predict the reasonable worst-case condition, most dispersion analyses predict conservatively high concentrations of pollutants, particularly under adverse meteorological conditions.

The mobile source analyses for the Proposed Actions employ models approved by EPA that have been widely used for evaluating air quality impacts of projects in New York City, other parts of New York State, and throughout the country. The modeling approach includes a series of conservative assumptions relating to meteorology, traffic, and background concentration levels resulting in a conservatively high estimate of expected pollutant concentrations that could ensue from the Proposed Actions.

Intersections traffic data for the study area was used for the analysis of the Proposed Action. This includes the incremental peak hour traffic volumes of autos and trucks. Trucks were considered to be heavy duty diesel vehicles for conservatism. Autos traffic volumes were considered to include all vehicular movements except for heavy duty diesel vehicles.

It is anticipated that a single parking garage would be included in the With-Action building. Based on the small size of the garage, and expected emissions, a detailed analysis is not necessary.

Brooklyn Queens Expressway (BQE) and Tillary Street Analysis

Traffic data for the BQE collected by the New York State Department of Transportation was used for the analysis of the expressway. This included daily vehicle volume and vehicle classification data from a program conducted in 2005. Average hourly traffic volumes and vehicle classification data for Tillary Street were taken from the Transportation Analysis.

Vehicle Emissions

Vehicular CO and PM engine emission factors were computed using the EPA mobile source emissions model, Motor Vehicle Emission Simulator, or MOVES.[1] This emissions model is capable of calculating

[1] EPA MOVES Model, Version MOVES2014a. Users Guide, EPA-420-B-15-095. November 2015

engine emission factors for various vehicle types, based on the fuel type (gasoline, diesel, or natural gas), meteorological conditions, vehicle speeds, vehicle age, roadway types, number of starts per day, engine soak time, and various other factors that influence emissions, such as inspection maintenance programs. The inputs and use of MOVES incorporate the most current guidance available from NYSDEC.

Vehicle classification data were based on field studies. Appropriate credits were used to accurately reflect the inspection and maintenance program.[2] County-specific hourly temperature and relative humidity data obtained from NYSDEC were used.

Road Dust

$PM_{2.5}$ emission rates were determined with fugitive road dust to account for their impacts in local microscale analyses. However, fugitive road dust was not included in the neighborhood scale $PM_{2.5}$ microscale analyses, since the New York City Department of Environmental Protection (DEP) considers it to have an insignificant contribution on that scale. Road dust emission factors were calculated according to the latest procedure delineated by EPA[3] and the CEQR Technical Manual.

Traffic Data

Traffic data for the air quality analysis were derived from existing traffic counts, projected future growth in traffic, and other information developed as part of the traffic analysis for the Proposed Actions (see Chapter 14, "Transportation"). Existing traffic speed data, vehicle distribution, and lane configuration were employed in the air quality modeling No-Action and With-Action scenarios.

Traffic conditions for each of the peak periods (weekday morning [8 to 9 AM] and evening [5 to 6 PM]) were used to describe traffic conditions for both the daily and weekly time scales. In addition, traffic volumes for these peak periods were used as the baseline for determining off-peak volumes. Off-peak traffic volumes in the future without the Proposed Actions, and off-peak increments from the Proposed Actions, were determined by adjusting the peak period volumes by the 24-hour distributions of actual vehicle counts collected at appropriate locations. For annual impacts, average weekday 24-hour distributions were used to simulate traffic patterns over longer periods.

Dispersion Model for Microscale Analyses

Maximum CO and PM concentrations adjacent to streets within the surrounding area, resulting from vehicle emissions were predicted using the refined (Tier 2) version of the CAL3QHC model, CAL3QHCR[4]. The CAL3QHCR model employs a Gaussian (normal distribution) dispersion assumption. CAL3QHCR calculates emissions and dispersion of pollutants from idling and moving vehicles. The CAL3QHCR model has been updated with an extended module, which allows for the incorporation of hourly traffic and meteorological data into the modeling, instead of using worst-case assumptions. This refined version of the

[2] The inspection and maintenance programs require inspections of automobiles and light trucks to determine if pollutant emissions from each vehicle exhaust system are lower than emission standards. Vehicles failing the emissions test must undergo maintenance and pass a repeat test to be registered in New York State.
[3] EPA, Compilations of Air Pollution Emission Factors AP-42, Fifth Edition. Volume 1: Stationary Point and Area Sources, Chapter 13.2.1, https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-compilation-air-emission-factors. January 2011.
[4] EPA, User's Guide to CAL3QHCR. Addendum to the User's Guide to CAL3QHC Version 2.0. Office of Air Quality Planning, and Standards. Research Triangle Park, NC. https://www3.epa.gov/scram001/userg/regmod/cal3qhcrug.pdf.

model, CAL3QHCR, was employed for evaluation of all pollutants both without the Proposed Actions (the No-Action condition) and with the Proposed Actions (the With-Action condition).

Meteorology

In general, the transport and concentration of pollutants from vehicular sources are influenced by three principal meteorological factors: wind direction, wind speed, and atmospheric stability. Wind direction influences the direction in which pollutants are dispersed, and atmospheric stability accounts for the effects of vertical mixing in the atmosphere. These factors, therefore, influence the concentration at a particular prediction location (receptor).

CAL3QHCR

A Tier 2 analysis performed with the CAL3QHCR model includes the modeling of hourly concentrations based on hourly traffic data and five years of monitored hourly meteorological data. The data consist of surface data collected at LaGuardia International Airport and upper air data collected at Brookhaven, New York for the period 2012–2016. All hours were modeled, and the highest resulting concentration for each averaging period is presented.

Analysis Year

The microscale analyses were performed for existing conditions and 2020, the year by which the Proposed Actions are likely to be completed. The future analysis was performed both without the Proposed Actions (the No-Action condition) and with the Proposed Actions (the With-Action condition).

Background Concentrations

Background concentrations are those pollutant concentrations originating from distant sources that are not directly included in the modeling analysis, which directly accounts for vehicular emissions on the streets within 1,000 feet and in the line of sight of the analysis site. Background concentrations are added to modeling results to obtain total pollutant concentrations at an analysis site.

The background concentrations used in the mobile source analysis were based on concentrations recorded at a monitoring station representative of the county or from the nearest available monitoring station and in the statistical format of the NAAQS, as provided in the CEQR Technical Manual. These represent the most recent 3-year average for 24-hour average $PM_{2.5}$ and 1-hour average NO_2 and SO_2, the highest value from the three most recent years of data available for PM_{10}, and the highest value from the five most recent years of data available for all other pollutant and averaging period combinations. The background concentrations are presented in Table K-1.

Table K-1: Background Concentrations

Location	Station	Pollutant	Averaging period	Units	Background level	NAAQS/ De Minimis
Brooklyn	JHS 126	$PM_{2.5}$	24-hour	µg/m³	20.5	35 (De minimis Increment = 7.25)
Brooklyn	JHS 126	$PM_{2.5}$	Annual	µg/m³	8.6	12 (De minimis increment = 0.3)
Manhattan	Division Street	PM_{10}	24-hour	µg/m³	34	150
Queens	Queens College	NO_2[1]	1-hour	µg/m³	112[1]	188
Queens	Queens College	NO_2	Annual	µg/m³	29.7	100
Queens	Queens College	SO_2	1-hour	ppb	9.5	196
Queens	Queens College	CO	1-hour	ppm	1.53	35
Queens	Queens College	CO	8-hour	ppm	1.20	9

[1] Seasonal and hourly averaged background values from Queen's College were used for the 1-hour NO_2 modelling using the PVMRM methodology in AERMOD.

Receptor Placement

Multiple receptors (i.e., precise locations at which concentrations are predicted) were placed at sidewalk or roadside adjacent to the Proposed Action, and elevated receptors were placed to represent operable windows or balconies of the Proposed Action.

Stationary Sources

A stationary source analysis was conducted to evaluate potential impacts from the projected and potential development sites' heat and hot water systems. In addition, an assessment was conducted to determine the potential for impacts due to industrial activities within the affected area, and from any nearby large or major emission sources.

Individual Heat and Hot Water Systems

A screening analysis was performed to assess air quality impacts associated with emissions from heat and hot water systems associated with each projected and potential development site. The methodology described in the CEQR Technical Manual was used for the analysis and considered impacts on sensitive uses (i.e., existing residences and other developments under construction).

The methodology determines the threshold of development size below which the action would not have a significant adverse impact. The screening procedures utilize information regarding the type of fuel to be

used, the maximum development size, and the heat and hot water systems exhaust stack height to evaluate whether a significant adverse impact may occur. Based on the distance from the development site to the nearest building of similar or greater height, if the maximum development size is greater than the threshold size in the CEQR Technical Manual, there is the potential for significant air quality impacts, and a refined dispersion modeling analysis would be required. Otherwise, the source passes the screening analysis, and no further analysis is required.

Since information on the heat and hot water systems' design was not available, each building on the proposed development site was evaluated with the nearest existing or proposed residential development of a similar or greater height analyzed as a potential receptor. The maximum floor area of each projected and potential development site from RWCDS was used as input for the screening analysis, along with factors predicting fuel usage as a function of floor area.

It was assumed that ultra-low sulfur No. 2 fuel oil or natural gas would be used in the projected and potential development sites' heat and hot water systems, and that exhaust stacks would be located three feet above roof height (as per the CEQR Technical Manual). For sources that did not pass the screening analyses using the CEQR Technical Manual procedures, a refined modeling analysis was performed. For fuel oil and natural gas, the primary pollutants of concern are NO_2 and PM. With the use of ultra-low sulfur fuel oil, the concern for SO_2 is greatly reduced and is a lesser concern. SO_2 was only modeled for the natural gas option. Emission rates were determined based on emission factors in EPA AP-42: Compilation of Air Emission Factors. Specifically, emission rates for the natural gas combustion were estimated using the emission factors in Table 1.4-2 in Chapter 1.4 Natural Gas Combustion. PM (Total) was assumed to be $PM_{2.5}$, so the PM emission factor was used to estimate $PM_{2.5}$ emissions.

The 1-hour and 24-hour emissions rates were increased by a factor of 3.65 to account for a typical heating season of 100 days.

IV. PRELIMINARY ASSESSMENT

Mobile Source Analysis

Intersection Analysis

The CEQR Technical Manual describes a screening evaluation based on predicted incremental traffic counts determined from a separate traffic study in order to determine whether any roadway intersections would need to be evaluated. The increments are 160 or more automobile trips in the peak hour for CO for the Project Site. For $PM_{2.5}$ several thresholds of incremental peak hour trips for heavy duty diesel vehicles (HDDV) are specified depending on the type of roadway, ranging from 12 to 23 HHDVs. The expected traffic levels generated by the Proposed Action are provided in Table K-2.

Table K-2: Peak Hour Project Generated Vehicle Trips

Peak Hour	Intersection	Passenger Cars	Trucks	Total
Weekday AM	Tillary Street & Prince Street	50	2	52
	Johnson Street & Prince Street	13	0	13
	Total	63	2	65
Weekday Midday	Tillary Street & Prince Street	28	1	29
	Johnson Street & Prince Street	22	0	22
	Total	50	1	51
Weekday PM	Tillary Street & Prince Street	36	0	36
	Johnson Street & Prince Street	33	0	33
	Total	69	0	69
Saturday Midday	Tillary Street & Prince Street	41	0	41
	Johnson Street & Prince Street	28	0	28
	Total	69	0	69

As shown in Table K-2, the maximum number of automobile peak hour vehicle trips is 69 and the maximum for HDDVs is two. These values are well below the CO and $PM_{2.5}$ screening thresholds, and a detailed intersection analysis of mobile source emissions is not necessary.

Brooklyn Queens Expressway and Tillary Street Analysis

Although the BQE is located 350 ft from the projected development site, Tillary Street serves as a major connection between the BQE and the Brooklyn Bridge and is located immediately adjacent to the projected development site. Therefore an analysis was conducted to consider potential cumulative air quality impacts for CO, $PM_{2.5}$ and $PM_{10.}$ resulting from the BQE and Tillary Street. Vehicular emission factors were estimated using MOVES. Dispersion modelling was conducted using CAL3QHCR.

CO concentrations for future conditions in the With-Action condition were predicted using the methodology previously described. Table K-3 shows the future maximum predicted 8-hour average CO concentrations at the intersection studied. (No 1-hour values are shown, since no exceedances of the NAAQS would occur and the de minimis criteria are only applicable to 8-hour concentrations; therefore, the 8-hour values are the most critical for impact assessment.) The values shown are the highest predicted concentrations. The results indicate that the proposed actions would not result in any violations of the 8-hour CO standard. In addition, the incremental increases in 8-hour average CO concentrations are very small, and consequently would not result in a violation of the CEQR de minimis CO criteria. Therefore, mobile source CO emissions the proposed actions would not result in a significant adverse impact on air quality.

Table K-3: Maximum Predicted Eight-Hour CO With-Action Concentrations (µg/m^3)

Analysis Site	Location	No-Action	With-Action	*De Minimis*
1	202-208 Tillary Street	1,510	1,510	5,430

Notes:

Eight-hour standard (NAAQS) is nine ppm.

Concentration includes a background concentration of 1.2 ppm.

PM_{10} concentrations for the With-Action condition were determined using the methodology previously described and used in the No Build condition. Table K-4 presents the predicted PM_{10} 24-hour concentrations at the analyzed intersections in the With-Action condition. The values shown are the highest predicted concentrations for the modeled receptor locations and include background concentrations.

Table K-4: Maximum Predicted 24-Hour Average PM_{10} With-Action Concentrations (µg/m^3)

Analysis Site	Location	No-Action	With-Action
1	202-208 Tillary Street	58.7	59.5

Notes:

24-hour standard (NAAQS) is 150 µg/m^3.

Concentration includes a background concentration of 34.0 µg/m^3.

Using the methodology previously described, maximum predicted 24-hour and annual average $PM_{2.5}$ concentration increments were calculated so that they could be compared with the de minimis criteria. Based on this analysis, the maximum predicted localized 24-hour average and neighborhood-scale annual average incremental $PM_{2.5}$ concentrations are presented in Tables K-5 and K-6, respectively. Note that $PM_{2.5}$ concentrations in the No-Action condition are not presented, since impacts are assessed on an incremental basis.

Table K-5: Maximum Predicted 24-Hour Average $PM_{2.5}$ With-Action Concentrations

Analysis Site	Location	Increment (µg/m^3)	*De Minimis* (µg/m^3)
1	202-208 Tillary Street	0.2	7.25

Notes:

The incremental 24-hour $PM_{2.5}$ concentration should not exceed the de minimis, defined as half the difference between the background concentration and the 24-hour standard (35 µg/m^3).

Table K-6: Maximum Predicted Annual Average $PM_{2.5}$ Incremental Concentrations

Analysis Site	Location	Increment (µg/m^3)
1	202-208 Tillary Street	0.006
Notes: The incremental annual neighborhood scale concentration should not exceed the de minimis, defined as 0.1 µg/m^3.		

The results show that the daily (24-hour) $PM_{2.5}$ increments are predicted to be below the de minimis criteria. The maximum annual incremental $PM_{2.5}$ concentration is below the de minimis criteria.

Stationary Source Analysis

Screening Analysis

The first step in the analysis of the HVAC systems for the two proposed buildings is to consider impacts following the screening procedures outlined in the CEQR Technical Manual to determine the potential for impacts on existing developments as well as "project-on-project impacts."[5] The nearest existing building and/or proposed development of a similar or greater height relative to the emission release height for the HVAC exhaust source in question was considered as the potential receptor for the screening evaluation.

Project-on-project impacts would be of concern if one or either of the With-Action buildings is taller than the proposed HVAC system exhaust stack. The proposed height of Building B is 21 stories, two stories shorter than the proposed height of Building A at 23 stories. Within the 400-ft Study Area surrounding the Project Site, the nearest existing building of similar or taller height as Building A is an existing 40 stories residential building (located at Block 134, Lot 1; 309 Gold Street).

The potential for the HVAC from Building B to impact Building A, and Building A to impact the existing residential building were assessed using AERSCREEN in accordance with the CEQR TM. The results of the screening assessment determined:

- For Building A (93,852 gsf; located at Block 2050, Lot 100) no significant adverse impacts are predicted at the nearby existing residential building (at 309 Gold Street) if the fuel is Natural Gas and the stack height is located at the highest tier or 238 feet high. The screening is shown with the red lines in Image K-1.
- For Building B (39,890 gsf; located at Block 2050, Lot 100) significant adverse effects could occur according to the AERSCREEN results, and a refined analysis is required.

A potential significant impact due to boiler stack emissions is unlikely and no further analysis is required for Building A. Refined analysis was needed for Building B.

Industrial Manufacturing Source Analysis (Air Toxics)

A survey was conducted for the Project Site to determine if there are any existing industrial facilities within 400 feet of the proposed project. Through this survey, it was confirmed that there are two industrial and/or

[5] This analysis assumes separate HVAC systems for the With-Action buildings.

manufacturing uses within a 400 feet radius of the Project Site. The locations of the two identified potential sources are listed in Table K-7 below.

Table K-7: Identified Industrial and/or Manufacturing Uses

Site	Block	Lot	Existing Potential Industrial/ Manufacturing Use	Existing Air Permit
1	122	8	YES	NO
2	122	13	YES	NO

A review of the New York City DEP Clean Air Tracking System (CATS) database indicates that none of the identified lots have air quality permits. This was also confirmed via correspondence with DEP and DCP representatives. Based on this review of existing permits, there do not appear to be any industrial sources within 400 feet of the Project Site, and an industrial source analysis for Air Toxics is not required.

Based on the existing land use survey and existing aerial, Site 1 is currently vacant and Site 2 is currently a storage facility, dry cleaner and market. These facilities do not require an analysis.

Large or Major Sources

A search for existing large and major sources of emissions (i.e., sources having a Title V or State Facility Air Permit) within 1,000 feet of the Project Site was performed using registration lists maintained by NYSDEC and EPA.[6] No large or major sources were identified with Title V or State permits. Therefore, no significant air quality impacts are expected at the new project from existing large or major sources, and a detailed analysis is not warranted.

Cumulative Analysis

The screening for the cumulative analysis is shown with the blue lines in Image K-1. For potential cumulative HVAC impacts from the project-on-existing developments, Figure 17-7 from the Air Quality Appendix of the CEQR Technical Manual was referenced, based on natural gas and a residential building. Using this figure, the incremental development size of 133,742 gsf requires that the distance to the nearest existing development would need to be approximately 80 feet. The actual distance to the nearest existing development is 116 feet. Therefore, the project passes the cumulative screening based on natural gas.

[6] NYSDEC (http://www.dec.ny.gov/index.html) and EPA (http://oaspub.epa.gov/enviro/ef_home2.air).

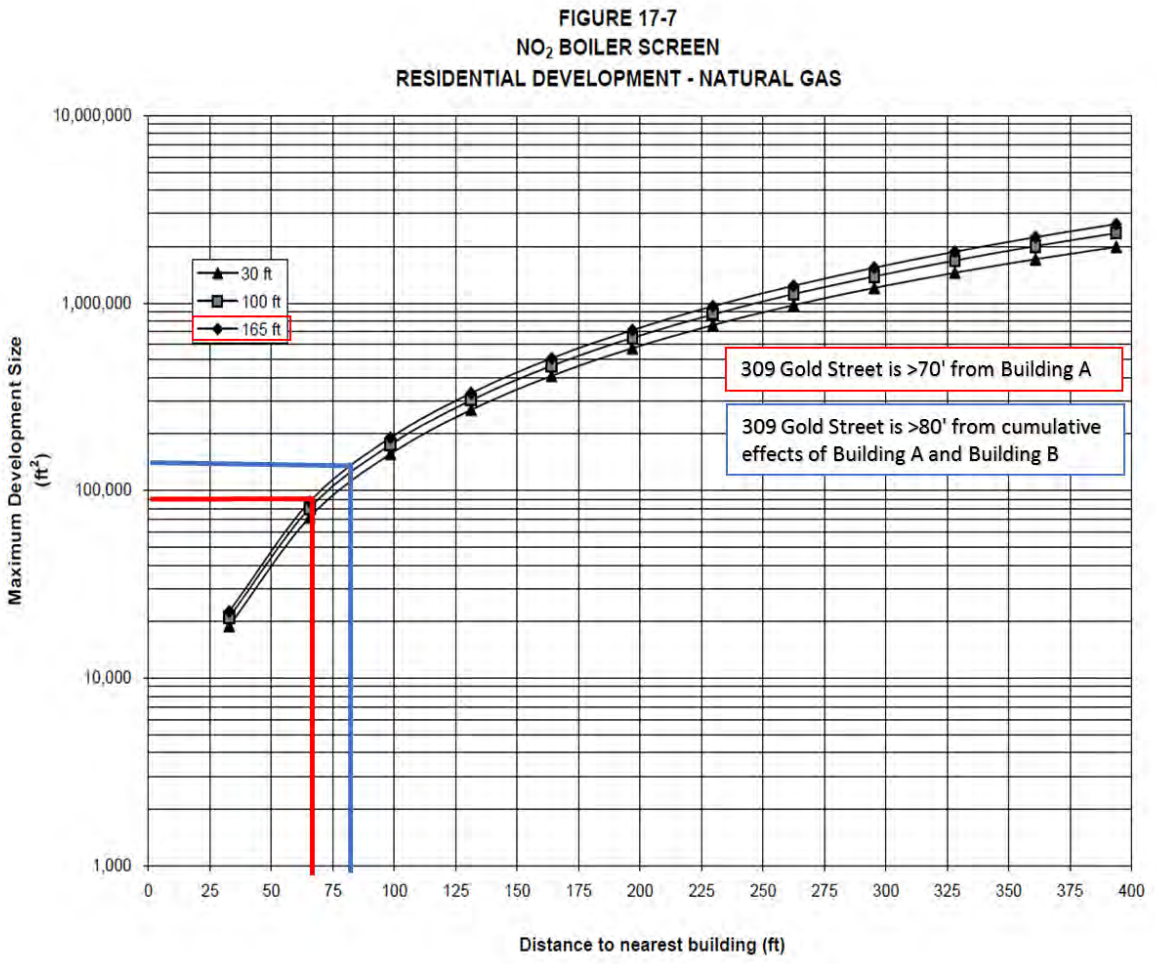


Image K-1: HVAC Screening for Natural Gas

Refined Analysis (Building B HVAC)

The impacts were analyzed for NO_2 and $PM_{2.5}$. Background, NAAQS limits and de minimis criteria increment limit values are shown in Table K-1. Note that for the NO_2 1-hour calculations, seasonal and hourly average background values for NO_2 and ozone were used in the AERMOD model with the PVMRM algorithm, as described in the methodology section above. As previously mentioned, the 1-hour and 24-hour HVAC emissions were increased by a factor of 3.65 to account for a 100 day heating season.

Project-on-Project effects were assessed in the refined analysis by modeling natural gas emission rates from the Building B HVAC source with receptors at Building A. The maximum NO_2 and $PM_{2.5}$ predicted concentrations at Building A from emissions on Building B are shown in Table K-8. AERMOD was run with no building downwash because this condition was expected to produce higher concentrations than the with-building downwash case. All predicted concentrations are below their respective NAAQS or de minimis criteria values. No adverse air quality impacts are predicted at Building A from HVAC emissions on Building B based on the refined modeling.

Project-on-Existing effects were assessed in the refined analysis by modeling natural gas emission rates from Building B with receptors at the nearby tall residential building at 309 Gold Street. The maximum NO_2 and $PM_{2.5}$ predicted concentrations at Building A from emissions on Building B are shown in Table K-9. AERMOD was run with no building downwash because this condition was expected to produce higher concentrations than the with-building downwash case. All predicted concentrations are below their respective NAAQS or de minimis criteria values. No adverse air quality impacts are predicted at existing buildings from HVAC emissions on Building B based on the refined modeling.

Table K-8: Maximum Predicted Impacts from Building B HVAC Source at Building A

Pollutant	Averaging Period	AERMOD Model Impact ($\mu g/m^3$)	NAAQS or Increment Limit ($\mu g/m^3$)
NO_2	1-hour	185.7	188
NO_2	Annual	30.5	100
$PM_{2.5}$	24-hour	2.35	7.25 increment
$PM_{2.5}$	Annual	0.08	0.3 increment

Table K-9: Maximum Predicted Impacts from Building B HVAC Source at 309 Gold Street

Pollutant	Averaging Period	AERMOD Model Impact ($\mu g/m^3$)	NAAQS or Increment Limit ($\mu g/m^3$)
NO_2	1-hour	109.5	188
NO_2	Annual	29.8	100
$PM_{2.5}$	24-hour	0.26	7.25 increment
$PM_{2.5}$	Annual	0.009	0.3 increment

V. CONCLUSION

The Proposed Action would not result in any significant adverse mobile or stationary source air quality impacts. The Proposed Project would not result in traffic such that it would trigger CEQR thresholds requiring additional mobile source air quality analysis. An analysis of the development under the Proposed Action showed no expected adverse stationary source air quality effects on existing nearby buildings of equal or greater height. The Proposed Project would not create a new stationary air quality source that would adversely affect the surrounding area. In addition, based on correspondence with DEP, additional analysis of industrial and manufacturing uses within the Study Area is not warranted. Based on this assessment, the Proposed Project would not result in any adverse air quality impacts. To prevent Project-on-Project air quality impacts from stationary sources (E) designations would be assigned to Building B for air quality. By placing (E) designations on sites where there is a known or potential environmental concern, the potential for an adverse impact to human health and the environment resulting from the Proposed Action would be reduced or avoided. The (E) designation provides the impetus to identify and address facilities, activities or environmental conditions so that significant adverse impacts during site development would be reduced. The New York City Office of Environmental Remediation (OER) would provide regulatory oversight of the environmental investigation and remediation during this process. Building permits are not issued by the DOB without prior OER approval of the investigation and/or remediation pursuant to the provisions of Section 11-15 of the New York City Zoning Resolution (Environmental Requirements). The requirements of the “E” designation would be as follows:

Building A: Block 2050, Lot 100: Any new residential and/or commercial development on the above-referenced properties must use natural gas for HVAC systems and ensure that the heating, ventilating and air conditioning stack is located at the highest tier or at least 238 feet above grade to avoid any potential significant adverse air quality impacts.

Building B: Block 2050, Lot 100: Any new residential and/or commercial development on the above-referenced properties must use natural gas for HVAC systems and ensure that the heating, ventilating and air conditioning stack is located at the highest tier or at least 218 feet above grade and the stack is located at 41 feet from the lot line facing Prince Street and at least 42 feet from lot line facing Tillary Street to avoid any potential significant adverse air quality impacts.

Attachment M: Noise

I. INTRODUCTION

This chapter assesses the potential noise impacts associated with the Proposed Action. The assessment has been conducted in accordance with the CEQR Technical Manual.

According to the *CEQR Technical Manual*, the goal of a CEQR noise assessment is to determine both (i) a proposed project's potential effects on sensitive noise receptors, including the effects on the level of noise inside residential, commercial, and institutional facilities (if applicable), and at open spaces; and (ii) the effects of ambient noise levels on new sensitive uses introduced by a proposed project. If significant adverse impacts are identified, CEQR requires such impacts to be mitigated or avoided to the greatest extent practicable.

Based on the traffic data provided in Attachment K, "Transportation", the proposed action would not 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 [PCEs] which would be necessary to cause a 3 dB increase in noise levels).

This noise analysis was conducted to establish the effects of ambient noise levels onto the subject site and to determine the level of building attenuation required to ensure that interior noise levels within the proposed project would satisfy applicable interior noise criteria.

II. PRINCIPAL CONCLUSIONS

Based on the analyses presented below, complying with the interior noise level criteria is likely to be achievable with incorporation of building systems which provide the minimum attenuation requirements specified. Therefore, the project would not have any significant adverse noise impacts.

III. NOISE STANDARDS AND CRITERIA

The *CEQR Technical Manual* provides attenuation requirements for buildings based on exterior noise levels (see **Table 1**, "Required Attenuation Values to Achieve Acceptable Interior Noise Levels"). Recommended noise attenuation values for buildings are designed to maintain interior noise levels of 45 dBA or lower for residential uses and 50 dBA or lower for commercial uses and are determined based on exterior $L_{10(1)}$ noise levels.

Table 1- 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 dB(A)	(II) 31 dB(A)	(III) 33 dB(A)	(IV) 35 dB(A)	$36 + (L_{10} - 80)^{B}$ dB(A)

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

IV. METHODOLOGY

According to CEQR guidelines, an initial impact screening assessment considers whether a proposed project would (i) generate any mobile or stationary sources of noise; and/or (ii) be located in an area with existing high ambient noise levels. For a mobile source analysis to be triggered, a project must impact vehicular traffic noise, aircraft noise, and/or train noise. uses

For reference, mobile noise sources are those which move in relation to receptors. The mobile source screening analysis addresses potential noise impacts associated with vehicular traffic generated by the proposed action. According to the CEQR Technical Manual, if existing passenger car equivalent (PCE) values are increased by 100 percent or more due to a proposed action, a detailed analysis is generally performed.

Based on counts of existing vehicular traffic numbers as well as projected vehicular traffic numbers generated by the proposed action, no significant adverse mobile source noise impacts due to vehicular traffic are anticipated as a result of the proposed action. (i.e it would not result in a doubling of noise passenger car equivalents [PCEs] which would result in a 3 dB increase in noise levels)

Because the Project Site is located in an area with existing high ambient noise levels from Tillary St and the Brooklyn Queens Expressway, an initial noise assessment on vehicular noise would be warranted. Based on the CEQR Technical Manual, an initial noise assessment on vehicular traffic noise is necessary if a proposed project would (i) generate or reroute traffic; or (ii) introduce a new receptor near a heavily trafficked thoroughfare.

Noise survey locations were selected by examining the proposed project location and the location of the dominant sources of ambient noise. Existing noise levels were determined at each location by performing field measurements. The measured noise levels were used to determine minimum window/wall attenuation requirements to satisfy CEQR interior noise level criteria.

The survey locations are indicated below and in **Figure 1**:

- Survey Location A – Rear of Project Site
- Survey Location B – Tillary Street
- Survey Location C – Prince Street

Source: NYCDCP, 2015 Pluto

Development Site

Survey Location

SITE MAP AND SURVEY LOCATIONS

Figure M-1

V. EXISTING NOISE LEVELS

Noise levels were measured at each receptor site over 20 minute periods during three weekday peak periods – AM (7:30AM – 9:00AM), midday (12:00PM – 1:15PM), and PM (5:15PM – 7:15PM), as well as during a Saturday midday peak period – (12:30PM – 1:45PM). The measurements were taken on February 11, 15 and 16, and March 2, 2017.

Measurements were performed using NTi XL2 and Bruel & Kjaer 2250 sound level meters. The SLMs are a Type 1 instrument according to ANSI Standard S1.4-1983 (R2006). For each measurement, the microphone was mounted on a tripod at a height of 5 feet above the ground and was mounted at least approximately 5 feet away from any large reflecting surfaces. The SLM's calibration was field checked before and after readings. Measurements at each location were made on the A-scale (dBA). The data were digitally recording by the SLMs and displayed at the end of the measurement period in units of dB(A). Measured quantities included Leq, L1, L10, L50, L90, and 1/3 octave band levels. A windscreen was used during all sound measurements except for calibration.

The results of the existing noise level measurements are presented in **Table 2.**

Table 2- Measured Existing Noise Levels

Site	Measurement Location	Day	Time	Leq	L1	L10	L50	L90
A	Rear of Project Site	Weekday	AM	61	69	62	60	58
			MD	63	74	**63**	57	55
			PM	59	66	61	58	57
		Saturday	MD	57	66	58	55	53
B	Tillary Street	Weekday	AM	70	79	**73**	68	63
			MD	67	75	69	65	60
			PM	69	77	72	68	63
		Saturday	MD	66	73	70	64	60
C	Prince Street	Weekday	AM	63	72	64	60	58
			MD	66	66	61	66	59
			PM	61	69	**64**	58	57
		Saturday	MD	61	67	61	58	56

At Sites A and B, the ambient noise environment was controlled by traffic noise along Tillary Street and the Brooklyn Queens Expressway as well as general urban city noise. At Site C, the ambient noise environment was controlled by traffic noise along Tillary Street and Prince Street.

In terms of the CEQR criteria, in accordance with *CEQR Technical Manual* guidelines, the existing noise levels at Sites A and C are in the "acceptable" category, and existing noise levels at Sites B are in the "marginally unacceptable" category.

VI. PRELIMINARY ASSESSMENT

Attenuation Requirements

As shown in Table 1, the CEQR Technical Manual has set noise attenuation values for building facades, based on exterior L10(1) noise levels. These recommended noise attenuation values are designed to maintain interior noise levels of 45 dB(A) or lower for residential, hotel, etc. uses and 50 dB(A) for commercial uses.

Table 3 and **Figure 2** lists the required building attenuation values for each façade of the proposed development. The attenuation of a composite structure is a function of the attenuation provided by each of

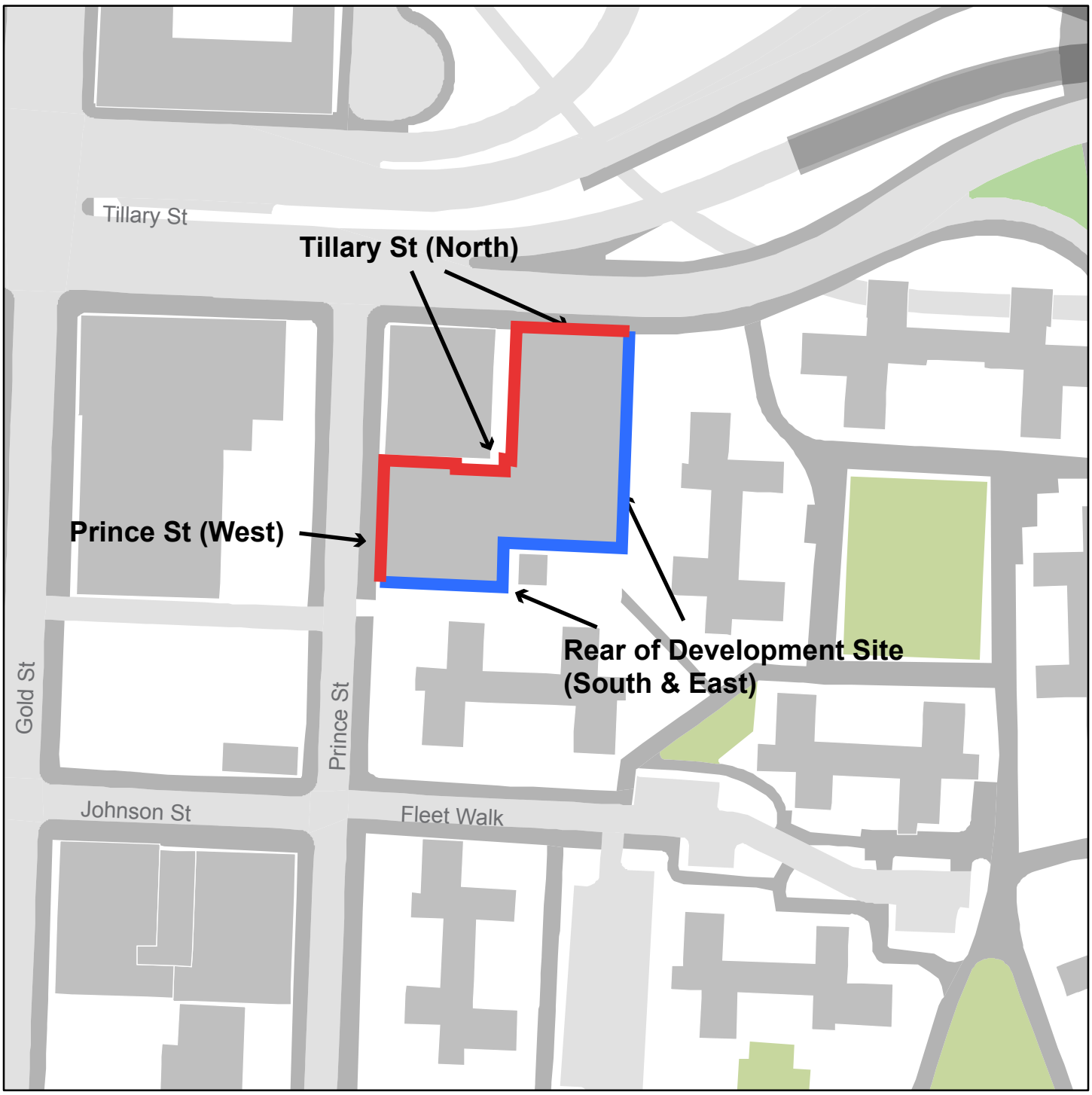
the its component parts and how much of the area is made up of each part. Normally, a building façade consists of a wall, glazing, and any vents or louvers associated with the building mechanical systems in various ratios of area. The proposed development's design will include acoustically rated windows and an alternate means of ventilation (i.e., air conditioning) that does not degrade the acoustical performance of the façade.

The proposed development's facades, including these elements, would be designed to provide a composite Outdoor-Indoor Transmission Class1 (OITC) rating greater than or equal to the attenuation requirements listed in **Table 3**. By designing the proposed development to provide a composite OITC rating greater than or equal to the attenuation requirements listed in **Table 3,** the proposed building would be expected to provide sufficient attenuation to achieve the CEQR interior noise level guideline of 45 dB(A) or lower for residential uses and 50 dB(A) or lower for commercial uses.

Table 3- CEQR Building Attenuation Analysis Summary

Building Façades On	Maximum L_{10} (in dBA)	Attenuation Requirement	Color Key in Figure 2
Rear of Project Site (South & East)	63[1]	N/A	Blue
Tillary Street (North)	73	31	Red
Prince Street (West)	73	31	Red

Notes:
[1] Maximum L10 is below 70 dB(A). The *CEQR Technical Manual* does not contain guidance for noise levels that are less than or equal to 70 dB(A).



Source: NYCDCP, 2015 Pluto

Development Site

CEQR BUILDING ATTENUATION ANALYSIS SUMMARY

Figure M-2

To preclude the potential for significant adverse impacts related to noise, an (E) designation would be incorporated into the rezoning proposal for Block 2050 Lot 100. The text for the (E) designation is as follows:

> **Block 2050, Lot 100 (Projected Development Site)**
>
> **In order to ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed window condition with minimum attenuation of 31 dB(A) window/wall attenuation along northern and western facades, in order to maintain an interior noise level of 45 dB(A). In order to maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning.**

With this (E) designation in place, no significant adverse noise impacts related to noise are expected, and no further analysis is warranted.

Mechanical Systems

The design of and specification for building mechanical systems, such as heating, ventilation, and air conditioning (HVAC), should 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 Mechanical Code) to ensure that the equipment does not result in any significant increase in ambient noise levels.

NOISE MONITORING LOCATION 1

Figure M-3

NOISE MONITORING LOCATION 2

Figure M-4

NOISE MONITORING LOCATION 3

Figure M-5

Attachment N: Construction

I. INTRODUCTION

Construction activities, although temporary in nature, can sometimes result in significant adverse impacts. According to Chapter 22 of the *CEQR Technical Manual*, a construction assessment should be conducted if, based on factors such as a project's location and setting in relation to other uses and the intensity of construction activities (such as in-ground disturbance), a project involves construction or could induce construction. Determination of the significance of construction impacts and need for mitigation is generally based on the duration and magnitude of the impacts, with a construction duration of less than 24 months generally assumed not to result in significant adverse impacts.

As described in Attachment A, "Project Description," the construction for the Proposed Development is expected to occur over a period of approximately 24 months and be completed and operational by the end of 2020, and would be completed in one phase. The construction activities associated with the Proposed Development would be expected to result in conditions typical of construction sites in Brooklyn.

Screening Assessment

According to Chapter 22 of the *CEQR Technical Manual*, a detailed assessment of construction period impacts is generally not required when the duration of construction is expected to be short-term unless there is the potential that certain short term effects may rise to the point of significance. Since the Proposed Development would require less than two years to construct and would not involve unique construction-related activities or techniques, a detailed assessment of construction period effects is not required.

Construction Schedule

The following outlines the anticipated construction schedule for the Proposed Development:

Demolition: 2 months

Excavation: 2-3 months

Foundation: 2-3 months

Superstructure: 12 months

Framing, Plumbing, and Electrical: 3-4 months

Finishes and Fixtures: 2 months

Governmental Coordination and Oversight

The governmental oversight of construction in New York City is extensive and involves a number of city, state, and federal agencies. **Table N-1** shows the main agencies involved in construction oversight and each agency's areas of responsibility. The primary responsibilities lie with New York City agencies. The New York City Department of Buildings (NYCDOB) has the primary responsibility for ensuring that the construction meets the requirements of the Building Code and that buildings are structurally, electrically, and mechanically safe. In addition, NYCDOB enforces safety regulations to protect both construction

workers and the public. The areas of responsibility include installation and operation of construction equipment, such as cranes and lifts, sidewalk shed, and safety netting and scaffolding. The New York City Department of Environmental Protection (NYCDEP) enforces the Noise Code, approves remedial action plans (RAPs) and Construction Health and Safety Plans (CHASPs), and regulates water disposal into the sewer system. The New York City Fire Department (FDNY) has primary oversight for compliance with the Fire Code and for the installation of tanks containing flammable materials. The New York City Department of Transportation (NYCDOT) reviews and approves any traffic lane and sidewalk closures. New York City Transit (NYCT) is in charge of bus stop relocations, and any subsurface construction within 200 feet of a subway. The Landmarks Preservation Commission (LPC) approves studies and testing to prevent loss of archaeological materials and to prevent damage to fragile historic structures.

The New York State Department of Environmental Conservation (NYSDEC) regulates discharge of water into rivers and streams, disposal of hazardous materials, and construction, operation, and removal of bulk petroleum and chemical storage tanks. The New York State Department of Labor (NYSDOL) licenses asbestos workers. On the federal level, the US Environmental Protection Agency (EPA) has wide ranging authority over environmental matters, including air emissions, noise, hazardous materials, and the use of poisons. Much of the responsibility is delegated to the state level. The US Occupational Safety and Health Administration (OSHA) sets standards for work site safety and the construction equipment.

Table N-1: Construction Oversight in New York City

Agency	Area(s) of Responsibility
New York City	
Department of Buildings	Primary oversight for Building Code and site safety
Department of Environmental Protection	Noise, hazardous materials, dewatering
Fire Department	Compliance with Fire Code, tank operation
Department of Transportation	Traffic lane and sidewalk closures
New York City Transit	Bus stop relocation; any subsurface construction within 200 feet of a subway
Landmarks Preservation Commission	Archaeological and historic architectural protection
New York State	
Department of Labor	Asbestos workers
Department of Environmental Conservation	Dewatering, hazardous materials, tanks, Stormwater Pollution Prevention Plan, Industrial SPDES, if any discharge into the Hudson River
United States	
Environmental Protection Agency	Air emissions, noise, hazardous materials, toxic substances
Occupational Safety and Health Administration	Worker safety

As a result of existing governmental regulations and coordination over construction activities in New York City, construction-related activities resulting from the Proposed Action is not anticipated to impact archaeological/historical resources, or hazardous materials conditions.

Transportation

While the Development Site is not located either within a Central Business District (CBD) or along an arterial highway or major thoroughfare, there is potential for closing, narrowing, or otherwise impeding traffic, transit, or pedestrian elements (roadways, parking spaces, bicycle routes, sidewalks, crosswalks,

crosswalks, corners, etc.) during construction. According to the *CEQR Technical Manual*, a transportation assessment is required if the closure would be located in an area with high pedestrian activity or near sensitive land uses such as a school, hospital, or park. The Development Site faces Tillary Street to the north and Prince Street to the west, and is not located near any sensitive land uses as defined by the *CEQR Technical Manual*. While the exact locations of closures or any potential impediments of transportation elements are unknown, it is anticipated that they would occur along a portion of Tillary Street and Prince Street. The duration of the closures would be within the 24-month construction period, and would typically take place early on in the construction process during site clearance, excavation, and pouring the foundation. As the transportation elements associated with the sensitive receptor would not be affected, there would be no adverse impacts on transportation due to construction activities for the Proposed Development.

In addition, the New York City Department of Transportation (NYCDOT) reviews and approves any traffic lane and sidewalk closures and would oversee this aspect during the construction process.

Air Quality and Noise

According to *CEQR Technical Manual*, an assessment of the impact of construction activities on air quality and noise is warranted if the project's construction activities involves construction of multiple buildings where there is potential for on-site receptors on buildings to be completed before the final build-out. Since the Proposed Development is expected to be constructed in one phase, with all buildings operational at the same time, no construction activities would occur while any building or use is operational. Therefore, there would be no adverse impacts on air quality and noise due to construction activities for the Proposed Development.

II. CONCLUSION

As discussed above, construction-related activities resulting from the Proposed Actions are not expected to have any significant adverse impacts on traffic, air quality, noise, archaeological/historical resources, or hazardous materials conditions, and a detailed analysis of construction impacts is not warranted. Moreover, the construction process in New York City is highly regulated to ensure that construction period impacts are eliminated or minimized.

APPENDIX A

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 / 77DCP374K
Project: TILLARY ST REZONING
Date received: 2/15/2017

Properties with no Architectural or Archaeological significance:

1) ADDRESS: 67 PRINCE STREET, BBL: 3020500100
2) ADDRESS: 194 TILLARY STREET, BBL: 3020500104
3) ADDRESS: 173 MYRTLE AVENUE, BBL: 3020500001

Gina Santucci 2/16/2017

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 32155_FSO_DNP_02162017.doc

APPENDIX B

EXECUTIVE SUMMARY

Brinkerhoff performed a Phase I ESA of the property located at 202-208 Tillary Street (aka 67-73 Prince Street), in the Borough of Brooklyn, Kings County, New York. The assessment was performed in conformance with the scope and limitations of AAI and the ASTM E 1527-13 Standard Practice for ESAs: Phase I ESA Process Scope of Work. The Phase I ESA revealed the following:

DATA GAPS

- As of the date of report preparation, the NYSDEC and the NYCDEP had not yet responded to requests for site information.

RECOGNIZED ENVIRONMENTAL CONDITIONS (RECs)

- According to the EDR environmental database search, the subject property was identified in the ERNS database at the 202 Tillary Street address. According to the report, the listing is related to a 150-gallon diesel oil spill that occurred on April 6, 1990. The report indicated that the oil spilled while a delivery truck was approaching the fuel dock and it struck a curb. The police and fire department were on site, and a cleanup was undertaken. The material spilled from the truck's fuel tank. No additional information was provided by EDR. Since cleanup was implemented and no open NYSDEC spill number exists, no further investigation is proposed.

Based on the findings of this report, a Phase II ESA is not recommended at this time.

CONTROLLED RECOGNIZED ENVIRONMENTAL CONDITIONS (CRECs)

No CRECs were identified.

HISTORIC RECOGNIZED ENVIRONMENTAL CONDITIONS (HRECs)

No HRECs were identified.

OTHER ENVIRONMENTAL CONCERNS

- ***Urban Historic Fill*** - It should be noted that the potential exists that urban historic fill is present on the property. Urban historic fill is common in highly urbanized areas and can contain contaminants such as heavy metals and semi-volatile organic compounds. If identified, appropriate transportation and disposal/recycling procedures should be followed.
- ***Asbestos-Containing Materials (ACMs)/Lead-Based Paint (LBP)*** - The structures on the subject property were constructed in the early 1900s when ACMs and/or LBP were commonly used. It is possible that ACMs and/or LBP may be present. ACM and LBP surveys should be conducted prior to the renovation or demolition of the structures.

APPENDIX C

DECLARATION

This DECLARATION made as of the _____ day of June in the year 2017, by D SELF STORAGE LLC F/K/A THE DIAMOND GROUP LLC, having an address at 550 SE Fifth Avenue #806, Boca Raton, Florida 33432 (hereinafter referred to as "Declarant");

WITNESSETH

WHEREAS, Declarant is the fee owner of certain real property located in the County of Kings, City and State of New York, designated for real property tax purposes as Lot 100 of Tax Block 2050 (the "Subject Property") and is more particularly described in **Exhibit A**, annexed hereto and made part hereof; and

WHEREAS, Ultimate Abstract of New York, Inc., an agent of First American Title Insurance Company, Inc. (the "Title Company") has issued a Certification of Parties-in-Interest, annexed hereto as **Exhibit B** and made a part hereof, that as of the 31st day of May. 2017, Declarant, BNC Storage LLC and U.S. National Association, as trustee, are the only parties-in-interest ("Parties-in-Interest"), as that term is defined in subdivision (d) of the definition of "zoning lot" set forth in Section 12-10 of the Zoning Resolution of the City of New York to the Subject Property; and

WHEREAS, all Parties-in-Interest to the Subject Property have either executed this Declaration or waived their rights to execute this Declaration by written instrument annexed hereto as **Exhibit C** and made a part hereof, which instrument is intended to be recorded simultaneously with this Declaration; and

WHEREAS, the Declarant has submitted an application to the New York City Planning Commission (the "Commission"), dated May 5, 2017 and designated ULURP Nos. 170400ZMK and 170401ZRK for a zoning map amendment together with zoning text amendments to facilitate the development of two mixed-use residential and commercial buildings (the "Proposed Development") at the Subject Property (the "Rezoning"); and

WHEREAS, in connection with the Rezoning, Declarant submitted an Environmental Assessment Statement, dated May 9, 2017 and designated CEQR No. 17DCP176K, for review by the New York City Department of City Planning ("DCP"), acting on behalf of the Commission as lead agency, pursuant to the State Environmental Quality Review Act ("SEQRA") and the City Environmental Quality Review ("CEQR") (the "CEQR Application"); and

WHEREAS, in conjunction with review of the CEQR Application, a traffic analysis of the impacts associated with the Rezoning identified the intersections of Tillary Street with Flatbush Avenue and Prince Street in Brooklyn as locations that may experience service constraints; and

WHEREAS, in consultation with the New York City Department of Transportation ("DOT"), the Declarant desires to improve access to the site associated with the Development; and

WHEREAS, the Declarant desires to provide for mitigation measures identified in the CEQR Application to avoid a significant adverse traffic impact; and

WHEREAS, the Declarant desires to restrict the manner in which the Subject Property may be developed or redeveloped pursuant to the Rezoning by having the implementation of such

mitigation measures performed to the satisfaction DOT be a condition to any development of the Subject Property facilitated by the Rezoning (the "Development"); and

WHEREAS, the Declarant intends this Declaration to be binding upon all successors and assigns; and

WHEREAS, the Declarant intends this Declaration to benefit all land owners and tenants including the City of New York ("the City") without consenting to the enforcement of this Declaration by any party or entity other than the City.

NOW, THEREFORE, Declarant does hereby declare and agree that the Subject Property shall be held, sold, transferred, and conveyed, subject to the restrictions and obligations which are for the purpose of protecting the value and desirability of the Subject Property and which shall run with the land, binding the successors and assigns of Declarant so long as they have any right, title or interest in the Subject Property or any part thereof:

1. Prior to the issuance of the first temporary or permanent certificate of occupancy for any portion of the Proposed Development, Declarant agrees to notify DOT of such impending issuance and request that DOT implement the following traffic mitigation measures ("the Traffic Mitigation Measures"), as such measures may be reasonably adjusted by DOT to reflect then current conditions:

    a. Tillary Street and Flatbush Avenue: During the Weekday AM and Weekday PM peak hours, reallocate 1 second of green time from the northbound/southbound phase to the eastbound/westbound through-right phase.

    b. Tillary Street and Prince Street: During the Weekday AM peak hour, reallocate 1 second of green time from the eastbound phase to the northbound phase.

    c. Tillary Street and Gold Street: This intersection operates on the same signal controller as the Tillary Street and Prince Street intersection. To maintain the same signal timing, 1 second of green time from the eastbound/westbound phase would be reallocated to the southbound phase during the Weekday AM peak hour.

2. Declarant agrees that no application for a Temporary Certificate of Occupancy for the Development shall be made to or accepted from the Department of Buildings (the "DOB") unless and until Declarant has notified DOT in accordance with Paragraph 1 hereof. Declarant agrees that no application for a Permanent Certificate of Occupancy for the Development shall be made to or accepted from DOB unless and until the Traffic Mitigation Measures have been implemented to the satisfaction of DOT.
3. Declarant represents and warrants with respect to the Subject Property, that no restrictions of record, nor any present or presently existing estate or interest in the Subject Property nor any lien, encumbrance, obligation, covenant of any kind preclude, presently or potentially, the imposition of the obligations and agreements of this Declaration.
4. Declarant acknowledges that the City is an interested party to this Declaration and consents to the enforcement solely by the City, administratively or at law or at equity, of the obligations, restrictions and agreements pursuant to this Declaration.

5. The provisions of this Declaration shall inure to the benefit of and be binding upon the respective successors and assigns of the Declarant, and references to the Declarant shall be deemed to include such successors and assigns as well as successors to their interest in the Subject Property. References in this Declaration to agencies or instrumentalities of the City shall be deemed to include agencies or instrumentalities succeeding to the jurisdiction thereof.

6. Declarant shall be liable in the performance of any term, provision, or covenant in this Declaration, subject to the following provisions:

   The City and any other party relying on this Declaration will look solely to the fee estate interest of the Declarant in the Subject Property for the collection of any money judgment recovered against Declarant, and no other property of the Declarant shall be subject to levy, execution, or other enforcement procedure for the satisfaction of the remedies of the City or any other person or entity with respect to this Declaration, and Declarant shall have no personal liability under this Declaration.

7. The obligations, restrictions and agreements herein shall be binding on the Declarant or other parties in interest only for the period during which the Declarant and any such party in interest holds an interest in the Subject Property; provided, however, that the obligations, restrictions and agreements contained in this Declaration may not be enforced against the holder of any mortgage unless and until such holder succeeds to the fee interest of the Declarant by way of foreclosure or deed in lieu of foreclosure.

8. Declarant shall indemnify the City, its respective officers, employees and agents from all claims, actions, or judgments for loss, damage or injury, including death or property damage of whatsoever kind or nature, arising from Declarant's obligations under this Declaration, including without limitation, the negligence or carelessness of the Declarant, its agents, servants or employees in undertaking such obligations; provided, however, that should such a claim be made or action brought, Declarant shall have the right to defend such claim or action with attorneys reasonably acceptable to the City and no such claim or action shall be settled without the written consent of the City.

9. If Declarant is found by a court of competent jurisdiction to have been in default in the performance of its obligations under this Declaration, and such finding is upheld on a final appeal by a court of competent jurisdiction or by other proceeding or the time for further review of such finding or appeal has lapsed, Declarant shall indemnify and hold harmless the City from and against all reasonable legal and administrative expenses arising out of or in connection with the enforcement of Declarant's obligations under this Declaration as well as any reasonable legal and administrative expenses arising out of or in connection with the enforcement of any judgment obtained against the Declarant, including but not limited to the cost of undertaking the installation of the traffic signal.

10. Declarant shall cause every individual or entity that between the date hereof and the date of recordation of this Declaration that becomes a Party-in-Interest with respect to all or any portion of the Subject Property to waive its right to execute this Declaration and subordinate its interest in the Subject Property to this Declaration. Any mortgage or other lien encumbering the Subject Property after the recording date of this Declaration shall be subject and subordinate hereto as provided herein. Such waivers and subordination shall be attached to this Declaration as Exhibits and recorded in the Office of the County or City Register.

11. This Declaration and the provisions hereof shall become effective as of the date of this Declaration, subject to the terms of Paragraph 18 hereof. Declarant shall record or shall cause this Declaration to be recorded in the Office of the County or City Register, indexing it against the Subject Property within five (5) business days of the date hereof and shall, if requested, promptly deliver to the DOT and DCP a certified copy of this Declaration as recorded.
12. This Declaration may be amended or modified by Declarant only with the approval of DCP or the agency succeeding to its jurisdiction and no other approval or consent shall be required from any other public body, private person or legal entity of any kind.
13. Declarant expressly acknowledges that this Declaration is an essential element of DOT's review of the CEQR Application and, as such, the filing and recordation of this Declaration may be a precondition to the determination of significance pursuant to the SEQRA Regulations, Title 6 New York Code of Rules and Regulations ("NYCRR") Part 617.7.
14. Declarant acknowledges that the satisfaction of the obligations set forth in this Declaration does not relieve Declarant of any additional requirements imposed by Federal, State or Local laws.
15. This Declaration shall be governed by and construed in accordance with the laws of the State of New York.
16. Wherever in this Declaration, the certification, consent, approval, notice or other action of Declarant or the City is required or permitted, such certification, consent, approval, notice or other action shall not be unreasonably withheld or delayed.
17. In the event that any provision of this Declaration is deemed, decreed, adjudged or determined to be invalid or unlawful by a court of competent jurisdiction, such provision shall be severable and the remainder of this Declaration shall continue to be in full force and effect.
18. This Declaration and its Obligations and agreements are in contemplation of Declarant receiving approvals or modified approvals of the Rezoning. In the event that the Declarant withdraws the application for the Rezoning before a final determination or this application for a zoning map amendment is not approved, the obligations and agreements pursuant to this Declaration shall have no force and effect and this Declaration may be cancelled.

IN WITNESS WHEREOF, Declarant has executed this Declaration as of the day and year first above set forth.

D SELF STORAGE LLC
F/K/A THE DIAMOND GROUP LLC

By:
Name:
Title:

CERTIFICATE OF ACKNOWLEDGMENT

STATE OF NEW YORK)
) .ss.:
COUNTY OF)

On the ____ day of _____ in the year _____ before me, the undersigned, personally appeared _____, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

_____
Notary Public

APPENDIX D

June 16, 2017

Re: 202-208 Tillary Street
CEQR No. 17DCP176K
ULURP Nos. 170400ZMK and 170401ZRK
Brooklyn, Community District 2

Dear Mrs. Laremont and Mr. Dobruskin:

I, Jorge Madruga, am a member of YYY Brooklyn NY LLC, the contract vendee of the property located at 202-208 Tillary Street (Block 2050, Lot 100) in Brooklyn Community District 2 (the "Subject Property") and the applicant for certain land use actions for the Subject Property (the "Applicant").

The Applicant has applied for the following actions from the City Planning Commission: a zoning map amendment to rezone the Subject Property from an R6 zoning district to an C6-4 (R10 equivalent) zoning district; a zoning text change to Appendix F (Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing Areas) of the Zoning Resolution to designate a Mandatory Inclusionary Housing Area (Option 1); and a zoning text change to Appendix E: Special Downtown Brooklyn District Maps 1-7 (Article X, Chapter 1) to include the Subject Property within the Special Downtown Brooklyn District and within the Flatbush Avenue Extension Height Limitation Area: Height Restriction of 400 Feet (collectively, the "ULURP Application").

I understand that in connection with the environmental review for the ULURP Application filed under CEQR No. 17DCP176K (the "CEQR Application"), a traffic analysis identified (1) the intersection of Tillary Street with Flatbush Avenue, Prince Street, and Gold Street, and (2) the intersection of Navy Street with Park Avenue (north) as locations where additional capacity would be needed to accommodate project traffic. Accordingly, the Applicant desires to ensure the implementation of certain traffic mitigation measures identified in the CEQR Application through a restrictive declaration (the "Declaration"). The attached draft Declaration, which is still subject to approval by the New York City Department of City Planning ("DCP") in consultation with the New York City Department of Transportation ("DOT"), has been prepared but cannot be recorded until the fee owner, D Self Storage LLC f/k/a The Diamond Group LLC (the "Declarant") and all parties in interest to the Subject Property have either executed the Declaration or waived their right to do so and subordinated their interest in the Subject Property thereto.

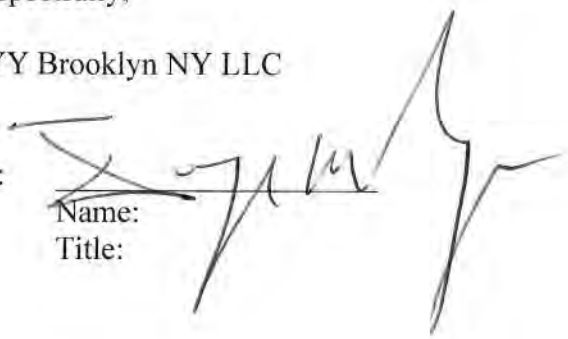
I understand that, once all parties in interest to the Subject Property have either executed the Declaration or waived their right to do so and subordinated their interest in the Subject Property thereto, I or an individual authorized to act on behalf of the Applicant will cause a restrictive declaration in the form of the attached Declaration (or other form if so advised by the Department of City Planning ("DCP") and subject to DCP approval) to be executed by the Declarant. I understand further that, after obtaining approval from DCP as to the content and form of the executed Declaration, I will cause the restrictive declaration to be recorded against the Subject Property, with proof of recording submitted to DCP, no less than five business days prior to the date of the scheduled public hearing on the ULURP Application by the City Planning Commission. I agree that if DCP has not received such proof of recording by the fifth business day prior to the scheduled public hearing, the Applicant will withdraw the ULURP and CEQR Applications, or DCP may withdraw and/or terminate the ULURP and CEQR Applications on the Applicant's behalf at that time.

Within three business days of receipt of such proof of recording, DCP will review the submitted materials for completeness, identify any problems with the proof of recording that warrant correction, and communicate said problems to the Declarant to correct prior to the public hearing.

[SIGNATURES FOLLOW ON NEXT PAGE]

Respectfully,

YYY Brooklyn NY LLC

By: 

Name:
Title: